



## The effectiveness of health education via audio-visual demonstrations of HIV-AIDS

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### ABSTRACT

In Indonesia, the case of HIV-AIDS is still an epidemic that hinders the realization of the Sustainable Development Goals (SDGs), especially in the third indicator. The highest incidence in the age group of 25-49 years (70.4%). The reason for this high case is that health education is still low so the information obtained is not optimal. The purpose of this study was to determine the effectiveness of health education through audio-visual demonstration media about HIV-AIDS. This research was conducted in the Kaliwungu Public Health Center working area with a total sample of 73 people. This research includes quantitative pre-experiment with One Group PreTest and PostTest Design. The sampling technique used was purposive sampling. The instrument used is a knowledge and attitude questionnaire. Data analysis using the Mc Nemar test. The results of the univariate analysis stated that there was a difference in knowledge before and after the intervention, namely from sufficient (49.3%) to good (60.3%). In attitude, there is also a difference in values before and after the intervention, which was initially only positive (84.9%) to (95.9%). Bivariate analysis showed that there were significant differences in the knowledge and attitudes of women of childbearing age before and after being given health education with a value of (0.000) and (0.008). This shows that health education through AVISDEM media can increase knowledge and attitudes about HIV-AIDS. It is hoped that health service providers will intensify health education for women of childbearing age in an effort to prevent HIV-AIDS.

Keywords: Health Education, Women of Childbearing Age, HIV-AIDS

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### Kata kunci:

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### ABSTRAK

Di Indonesia kasus HIV-AIDS masih menjadi epidemi yang menghambat terwujudnya Sustainable Development Goals (SDG's) khususnya pada indikator ketiga. Angka kejadian tertinggi berada di usia 25-49 tahun (70,4%). Penyebab tingginya kasus ini karena pendidikan kesehatan yang masih rendah sehingga informasi yang diperoleh belum optimal. Tujuan penelitian ini adalah untuk mengetahui efektifitas pendidikan kesehatan melalui media audio-visual demonstrasi tentang HIV-AIDS. Penelitian ini dilaksanakan di Wilayah Kerja Puskesmas Kaliwungu dengan jumlah sampel sebanyak 73 orang. Penelitian ini termasuk kuantitatif pra-eksperimen dengan One Group Pre-Test and Post-Test Design. Teknik pengambilan sampel menggunakan purposive sampling. Instrumen yang digunakan adalah kuesioner pengetahuan dan sikap. Analisis data menggunakan Uji Mc Nemar. Hasil analisis univariat menyatakan ada perbedaan pengetahuan sebelum dan sesudah intervensi yaitu dari cukup (49,3%) menjadi baik (60,3%). Pada sikap juga terdapat perbedaan nilai

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sebelum dan sesudah intervensi yang awalnya bersikap positif hanya (84,9%) menjadi (95,9%). Analisis Bivariat menunjukkan adanya perbedaan yang signifikan terhadap pengetahuan dan sikap wanita usia subur sebelum dan sesudah diberikan pendidikan kesehatan dengan nilai (0,000) dan (0,008). Hal ini menunjukkan bahwa pendidikan kesehatan melalui media AVISDEM mampu meningkatkan pengetahuan dan sikap tentang HIV-AIDS. Diharapkan pemberi pelayanan kesehatan lebih mengencangkan penyuluhan kesehatan kepada Wanita Usia Subur sebagai upaya pencegahan HIV-AIDS.

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## INTRODUCTION

Cases of infection with Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) are still a global epidemic, one of which is in Indonesia (WHO, 2015). It is an obstacle for the country to achieve the Sustainable Development Goals (SDGs), especially in achieving the third indicator. The problem of HIV-AIDS can make a serious impact, not only destroying the health status of the community but also affecting the quality of existing human resources. If this condition is not managed immediately, it will threaten the safety of life and cause death for the sufferer (Rochmawati et al., 2021).

HIV is a virus belonging to the lentivirus family group from animal retroviruses, including the Ribonucleic Acid (RNA) virus that can attack the immunity of the human immune system, especially leukocytes (white blood cells) so that the body is more susceptible to a disease (Abbas et al., 2018). AIDS is a set of symptoms that happen due to decreased body resistance due to infection with HIV, especially attacking T lymphocytes cells. These symptoms appear for a long time, about 5-10 years, marked by a decrease of CD4 cells (<200 cells/ $\mu$ L). These cells are key cells of the human immune system. When these cells are destroyed, the body will be more difficult to fight disease, making a person's condition more susceptible to various diseases (UNAIDS, 2018).

