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THE EFFECT OF ANIMATION VIDEO-BASED HEALTH EDUCATION ON ADOLESCENTS' KNOWLEDGE ABOUT HIV/AIDS

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ABSTRAK

Abstract:
The prevalence of HIV/AIDS in the world has reached 38.4 million, including adolescents and adults. During adolescence, to grow and develop with good health, teenagers need information, including health education, to strengthen their understanding of health problems such as HIV/AIDS. The aim of this research is to determine the effect of animated video-based health education on adolescents' knowledge about HIV/AIDS. The research design uses a pre-experimental design with one group pretest posttest. The population is all teenage students at MAN 2 Ciamis school, totaling 644 respondents. This sampling method uses Non Probability Sampling Purposive Sampling with a sample size of 87 respondents. The sampling technique uses the Slovin formula and measuring instruments in the form of questionnaires whose validity has been tested. The statistical test used is the Wilcoxon Sign Rank Test. The results of the research before being given animated video-based health education showed that 38 respondents (43.7%) were in the poor category, but after being given animated video-based health education, 73 respondents increased to the good category. respondents (83.9%), based on the Wilcoxon Sign Rank statistical test, it showed a significant p-value = 0.000 < 0.05. There is an influence of animated video-based health education on teenagers' knowledge.

***Abstrak*:**
Prevalensi HIV/AIDS di dunia mencapai 38,4 juta termasuk remaja dan dewasa. Pada masa remaja untuk tumbuh dan berkembang dengan kesehatan yang baik, remaja memerlukan informasi, termasuk pendidikan kesehatan, untuk memperkuat pemahaman tentang masalah kesehatan seperti HIV/AIDS. Tujuan penelitian ini untuk mengetahui pengaruh pendidikan kesehatan berbasis video animasi terhadap pengetahuan remaja tentang HIV/AIDS. Desain penelitian menggunakan desain pre-eksperimental dengan one group pretest posttest. Populasi adalah seluruh siswa remaja sekolah MAN 2 Ciamis yang berjumlah 644 responden. Metode pengambilan sampel ini menggunakan jenis Non Probability Sampling Purposive Sampling dengan jumlah sampel 87 responden. Teknik pengambilan sampel menggunakan rumus Slovin dan alat ukur berupa kuesioner yang telah diuji validitasnya. Uji statistik yang digunakan adalah Uji Wilcoxon Sign Rank Test. Hasil penelitian sebelum diberikan pendidikan kesehatan berbasis video animasi menunjukkan sebanyak 38 responden (43,7%) berada pada kategori kurang baik, setelah diberikan pendidikan kesehatan berbasis video animasi meningkat pada kategori baik sebanyak 73 responden. responden (83,9%), berdasarkan uji statistik Wilcoxon Sign Rank menunjukkan nilai signifikan p-value = 0,000 < 0,05. Terdapat pengaruh pendidikan kesehatan berbasis video animasi terhadap pengetahuan remaja.

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INTRODUCTION

Human Immunodeficiency Virus is a virus that weakens the immune system, making it harder for the body to combat infections and illnesses. AIDS (Acquired Immune Deficiency Syndrome) occurs as a result of the advanced stage of HIV.[1]. The global prevalence of HIV/AIDS continues to rise. In 2021, UNAIDS reported that approximately 38.4 million people around the world were living with HIV.

The statistics show that about 36.7 million individuals aged 15 and older, as well as around 1.7 million children under 14, are living with HIV. An estimated 650,000 people globally die from AIDS. The highest number of HIV/AIDS cases is in Eastern and Southern Africa, where around 20.6 million people are infected with HIV and approximately 280,000 people die from AIDS [2]. The HIV epidemic in the Asia Pacific region disproportionately impacts specific population groups, particularly young individuals aged 15–24 and their sexual partners. By 2022, young people made up roughly a quarter of the HIV infections in the region [3].

In 2022, the number of people living with HIV/AIDS across all age groups in Indonesia, including teenagers, is projected to reach 526,841. This marks a decrease from the 2020 figure of 543,100. Although the trend in HIV cases is declining, the death toll from AIDS is expected to rise, with an estimated 26,501 deaths [4]. According to the first-quarter report of 2023, covering January to March, West Java province had the highest number of HIV/AIDS cases with 2,417 people, followed by East Java with 1,579 cases, and DKI Jakarta with 1,422 cases [5]. Data from the Ciamis Regency Health Service revealed 90 cases of HIV/AIDS in 2023, with 27 of those cases occurring among individuals aged 15–24 [6].

