

## The Effect of Premarital Sex Prevention Education Modifying the *Cublak-Cublak Suweng* Game on Knowledge and Attitudes

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### ABSTRACT

**Introduction:** One of the factors that can influence teenagers to engage in free sex, such as hugging, kissing, and even having sex, is a lack of knowledge and attitudes regarding the dangers of free sex. This research aims to explain the influence of the modified cublak-cublak suweng game in increasing knowledge and attitudes regarding free sex at SMAN X Jepara Regency. **Method:** Experimental research design Quasy Experiment Design Pretest Posttest Non-Equivalent Control Group. The research sample of students in classes X and XI of SMAN X Jepara Regency was taken using a cluster random sampling technique so class X 6 (32 students) was selected as the control group and XI MIPA 4 (33 students) as the intervention group with a total sample of 65 students (did not randomize). The knowledge and attitude measurement instrument is valid for the variable. Data analysis uses the Dependent T-test and Independent T-test, while the effectiveness test uses the N-Gain test. **Results:** Independent T-Test test results on the knowledge variable showed differences in knowledge between the intervention and control groups with a p-value of 0.001 (<0.05). The effectiveness score based on the N-Gain test in the intervention group (1.12) was higher than the control (0.57), which means that the intervention was more effective in increasing knowledge than in the control group. The results of the Independent T-test on the attitude variable showed differences in attitudes between the intervention and control groups with a p-value of 0.001 (<0.05), while the results of the effectiveness test using N-Gain in the intervention group (0.63) were higher than the control (0.46) so that the intervention is more effective in improving attitudes than control method. **Conclusion:** the modified cublak-cublak suweng education game effectively increased knowledge and attitudes than in the the control group. It is recommended to replicate traditional game-based education methods to improve adolescence health on different health topics.

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## INTRODUCTION

Indonesia continues to experience an increase in population from year to year. According to data from the United Nations United Nation (2022), in 1999, the world population was 6 billion, increasing to 7 billion in 2011. In 2024, the world population is expected to continue increasing to reach 8 billion. This change in population has an impact on the increasing burden of disease, one of which is health problems due to free sex in teenagers.

Even though in 2012, only 7% of male teenagers agreed to sexual behavior before marriage, it turns out that in 2017, this increased to 8% (SDKI, 2017). In fact, women and men aged 15-19 years who understand the risk of pregnancy during sexual intercourse are still minimal, namely 50.5% of women and 48.6% of men (SDKI, 2017). Knowledge of people aged 15 years and over about HIV in the Central Java region itself is still 57.6% (Risksedas, 2018). This data shows that teenagers' knowledge and attitudes regarding free sex are still lacking. It is proven that sexual behavior is rampant during adolescence. 63.9% of respondents (adolescents aged 14-18 years) had hugged their girlfriends, kissed their lips 12.4%, touched sensitive parts such as the genitals, neck, and chest 9.7%, and touched their genitals 1.0% (Hamzah, 2020).

Information can influence a person's knowledge (Martilova, 2020). Receiving a lot of information can increase a person's knowledge. Meanwhile, a lack of information can influence a person's attitude (Ningdyah, 2017). This means that efforts to increase knowledge and attitudes regarding free sex can be made by providing information.

The results of research at SMA Negeri 5 Makassar in 2022 showed that education through leaflet media influenced students' reproductive health knowledge (p-value 0.001) (Azhari *et al.*, 2022). Education using common media such as leaflets, posters, and booklets has been widely carried out. Meanwhile, education using game media is less common, especially traditional game media. In fact, traditional games are a cultural heritage that is almost extinct (Kurniati, 2016).

According to research conducted by Irbah *et al* (2020), the use of Engklek game media as a means of promoting reproductive health at SDN 5 Jagasatru showed an increase in knowledge related to reproductive health (p-value 0.001). Education regarding free sex using Engklek games among students at the Al-Imam Islamic Boarding School located in Dumai City showed an increase in attitudes (p-value 0.008) (Ahmad, 2021).

