# EFFECTIVENESS OF AUDIO-VISUAL MEDIA TOWARDS ATTITUDES OF WOMEN SEX WORKER IN THE VISUAL ACETIC ACID INSPECTION (IVA) EXAMINATION

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## ABSTRACT

**Background**: Cervical cancer is a health problem for women throughout the world. It is transmitted through sexual contact; 75 percent of infections occur in women who have had sex. One group of women of childbearing age who have a high risk include women who frequently change partners in sexual intercourse. One alternative method of screening for cervical cancer is visual inspection with acetic acid outfits (IVA). Efforts to influence attitudes towards IVA tests are conducting health education with audio-visual media (video). **Objective:** to determine the effectiveness of audio-visual media on the attitude of women sex worker in an IVA examination. **Method**: the study used a Quasi-Experiment design with a Pretest-Posttest one Group Design. The population in this study was Female Sex Worker in Karawang with a total sample of 47 respondents who were chosen by simple random sampling. Analysis with independent t-test. **Result**: there is a significant difference in attitude between before and after treatment with audio-visual media (video) with p-value is 0.001. The mean attitude difference between the pre-test and post-test is 13.32. **Conclusion**: Health education with audio-visual (video) media is effective on the attitude of women sex worker in an IVA examination.

Key words: audio-visual media, attitude, IVA

# I. INTRODUCTION

Cervical cancer is a malignancy caused by uncontrolled growth of cervical epithelial cells. Based on data from the *World Health Organization* (WHO), cervical cancer is the fourth most common type of cancer found in women. There are 528,000 new cases, and 266,000 deaths caused by cervical cancer found worldwide, and more than 85 percent come from developing countries, including Indonesia.<sup>(1)</sup>

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Cervical cancer is ranked second as the most common cancer suffered by Indonesian women after breast cancer. There were 20,928 new cases, and 9,928 deaths were found in Indonesia in 2012. <sup>(2)</sup> Several hospitals in Indonesia reported that the percentage of cervical cancer rose to 28 percent among all female cancer cases, representing 75 percent of all gynecological cancers diagnosed at an advanced stage. <sup>(3)</sup> The incidence of cervical cancer in women under 25 years, the rate will increase at the age of 35 years and above and decrease at the age of menopause. Thus, screening programs in Indonesia are focused on women aged 30-50 years, while those over age 50, although relatively few, should be screened at least once<sup>(4).</sup>

The high mortality rate due to cervical cancer in Indonesia is caused by 95 percent of women who have never undergone an initial examination, which causes delays in diagnosis of cervical cancer and decreases women's life expectancy. Based on the results of a 5-year survival probability in cervical cancer patients, stage I is 70 percent, stage II is 37.4 percent, stage III is 12.4 percent and stage IV in the second year has become 0 percent. <sup>(5)</sup> Female Sex Worker (FSW) are a group of women who have a high risk of cervical cancer. The risk will increase in women who have sexual intercourse at the age of fewer than 16 years, a history of childbirth that is more than four times, having more than six sexual partners increases the risk 10-fold, active smokers increase the risk by two and a half times greater, and passive smokers increase one point four. <sup>(6)</sup>

Women who do early detection of cervical cancer will reduce the risk of cervical cancer because early detection is aimed at finding pre-cancerous lesions as early as possible; thus treatment can be given immediately if the lesions are found. One alternative method of screening for cervical cancer that can answer these requirements is a visual inspection with acetic acid (VIA). *This examination* has been proven to be an alternative method besides Pap smear for early detection of cervical cancer. The IVA method is very appropriate to be carried out in developing countries because this examination does not require high costs; it can be done in primary services. <sup>(7)</sup>

The Indonesian government targets that at least 80 percent of women aged 30-50 years do early detection every five years. The number of Indonesian women who have made early detection of 575,503 people with positive IVA results up to 2012 was 25,805 women and 666 women suspected of cervical cancer. <sup>(4)</sup>

The early detection of cervical cancer by IVA examination in Karawang Regency began in 2007. The target coverage of the IVA test program in Karawang Regency was 80 percent of the target. However, the 5-year target from 2007 to 2012 only reached 40 percent. In 2015, IVA test coverage reached 65 percent, while in the Karawang Community Health Center was 56 percent. However, the figures cannot be specified, how many housewives and female sex worker are. <sup>(8)</sup>

