



7th International Conference

ABOUT HEALTH PRACTICE AND RESEARCH

"Transforming Healthcare with Technology for a Better Quality of Life"

Journal homepage: <https://ojs.universitastelogorejo.ac.id/index.php/ichpr>



Title: The Influence of Free Sex Health Education on Increasing Knowledge of Middle Adolescents

Stefani Sulistyowati^A, Qomariyah^{B*}, Desi Soraya^C

^{A B C} Undergraduate Program in Midwifery and Midwifery Professional Education, Faculty of Health Sciences, Technology and Social Humanities, Telogorejo University Semarang, Semarang, Indonesia

Corresponding Author : Qomariyah

Email address: qomariyah@universitastelogorejo.ac.id

ARTICLE INFO

Article history:

Received January 00, 2024

Received February 00, 2024

Keywords:

Health Education, Knowledge, Teenagers, Free Sex

ABSTRACT

Introduction: Cases of free sex among adolescents show alarming figures. Based on 2023 BKKBN data, as many as 60% of adolescents aged 16–17 years and 20% of adolescents aged 14–15 years have had sexual relations before marriage. This condition reflects the still low knowledge of adolescents regarding free sex and the risks it poses. Therefore, reproductive health education is an important step to increase adolescents' understanding of responsible sexual behavior. **Objective:** To determine the effect of health education about free sex on increasing knowledge in middle adolescents. **Method:** This study used a quasi-experimental design with a non-equivalent control group approach. The study sample consisted of 96 ninth-grade students of SMPN 45 Semarang who were selected using a total sampling technique. Respondents were divided into two groups, namely the intervention group (48 students) who were given counseling using PowerPoint media and the control group (48 students) who were given education through animated videos. The research instrument was a knowledge questionnaire, and data analysis used the Mann-Whitney test. **Results:** In the intervention group, the level of good knowledge increased from 60.4% to 91.7%, while in the control group it increased from 56.3% to 75.0%. The results of the statistical test showed a Z value = -2.179 with a p-value = 0.029 (<0.05), which means there is a significant difference between the two groups. Power point media proved to be twice as effective in increasing adolescent knowledge compared to animated video media. **Conclusion:** There is an effect of health education about free sex on increasing knowledge in middle adolescents.

© 2025 Telogorejo University, Semarang, Central Java, Indonesia

INTRODUCTION

Adolescence is a transition phase from childhood to adulthood which is marked by various biological, psychological and social changes.(Purwanza et al. 2022)According to the WHO, adolescence begins at 10-19 years of age. At this stage, adolescents begin to explore their identity, including sexual aspects.(Hartati and Retnani 2024). Teenagers begin to have a biological urge to develop and engage in sexual intercourse, this is normal, but if they have poor control, they will try to experiment through unhealthy dating relationships and ultimately fall into promiscuity.(Sulistiyowati et al 2021).

Free sex is a relationship between a man and a woman that is carried out without the bonds of a legal marriage.(Hidayat et al. 2023)One of the factors that causes free sex among teenagers is the level of knowledge that teenagers have regarding free sex is not optimal.(Alifah, Apsari, and Taftazani 2021)This can have negative impacts on teenagers, such as unwanted pregnancies, sexually transmitted infections, early marriage, and even abortions.(Sukmawati et al. 2023).

According to the WHO (2018), approximately 21 million adolescent girls aged 15–19 in developing countries experience pregnancy each year, with 49% of these pregnancies being unintended due to risky sexual behavior. Surveys in several developing countries indicate that in Nigeria, 38% of adolescent girls and 57.3% of adolescent boys aged 15–19 have engaged in premarital sex. (Handayani and Winarti 2021). The National Population and Family Planning Agency (BKKBN) recorded in 2023 that 60% of teenagers aged 16-17 had had sexual relations before marriage, while 20% of those aged 14-15 had.(Mustaqim and Shovmayanti 2024). The Central Java PKBI pillar released data in 2018-2019 showing an increase in the number of KTD among adolescents in Semarang City, namely 91 cases due to premarital sexual behavior.(Mindiono 2020).

Knowledge levels significantly influence the incidence of casual sex. Teenagers with higher levels of knowledge have a better understanding of casual sex behavior, while those with lower levels of knowledge also have a poorer understanding of sexual behavior.(Widananda and Arifah 2024)Efforts to increase adolescents' knowledge about casual sex can be done by providing health education. Health education is a form of health promotion, and the method used for this promotion is counseling.(Zakiyah and Febriati 2023)Health education provided in schools or through interesting and reliable educational media can help increase adolescents' knowledge about the negative impacts of casual sex.(Anggraeni 2022).

