

# Effectiveness of Health Promotion Through Video Media and Leaflets About Early Detection of Cervical Cancer Using the Visual Inspection Method of *Acetic Acid* (IVA) at Talang Banjar Community Health Center Jambi City 2020

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## ABSTRACT

Data from the Sub-Directorate for Cancer of the PTM Directorate, Indonesian Ministry of Health 2019, the cervical cancer early detection program using Acetic Acid (IVA) was held in 5,000. Jambi Province ranks 21 with a total early detection coverage of 8.42%. IVA test has a sensitivity of 65% -96% and a specificity of 54% -98% with results that can be known directly. Thus it can be said that the IVA test using acetic acid is simpler and cheaper to use as an early detection tool for cervical cancer. The effectiveness of health promotion through video media and leaflets on the knowledge and attitudes of female prostitutes in early detection of cervical cancer using the visual inspection method for IVA, at Talang Banjar Jambi City, 2020. Quasi experimental pretest-two group posttest randomize design. The population of mothers aged 30-50 years, 2,659 people, simple random sampling, 94 people. Analysis with the Wilcoxon different test for knowledge and T test for respondent attitudes. There was a difference in knowledge before and after intervention in the leaflet group ( $p = 0.000$ ), there was no difference in attitude before and after the intervention in the leaflet group ( $p = 0.354$ ). There were differences in knowledge before and after the intervention in the video group ( $p = 0.000$ ), there were differences in attitudes before and after the intervention in the video group ( $p = 0.004$ ). Providing health promotion with video media is better at increasing knowledge with a value of  $p = 0.011$ , and health promotion using video media is also better at increasing attitudes with a value of  $p = 0.000$ . Video media is more effective in increasing the knowledge and attitudes of women in efforts to prevent cervical cancer by using the IVA test

**Keywords:** *video media, leaflet, IVA test, health promotion.*

## 1. INTRODUCTION

Cervical cancer is a malignancy originating from the cervix. The cervix is the lower third of the uterus, is cylindrical in shape, protrudes and connects to the vagina via the external uterine ostium. This type of cancer is triggered by the human papillomavirus (HPV) which enters the body due to unprotected sexual intercourse [1].

Data from the Jambi Provincial Health Office from January to October 2019 recorded 11,395 WUS or 30-50 year olds who were examined through early detection of IVA examination cancer in 206 health centers with the results of 196 cases (1.7%) of women who tested positive for cervical cancer after going through the examination Positive Visual Acid Invasion (IVA) in each district in Jambi Province [2]

Information on early detection of cervical cancer is needed by WUS to carry out early detection, in addition to conducting early detection requires awareness of women, this is reinforced by the results of research Lubis et al., which argue that knowledge and awareness of women related to cervical cancer is very important, especially in married women, because all women are at risk of cancer that attacks the main organs. Information can be obtained from various electronic media, printed media, counseling by health workers or non-formal workers [4]

Based on data from the Jambi City Health Office, 4 January - September 2019, the total number of women aged 30-50 years was 49,740 people [5]. And based on reports from 20 health centers to the Jambi City Health Office there were 2,501 people who carried out cervical examinations with IVA examinations with 7 people (0.27%) positive IVA. The Puskesmas with the lowest IVA coverage was Talang Banjar Puskesmas with 2,659 WUSs who carried out early detection only 30 people (1.1%) [6] The aim of this study was to find out the effectiveness of video media and leaflets on the knowledge and attitudes of women women in early detection. cervical cancer with the IVA method.

**2. METHOD**

This type of research is quasi experimental with a two-group interpretation-posttest randomized design. [7] Where the video media group of the laeflet group was chosen randomly. The experimental and control groups were subjected to a preliminary test. Both groups received different treatment, the population in this study were all mothers aged 30-50 years in the

work area of Talang Banjar Community Health Center, Jambi City, amounting to 2,659 people. The sample used simple random sampling technique, namely the sampling technique randomized [7]. as many as 94 people and divided into 2 groups, namely 1 group given health promotion using video media and 1 group with leaflets. The analysis used univariate to produce frequency distribution and percentage of each knowledge and attitude variable. Bivariate analysis was carried out using the Wilcoxon test and the T test because there were data that were normally distributed (knowledge) and there were also data that were not normally distributed (attitudes). [7]