Central Java has a traditional game that is rarely used, namely *cublak-cublak suweng*. This game can be used as an educational medium (Indra, 2021). However, there has yet to be much research regarding the traditional game *cublak-cublak suweng* which has been modified to increase knowledge and attitudes. According to Indra (2021), this game means "don't get close to lust" so it is suitable as an educational medium regarding free sex.

There will be 485 cases of underage marriage in Jepara Regency in (Pengadilan Agama Jepara, 2023). Early marriage in Jepara Regency occurs due to pregnancy outside of marriage due to free sex (Kumala Sari, 2022). The impact of free sex is not only pregnancies outside of marriage but also HIV disease. HIV cases in Jepara Regency are among the five highest in Central Java in the third quarter of 2022, with 103 cases (Provinsi Jateng, 2022). SMAN X is one of the high schools in Jepara Regency. SMAN PMR, as a health extracurricular at SMAN X Jepara, never provides educational material related to free sex. Therefore, the researcher aims to examine the influence of Premarital Sex Prevention Education Modification of the *Cublak-Cublak Suweng* Game on Knowledge and Attitudes about casual sex at SMAN X in Jepara Regency.

## LITERATURE REVIEW

Knowledge is knowing, which means understanding after seeing, witnessing, and experiencing (Umroh, 2014). Knowledge is the key to someone adopting healthy behavior in the sense that the more health knowledge a person has, the more healthy behavior a person will adopt (Luo et al., 2022). Factors that influence a person's knowledge are the amount of information a person has, the higher the level of education, the higher a person's knowledge, and the experiences a person is having or has had (Widyatmoko et al., 2014).

Attitude means a person's response to their own emotions (Widyatmoko et al., 2014). Attitude is a person's positive or negative perception regarding an object. If a person's perception of an object is positive, they automatically have a positive attitude (Kim & Montes, 2021). Factors that influence a person's attitude are adoption (a person who imitates the behavior of others and applies it to himself continuously) and differentiation (a person who changes his attitude because he has various types of information or knowledge, experience, and increasing age) (Ningdyah, 2017).

Casual sex refers to sexual behavior carried out by someone either with the opposite sex or the same sex, which occurs without marriage (Mursalim, 2021). Casual sex is the behavior of husband and wife relations without marriage ties by holding hands, hugging, kissing, holding breasts, touching each other's genitals, and having sexual relations (Maryati, 2022). One of the factors that influences free sex is a lack of knowledge and attitude (Asyifa Mursalim, 2021). Adolescents' knowledge about good premarital sex can prevent adolescents from risky sexual behavior. Meanwhile, attitudes are usually in line with knowledge, which means that teenagers with sound knowledge regarding free sex tend to have good attitudes (Umaroh et al., 2021). The lack of information among teenagers about premarital sex can increase cases of early marriage and unwanted pregnancies (Nisaa & Arifah, 2019).

Educational games are a type of game created with the aim of making learning easier (Setyani, 2020). Traditional games can be used as an educational medium to improve a person's knowledge and attitudes (Irbah et al, 2020). Education using traditional games such as *congklak* and *engklek* has been widely carried out, while education using the conventional game *cublak-cublak suweng* is rarely carried out. In fact, the *cublak-cublak suweng* game can be used as an educational medium (Indra, 2021). This research uses the *cublak-cublak suweng* game to increase the level of knowledge and attitudes regarding free sex.

## METHOD

This type of research is experimental, using the quasi-experiment design method with a pretest, posttest, and non-equivalent control group research design. The research was conducted from May to June 2023 at SMAN X Jepara Regency. The research has received approval from the UMS Medical Faculty Health Research Ethics Committee number 4875/B.1/KEPK-FKUMS/V/2023. The research population of class X and XI students was 742 students. The minimum sample size is 29 respondents, calculated using the continuous variable response formula. Sampling used a cluster random sampling technique so that 32 class X6 students and 33 class XI MIPA 4 students were selected with a total sample of 65 students. Sample allocation to intervention and control groups did not involve randomization. This study aims to ensure that there is active and fluid participation during discussion sessions so that XI MIPA 4 is selected as the intervention group and class X 6 as the control group. Researchers used a research instrument in the form of a questionnaire to obtain data on knowledge and attitudes regarding free sex. The validity test results of the knowledge questionnaire regarding free sex contained 17 valid questions