Based on previous research conducted(Minardo and Rini 2021)After health education was conducted, there was an increase in knowledge among adolescents at Muhammadiyah Suwano High School, Semarang Regency. This is in line with research.(Nugroho 2023)At SMK PGRI Klaten, there is an influence of premarital sex education on knowledge and attitudes, with a p-value of 0.000 or p-value <0.05.

From a preliminary study of the results of interviews with students in grade IX at SMP 45 on February 10, 2025, there were 10 out of 15 people who said that they had never received education about free sex and then 10 of the 15 people said they had been in a relationship with the opposite sex. Therefore, one of the preventive efforts that can be done to increase the knowledge of adolescents so that they do not fall into free sex is by providing free sex education. Therefore, the author is interested in researching the effect of free sex health education on increasing knowledge in middle adolescents at SMPN 45 Semarang.

METHOD

This study used a quantitative method with a quasi-experimental design with a non-equivalent control group design approach. This study was conducted on April 16–17, 2025, in grade IX of SMPN 45 Semarang. A total sample of 96 was divided into intervention and control groups, each consisting of 48 respondents who were given a pretest and posttest. The intervention group received health education counseling about free sex using PowerPoint media, while the control group received an animated video. The sampling technique was total sampling with a questionnaire instrument to measure knowledge before and after the intervention. Data analysis used the Mann Whitney test.

RESULTS AND DISCUSSION

Results

Table 1. Frequency Distribution by Gender

Respondent characteristics	Intervention		Control	
	F	%	F	%
Gender				
Man	24	50.0	27	56.3
Woman	24	50.0	21	43.8
Total	48	100.0	48	100.0

Based on table 1. with the distribution of gender characteristics, it was found that in the intervention group there were 24 male respondents

(50%) and 24 female respondents (50%). In the control group there were 27 male respondents (56.3%) and 21 female respondents (43.8%).

Table 2. Frequency distribution of knowledge levels before and after the intervention group at SMPN 45 Semarang

Category	Pretest		Posttest	
	F	%	F	%
Not enough	-	-	-	-
Enough	19	39.6	4	8.3
Good	29	60.4	44	91.7
Total	48	100.0	48	100.0

Based on table 2, it shows that of the 48 respondents before being given free sex counseling in the intervention group, the majority had good knowledge, as many as 29 respondents, while the level of knowledge after counseling was mostly in the good category, as many as 44 respondents (91.7%).

Table 1. Frequency distribution of knowledge levels before and after the control group at SMPN 45 Semarang

Category	Pretest		Posttest	
	F	%	F	%
Not enough	-	-	-	-
Enough	21	43.8	12	25.0
Good	27	56.3	36	75.0
Total	48	100.0	48	100.0

Based on table 3, before watching the animated video together, the majority of the control group had a good level of knowledge, as many as 27 respondents (56.3%), while the level of knowledge after watching the animated video was dominated by the good category, as many as 36 respondents (75%).

Table 4. The Effect of Free Sex Health Education on Increasing Knowledge in Adolescents

Variables	N	Mean Ranks	Z	P-Value
Pre-Post Free Sex Health Education Group				
Intervention	48	52.50		
Control	48	44.50	-2,179	0.029

Based on table 4. shows the pre-post free sex health education on increasing adolescent knowledge in the intervention and control groups obtained a p-

value of $0.029 < 0.05$ so H_a is accepted H_o is rejected. This means there is an effect of free sex health education in the intervention and control groups on increasing free sex knowledge in middle adolescents. By providing counseling and providing videos related to free sex health education with a Z value = -2.179 it can be said that power point is 2 times more influential in increasing adolescent knowledge.

Discussion

Characteristics Based on Gender

According to Amalia et al.,(2025)Research shows that gender significantly influences premarital sexual behavior. This is in line with research by Rahayu et al.,(2020)Research explains that there are differences in sexual experiences between male and female adolescents, where males are more involved than females.

This is related to differences in libido responses, with men experiencing sexual desire more quickly than women, who respond more slowly. Men tend to focus on fulfilling biological needs, while women pay more attention to their partner's personality. This difference is thought to influence health education outcomes, as men tend to be less serious about receiving material, while women are more likely to understand and respond to information. Therefore, gender is an important factor to consider in free sex education.