There are four ways of transmitting HIV, including unsafe sexual intercourse, eg. intercourse without a condom, either heterosexual or homosexual, body fluids such as blood or semen, sharing needles, and vertical transmission from an HIV-infected mother to child (ACOG, 2017). Antiretroviral (ARV) treatment is required by people with HIV to reduce the virus development, so the infection does not develop into the AIDS stage. If the patient has confirmed AIDS, then Co-trimoxazole (1x960 mg) is given within two weeks before ARV therapy to prevent the occurrence of Opportunistic Infections (OI) (Kemenkes RI, 2020).

According to data from UNAIDS 2019, the largest population in the world infected with HIV is on the African continent has reached 25.7 million people, Southeast Asia at 3.8 million, and America at around 3.5 million. Due to the high number of populations in Southeast Asia infected with HIV, it provides a great warning to Indonesian citizens to be more aware of the pattern of spread and transmission of this virus (UNAIDS, 2019). In 2020, there were 1.5 million new cases of HIV infection and 680,000 deaths from AIDS. Only 32.2 million (84%) of the 37.7 million people who have HIV know their condition. People with HIV who will receive antiretroviral (ARV) therapy are 32.7 million (87%), HIV people who are currently on treatment with ARV 33.9 million (90%), and people with HIV without treatment 10.2

million (27%). Most of them are adults estimated at around 36 million (90%), women aged >15 years 19.3 million (51%), and children aged 0-14 years 1.7 million (4%) (UNAIDS, 2021).

Based on data from the Indonesian Directorate General of Disease Prevention and Control, the number of HIV cases in Indonesia from year to year tends to increase. In 2018, 46,659 cases, and in 2019, the peak of HIV cases was 50,282 cases. AIDS cases in Indonesia in 2019 decreased from 10,190 to 7,036 cases. The highest incidence of new HIV cases was in the productive age group, namely the age of 25-49 years (70.4%), age 20-24 years (15.3%), and age > 50 years (8.7%). In Indonesia, there are five provinces with the highest number of cases of people infected with HIV, namely East Java, DKI Jakarta, West Java, Central Java, and Papua. In addition, the highest AIDS cases were in Central Java, Papua, East Java, DKI Jakarta, and the Riau Islands (Kemenkes RI, 2020).

Women of childbearing age are one of the risk factors for being exposed to HIV if they have unsafe sex with men who have previously tested positive for HIV. Data from the development of HIV AIDS and Sexually Transmitted Diseases in Central Java in the first quarter of 2021 from January to March recorded 1125 people with HIV and 786 of them had received ARVs, and most of them were in the productive age group (25-49 years) (Filippidis et al., 2021).

Kendal is one of the districts in Central Java that occupies the fourth position with the highest HIV and continues to experience an increase in AIDS cases, especially in the Kaliwungu District (Dinkes Kabupaten Kendal, 2018). Kaliwungu is one of 20 sub-districts in the Kendal Regency. It is located in the north Java Sea, in the south by South Kaliwungu, in the west by Brangsong sub-district, and in the east by Semarang City [12]. In Kaliwungu Subdistrict in 2019, there were 59 HIV-positive people, 60 people with AIDS cases, and 44 people declared dead because of HIV-AIDS at the Case Fertility Rate (CFR) was (27%). The highest proportion of patients was of the reproductive age (25-49 years) in 94 cases (83.1%), followed by pregnant women in 18 cases (15.9%) and children <4 years old in 1 case (1%) (Dinkes Kabupaten Kendal, 2019).

The incidence of HIV-AIDS in women in the reproductive age group (25-49 years) continues to increase. This group is very vulnerable to HIV-AIDS infection because they are still sexually active. This age is critical to be the main target in the HIV-AIDS Prevention program in Indonesia and provide a clear picture that WUS requires proper health education to avoid the incidence of HIV-AIDS. Based on research by Yunior and Wardani, (2018), those aged <40 years have a 7,252 times greater risk of being infected with HIV/AIDS compared to 40 years old.

One form of education that can be implemented for the childbearing-age woman is health education programs.

Health education is a form of business carried out by providing information about health as a support to improve, produce changes and increase knowledge and insight in a relatively short time that requires more understanding by implementing behavioral changes and educational processes (Maulana, 2009). The concept often used in providing health education is making the learning process for individuals/groups/communities, and the public society makes the health values understandable and implemented in real life (Notoatmodjo, 2007).

