

AUDIO VISUAL METHODS ON THE KNOWLEDGE AND ATTITUDES OF TEENAGERS REGARDING HIV-AIDS AT SMAN 2 Central CIKARANG IN 2023

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Article Information	Abstract
Received: March 16, 2023	<i>The incidence of deaths due to HIV-AIDS among young people throughout the world shows an alarming trend. Statistical data shows that every day, 4000 people, including 1100 young people (aged 15-24 years), are infected with HIV. The research aimed to assess the impact of HIV-AIDS health education media using audio-visual methods on adolescents' knowledge and attitudes at SMAN 2 Central Cikarang. The research, conducted in 2023, utilized a pre-experimental design with a pretest-posttest one-group setup. The study population comprised all SMAN 2 Central Cikarang students, totaling 814 individuals, with a sample size of 86 chosen through non-probability purposive sampling. The research instrument was a questionnaire. Statistical analysis using the Wilcoxon Signed Rank Test revealed a significant influence, as evidenced by an increase in the average knowledge and attitude scores of the teenagers regarding HIV-AIDS following the health education intervention (p-value = 0.000). This suggests a positive impact of audio visual methods on adolescents' understanding and perceptions of HIV-AIDS.</i>
Revised: May 16, 2023	
Accepted: January 4, 2024	
Available Online: January 30, 2024	

Keyword: HIV-AIDS, Knowledge, Attitudes, Audio Visual Methods

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1. Introduction

HIV (Human Immunodeficiency Virus) is a virus that targets the immune system, making the body's resistance to disease and infection more vulnerable. Meanwhile, the term AIDS (Acquired Immune Deficiency Syndrome or Acquired Immune Deficiency) refers to a group of signs, diseases and syndromes caused by a weak immune system due to HIV infection. According to UNAIDS (United Nations Program on HIV and AIDS), the incidence of deaths due to HIV-AIDS among young people throughout the world shows an alarming trend. Some of them even believe that HIV is a common disease and not a

serious threat. Every day 4000 people including 1100 young people (aged 15-24 years) are infected with HIV. If current trends continue, approximately 1.2 million people will be infected with HIV by 2025.^[1]

According to a report from the Indonesian Ministry of Health, the number of PLHIV in Indonesia found in the January-March 2022 period was 10,525 people out of 941,973 people tested for HIV. Meanwhile, the cumulative number of AIDS cases reported up to January-March 2022 was 137,397. A total of 1,188 Indonesian children will be HIV positive in 2022. Data was obtained during the January-June 2022 period. From this data,

the 15-19 year old age group, which is categorized as teenagers, is the group most frequently infected with HIV. A total of 741 teenagers or 3.3% were infected with HIV. ^[2]

The HIV-AIDS epidemic in West Java mostly originates from Bekasi Regency. The situation of HIV and AIDS cases shows an increase. The number of HIV cases in 2020 was 134 cases, while in 2021 the number of HIV cases was 239 cases. In 2020, the group of teenagers aged 15-19 years had 3 cases (2.2%), in 2021 the group aged 15-19 years experienced an increase in cases, where the number of infected was 4 cases (1.7%). ^[3]

Adolescence is a period when a person is making the transition from childhood to adulthood. ^[4] Teenagers are notoriously quick to make judgments due to their intense curiosity. ^[5] Adolescents at this stage often engage in risky behavior such as injecting drug use and premarital sex, which are the main gateways for transmitting HIV-AIDS. The National Population and Family Planning Board (BKKBN) survey found that 56% of teenagers had had premarital sex. ^[6] Adolescents' views about premarital sexual behavior are influenced by their knowledge about HIV-AIDS, which makes them more vulnerable to contracting the disease. Premarital sex tends to be discouraged as knowledge about HIV-AIDS increases. ^[7] The nature of adolescents and their propensity for risky behavior necessitates the availability of comprehensive health services, including reproductive health services, in order to effectively prevent and protect adolescents.