Knowledge Level Before and After Intervention Group

Researchers assume this increase in knowledge indicates that free sex health education via PowerPoint has had a positive impact on respondents. This is in line with research by Heru et al.,(2025)Before health education using PowerPoint media, there were 12 students (37.5%) with sufficient knowledge and 3 students (9.4%) with insufficient knowledge about the dangers of promiscuity and drugs. After education, all students (100%) showed good knowledge. Before health education using PowerPoint media, there were 12 students (37.5%) with sufficient knowledge and 3 students (9.4%) with insufficient knowledge about the dangers of promiscuity and drugs. After education, all students (100%) showed good knowledge.

According to Hasriyani,(2020)Knowledge enhancement occurs through sensory processing that transforms the senses into meaningful information. PowerPoint provides effective visual and auditory stimulation, making it easier for respondents to understand and remember the material. This is reinforced by the statement by Kodir et al.,(2021)that

power point has a number of advantages, including the presentation of more interesting material thanks to the use of a variety of colors, fonts, and animations in the form of images and photos.

Knowledge Level Before and After Control Group

According to the researcher's assumptions, animated videos are not boring, and their varied stories and colors prevent respondents from getting bored quickly. This is in line with research. (Komang 2023) The average knowledge before health education with animated video media was 1.84, increasing to 2.89 after the intervention, which indicates an increase in student knowledge.

According to (Tanjaya, Hakim, and Rusliani 2025) Education using video media has been shown to significantly increase adolescents' knowledge about casual sex, as demonstrated by a significant difference between pretest and posttest scores. This is in line with research. (Ilhami, Rahayu, and Maryati 2022) Cartoon-based animated video media has been proven to support cognitive abilities, as seen from the increase in scores before and after the intervention, while also encouraging students' interest and active responses through an entertainment approach.

The Influence of Free Sex Health Education on Increasing Knowledge in Adolescents

According to Ningtyas & Ghufron (2025) This is because PowerPoint presents material in a comprehensive, structured, and systematic manner, combined with the presenter's explanations, making it more engaging and easier for respondents to understand. This aligns with research conducted by Saleh & Elfiyunai. (2024) shows that there is an increase in knowledge in adolescents after being given education using PowerPoint media.

According to Lestiwati et al., (2024) The use of visual and audiovisual media in health education can increase respondents' knowledge acquisition because it simultaneously involves both the senses of hearing and sight. The more senses involved in the learning process, the more information respondents can absorb. This is in line with research by Ningrum et al., (2023) The results showed that there was an influence of providing health education using animated video media on knowledge and attitudes about free sex at SMP Negeri 4 Kubu Karangasem.

The results of research conducted by Rhina et al., (2024) PowerPoint media is more influential in increasing respondents' knowledge than educational videos because the counseling with slides is delivered in a structured, clear, easy-to-understand manner, and

allows direct interaction between the presenter and participants.

In the research of Dewayanti et al., (2023) mentions several shortcomings of animated video media, namely limitations and lack of knowledge in the production process, and not all learning materials can be included in their entirety in animated video media. According to (Usfinit, Kusuma, and Widia 2020) The lack of health education about free sex for teenagers contributes to the increase in free sexual behavior, so sexual education needs to be provided from an early age through formal and non-formal education so that teenagers understand sexuality and the impact of irresponsible sexual behavior.

This is in line with (Chrystina and Aini 2023) explains that health education aims to change unhealthy behavior into healthier behavior, which also means it can increase respondents' knowledge from previously less to better. According to (Fitriani et al. 2022) Adolescence is characterized by a heightened sense of curiosity, especially regarding taboo topics like sexuality. An engaging and educational approach tailored to adolescent characteristics is more effective in increasing understanding. Research shows that PowerPoint presentations significantly improve adolescents' knowledge compared to animated videos. Therefore, selecting appropriate educational media is crucial in health education, particularly on sensitive topics like casual sex.

CONCLUSION

There is an influence of free sex health education on increasing knowledge in middle adolescents.

REFERENCE

- Alifah, Anisa Putri, Nurliana Cipta Apsari, and Budi Muhammad Taftazani. 2021. "Outside of Marriage" 2 (3): 529–37.
- Amalia, Silviatul, Yulia Retno Safitri, and Wiwit Indriyani Aslina. 2025. "The Relationship Between Gender and Premarital Sexual Behavior in Adolescents" 12 (01): 1–23.
- Anggraeni, Liza. 2022. "Level of Knowledge of Adolescents About Free Sex Among High School Students." *Jurnal Ilmu Kesehatan Karya Bunda Husada* 8 (1): 13–19. <https://doi.org/10.56861/jikkbb.v8i1.95>.
- Chrystina, Amelia May, and Luthfiah Nur Aini. 2023. "The Effect of Health Education Underwear Ruler on the Knowledge of Parents of Preschool Children." *Development of Health Science and Practice* 2 (1): 37–47.