To increase students' knowledge about HIV/AIDS, various methods can be carried out, such as lectures, group discussions, project-based learning, and print and digital media. Lectures provide basic information, while group discussions allow students to share knowledge. Project-based learning makes students more active in seeking information and solving problems related to HIV/AIDS. However, with the development of technology, health education through video has become the most effective method for adolescents, because it presents information that is easy to understand, and interesting, and accommodates various learning styles of students, both visual and auditory [7] [8] [9].

One approach to preventing the spread of HIV/AIDS is through educating teenagers with accurate knowledge and understanding about the disease. An article published by the Ministry of Health emphasizes the importance of adolescent health and defines teenagers as individuals aged 10-24, a group that represents the largest proportion of the population [10]. Previous research on preventing HIV/AIDS transmission among adolescents suggested that one effective method is offering counseling in schools. This involves providing information about how HIV/AIDS is transmitted and ways to prevent it. After receiving the educational material, participants showed improved knowledge, with the number of those possessing good knowledge increasing from 6 to 25 people [11]. This study's innovation lies in using animated videos for health education on HIV/AIDS. It introduces the use of animated video as a novel and effective medium for enhancing adolescents' understanding of HIV/AIDS [12]. While there has been extensive research on HIV/AIDS education, the use of interactive animation tailored specifically for adolescents is still relatively novel, particularly in regions with limited access to innovative information [13].

Adolescence, spanning from ages 10 to 19, is a crucial stage for establishing a foundation for good health. This period is marked by rapid physical, cognitive, and

psychosocial development. Despite being a generally healthy phase, it is also a time when significant deaths, diseases, and injuries can occur [14]. These issues can be prevented or managed during adolescence by establishing healthy behavioral patterns related to diet, physical activity, substance use, and sexual behavior. These patterns can either safeguard their health and that of those around them or pose risks now and in the future. To ensure healthy growth and development, adolescents require information and health education [15].

Health education plays a crucial role in influencing individuals affected by HIV/AIDS and is a key strategy for preventing its transmission. Its goal is to enhance adolescents' comprehensive understanding of HIV/AIDS. Beyond merely conveying information, health education also focuses on fostering motivation, developing skills, and increasing self-awareness to encourage proactive health behaviors [16]. Health education can be carried out using various methods and media in delivering the material to be provided, one of which is video media. [17]. Education methods have evolved, with animated videos emerging as a popular and effective tool, especially for teenagers. Their engaging, easily comprehensible, and interactive format can capture teenagers' interest and enhance their understanding of complex topics like HIV/AIDS.

The core of health development efforts is to raise awareness, foster a desire, and enhance the ability for individuals to live healthily, a goal pursued by all sectors of Indonesian society. Several in-depth studies have shown that health education significantly improves adolescent knowledge and can play an important role in preventing HIV/AIDS. The following are some studies that support the effectiveness of health education programs. Addressing HIV/Sexually Transmitted Diseases and Pregnancy Prevention Through Schools: An Approach for Strengthening Education, Health Services, and School Environments That Promote Adolescent Sexual Health and Well-Being [18]. Effectiveness of Educational Video Media to Improve Knowledge and Attitudes in Knowing the Dangers of HIV/AIDS in Adolescent Students. The results of this study indicate that educational video media is effective in improving students' knowledge and attitudes about the dangers of HIV/AIDS, and video media can be used as one of the media that provides information about the dangers of HIV/AIDS in adolescents [19]. Health education programs, especially those that include multimedia devices such as videos, are very effective in improving adolescent knowledge about HIV/AIDS. The engaging and interactive nature of videos can facilitate better understanding, retention, and attitude change, which ultimately contribute to better decision-making and healthier behaviors in adolescents.

A key component of health development programs is the fight against infectious diseases, with HIV/AIDS being one of the most prevalent [20]. The National Action Plan for the Prevention and Control of HIV/AIDS and STIs in Indonesia for 2020-2024 is a key government health initiative aimed at decreasing new HIV infections, lowering the AIDS-related death rate, and reducing the transmission of new HIV cases [21].