In the preliminary survey, it was found that the Community Health Center had never specifically conducted an IVA examination to the FSW in their environment. During this time, IVA examination activities have only been carried out in the Community Health Center and Integrated Healthcare Centre buildings by waiting for the citizen or women of childbearing age (WCA). Therefore, FSW has not explicitly been touched on the implementation of IVA examinations, except on their awareness to conduct IVA examinations. According to the description of the health promotion section, all this time the counseling activities on IVA have only been carried out to WCA using flipchart media and powerpoint slides while the FSW group has never been counseled. Many factors cause women do not do early detection of cervical cancer, including fear. Being afraid of the results state that they have cancer. Thus they prefer to avoid it. Also, feelings of shame, worry, or anxiety to undergo early detection affect women; consequently, they do not do early detection with a

Pap smear or IVA. This condition is due to a lack of knowledge about the dangers of cancer, lack of education, or lack of information about cancer, especially the efforts to detect cervical cancer early. One method for disseminating information about cervical cancer and early detection is health education. Health education with audio-visual media and interactive discussion methods is an effort to increase knowledge, attitudes, and behavior change. Audio-visual contributes significantly to change people's behavior. It has two elements; each of them has the power to synergize into high power. This media provides stimulus to hearing and vision, so the results obtained are more optimal. These results can be achieved because the five senses that transmit knowledge to the brain are mostly the eyes (approximately 75 percent to 87 percent). While 13 percent to 25 percent of knowledge is acquired or transmitted through other senses.<sup>(9)</sup>

Other research results are a strategy program with health promotion and health education, proven to be related to the level of attendance for cervical cancer screening. (<sup>11)</sup> Furthermore, behavior for early detection is influenced by knowledge and attitudes, health promotion efforts in the form of counseling using audio-visual media have proven to be effective in increasing knowledge and attitudes. <sup>(12)</sup> Considering the importance of IVA examination for early detection of cervical cancer, IVA examination is highly recommended and even absolutely must be done by WCA who have a high risk of cervical cancer. One of the high-risk groups of WCA included women who often changed partners in sexual intercourse, such as FSW in Karawang.

Health education is an effort that can be implemented to improve the knowledge, attitudes, and behavior of FSWs. It can be done using learning media in the form of video. It can encourage and increase motivation and instill attitudes and other affective aspects. One of the advantages of using video is Affective Learning. Because of its high potential for emotional impact, video can be useful in forming personal and social attitudes <sup>(13)</sup>. Many factors related to the participation of mothers to take the IVA test include behavioral factors that are influenced by intentions and attitudes. Based on the results of the study showed that women who behaved well had more significant potential to undergo IVA examination compared with women who behaved less well <sup>(13)</sup>. Researchers designed audio-visual media in the form of a video about cervical cancer and the importance of IV examination. It is hoped that the results of this study can be used as study material to conduct health promotion using video media which has an impact on growing a positive attitude of the WCA, especially FSW to conduct IVA examinations.

Based on the description above, this study determined the effectiveness of audio-visual media on the attitude of FSW in IVA examination in Karawang in 2017.

# II. METHOD

This research used the design of "pretest-posttest one group design," where the research is carried out twice, namely before the experiment (pretest) and after the experiment (posttest) with one group of subjects. "The steps are as follows:

The first stage is making audio-visual media (video) in collaboration with the Information and Technology (IT) team, which contains about cervical cancer and the importance of IVA tests. The steps for making audio-visual media (video) through three stages; firstly, the pre-production stage (story ideas/concepts, audio-visuals, scenario/script making, script breakdown, cost plans, schedules, production, material collection in the form of text, audio, video. Secondly, production (setting / capturing video, arranging voice/sound taking in the form of dubbing. Moreover, the last, post-production (editing process includes: scenario/script analysis, selection of shot/video used, compiling a list of images and sound effects, review of editing results, audio-visual presentation, and evaluation). The

video was done by consulting on the Health Promotion Section of the Karawang Health Office, then testing on ten respondents.

The second stage is that the researcher measures the attitude before the intervention (pre-test). Furthermore, the intervention was carried out by providing health education through audio-visual media (video) about cervical cancer and the importance of IVA examination for 45 minutes. It starts with a 5-minute orientation and program introduction phase, a 20-minute video playback, followed by a 15-minute interactive discussion and a 5-minute closing. Respondents were allowed to view the video replay at least three times by distributing DVDs. Then an observation was made whether the respondent replayed the video in collaboration with the WPS coordinator. The third stage is after viewing the video three times, measuring the attitude (post-test) is done.