- <https://doi.org/10.56586/pipk.v2i1.281>.
- Dewayanti, Augustina, Hera Heru Sri Suryanti, and Anggit Grahito Wicaksono. 2023. "Analysis of Innovative Animation Videos in Science Learning During the Covid-19 Pandemic at MIM Girimargo Miri Sragen in the 2020/2021 Academic Year." *Jurnal Sinikti* 4 (2): 187–95. <https://doi.org/10.33061/js.v4i2.6658>.
- Fitriani, Nurekawati, Dewi Sartika, Nelly Nugrawati, and Alfa Siti. 2022. "The Influence of Health Education on Adolescents' Knowledge and Attitudes About Free Sex" 11: 384–91.
- Handayani, Lidya Wuri, and Yuliani Winarti. 2021. "The Relationship Between Parental Monitoring and Gender and Free Sexual Behavior in Adolescents at SMP Negeri 4 Samarinda." *Borneo Student Research* 3 (1): 636–43.
- Hartati, Suryani, and Ajeng Dwi Retnani. 2024. "Health Education About Free Sex For Adolescents at SMK Bhakti 2 Dan 16 East Jakarta" 06 (2): 133–38.
- Hasriyani, Enny. 2020. "Improving Knowledge and Attitudes of Handlers Towards Clean and Healthy Living Behaviors in Restaurants in the Ajibata Harbor Area, Toba Samosir Regency." *Medan Tourism Academy Journal* 8 (August): 160–71. <https://doi.org/10.36983/japm.v8i2.81>.
- Heru, Djimmy, Purnomo Babo, Erna Juliana Simatupang, Eka Widya Rita, Evelyn Sumihar Friyanti, Maria Ernestha, and Djemu Laga. 2025. "The Relationship between Health Education and Knowledge of the Dangers of Free Association and Drugs in Students of State Senior High School 8, South Tangerang" 3 (1).
- Hidayat, Rohmat, M Farid Nasrullah, Faridl Darmawan, M Nur Latif, Ila Istiana, and Hasna Mudzaqqiroh. 2023. "Reproductive Health Counseling as an Effort to Prevent Free Sex among Adolescents in Gongseng Village, Jombang." *Friday Education: Journal of Community Service* 4 (2): 72–75. <https://doi.org/10.32764/abdimaspen.v4i2.3402>.
- Ilhami, Reza, Dedeh Sri Rahayu, and Sri Maryati. 2022. "The Effect of Health Education with Animated Video Media on Reproductive Health on Knowledge Levels." *Budi Luhur Health Journal: Journal of Public Health, Nursing, and Midwifery Sciences* 15 (2): 660–65. <https://doi.org/10.62817/jkbl.v15i2.151>.
- Kodir, Novita Wulan Sari, Margiyati, and Nur Sholiha Rositayani. 2021. "The Influence of Poster and Power Point Media on Elderly Knowledge Regarding Covid-19 in Semarang City." *Sisthana Journal of Physiotherapy and Health Sciences* 3 (2): 25–33.
- Komang, Ni. 2023. "Midwinerslion Jurnal Kesehatan STIKes Buleleng Providing Health Education Using Video Animation Media" x (September): 130–35.
- Lestiawati, Endang, Tania Cristine br Barus, and Anita Liliana. 2024. "The Influence of Video Media Health Education on Knowledge of the Negative Impact of Free Sex on Adolescents." *Journal of Health Research Science* 4 (02): 395–401. <https://doi.org/10.34305/jhrs.v4i02.1351>.
- Minardo, Joyo, and Zulmi Roestika Rini. 2021. "Improving the Quality of Adolescents in Preventing Free Sexual Behavior and the Dangers of HIV/AIDS in High School Students at Muhammadiyah Sumowono High School." *Journal of Health Service* 4 (1): 52–60.
- Mindiono, Imam Arief. 2020. "The Relationship Between Adolescents' Knowledge About Reproductive Health and Adolescents' Attitudes in Healthy Dating at State Islamic Senior High School (MAN) 1, Semarang City." *Journal GEEJ* 7 (2): 2982–92.
- Mustaqim, Mustaqim, and Noor Afy Shovmayanti. 2024. "Free Sexual Behavior Through Friends with Benefits (Fwb) on Social Media." *ANALOGY Journal of Social Sciences and Humanities* 2 (2): 48–57. <https://doi.org/10.61902/analogi.v2i2.1024>.
- Ningrum, Kadek, Luh Purnami, Ni Wahyuni, and Yopita Triguno. 2023. "Providing Health Education Using Animated Video Media on the Level of Knowledge and Attitudes About Free Sex." *Midwsinerlslion: Jurnal Kesehatan STIKes Buleleng* 8 (September): 130–35. <https://doi.org/10.52073/midwinerslion.v8i2.364>.
- Ningtyas, Ria Ratna, and M Ali Ghufron. 2025. "The Effect of Using Interactive Power Point on Understanding Natural Science (IPA) Material in Elementary Madrasah Introduction In the Era of Digital Transformation, Integration of Information and Communication Technology (ICT) in a More Meaningful and Effective Way" 03 (03): 1345–51.
- Nugroho, Lutfika Prasetyawatititik Hariyatifarid Setyo. 2023. "The Influence of Sex Before Marriage Education on Students' Knowledge and Attitudes at SMK PGRI Pedan Klaten" 5 (2): 84–92.
- Purwanza, Sena Wahyu, Irma Wulandari,