Audio-Visual is a form of educative presentation of information. It combines image and sound that serve as educational materials for the public, especially childbearing-age women. Audio Visual Media provides a clear understanding, easy to accept, and implement messages, for example in educational videos, films, and television shows. Demonstrations are a medium for delivering information to show the process of occurrence of an event/disease so that it is easier to understand. It provides a real visualization so that the message conveyed will be easier to understand and be able to give a better attitude (Aeni & Yuhandini, 2018).

Based on the background of the problem, the researcher is interested in conducting a study entitled The Effectiveness of Health Education Through Audio-Visual Demonstration Media (AVISDEM) HIV-AIDS Against Knowledge and Attitudes of Women Childbearing Age In The Kaliwungu Health Center Work Area.

## METHODS

### Research Design

The type of research used is Quasy Experimental research with research design used is One Group Pre-Test and Post-Test Design. The researchers in this study give the treatment to respondents, namely health education through Audio-Visual Demonstration (AVISDEM) media about HIV-AIDS and further observations of the effects or changes that occurred on childbearing age women knowledge and attitudes.

### Sampling procedures

The sampling technique used in this study is Non-Probability Sampling and the sampling method used is Purposive Sampling. The number of sample distributions in 5 villages in the Kaliwungu Health Center working area include: Kutoharjo Village (19 people), Krajangkulon Village (18 people), Nolakerto Village (14 people), Mororejo Village (12 people), and Sumberejo Village (10 people). This research was conducted in Kaliwungu Health Center Work Area in April-May 2022.

### Sample

The population in this study were women of childbearing age in the Kaliwungu Health Center working area, amounting to 310 people. The sample is part or representative of the population to be studied, namely women of childbearing age who are in the Kaliwungu Health Center Work Area, totaling 73 people.

### Measures and covariates

The collecting data using a instrument of a questionnaire that was given to respondents, women of childbearing age

before and after the intervention or given AVISDEM health education about HIV-AIDS. The research questionnaire consisted of 2 types, namely the knowledge and attitude questionnaire. The result of the validity of the questionnaire with One Sample Kolmogorov-Smirnov Test is 0,415 which means that the values are normally distributed. The validity test result show that the knowledge and attitude questionnaire is valid and reliable, with a cronbach alpha value is 0,857 and 0,864.

### Data analysis

The data analysis techniques used is univariate analysis and bivariate analysis. Univariate analysis was used to describe about knowledge and attitude Childbearing Age Women before and after being given an intervention. Meanwhile, bivariate analysis was used to determine the effect of the intervention on the knowledge and attitudes of of Women Childbearing Age about HIV-AIDS. The test used is the Mc Nemar Test with the result significant 0,05.

## RESULTS AND DISCUSSION

**Table 1**  
*Frequency Distribution of Respondent's Characteristic (n=73)*

Characteristics	Frequency (F)	Percentage (%)
Age		
20	9	12,3
21	11	15,1
22	10	13,7
23	5	6,8
24	3	4,1
25	6	8,2
26	6	8,2
27	2	2,7
28	2	2,7
29	4	5,5
30	4	5,5
31	3	4,1
32	2	2,7
33	1	1,4
34	3	4,1
35	2	2,7
Level of Education		
Elementery	3	4,1
Junior High School	7	9,6
Senior High School	55	75,3
Associate's Degree	3	4,1
College	5	6,8
Master	0	0,0
Ph. D	0	0,0
Employment status		
Labor	11	15,1
No Labor	62	84,9

Source: Primary Data

Based on Table 1, the majority of respondents are in the average age of the highest respondent is 21 years old (15,1%). More than half of the respondents are senior high school educated (75,3%). Most respondents are not laborers or housewives (84,9%).

Reproductive age is a risk factor, especially for women contracting the Human Immunodeficiency Virus. In this

research, all respondents were aged between 20-35 years old. Most the respondents who answered the statement correctly were in the early adult category. The result of this research are in line with the research conducted by Lni, et.al. (2018), the majority of women of childbearing age who have the correct answer are 20-35 years old (70,8%). As a person ages, the proportion of information and knowledge he receives will be even greater, especially about HIV-AIDS. This is supported by Ankunda and Asimwe, (2017) that women of reproductive age (20-35 years) will easily receive and understand new information when compared to women in their teens (15-19 years).