Through health promotion initiatives and educational programs to stop the spread of HIV among adolescents, the Ministry of Health of the Republic of Indonesia works to prevent and control HIV-AIDS throughout Indonesia. Health promotion efforts, such as implementing health education programs which aim to develop people's potential to become human beings who believe and are devoted to God Almighty, have noble character, are

healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens. Wardani ^[8], In this research supports ongoing HIV-AIDS health education efforts for high school students in an effort to increase knowledge and attitudes towards HIV -AIDS.

According to Rohmah and Simanjuntak ^[9] knowledge is the result of "knowing" and this occurs after people sense a particular object. The five human senses are used to sense, humans learn many things through their eyes and ears. This knowledge is then internalized, taught, or assessed so that it becomes belief and awareness of the truth which is manifested in a person's attitude. So that health messages can be conveyed more effectively to the target audience and ensure that they can understand them, the media can be used in a way that makes it easier for the public to understand health education. Of the various educational media, audio-visual media offers superior capabilities due to the fact that audio-visual media combines two different types of media, namely hearing and sight. Therefore, this research aims to determine the influence of HIV-AIDS health education media using the Audio-visual method on the knowledge and attitudes of adolescents.

2. Method

This type of research is pre-experimental with a pre- and post- test one group design (preliminary test-post- test single group). The population in this research is all students at SMAN 2 Central Cikarang in 2023, totaling 814 people. The sample in this study amounted to 86 people using non-probability sampling technique with purposive sampling type. The inclusion criteria in this study are: 1) Students are willing to be samples and sign informed consent, 2) Students have no hearing or vision problems. The exclusion criteria in this study were: 1) Students have family or friends who suffer from HIV-AIDS, 2) Students have attended seminars or special classes regarding HIV-AIDS. Knowledge and attitude data were taken using questionnaires which were

conducted twice, namely pre-test and post-test to be able to measure differences in knowledge and attitude values of teenagers before being given the intervention and after being given the intervention. Data were analyzed univariately by calculating the frequency distribution of knowledge and attitudes of teenagers about HIV-AIDS at SMAN 2 Central Cikarang using statistical tests and bivariate tests using the Wilcoxon Signed Rank Test.

3. Results and Discussion

The univariate analysis results were utilized to determine the frequency distribution of each research variable, precisely the age and gender of the respondents, as well as the average knowledge and attitude before and after the provision of health education at SMAN 2 Cikarang Pusat.

Table 1. Frequency Distribution of Respondent Characteristics

No	Variable	%
1	Gender	
	Man	36%
	Woman	64%
2	Age	
	15 years	1.2%
	16 years	31.4%
	17 years	67.4%

Based on table 1, it can be seen that the characteristics of the respondents, totaling 86 people, were mostly 17 years old, totaling 58 people (67.4%). This age is included in the term generation Z. Generation Z is defined as children whose birth years were between 1995 – 2010 [10]. On average, research subjects are dominated by 17 year old students, where this is a time of great curiosity, which makes teenagers find out and this will influence their insight. This is consistent with Yuliana's study^[11] which found that as individuals age, their thinking patterns mature, leading to higher levels of maturity, the ability to make assumptions, and think logically. They are also able to compare information and carefully

consider each piece of information to draw conclusions.

Gender characteristics, showing that the 86 respondents were mostly female (64%) followed by male (36%). This result is in accordance with Dewi's study^[12] who stated that in terms of social considerations, parents tend to be more protective of women, so that boys are more free in social relations and girls are more subject to the law. Another factor that contributes to the risk of sexual behavior is cognitive, psychological and sexual development where male adolescents have high courage and are more willing to take risks in the actions they take, resulting in differences in the development of cognitive, psychological and sexual aspects between male and female adolescents. , as well as the values or norms that exist in Indonesian society support teenage boys to behave at risk more than girls.