The researchers have chosen to conduct their study at MAN 2 Ciamis School because there has been no health education on HIV/AIDS at the school over the past year. As a high school, where students are transitioning from adolescence to adulthood, this age group is particularly susceptible to influences and may be curious about engaging in risky behaviors such as smoking, alcohol use, drug abuse, and unsafe sex. These activities can lead to various health issues, including a heightened risk of HIV/AIDS among adolescents. Therefore, the researchers aim to offer education on HIV/AIDS through animated videos to enhance students' understanding.

An initial survey carried out at MAN 2 Ciamis on December 8, 2023, involving 10 teenagers revealed the following interview results: 6 students were unaware of HIV/AIDS, 1 student believed that HIV/AIDS was caused by sexual intercourse, and 3 students were unclear about the signs and symptoms of HIV/AIDS, such as coughing up phlegm and weight loss. When asked about HIV/AIDS prevention, 4 students mentioned avoiding sexual intercourse and kissing, 3 teenagers reported abstaining from sexual activity, living morally, and strengthening their relationship with God, while 3 other teenagers stated they were cautious when choosing friends. Considering the high risk of HIV/AIDS transmission, it is crucial for teenagers to improve their understanding of HIV/AIDS. This study was therefore conducted to assess the impact of animated video-based health education on the knowledge of HIV/AIDS among teenagers at MAN 2 Ciamis. The purpose of this study was to determine the effect of animated video-based health education on the knowledge of MAN 2 Ciamis adolescents about HIV/AIDS.

RESEARCH METHOD

independent variable is one that can affect or bring about changes in the dependent variable. The independent variable, or predictor variable, is the one that has the potential to impact other variables, while the dependent variable, or response variable, is the one that changes as a result of variations in the independent variable. The dependent variable is influenced or determined by the independent variable (Ulfa, 2021). Typically, the independent variable is represented by X. In this study, the independent variable is health education delivered through animated videos, and the dependent variable is adolescents' knowledge about HIV/AIDS.

The research design used a pre-experimental design with one group pretest posttest. The population in this study were all adolescents of MAN 2 Ciamis as many as 644 respondents. The sampling method is Non-Probability Sampling type Purposive Sampling with a sample of 87 respondents. The sampling technique in this study used the Slovin formula and a measuring instrument in the form of a questionnaire that had been tested for validity with 30 respondents. The statistical test used was the Wilcoxon sign Rank Test.

Inclusion criteria in this study were: adolescents who are students at MAN 2 Ciamis, respondents in grades X and XI, adolescent students who are willing to attend and participate in a series of studies as evidenced by signing an informed consent, students who are included in the adolescent group, namely aged 12 to 21 years. While the Exclusion Criteria: respondents are sick and not willing to be respondents.

The instrument used in this study is a questionnaire sheet containing statements related to personal knowledge of HIV/AIDS. The scale is compiled by the researcher with the Guttman scale which consists of statements that are favorable and unfavorable. This questionnaire is to measure knowledge consisting of 20 questions, if the respondent's answer is correct then it will get a score of 1, but if the respondent answers incorrectly it will get a score of 0, if the respondent answers a favorable question (Positive) then it will get a score of 1, and if the respondent answers an unfavorable question (negative) incorrectly then it will get a score of 1. The results of the reliability test from the knowledge questionnaire obtained a Cronbach's alpha value of 0.714 so that the instrument was declared reliable.

The data collection procedure in this study uses a questionnaire about adolescent knowledge about HIV/AIDS, while the types of data used in this study are primary and secondary data, the primary data obtained from this study is data taken directly from adolescent students regarding knowledge about HIV/AIDS, secondary

data is obtained from the District Health Office in the form of the number of HIV/AIDS cases in the Regency area.

RESULT

Table 1.
Distribution of Frequency Characteristics Based on Age

Age	Frequency	(%)
15 years	7	8.3
16 years	25	29.8
17 years	29	34.5
18 years	23	27.4
Total	84	100

Table 2.
Distribution of Frequency Characteristics by Gender

Gender	Frequency	(%)
Male	19	22.6
Female	65	77.4
Total	84	100

The distribution of respondent gender shows that 65 respondents were female (77.4%) and 19 respondents were male (22.6%) out of a total of 87 respondents.