- Kurniawan Erman Wicaksono, and Dea Adesti Enofani. 2022. "Premarriage Sex Education in an Effort to Increase Knowledge of Risk Sexual Behavior in Adolescents." *Journal of Community Service in Health* 4 (1): 31–36. <https://doi.org/10.20473/jpmk.v4i1.33932>.
- Rahayu, Nurul Fitriani, Ratih Indraswari, and Besar Tirto Husodo. 2020. "The Relationship Between Gender, Age, and Pornographic Media with Risky Sexual Behavior of Junior High School Students in Semarang City." *Indonesian Public Health Media* 19 (1): 62–67. <https://doi.org/10.14710/mkmi.19.1.62-67>.
- Rhina, Yudha, I Gusti Ayu Ari Agung, and Bianta Karang. 2024. "Comparison of the Level of Knowledge of Dental and Oral Health and the Effectiveness of Counseling with Educational Videos and Power Points in Grade 6 Students of Saraswati Elementary School 5 Denpasar." *Bali Dental Science & Exhibition*, 1–5.
- Saleh, Afni Safitri, and Ni Nyoman Elfiyunai. 2024. "The Effect of Providing Education Using Power Point Media on Adolescents' Knowledge Regarding the Dangers of Premarital Sex at Karya Bhakti Mamboro High School" 8: 46445–50.
- Sukmawati, Ima, Ayu Silpiani, Elis Noviati, Yuyun Rahayu, Heni Marliany, and Rosmiati Rosmiati. 2023. "The Effect of Peer Group Education on Knowledge Levels About the Dangers of Free Sex in Adolescents." *Embrio* 15 (2): 189–96. <https://doi.org/10.36456/embrio.v15i2.7768>.
- Sulistiyowati et al. 2021. "Improving Adolescents' Knowledge About Free Sex Through the Use of Audio Visual Media" 12 (November): 181–84.
- Tanjaya, Natasya, Riska Ismawati Hakim, and Dian Monalisa Rusliani. 2025. "The Influence of Video-Based Educational Media on the Level of Adolescent Knowledge Regarding Reproductive Health at Muhammadiyah Pontianak Senior High School, Guna Bangsa Health College, Yogyakarta, Indonesia" 3.
- Usfinit, Maria Resti, Farida Halis Dyah Kusuma Kusuma, and Esti Widia. 2020. "The Relationship Between the Level of Adolescent Knowledge About Sex and Sexual Behavior in Adolescents at Setia Budi Christian High School, Malang." *Nursing News* 2 (3): 21–33. <https://publikasi.unitri.ac.id/index.php/fikes/article/view/450/368>.
- Widananda, Clarisa, and Izzatul Arifah. 2024. "The Effect of Premarital Sex Prevention Education Modifying the Cublak-Cublak Suweng Game on Knowledge and Attitudes." *Jurnal Kesehatan* 17 (1): 70–79. <https://doi.org/10.23917/jk.v17i1.2933>.
- Zakiah, Zahrah, and Listia Dwi Febriati. 2023. "The Effectiveness of Health Education to Increase Knowledge of the Climacteric Period." *Journal of Nursing* 15 (2): 927–32. <https://doi.org/10.32583/keperawatan.v15i2.882>.