Based on the education level of respondents, most of the respondents with a Senior High School education level of (75,3%). Research conducted by Yunias Dwi Ningrum, et.al. (2021), showed that most of the respondents were still educated at the final level of Senior High School (62.2%) total of respondents. Education is closely related to one's

knowledge in accepting and understanding a particular object, especially about HIV infection. So, if the level of education is higher, then the process of absorption and understanding of the information obtained will be much better than someone with low education.

Most of the respondents in this study were in Employment status is No Labor (84,9%). The results of this study were in line with research conducted by Tuty & Indah (2019), The number of respondents whose status is not working is more (than 73%) of the total. Employment status is one of the determinants of WUS in obtaining information. Work not only provides financial or material benefits but also provides an opportunity to upgrade yourself and open up work relationships as widely as possible by exchanging ideas or interacting with colleagues so that you will be more exposed to new information, accurate sources of information, and better access to easy and fast information.

**Table 2**  
**Frequency Distribution of Childbearing of Women Knowledge Before and After Health Education (Video) about HIV-AIDS**

Knowledge Category	Health Education			
	Pretest		Posttest	
	f	%	f	%
Well	24	32,9	44	60,3
Enough	36	49,3	23	31,5
Not enough	13	17,8	6	8,2

Source: Primary Data

Based on Table 2, it can be seen that the knowledge of respondents before being given HIV-AIDS health education through video media mostly had sufficient knowledge as many as 36 respondents (49.3%), both as many as 24 respondents (32.9%), and less as many as 13 respondents (17.8%). After being given HIV-AIDS health education through videos, the majority of respondents have shown good knowledge of 44 respondents (60.3%).

his result is in line with the research conducted by Fitto, et.al. (2021), the most of respondents' knowledge levels were initially sufficient, but after counseling the level of knowledge became good because there was an increase from 8 people (16%) to 21 people (42%). The increase in respondents' knowledge cannot separate from the support of Notoatmodjo (2010), statement, which suggests that knowledge is a result of knowing when someone has sensed a certain subject or object. Sensing occurs through the five senses (sight, hearing, smell, touch, and taste) (Notoatmodjo, 2010).

Knowledge is often considered the most urgent domain in shaping the personality and overt behavior of a person (Daryanto, 2010). When meeting with other people it becomes one way to gain new knowledge, for example, by seeing, observing, hearing, and paying attention directly to the actions or words they convey Rizqy Amelia et.al. (2016), In addition, electronic media also plays a role in providing opportunities for someone to explore extensive knowledge through radio, television, laptops, cellphones, or print media, for example, newspapers, magazines, books, posters, pamphlets, leaflets, and banners (Aprianingsih & Sianturi, 2021).

Women of childbearing age are usually more likely to obtain information through mass media because it is easier, faster, efficient, and flexible (Tuty & Indah, 2019). From all the information obtained through the mass media, it is not necessarily well received by childbearing of age women, and sometimes it is often found that WUS immediately trusts the

information without finding out the truth first (Mouinga-ondémé et al., 2021). Unlike the case with non-media (direct), incoming information will be easier to accept and understand because this method brings together directly between individuals and extension workers (midwives, doctors, nurses, cadres) in routine meetings such as integrated service posts, counseling, and others. If there is something you don't understand, you can directly ask (Rahmi & Rahma, 2018).

In this study, it found that the information obtained by the respondents really needed the work of the two human senses, namely sight, and hearing which had been arranged in an animated video form by combining sound (audio) and animated images (visual) which aimed to increase the attractiveness of the audience, and raises a higher curiosity for respondents to watch the video until it's finished (Rizky Amelia et al., 2021).

The existence of high curiosity in a person will able to change the level of knowledge in a relatively short period of time because it affects women of childbearing age to can information about HIV-AIDS so that they hope to know and prevent the early occurrence of sexually transmitted diseases such as HIV-AIDS. AIDS. There are two important aspects contained in one self-knowledge of an object, namely positive aspects and negative aspects. This aspect will later determine a person's attitude. The greater the positive aspects that a person knows, the more positive values will be given to certain objects (Notoatmodjo, 2012).

From the results of the above discussion, it can be concluded that obtaining information about HIV-AIDS and carrying out preventive activities against these infectious diseases is the responsibility of each individual. Therefore, having good knowledge by multiplying information is very important because high knowledge will determine how a person behaves and behaves to determine a decision to be more alert to various types of diseases, especially HIV-AIDS.