with a reliability value of 0.926. The attitude questionnaire adopts the sexuality and gender research questionnaire entitled "Asking Young People about Sexual and Reproductive Behavior: Illustrative Core Instruments" (Cleland et al., 2001). The attitude questionnaire in this study consisted of 10 valid questions with a reliability value of 0.840. The intervention took the form of providing education based on the modified *cublak-cublak suweng* game. The educational session was carried out for a total of 1 hour, which was divided into four rounds. Each round consists of 15 minutes.

The game consists of 4 rounds, namely the definition and forms of free sex, factors that influence free sex, ways to prevent it, and the impact of free sex. The tools used in the game are the *gacuk*, which contains questions that trigger discussion about free sex, and picture answer cards, which include answer choices for the questions included in the *gacuk*. The way the game works consists of a 5-minute initial stage, a 5-minute core stage, and a 5-minute final stage. The initial stage is to form 5 teams, each team containing 5-7 people, and determine the player who bows in a *hompimpa* manner; the player who does not bow puts his palm on the back of the player who bows and then spins the *gacuk* while singing the song *cublak-cublak suweng*, on the verse "*sir sir pong ndele gosong*" all players clasp the palms of each other, and after the song stops the player who looks down guesses the bearer of the *gacuk*. If the player who bowed incorrectly guesses the bearer of the *gacuk*, then the player who bowed must bow again in the next round, but if it is correct, then the player who brought the last *gacuk* must bow. The core stage is that each team opens a *gacuk* containing questions and discusses looking for the correct answer on the card.

Meanwhile, in the final stage, the researcher confirms whether the answer on the selected card is correct or incorrect. Each step is repeated in each round. The team that gets the most accurate answers is entitled to a reward. The game media in this intervention has been declared feasible based on the results of the media test. The results of the material expert test got a score of 71%, which is included in the possible category; the results of the media expert test got a score of 75%, which is included in the feasible category, and the results of the media trial got a score of 75% which is included in the feasible category.

The control group received education using the lecture method, which was carried out on the same day at different times. The research implementation stages began with completing the pretest, conducting education using the *cublak-cublak suweng* game and the lecture method, and then completing the posttest a week after the counseling, namely on June 13, 2023. Data analysis used the Dependent T-Test and Independent T-Test with p-value <0.05. Meanwhile, the effectiveness test uses the N-Gain test.

## RESULT AND DISCUSSION

The characteristics of respondents regarding the influence of the *cublak-cublak suweng* game on the level of knowledge and attitudes regarding free sex at SMAN X Jepara are shown in the Table 1. Based on the Table 1, the average respondent in the intervention group was 17 years old (57.6%), while the average age of the control group was 16 years old (65.6%). The intervention and control groups were primarily women. The intervention group consisted of 25 female students (75.8%), and the control group consisted of 21 female students (75%). The average respondent in the intervention group was or had been in a relationship (54.5%). Meanwhile, in the control group, the percentage of those who were or had been in a relationship and who had never been in a relationship was the same, namely 50%. On average, respondents never had physical contact. It was proven that in the intervention group, 48.5% had never had a physical contract, and in the control group, it was 59.4%. However, the physical contact that was carried out in the intervention and control groups was, on average, holding hands. The intervention group was 36.4%, and they made hand-holding contact, while the control group was 31.3%.

Tabel 1. Respondent Characteristics

Characteristics	Category	Intervention (n=33)		Control (n=32)	
		F	%	F	%
Age	15 years	0	0	7	21.9
	16 years	13	39.4	21	65.6
	17 years	19	57.6	4	12.5
	18 years	1	3	0	0
Gender	Male	8	24.2	8	25
	Female	25	75.8	24	75
Ever/currently in a relationship	Yes	18	54.5	16	50
	Never	15	45.5	16	50
Previous physical contact with a partner	Holding hands	12	36.4	10	31.3
	Kissing	0	0	0	0
	Touching body parts	1	3	0	0
	Intercourse	0	0	0	0
	Hug	4	12.1	3	9.4
	Never physical contact	16	48.5	19	59.4

The results of statistical tests on the level of knowledge of casual sex in the intervention and control groups are presented in Table 2.