Table 2. Knowledge Scores about HIV-AIDS Before and After being given Health Education through Audio-visual Media

Category	Group			
	Pre-test		Post-test	
	f	%	f	%
Not enough	66	76.7	5	5.8
Enough	15	17.5	25	29.1
Good	5	5.8	56	65.1
Total	86	100	86	100

Based on table 2, it is known that before being given health education (*pre-test*) the category of good knowledge about HIV-AIDS of the 86 respondents was 5.8%, after being given health education (*post-test*) the category of good knowledge about HIV-AIDS was 65.1%. In line with Siregar's perspective^[13] health education encompasses a range of experiences that positively impact individuals' knowledge pertaining to personal health. Additionally, Sandika^[14] conducted a study in which the average pre-intervention knowledge level, assessed using audio-visual media, was 12.58,

indicating a relatively strong understanding of HIV-AIDS among students. Following the health education intervention, the average knowledge level of students increased to 17.74, demonstrating an improvement in their understanding of HIV-AIDS.

Other factors that cause this outside the provision of health education are environmental factors and the individual's own experience. The environment has an impact on how individuals in that setting assimilate knowledge. This occurs as a result of reciprocal interactions, both positive and negative, which each person will interpret as knowledge.^[15] Increasing adolescent knowledge is also influenced by the distance between the time of providing health education and *the post-test*. This is because it is related to memory in storing information (*retention*). The quicker the gap between the intervention time and the post-test, the better the post-test results will be because the memory is still strong.

Apart from that, factors such as education, personal experience or from other people, the environment and mass media also play a role in increasing knowledge. The use of media in providing health education aims to attract a person's attention to a problem or to the information that will be provided, so that it can increase a person's knowledge and attitudes.^[16]

Table 3. HIV-AIDS Prevention Attitude Score Before and After Giving Health Education Through Audio-visual Media

Category	Pre-test		Post-test	
	Group		Group	
	f	%	f	%
Very weak	0	0%	0	0
Weak	13	15.1	2	2.3
Enough	66	76.7	4	4.7
Strong	3	3.5	13	15.1
Very strong	4	4.7	67	77.9
Total	86	100	86	100

Based on table 3, it is known that before being given health education (*pre-test*), the attitude category was very strong for 86 respondents regarding HIV-AIDS prevention, 4.7%, after being given health

education (*post-test*), the very strong attitude category regarding HIV-AIDS prevention was 77.9%. There was an improvement in teenagers' attitudes after being given health education using audio-visual media. This aligns with Sumaryono's assertion^[17] that attitudes are malleable and can be learned, thus suggesting that individuals' attitudes can change in response to specific situations and circumstances. Consequently, students' attitudes towards HIV-AIDS may improve over time.

Based on the research conducted by Sumartini and Maretha^[18] it has been found that the peer education approach is effective in shaping adolescent attitudes and preventing the spread of the HIV-AIDS virus. Factors such as personal experience, influence from significant individuals, cultural factors, education, religion, and mass media can all contribute to the formation of attitudes. If the informational message is sufficiently robust, it can serve as a solid foundation for attitude development. In this context, the media plays a significant role in disseminating this information.

Table 4. Test Results of the Effect of Audio-visual Media using the Wilcoxon Signed Rank Test on the Knowledge and Attitudes of Adolescents Before and After being given Health Education

Variable	Pre-test		Post-test		P-value
	Mean	Sd	Mean	sd	
Knowledge	8.03	2,720	14.56	2,364	0.000
Attitude	29.57	6,083	49.40	7,841	0.000

Table 4 shows that the p-value is $0.000 \leq 0.05$ using a confidence level of 95%, so it can be concluded There is an influence of audio-visual media on teenagers' knowledge and attitudes about HIV-AIDS. With the average value of knowledge before being given health education, namely 8.03 and after being given 14.56 and the average value of attitude score before being given was 29.57 and after being given 49.40, which means there is a significant difference

before and after being given health education through audio-visual media on teenagers' knowledge and attitudes about HIV-AIDS. Audio-visual media is one of the learning media that can be used to help Generation Z children learn. According to Luhulima's study^[19] Generation Z tends to analyze problems using videos rather than articles. This preference indicates that the learning style of Generation Z is predominantly visual and auditory.