Table 3.
Frequency Distribution of Pretest Knowledge of Adolescents About HIV/AIDS

Knowledge	Frequency	(%)
Good	3	3.6
Enough	44	52.4
Less	37	44
Total	84	100

In the respondent group before being given knowledge about HIV/AIDS, most teenagers had good knowledge about HIV/AIDS, where there were 3 respondents (3.6%), respondents who had sufficient knowledge about HIV/AIDS were 44 people (52.4%) and respondents who had poor knowledge were 37 people (44.0%).

Table 4.
Frequency Distribution of Posttest of Adolescent Knowledge About HIV/AIDS

Knowledge	Frequency	(%)
Good	70	83.3
Enough	14	16.7
Less	0	0
Total	**84**	**100**

Frequency distribution of knowledge about HIV/AIDS after being given health education about HIV/AIDS, most teenagers have sufficient knowledge about HIV/AIDS, as many as 14 people (16.7%), respondents who have good knowledge about HIV/AIDS are as many as 70 people (83.3%).

Table 5.
Kolmogorov-Smirnov Normality Test

Variabel	Statistic	Df	Sig.
Pre-Test Knowledge	.165	84	,000
Post-Test Knowledge	.140	84	,000

According to Notoadmodjo (2018), the Kolmogorov-Smirnov test is recommended for large samples (more than 50 samples), while the Shapiro-Wilk test is used for smaller samples (less than or equal to 50 samples). Therefore, this study uses the Kolmogorov-Smirnov normality test because the respondents numbered 87 people, with the results: showing that in the normality test using the Kolmogorov-Smirnov test, the p-value was obtained before the intervention and after the intervention of knowledge about HIV/AIDS was given, namely p = 0.000, as well as before the intervention and after the intervention of social interaction, the p-value was obtained = 0.000. This shows that the p-value <0.05, so it can be concluded that the data is not normally distributed, so the test carried out to see the effect before and after the intervention based on animated video media was given by using the Wilcoxon test.

Table 6.
Frequency Distribution of Pretest and Posttest of Adolescent Knowledge About HIV/AIDS Using the Wilcoxon Test

Knowledge	N	(%)	Mean Rank	P Value
Knowledge decreases	0.00	0.00	0.00	
Knowledge increases	79	94.0	40.00	0.000
Knowledge remains the same	5	6.0		
Total	**84**	**100**		

There were 79 respondents (94.0%) who got an increased knowledge score, and 5 respondents (6.0%) with a constant knowledge score. The results of data analysis using the Wilcoxon sign rank test showed a p-value of 0.000 <0.05, so Ho was rejected and Ha was accepted, it can be concluded that there is an influence of animated video-based health education on HIV/AIDS knowledge in adolescents at MAN 2 Ciamis

DISCUSSION

The study revealed that before receiving animated video-based health education on HIV/AIDS, the majority of respondents were female, with 65 individuals (77.4%) compared to 19 males (22.6%). The age distribution was as follows: 7 people were 15 years old (8.3%), 25 were 16 years old (29.8%), 29 were 17 years old (34.5%), and 23 were 18 years old (27.4%). Before the intervention, the level of knowledge about HIV/AIDS at MAN 2 Ciamis was generally low, with only 3 respondents (3.4%) categorized as having "Good" knowledge. This indicates that good knowledge about HIV/AIDS was not widespread among the teenagers at the school. Most had a moderate understanding of HIV/AIDS, while 37 respondents (44.0%) fell into the "Less" knowledge category, representing 43.7% of the valid percentage. This underscores that many teenagers had limited knowledge about HIV/AIDS before the animated video-based health education.

Knowledge is the outcome of recognition that occurs after an individual perceives a specific object. It plays a crucial role in shaping a person's perception; generally, the more knowledgeable a person is, the better they are at interpreting and understanding things [23].

Based on the research results, the lack of respondents' knowledge regarding knowledge was caused by experience factors, where respondents had never received counseling about HIV/AIDS. It is stated that experience and environment are key factors influencing knowledge. Generally, increased experience leads to greater knowledge acquisition, while the environment plays a significant role in the process of knowledge gaining for individuals within that setting [24].