**Table 3**  
**Frequency Distribution of Childbearing of Women Attitudes Before and After Health Education (Video) about HIV-AIDS**

Attitude Category	Health Education			
	Pretest		Posttest	
	f	%	f	%
Positive	62	84,9	70	95,9
Negative	11	15,1	3	4,1

Source: Primary Data

Based on Table 3, the results obtained show that the attitude of respondents before being given HIV-AIDS health education mostly had a positive attitude are 62 respondents (84.9%) and a negative attitude are 11 respondents (15.1%), while the attitude of respondents after being given Health education has increased in the category of positive attitudes to 70 respondents (95.9%) and negative attitudes decreased to 3 respondents (4.1%).

This research is in line with what has been found by Desilianty (2016), that respondents who have a positive attitude have a greater value (86.7%) than those with a negative attitude (13.3%) because most of the respondents' knowledge levels are in a good category so that it also affects their attitudes. Another research that strengthens is regarding the relationship between knowledge and attitudes about HIV on the contrary if the respondent's attitude is more dominant in the negative category, it is possible because his readiness has not fully formed and there is no desire to take action, so this proves that the attitude based on good knowledge, then its nature will be more lasting and more positive (Fauziah, 2017).

According to the theory of Notoatmodjo (2010), "Attitude" is a closed response from a person to a particular stimulus or object that involves various factors of opinion and emotion concerned, for example, good-not good, happy-not happy, and agree-disagree. Attitudes have three main components, namely cognitive components, affective components, and conative components. In this study, the attitudes owned by women of childbearing age are included in the affective or emotional component. Of course, this shows that emotions are closely related to attitudes when

dealing directly with an object that is seen and encountered, the example feeling things that they think are interesting and pleasant will show a positive attitude, and if things are unpleasant then they will show a negative attitude (Azwar, 2000).

Another theory from Chave, Bogardus, LaPierre, Mead, and Gordon Allport states that an attitude is a form of one's readiness to react to an object in a certain way when the individual is faced with an existing stimulus and requires a response (Azwar, 2013). The factors that influence a person's attitude such as physiological factors (age and health condition), personal experience, influence from other people who are considered important, culture, mass media, educational institutions, emotions, and behavior. One of the other predisposing factors of attitude is knowledge. The more knowledge gained, will tend to form a more positive attitude toward an object (Riyanto, 2013).

According to Notoatmodjo (2014), a person has four levels of attitude: accepting, responding, appreciating, and being responsible. In this study, 73 women of childbearing age on ordinary had a good attitude to respond and appreciated providing answers to questions from the research questionnaire provided by the researcher, through the discussion, the session was able to provide feedback and positive responses related to HIV-AIDS.

Therefore, the conclusion that can be drawn regarding attitudes is that the formation of a positive attitude in a person needs to be created from an early age so that they are able to grow the ability to think more rationally and thoroughly in dealing with all kinds of infectious diseases such as HIV-AIDS.

**Table 4**  
**Effect of Health Education through Audio-Visual Demonstration Media on HIV-AIDS on Knowledge and Attitudes of Women of Childbearing Age Before and After Treatment in the Work Area of Kaliwungu Health Center**

Variabel	Knowledge (After Health Education)				Total		p-Value
	Well		Not Enough		N	%	
	N	%	N	%			
<b>Knowledge Category</b>							
Well	23	95,8	1	4,2	24	100	0.000
Not enough	21	42,9	28	57,1	49	100	
Total	44	60,3	29	39,7	73	100	

  

Variabel	Health Education				Total		p-Value
	Positive		Negative		N	%	
	N	%	N	%			
<b>Attitudes Category</b>							
Positive	62	100	0	0	62	100	0.000
Negative	8	72,7	3	27,3	11	100	
Total	70	95,9	3	4,1	73	100	

Source: Primary Data

Based on Table 4, shows that the analysis of knowledge results using the Mc Nemar Test with a simplification process of the contingency table to 2x2 so that the knowledge categories that were originally three (Good, Enough, and Less) changed to 2 categories, namely Good and Poor. The "Enough" category is included in the less category because the average of respondents who have sufficient knowledge is still classified as lacking. In this case, the process carried out is by transforming the data through (*Transform* → *Record Into Different Variables* → *Old and New Values* → *Continue* → OK). Before the test is carried out, ensure that the data has a value of the normal distribution.