Table 2. Statistical Test Results for Differences in Knowledge in the Intervention and Control Groups

Variable	Group	N	Pretest	Posttest	P-Value	P Value	N-Gain
			Mean±SD	Mean±SD	Dependent	Independent	
Knowledge	Intervention	33	13.53±1.481	16.75±0.440	<0.001	<0.001	1.12
	Control	32	13.00±1.732	15.48±1.064	<0.001		0.57

Based on the table above, it is known that the average score for the intervention group's level of knowledge before being given counseling was 13.53 points. After a week of counseling, the average increased to 16.75 points. Based on the Dependent T-Test statistical test, the p-value is 0.001, which means there is a difference in knowledge before and a week after counseling in the intervention group. Meanwhile, in the control group, the average score for the level of knowledge before being given counseling was 13.00 points. After a week of counseling, the average knowledge level increased to 15.48 points. Based on statistical tests, the p-value before and a week after counseling was 0.001, which means there was a difference in knowledge before and a week after counseling in the control group. This finding is in line with research on oral health using the modified traditional game of engklek at SDN Sambung Jawa Makassar, which shows that there are differences in knowledge before and after counselling (Arifin et al., 2021). The learning media of the traditional game makah-makah has been proven to increase student's knowledge before and after counseling regarding colloids at SMAN 7 Banda Aceh (Jusmarita, 2018). Traditional games can improve the understanding of adults, not only for children and teenagers. The learning media for the conventional Sundanese game Manda is able to increase the knowledge of UT Semarang City students in elementary school mathematics learning courses (Masduki & Kurniasih, 2017).

Based on independent statistical tests, the posttest p-value of the knowledge variable between the intervention and control groups was 0.001, which means there was a difference in knowledge a week after providing education in the intervention and control groups. Based on the results of the N-Gain test, the knowledge variable shows that the average N-Gain value for the intervention group is 1.12, which is in the high effectiveness category, while the control group is 0.57, which is in the medium effectiveness category. This result shows that the *cublak-cublak suweng* game is more effective in increasing knowledge than education using the lecture method. This finding is in line with research on the level of mathematical expertise using *congklak* and lecture media at MIM Gonilan Kartasura, Sukoharjo Regency, that the traditional *congklak* game learning media is more effective in increasing knowledge compared to groups of students who use the lecture method (Cahyaningrum & Utomo, 2022).

The *cublak-cublak suweng* game can increase teenagers' knowledge because it is part of fun learning. Student learning using games is a fun learning method that makes it easier for students to understand the material presented (Haase & Hanel, 2022). According to Roostin et al. (2022) learning using games can make learning fun because they have a unique design and a fun way of playing.

Apart from that, the *cublak-cublak suweng* game can increase knowledge because students participate actively during the learning process. The learning process using games at MTsN 4 Mojokerto shows that there is an influence between increasing knowledge and active participation of students in the learning process using games (Pradhana, 2018). Learning to use games encourages students to participate because they show a willingness to work together to carry out each stage of the game (Habibi, 2015).

Questions related to knowledge of free sex using the *cublak-cublak suweng* game, which had a significant increase in scores, were hugging, which is a form of free sex. The score increased by 18.2% from the initial 69.7% to 87.9%. Conveying information about sexuality is an obstacle in society because it is still taboo (Renaldi & Kusumaningrum, 2021). According to Edi & Taufik (2019) information about sexuality is still taboo for teenagers, but through the media of games, information about sexuality is more readily accepted. It can be concluded that providing information about health-related matters that are still considered taboo using game media is an effective way to increase information for teenagers.