According to the theory, the accessibility of information from sources such as individuals, media, and educational activities like counseling can impact changes in a person's knowledge. Consequently, incorrect responses from the research participants can be attributed to this factor. Knowledge is acquired through sensory experiences, primarily through hearing and sight [25].

The results of this study are in line with the results of previous research. Anggraini (2022) with the title The Influence of Health Education with Audiovisual Methods on the Level of Knowledge and Attitudes of Adolescents About HIV/AIDS at SMP Negeri 1 Bojongsari, the results of the study showed that the highest category before being given Health Education was the less category at 50.0% (51 adolescents) [26].

In conclusion, respondents' knowledge about HIV/AIDS before receiving education was still limited. This limitation is attributed to their lack of experience and information about HIV/AIDS, as well as restricted access to relevant information in their environment.

After being given health education knowledge based on animated video media about HIV/AIDS, there was a significant increase. The "Good" category had the highest frequency among the other categories, with 73 respondents or 83.3% of the total respondents. This shows that the majority of teenagers have good knowledge about HIV/AIDS after being given health education based on an animated video. This indicates that the implemented animated video-based health education program is very effective in increasing adolescent knowledge about HIV/AIDS at MAN 2 Ciamis. The

"Enough" category was filled by 14 respondents or 16.7% of the total. This group shows that there are a small number of teenagers who have sufficient knowledge about HIV/AIDS after being given health education based on an animated video. Although the number is smaller than the "Good" category, this still shows a significant increase in knowledge. The distribution of categories of adolescent knowledge about HIV/AIDS after being given health education based on animated video shows very positive results. Most respondents (83.3%) are in the "Good" category, while the rest (16.7%) are in the "Enough" category. There were no respondents in the "Less" category, which shows that animated video-based health education has succeeded in significantly increasing adolescents' knowledge about HIV/AIDS.

Health education is an effort to create good behavior in a person's health. This means that a person needs to know how to maintain health and avoid things that are detrimental to health [27]. The aim of health education is to provide information or knowledge to change a person's attitude to be healthier [28].

The choice of media for health education influences adolescents' interest in the topics presented [29]. animated video is a technology containing information that presents moving images and sound [30].

The results of this study are in line with the results of previous research Harmawati (2018) It is stated that most respondents, 54 individuals (93.1%), demonstrated good knowledge. The conclusion is that after receiving education, the respondents' knowledge improved to the "good" category, with some reaching the "sufficient" category. This improvement occurred because the respondents were provided with information through animated videos, which enhanced their awareness and interest in the material presented [31].

Based on the results of data analysis using the Wilcoxon Sign Rank Test, a significant value of 0.000 was obtained. This shows that the p-value of 0.000 <0.05 and it can be concluded that Ho is rejected and Ha is accepted, which means that there is an influence of animated video-based health education on adolescent knowledge about HIV/AIDS at MAN 2 Ciamis. This study is in line with the results of the study [32] Which states that animated video-based education has a significant influence on increasing adolescent knowledge regarding HIV/AIDS (p=0.0001).

After providing health education based on animated videos about HIV/AIDS, there was an increase of 94% or 79 respondents with a total of 83.3% or 70 respondents in the category of good knowledge, 16.7% or 14 respondents in the category of sufficient knowledge. The increase in adolescent knowledge about HIV/AIDS before and after being given this health education is by research that has been conducted by [28] Which states that there was an increase in the average value of respondents on reproductive health before and after being given counseling. The issue of HIV/AIDS health is still in the world spotlight and is homework for countries to suppress this population. HIV and AIDS are defined as a serious condition that affects the immune system and can lead to various potentially fatal health complications if not treated properly. Knowledge about HIV/AIDS is an important aspect because a good understanding of how to prevent and manage this disease can reduce the risk of its spread and improve the quality of life of sufferers [33].

The factor that causes teenagers to be very susceptible to HIV/AIDS transmission is that teenagers always want to know new things to find their identity. This is a characteristic of teenagers in general, they want to know many things that can only be satisfied and realized through their own experiences. Teenagers want to try new things they know such as using drugs, having free sex outside of marriage, changing partners, and in addition to the

ease of getting pornographic items [34]. So it is not surprising that teenagers tend to adopt information received from their friends, without knowing for sure the information obtained from their friends, in this case, it can be related to free sex and drugs, which causes curiosity and questions to start emerging in teenagers. To answer these questions, they tend to have free sex and drugs [35].