Anggraini et al.^[20] suggests that the knowledge and attitudes of teenagers regarding HIV-AIDS are significantly impacted by health education using audio-visual media. This finding aligns with Andriani's study^[21], which indicates that audio-visual media facilitates easier communication and reception of material, saves time, and stimulates and encourages student responses. The advantages of employing an audio-visual approach in education are largely in line with the learning preferences of today's Generation Z children.

4. Conclusion

From the results of research conducted on increasing knowledge and attitudes of teenagers about HIV-AIDS using the audio-visual method at SMAN 2 Central Cikarang in 2023, it was found that there was an increase in knowledge about HIV-AIDS and attitudes towards preventing HIV-AIDS among teenagers after being given health education using the audio-visual method.

It is hoped that the suggestions in this research can create a health education program that is given regularly to teenagers, especially about the dangers and causes of HIV and AIDS. Health education should be provided at least once a month and can be done using audio-visual media because it has been proven to be effective in increasing teenagers' knowledge and attitudes. All the information that has been discussed can provide new information and can be developed by further researchers.

5. Acknowledgment

Thank you to the Chairman of the Medika Bahagia Foundation, and the Chancellor of Medika University, Suherman, who always provided motivation and support in completing this research. And the researchers would like to especially thank the students of SMAN 2 Central Cikarang who played an important role in this research, to provide benefits to the world of education and the field of reproductive health.

6. References

- [1] UNAIDS. UNAIDS Global AIDS Update 2022. In p. 26.
- [2] Kementerian Kesehatan RI. 2020. Profil Kesehatan Indonesia Tahun 2019. In: Jakarta : 2020.
- [3] Jabar DP. Profil Kesehatan Provinsi Jawa barat Tahun 2019. In: Dinkes Pro. Bandung; 2020.
- [4] Siregar RH. Peningkatan Pengetahuan Dan Kesadaran Remaja Putri Dalam Melakukan Pemeriksaan Payudara Sendiri (Sadari) Deteksi Dini Kanker Payudara Pada Siswi Kelas X Di Smk Negeri 2 Karawang Tahun 2020. SELAPARANG J Pengabdian Masyarakat Berkemajuan. 2021;4(2):175. <https://doi.org/10.31764/jpmb.v4i2.3859>
- [5] Julianti N. Faktor-faktor yang Berhubungan dengan Perilaku Seksual Pada Remaja di SMKN 1 Kelas 10 dan 11 di Cikarang Selatan Desa Ciantra Sukadami Kabuapten Bekasi Jawa Barat Tahun 2022. J ilmu kebidanan. 2022; Available from: <https://drive.google.com/uc?export=view&id=1bHr35e7vw9Y6Uny-AgXplhRJzBtP4q63%0Ahttps://repository.medikasuherman.ac.id/xmlui/handle/123456789/2784>
- [6] BKKBN. Laporan Kinerja 2019. Lemb Adm Negara. 2020;1689–99.
- [7] Rahayu I, Jaelani AK, Rismawanti V. Hubungan Tingkat Pengetahuan Tentang Hiv/Aids Dengan Perilaku