On the results of the Mc Nemar test, the knowledge of respondents obtained  $p\text{-value} = 0.000$  so that the value ( $p\text{-value} < 0.05$ ). Meanwhile, the attitude of the respondents, using the Mc Nemar test which uses a 2x2 contingency table, is "Positive and Negative". At the time before the analysis of the test, it can be ascertained that the distribution of data is normal. The results of the attitude research show that after using the Mc Nemar test, a  $p\text{-value}$  of 0.008 was obtained so that the value ( $p\text{-value} < 0.05$ ). From these results, it can be seen that there is a significant influence between knowledge and attitudes before and after being given health education through the Audio-Visual Demonstration (AVISDEM) media about HIV-AIDS in women of childbearing age in the Kaliwungu Health Center Work Area.

These results are following research from Nurak, et.al. (2021), who stated that there was an increase in the average score of knowledge before (pretest) and after (posttest) given health education through video media, namely 12.76 to 14.00 with a value of ( $p\text{-value} = 0.000 < 0.05$ ) so it can be concluded there is a difference in knowledge scores before being given health education and after being given health education.

Other supporting research is from Fitto, et.al. (2021), that the mean knowledge of WUS experienced a significant increase after health counseling through video media with an average score before intervention (pretest) 60.58 to 71.68 during posttest with statistical test results of 0.000, meaning that the value ( $p < 0.05$ ), thus indicating significantly the effectiveness of audio-visual media when counseling knowledge.

According to Notoadmojo (2007), One's knowledge is obtained not only from educational institutions, be it formal, non-formal, or informal, but knowledge can be obtained, one of which is through information media in the form of animated videos that integrate the performance of the five human senses (the sense of sight and the sense of hearing). Health information organized in video counseling events will involve various activities such as watching, listening and understanding carefully so that this method is effective to implement. It is because informative counseling plays an important role in supporting changes in one's knowledge (Ramadania et al., 2021).

Health education is a planned and directed effort to change the behavior of individuals, groups, and communities (Maulana, 2009). Health education is a necessary part of health promotion. This is because health promotion has a concept for combine several combinations of education, organization, policy, and legislation aimed at changing an environmental condition and a person's behavior about health for the better and more profitable (Sovia et al., 2019).

Video-based health education is an alternative means to convey all information and message content to the audience, especially about health with a design in the form of an informative animated video to provide an overview of good

attitudes (Ifroh & Ayubi, 2018). It is supported by Edgar's theory that the use of video media occupies the fourth position on Edgar Dale's cone which describes the intensity of each teaching aid used. This media is often considered more effective when compared to methods whose delivery is through speech in the form of words or writing. A person has a 30% capacity to remember information and experiences that have previously been done by watching a video (Azhar, 2006).

In addition, the advantages of animated video-based in health education are as a form of communication composed of several collections of images or objects that have been processed to provide results in the form of varied movements with various types of effects and filters, transition movements, and sounds that match the object's movements. The goal is to describe something complicated, complex, or difficult to explain through words or pictures alone, but with animated videos, it is very helpful to reduce difficulties in explaining abstract material by making visualizations through animated cartoon images that move and sound (animation cartoon) (Sovia et al., 2019).

Based on the discussion above, it can be concluded that health education provided through audio-visual demonstrations in the form of animated videos includes the selection of media as the right teaching aids because it is more varied, interesting, and fun so that its value is superior in stimulating audience focus and will ultimately increase knowledge and attitudes. WUS on HIV-AIDS. On the other hand, when the process of delivering information will look clearer, concise, and easy to understand so as to stimulate the brain's work faster in improving better understanding so that it will be faster to capture all the contents of the message conveyed and be able to change individual perceptions leading to more things positive (Nadeak et al., 2019)(Nurak et al., 2021).

## LIMITATION OF THE STUDY

This study has limitations in that the number of samples was small ( $n=73$ ). This research was not also a control group.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the study, it can be concluded that there is a significant influence on the knowledge and attitudes of women of childbearing age before and after being given health education through Audio-Visual Demonstration (AVISDEM) media about HIV-AIDS in the Kaliwungu Health Center Work Area with ( $p\text{-value} < 0.05$ ). It is hoped that the UPTD of the Kaliwungu Public Health Center, especially the Community Health Efforts (UKM) section, is willing to provide promotions through more vigorous health education for women of childbearing age by showing an animated video show about HIV-AIDS during integrated service post and KIA activities which are held once a month. In all villages within the Kaliwungu Health Center Working Area.

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## Conflict of Interest Statement

The author declares that there is no potential conflict of interest.

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