According to the researcher, the study revealed that before receiving health education on HIV/AIDS, most teenagers lacked knowledge about the disease and its transmission. Given the significant number of teenagers, it is crucial to provide accurate information and understanding, including about HIV/AIDS, as they play a key role in ongoing development. The lack of information about the risks of HIV/AIDS can lead to increased transmission rates. Therefore, it is essential to enhance awareness and knowledge about HIV/AIDS to help prevent its spread, particularly among teenagers.

CONCLUSION

There is an influence of animated video-based health education on HIV/AIDS knowledge in adolescents.

REFERENCES

[1] W. Rosida And Y. A. Wijaya, "Klasterisasi Penyakit Hiv/Aids Di Jawa Barat Menggunakan Algoritma K-Means Clustering," *Blend Sains Jurnal Teknik*, Vol. 1, No. 4, Pp. 306–315, 2023.

[2] A. I. Ajayi, E. Mudefi, O. V Adeniyi, And D. T. Goon, "Achieving The First Of The Joint United Nations Programme On Hiv/Aids (Unaids) 90-90-90 Targets: Understanding The Influence Of Hiv Risk Perceptions, Knowing One's Partner's Status And Discussion Of Hiv/Sexually Transmitted Infections With A Sexual Partne," *International Health*, Vol. 11, No. 6, Pp. 425–431, 2019.

[3] Unaids, "Unaids 2023 Reference," Pp. 1–463, 2023.

[4] N. Afriana *Et Al.*, *Laporan Tahunan Hiv Aids 2022 Kemenkes*. Jakarta: Kemenkes, 2022.

[5] Kemenkes, "Laporantw_I_2023.Pdf," 2023, *Siha Kemenkes*.

[6] Dinkes Ciamis, "Kasus Hiv/Aids Berdasarkan Umu," 2023.

[7] J. Kusumawaty, I. Ali Rahman, D. Supriadi, F. Dwi Lestari, T. Hidayati, And J. K. Kusumawaty Stikes Muhammadiyah Ciamis Jl Ahmad, "The Effect Of Progressive Muscle Relaxation Using Audio-Visual Media On Blood Pressure Reduction In Elderly Hypertension Patients Department Of Nursing, Stikes Muhammadiyah Ciamis Artikel Info," *International Journal Of Nursing And Health Services (Ijnhs)*, Vol. 4, No. 5, P. 570, 2021, Doi: 10.35654/Ijnhs.V4i5.501.

[8] I. A. Rahman, E. Nurlatifah, And A. Fitriani, "Meningkatkan Kemampuan Cuci Tangan Dengan Metode Audio Visual," *Jurnal Keperawatan*, Vol. 14, No. 1, Pp. 87–94, Mar. 2022, Doi: 10.32583/Keperawatan.V14i1.38.

[9] I. A. Rahman, J. Kusumawaty, And R. A. Fikriah, "Pengaruh Video Teknik Relaksasi Pernafasan Diafragma Terhadap Penurunan Tekanan Darah Penderita Hipertensi Pada Lansia," *Jurnal Ilmiah Permas: Jurnal Ilmiah Stikes Kendal*, Vol. 13, No. 3, Pp. 1023–1034, May 2023, Doi: 10.32583/Pskm.V13i3.625.

[10] L. Kembaren, "Perilaku Remaja Masa Kini, Bagaimana Memahami Dan Menyikapinya?," *Direktorat Jendral Pelayanan Kesehatan*, Bogor, 2023.

[11] R. Rinaldi, "Lindungi Remaja Melalui Peningkatan Pengetahuan Seputar Hiv/Aids Dan Pencegahannya Di Smk Kesehatan Kader Bangsa Palembang," *Jurnal Pengabdian Masyarakat (Judimas)*, Vol. 3, No. 1, Pp. 132–138, 2024, Doi: 10.54832/Judimas.V3i1.395.