- Seksual Pranikah Pelajar. *J Endur*. 2017;2(2):145.
<https://doi.org/10.22216/jen.v2i2.1760>
- [8] IKF Wardani. Faktor-faktor yang Mempengaruhi Pengetahuan Remaja Terhadap HIV/AIDS di SMAN X Kota Bandung. *Univ Med Suherman*. 2021; Available from: https://drive.google.com/uc?export=view&id=1fURyBRzEf30AJDlvTZsmtyh2P_Rb5Bur
- [9] Rohmah HNF, Simanjuntak H. Correlation Between Age and Education With Knowledge of Health Protocol Covid-19 Prevention Among Midwives In Bekasi Regency 2020. 2020;30(Ichd):78–80.
<https://doi.org/10.2991/ahsr.k.201125.014>
- [10] Kulsum U. Gadget Pada Generasi Z: Media Pembelajaran Di Masa Pandemi Covid. *J Guru Kita PGSD*. 2022;6(2):106.
<https://doi.org/10.24114/jgk.v6i2.33438>
- [11] Yulianti Y. Online Psychoeducation About the Dangers of Early Marriage Against the High Incidence of Divorce During the Pandemic. *Indones J Heal Sci*. 2022;6(1):61–5.
<https://doi.org/10.24269/ijhs.v6i1.4327>
- [12] Dewi A. Hubungan Karakteristik Remaja, Peran Teman Sebaya Dan Paparan Pornografi Dengan Perilaku Seksual Remaja Di Kelurahan Pasir Gunung Selatan Depok. Tesis. 2012;Universitas Indonesia.
- [13] Siregar Y. Pengaruh Penggunaan Media Promosi Leaflet dan Audio Visual terhadap Tingkat Pengetahuan dan Sikap Remaja Tentang Bahaya HIV/ AIDS di SMK Swasta Imelda Medan. 2018; Available from: <https://repository.usu.ac.id/handle/123456789/9546>
- [14] Widya Sandika T. Pengaruh Media Audiovisual Terhadap Tingkat Pengetahuan Dan Sikap Siswa Tentang Bahaya HIV/AIDS Di SMPN 2 Haltim Paluta. *Educ Achiev J Sci Res*. 2021;2(2):1–10.
<https://doi.org/10.51178/jsr.v2i2.472>
- [15] Puspitaningrum WFA, A.Mawarni, dan DN. Pengaruh Media Booklet Terhadap Pengetahuan Dan Sikap Remaja Putri Terkait Kebersihan Dalam Menstruasi Di Pondok Pesantren Al-Ishlah Demak Triwulan Ii Tahun 2017. *J Kesehatan Masy*. 2017;5(4):274–81.
- [16] Notoatmodjo S. Metodologi Penelitian. Jakarta: Rineka Cipta; 2018.
- [17] Sumaryono D. Pengaruh Promosi Kesehatan dengan Media Lemsur (Lempar Busur) terhadap Pengetahuan dan Sikap Remaja tentang Pencegahan HIV di SMA Muhammadiyah 1 2021; Available from: <http://repository.poltekkesbengkulu.ac.id/id/eprint/813>
- [18] Sumartini S, Maretha V. Efektifitas Peer Education Method dalam Pencegahan HIV/AIDS terhadap Pengetahuan Dan Sikap Remaja. *J Pendidik Keperawatan Indones*. 2020;6(1):77–84.
<https://doi.org/10.17509/jpki.v6i1.21130>
- [19] Luhulima AD. Hubungan Penggunaan Google Classroom Sebagai Pmnbelajaran Efektif Dan Paperless Terhadap Nilai Hasil Belajar Kognitif Pada Pelajaran Biologi *Artik J IT Edu Univ Negeri Surabaya*. 2017;(November).
- [20] Anggraini, D. T., Triana, N. Y., & Wirakhmi IN. Pengaruh Pendidikan Kesehatan Dengan Metode Aaudiovisual Terhadap Tingkat Pengetahuan dan Sikap Remaja Tentang HIV/AIDS di SMP Negeri 1 Bojongsari. *J Inov Penelit*. 2022;3 No.7. Available from: <https://stp-mataram-e-journal.id/JIP/article/view/2214>

- [21] Andriani DA. Pengaruh Pendidikan Kesehatan dengan Media Audio visual Terhadap Pengetahuan dan Sikap Anak. Unair. 2020;7(2):65–72.