The population in this study were all Female Sexual Worker (FSW) in Karawang. The total sample of 47 respondents selected through random sampling with inclusion criteria: Women of Childbearing Age (WCA), ages to 15 to 45 years, not menopausal women, (had never undergone a) who have never had a IVA test or Pap Smear Test, willing to be the subject of research, able to read and write. Exclusion criteria: A cervical lesion was identified because an early sign of cervical cancer was suspected. Data collection using questionnaires and videos. The video contains the experience of someone who has cervical cancer, as well as an animation about the early detection of cervical cancer by IVA examination. Measurements using a Likert scale consisting of strongly agree (5), agree (4), doubt (3), disagree (2), strongly disagree (1) for positive statements. Meanwhile, negative statements also consist of strongly agree (1), agree (2), doubt (3), disagree (4), strongly disagree (5). For the final assessment, all scores for each statement are added in percent. Marriage status variables are divided into three categories: 1. Unmarried, 2. Married, 3. Widow. The age variable is divided into two categories: 1. Teen (<20 years), 2. Adults ( $\geq$  20 years). Age variables are arranged based on the age recorded. The variable number of marriages arranged in accordance with those obtained. Educational variables are measured based on the level of formal education that has been taken and get a certificate: 1. Elementary School, 2. Middle School, 3. High School, 4. College. Job variables are divided into two categories: 1. Work, and 2. Jobless. Information variables are divided into two categories: 1. Getting information, and 2. Not getting information. Support variables are divided into two categories: 1. Yes (getting support for early detection of cervical cancer) and 2. No (not getting support for early detection of cervical cancer). Experience variable, based on unpleasant experiences experienced during genetic testing, it is divided into two categories: 1 Yes (have had an unpleasant experience of genetic testing) and 2. No (never experience). The bivariate analysis used in paired samples is independent t-test.

## **III. RESULTS AND DISCUSSION**

#### **Respondents Characteristics**

Table	I. Distribution	of Responder	nt Characteristics	

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Characteristics		
Age		
- Teen		
- Adult		
	2	
Marriage status		
- Unmarried		
- Married	9	
- Widow		
	1	

		4
Number of marriages		
x	9	(
-		
X	1	4
x		
- X		
Education		
- Elementary School		
- Middle School		
- High School	4	
- College	2	
	3	
Job		
- ork	7	
-		
obless		
Information		
<ul> <li>Getting information</li> <li>do not get information</li> </ul>		
- do not get information	5	
	5	
Support		
- Support		
-Do not support		
	5	
Experience		
- experienced - do not experience		
	2	
	2	

Table 1 shows that most respondents are adults (89.4 percent). Married status is widowed (44.7 percent). The highest number of marriages is once (44.7 percent). The highest education is high school (70.2 percent). 100 percent of respondents work. As many as 95.7 percents of respondents did not get information about cervical cancer and IVA examination. Respondents did not get support for IVA examination of 95.7 percent. Moreover, 89.4 percent of respondents did not experience any unpleasant experience during genetic testing.

Table 2.

The Average Distribution of WPS Attitude Value based on the first and second measurements

Variable	Mean	SD	SE	p- value
Attitude				
1 <sup>st</sup> Measurement	64,98	6.03	0,92	0,001
2 <sup>nd</sup> Measurement	78,30	5.50	0.72	

Table 2 The mean attitude on the first measurement is 64,98. In the second measurement, the mean attitude value is 78.30, with a standard deviation of 5.50. The mean difference between the first and second measurements is 13.32. The mean difference between the first and second measurements is 13.32. The mean difference between the first and second measurements is 13.32. The mean difference between the attitude before and after treatment is 13, 32. Statistical test results obtained a p-value of 0.001. It can be concluded that there is a significant difference between the attitude of the first and second measurement, before and after being given health promotion by audio-visual media (video).