[12] I. A. Rahman, "Edukasi Personal Hygiene Dengan Kejadian Penyakit Dermatitis Di Pondok Pesantren," *Jurnal Pelayanan Dan Pengabdian Masyarakat (Pamas)*, Vol. 7, No. 4, Pp. 371–377, Oct. 2023, Doi: 10.52643/Pamas.V7i4.2681.

[13] I. A. Rahman, J. Kusumawaty, And R. A. Fikriah, "Pengaruh Video Teknik Relaksasi Pernafasan Diafragma Terhadap Penurunan Tekanan Darah Penderita Hipertensi Pada Lansia," *Jurnal Ilmiah Permas: Jurnal Ilmiah Stikes Kendal*, Vol. 13, No. 3, Pp. 1023–1034, 2023, Doi: 10.32583/Pskm.V13i3.625.

[14] I. A. Rahman, A. Nurapandi, A. Sundewi, H. Setiawan, And R. Rahayu, "Website-Based Adolescent Mental Health Disorders Screening Application Design," *Indonesian Journal Of Global Health Research*, Vol. 6, No. 5, Pp. 2799–2810, Jun. 2024, Doi: 10.37287/Ijghr.V6i5.3661.

[15] World Healt Organization, "Adolescent Health," Who.

[16] H. Harmawati, D. A. Sari, And D. Verini, "Pengaruh Pendidikan Kesehatan Terhadap Tingkat Pengetahuan Pelajar Sma Tentang Hiv/Aids," *Jurnal Endurance: Kajian Ilmiah Problema Kesehatan*, Vol. 3, No. 3, Pp. 588–595, 2018.

[17] J. Harsismanto, E. Oktavidiati, And D. Astuti, "Pengaruh Pendidikan Kesehatan Media Video Dan Poster Terhadap Pengetahuan Dan Sikap Anak Dalam Pencegahan Penyakit Diare," *Jurnal Kesmas Asclepius*, Vol. 1, No. 1, Pp. 75–85, 2019, Doi: Https://Doi.Org/10.31539/Jka.V1i1.747.

[18] N. J. Wilkins *Et Al.*, "Addressing Hiv/Sexually Transmitted Diseases And Pregnancy Prevention Through Schools: An Approach For Strengthening Education, Health Services, And School Environments That Promote Adolescent Sexual Health And Well-Being," *J Adolesc Health*, Vol. 70, No. 4, Pp. 540–549, Apr. 2022, Doi: 10.1016/J.Jadohealth.2021.05.017.

[19] Y. H. (Yessicha) Tanof, I. F. (Imelda) Manurung, And S. (Sigit) Purnawan, "Effectiveness Of Educational Video Media To Increased Knowledge And Attitude In Knowing The Dangers Of Hiv/Aids Disease In Adolescent Students Junior High School 2 Kupang City In 2020," *Journal Of Health And Behavioral Science*, Vol. 3, No. 1, Pp. 1–12, Mar. 2021, Doi: 10.35508/Jhbs.V3i1.3016.

[20] F. A. Nugroho, "Tingkat Pengetahuan Mahasiswa Keperawatan Terhadap Penyakit Hiv-Aids," *Nursing Science Journal (Nsj)*, Vol. 3, No. 2, Pp. 170–177, 2022.

[21] Kemenkes Ri, "Rencana Aksi Nasional Pencegahan Dan Pengendalian Hiv Aids Dan Pims Di Indonesia Tahun 2020-2024," *Kementerian Kesehatan Republik Indonesia*, Pp. 1–188, 2020.

[22] Notoadmodjo, *Penelitian Kesehatan*. 2018.

[23] M. R. Suseno, B. Y. Fitri Hamidiyanti, And W. Ayu Ningsih, "Pengaruh Pendidikan Kesehatan Menggunakan Media Video Dan Alat Peraga Terhadap Pengetahuan Dan Sikap Remaja Putri Tentang Personal Hygiene Pada Masa Menstruasi Dalam Layanan Homecare," *Jurnal Kebidanan*, Vol. 10, No. 2, Pp. 59–69, 2021, Doi: 10.35890/Jkdh.V10i2.216.

[24] Darsini, Fahrurrozi, And E. A. Cahyono, "Pengetahuan; Artikel Review," *Jurnal Keperawatan*, Vol. 12, No. 1, 2019.