The results of statistical tests related to casual sexual attitudes in the intervention and control groups showed the following results:

Table 3. Results of Statistical Tests of Differences in Attitudes in the Intervention and Control Groups

Variable	Group	N	Pretest Mean±SD	Posttest Mean±SD	P-Value Dependent	P Value Independent	N-Gain
Attitude	Intervention	33	40.33±5.260	47.06±2.193	<0.001	<0.001	0.63
	Control	32	38.97±5.355	43.81±4.107	<0.001		0.46

Based on the Table 3, it can be seen that the average attitude score of the intervention group before being given counseling was 40.33 points. After a week of counseling, the average attitude score was 47.06 points. Based on the Dependent statistical test, the p-value is 0.001, which means there is a difference in attitudes before and a week after counseling in the intervention group. Meanwhile, the control group had an average attitude score before being given counseling of 38.97 points. A week after being offered counseling, the average score increased to 43.81 points. Based on statistical tests, the p-

value is 0.001, which means there is a difference in attitudes before and a week after counseling in the control group. Research using the traditional Sundanese game Kaulinan Barudak at SDN Jatiroke II shows that the attitudes of respondents before and after counseling improved (Dermawan et al., 2020). Research related to sex using the traditional game *Engklek* among teenagers at the Al-Imam Islamic Boarding School, Dumai City, proves that the counseling method using traditional games can improve attitudes before and after counseling (Ahmad, 2021).

Based on independent statistical tests, the p-value in the posttest of the attitude variable between the intervention and control groups was 0.001, which means there was a difference in attitudes a week after providing education in the intervention and control groups. Based on the results of the N-Gain test, the N-Gain value of the attitude variable in the intervention group is 0.63, and the control group is 0.46, which means it is included in the moderate effectiveness category. Even though both groups had a moderate level of effectiveness, it can be seen that the intervention group's score was higher than the control group, so it can be concluded that the *cublak-cublak suweng* game was more effective in improving attitudes than education using the lecture method. This finding is in line with research related to improving students' attitudes with the PKN learning model assisted by traditional games and the conventional lecture learning model at SD Gugus Mas Ubud, which shows that learning using traditional game methods is more effective in improving students' attitudes than using the lecture method (Widiani et al., 2020). Other research related to social studies learning at Gugus I North Kuta Elementary School shows that the learning method using the traditional game of hide and seek is more effective than learning using the lecture method (Astriningsih et al., 2017).

The increase in attitudes regarding free sex using the *cublak-cublak suweng* game occurs because teenagers have a good level of knowledge. Good knowledge can improve attitudes in adolescents (Conner et al., 2022). Learning to use games can improve attitudes because there is interaction between players. Games as a learning medium can create a space for socialization between players so that they can improve a person's attitude (Hidayat, 2013). This condition is because socialization in game-based learning makes players share their ideas, listen to different people, and respect other people's opinions so that one's views can be opened (Widiani et al., 2020). Traditional games as a learning method make a person appreciate and think about the interests of other people more so they have a better attitude (Giri & Sustiawati, 2021).

The question regarding attitudes towards free sex using the *cublak-cublak suweng* game, which had a significant increase in scores, was that men who had free sex would regret it. The score increased from 69.1% to 81.8%. According to Ramadhanti et al. (2022), teenagers really like games, so developing games as a medium for free sex education can change their views. It can be concluded that providing health-related education to teenagers using game media is an effective way to increase information.

The researcher recommends that future researchers use other traditional games as educational media related to health. Apart from that, researchers suggest that health workers use the *cublak-cublak suweng* game as a medium for health education because it is effective in increasing knowledge and attitudes. Apart from that, the researcher stated that several things were still lacking in this research, namely that the research design in the form of a quasi-experiment did not use an actual experiment, so he suggested that further research use an actual experimental randomized control trial design so that the effectiveness would be better. Another drawback is that the number of samples in this study is still limited, so further research can increase the size of the research sample in order to provide a more accurate picture.

## CONCLUSION

Education using the *cublak-cublak suweng* game is more effective in increasing knowledge and attitudes than education using the lecture method. The researcher recommends that future researchers use other traditional games as educational media related to health. Apart from that, researchers suggest that health workers use the game *cublak-cublak suweng* as a medium for health education because it is effective in increasing knowledge and attitudes.

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