#### The effect of audio-visual media (video) on the attitudes of FSWs

The results showed that there was an increase in the mean attitude after being given health education with audiovisual media (video) is 78.30 with a p-value = 0.001. Hence, it can be assumed that health education using audio-visual media (video) affected the attitudes of FSW in IVA examinations. Ambarwati stated that the video packaging element that displays a lot of pictures and colors could clarify information and facilitate one's understanding of the information. Therefore the clarity of information provided through video/film can improve the mother's attitude on IVA tests. <sup>(14)</sup> Handayani's research shows that there is a significant influence of health education through audio-visual media on changes in a person's attitude (p-value <0.05). In that study stated that audio-visual media is an effective media that can improve one's attitude. <sup>(15)</sup> In line with Ismawati's research that health promotion with audio-visual media and interactive discussion methods can increase knowledge about cervical cancer and a positive attitude towards early detection in recitation mothers. <sup>(16)</sup>

The process of delivering information about cervical cancer and the importance of IVA examination through this video increases knowledge which will influence one's attitude. A positive attitude causes women to behave according to the knowledge they have. <sup>(12)</sup> Audio-visual contributes significantly to changes in people's behavior, and it has two elements, both of which have the power to synergize into a great force. This media provides stimulus to hearing and vision; the results obtained are more leverage. These results can be achieved because the senses that convey the most knowledge to the brain are the eyes (approximately 75 to 87 percent), while 13 to 25 percent, knowledge is obtained or transmitted through other senses<sup>(9)</sup>. With the animation, cervical cancer that is still abstract can become more real. When the video plays, the respondent is interested and watches it to the end. During an interactive discussion after the video screening, many questions were asked about cervical cancer and IVA examination. These efforts are in accordance with the theory that one of the efforts that can be made to influence maternal attitudes on health behavior is health education. <sup>(17)</sup> The results of the study showed that most respondents were adults as much as 89.4%. The more mature the level of maturity and strength of a person will be more thoughtful in thinking and acting. <sup>(18)</sup>

The highest education is high school as much as 70.2 percent. A high level of education will influence responses originating from outside. Education is needed to provide information, for example, things that support health so that it can improve the quality of life. <sup>(17)</sup>. Someone with a high level of education tends to have a more developed and more logical mindset. Education also has a positive effect on health awareness and directly impacts on health behavior. Conversely, a lack of knowledge will hamper the development of one's attitude towards newly introduced values.

It is in accordance with Notoatmojo's theory that health education or health counseling is an effort or activity aimed at making people aware of how to care for their health, how to avoid and prevent things that are detrimental to their health and others. Even health education can change health behavior because health is not only known, realized, or addressed but also must be done or carried out in daily life. <sup>(17)</sup>

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A total of 70.2 percent and 100 percent. Respondents who work affect their attitude. This is made possible by the time factor because time is more widely used for work compared to other things, especially IVA examination. Efforts to implement early detection of cervical cancer by free IVA examination, especially in women with low socioeconomic status will increase positive attitudes and behaviors to conduct IVA examination. Respondents who did not get support is 95.7 percent. FSW who do not get social support, allows factors that hinder decision making, especially in determining attitudes, in the health sector. It raises suspicion, insensitivity, and lack of reciprocity between health workers and FSW. Besides, the role and support of health workers are related to the low number of FSW visits for IVA examinations. IT is because health workers do not provide health promotion about cervical cancer and the importance of IVA examination. The role and support of good health workers will also affect a person or community. Counseling and adequate information from health workers will have a positive impact on health changes in the community, especially FSW who have a high risk of cervical cancer exposure. Attitude is an essential factor in a person's behavior; the attitude that exists in a person will give an overview of the behavior of that person. By knowing someone's attitude, one can guess how someone's response will be taken to the problem or situation at hand. After someone knows the stimulus or object, the next process will assess and behave towards the stimulus or health object; it is in accordance with Laurence Grenn's theory in behavior that one's health is influenced by three factors, one of them is the attitude. A positive attitude will lead to better FSW behavior that encourages changes in the FSW behavior to conduct IVA examination. It can be seen that, after a video screening of cervical cancer and the importance of IVA examination, FSW wants to do an IVA examination.

The Use of counseling tools can facilitate the understanding of the information conveyed by using video. It fulfills the expected results, a positive attitude towards a particular object, in this case about cervical cancer and how to do early detection by IVA examination.

## **IV. CONCLUSION**

Audio-visual (video) media is effective on the attitudes of FSW in IVA examinations

#### **Competing Interest**

The authors of this paper have no competing interest to report.

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