[25] A. J. Putri, N. Saputri, And Sukmawati, "Differences In The Level Of Knowledge Of Young Women Before And After Being Given Counseling About Personal Hygiene During Menstruation At Mts Muhammadiyah Pulau Arbor In 2022," *Journal Of Midwifery And Nursing*, Vol. 5, No. 1, Pp. 7–12, 2023.

[26] D. T. Anggraini, N. Y. Triana, And I. Netra Wirakhmi, "Pengaruh Pendidikan Kesehatan Dengan Metode Audiovisual Terhadap Tingkat Pengetahuan Dan Sikap Remaja Tentang Hiv/Aids Di Smp Negeri 1 Bojongsari," *Jurnal Inovasi Penelitian (Jip)*, Vol. 3, No. 7, Pp. 7083–7090, 2022.

[27] R. Agustien, N. Umamah, And S. Sumarno, "Pengembangan Media Pembelajaran Video Animasi Dua Dimensi Situs Pekauman Di Bondowoso Dengan Model Addie Mata Pelajaran Sejarah Kelas X Ips," *Jurnal Edukasi*, Vol. 5, No. 1, Pp. 19–23, 2018.

[28] D. Novitasari, A. Suciawati, And Rukmaini, "Pengaruh Edukasi Kesehatan Tentang Hygiene Kewanitaan Terhadap Perilaku Remaja Putri Dalam Mencegah Keputihan Di Smp 27 Kota Bekasi Tahun 2021," *Jurnal Penelitian Dan Kajian Ilmiah Kesehatan*, Vol. 7, No. 2, Pp. 91–97, 2021.

[29] Y. Suciliyana And L. O. A. Rahman, "Augmented Reality Sebagai Media Pendidikan Kesehatan Untuk Anak Usia Sekolah," *Jurnal Surya Muda*, Vol. 2, No. 1, Pp. 39–53, 2020, Doi: 10.38102/Jsm.V2i1.51.

[30] S. Nurfadhillah, A. P. Cahyani, A. F. Haya, P. S. Ananda, T. Widyastuti, And U. M. Tangerang, "Penerapan Media Audio Visual Berbasis Video Pembelajaran Pada Siswa Kelas Iv Di Sdn Cengklong 3," *Jurnal Pendidikan Dan Dakwah*, Vol. 3, No. 2, Pp. 396–418, 2021.

[31] H. Harmawati, D. A. Sari, And D. Verini, "Pengaruh Pendidikan Kesehatan Terhadap Tingkat Pengetahuan Pelajar Sma Tentang Hiv/Aids," *Jurnal Endurance: Kajian Ilmiah Problema Kesehatan*, Vol. 3, No. 3, Pp. 588–595, 2018.

[32] I. E. Yuniartin, "Pengaruh Pendidikan Kesehatan Dengan Video Animasi Terhadap Pengetahuan Dan Stigma Masyarakat Tentang Hiv/Aids," 2024, *Universitas Islam Sultan Agung Semarang*.

[33] R. Febrianti And M. Wahidin, "Gambaran Tingkat Pengetahuan Dan Sikap Remaja Tentang Hiv/Aids Di Smk Negeri 3 Jambi Tahun 2018," *Unes Journal Of Social And Economics Research*, Vol. 4, No. 1, Pp. 42–47, 2019.

[34] I. A. Rahman, N. Nurhayati, D. Anggriani, K. Uswatul, And S. Anwar, "Emotional Freedom Techniques (Eft) To Overcome Anxiety In Teenagers With Smoking Behavior," *Indonesian Journal Of Global Health Research*, Vol. 2, No. 4, Pp. 1067–1076, 2024, Doi: 10.37287/Ijghr.V2i4.250.

M. R. Suseno, B. Y. Fitri Hamidiyanti, And W. Ayu Ningsih, "Pengaruh Pendidikan Kesehatan Menggunakan Media Video Dan Alat Peraga Terhadap Pengetahuan Dan Sikap Remaja Putri Tentang Personal Hygiene Pada Masa Menstruasi Dalam Layanan Homecare," *Jurnal Kebidanan*, Vol. 10, No. 2, Pp. 59–69, 2021, Doi: 10.35890/Jkdh.V10i2.216.