**3. RESULTS**

Based on the results of the knowledge pretest scores that have been carried out for all respondents, it can be seen that the data is not homogeneous (there is a gap in the value of the knowledge results that is too different) between the interventions carried out using video media and leaflets. So because of this the researcher used an alternative to take the same range of values in the group using video media and the group using the leaflet. The range of the same values taken at this pretest value, starting from the value of 12 to 17, obtained 30 respondents from each group of video media and leaflets, so that the number of respondents in this study would decrease from 94 then to 60 respondents for whole. Univariate data before and after being given health promotion using leaflets and videos can be seen in table 1. Below

**Table 1** Distribution of respondents based on knowledge and attitudes of WUS before Health Promotion is given with Vidio Media and Leaflets

1	Knowledge before video	amount	percentase
	Not good	5	17
	Good	23	83
2	Knowledge after video	amount	percentase
	Not good	3	10
	Good	27	90
1	Knowledge before leafleat	amount	percentase
	Not good	9	30
	Good	21	70
2	Knowledge after leafleat	amount	percentase
	Not good	5	16
	Good	25	84
1	Attitude before the video		
	Negative	11	37
	Positive	19	63
2	posture video		
	Negative	9	30
	Positive	21	70
1	attitude before leafleat		
	Negative	15	50
	Positive	15	50
2	attitude after leafleat		
	negatif	8	27
	Positif	22	73

**Table 2** Distribution of Wilcoxon Test Results Before and After WUS Knowledge Health Promotion is given with Vidio Media and Leaflets n = 60

Knowledge vidio	n	Mean	Min	Max	p
<i>PretesVidio</i>	30	14,37	12	16	0,000
<i>PostesVidio</i>	30	15,27	12	17	
Knowledge	n	Mean	Min	Max	p
<i>PretesLeaflet</i>	30	13,97	12	16	0,004
<i>PostesLeaflet</i>	30	14,50	12	16	

The difference in knowledge results (pre-test) for the video media group resulted in a minimum knowledge score of 12 and a maximum knowledge score of 16, with a mean value (14.37). While the results of the Post-test knowledge score minimum knowledge 12 and maximum knowledge score 17, with a mean value (15.27). For the leaflet group, the pre-test knowledge results obtained a minimum score of 12 and a maximum knowledge score of 16, with a mean value (13.97). Whereas for the post-test knowledge result, the minimum knowledge score is 12 and the maximum knowledge score is 16, with a mean value (14.50). Based on the results of the pre-test and post-test for the video media group, it can be seen that the average knowledge before (14.37) rose to (15.27) after health promotion with Vidio media

was carried out. And the results of the prior knowledge data analysis and

After being given health health promotion using video media, it was obtained p value  $0.000 < \alpha (0.05)$ , indicating a significant difference in the knowledge of women of childbearing age before and after being given health promotion using video media. The difference in the pre-test and post-test results of knowledge for the leaflet group before (13.97) increased to (14.50) after health promotion with leaflets was carried out. And from the results of the data analysis of knowledge before and after being given health promotion using leaflets, it was found that p value was  $0.004 < \alpha (0.05)$ , indicating that there was a significant difference in the knowledge of women of childbearing age before and after being given health promotion by using leaflets.

**Table 3** Distribution of T test Results of the Attitude of WUS Before and After Awarded Health Promotion With Video Media and Leaflets

n=60

SikapVidio	n	Mean	Min	Max	p
<i>PretesVidio</i>	30	67,17	60	73	0,000
<i>PostesVidio</i>	30	76,50	71	80	
Sikap (Leaflet)	n	Mean	Min	Max	p
<i>Preteslaeflet</i>	30	68,57	65	75	0,354
<i>Posteslaeflet</i>	30	68,83	65	75	

The difference in attitude results (pre-test) for the video media group showed a minimum attitude score of 60 and a maximum attitude score score of 73, with a mean value (67.17). While the results of the Post-test attitude score minimum attitude score 71 and maximum attitude score 80, with a mean value (76.50). For the leaflet group, the pre-test attitude results obtained a minimum score of 65 and a maximum score of 75, with a mean value (68.57). As for the post-test attitude results, the minimum score is 65 and the maximum score is 75, with a mean value (68.83). Based on the results of the pre-test and post-test for the video media group, it can be seen that the average attitude before (67.17) rose to (76.50) after the health promotion was carried out using Vidio media. And the results of the analysis of attitude data

before and after being given health health promotion using video media were obtained value  $0.000 < \alpha (0.05)$  indicates a significant difference in attitudes of women of childbearing age before and after being given health promotion using video media. The difference in the results of the pre-test and post-test attitudes for the leaflet group before the intervention was 68.57, increased to 68.83 after health promotion using leaflets. From the results of the data analysis of attitudes before and after being given health promotion using leaflets, it was found that the p value was  $0.354 < \alpha (0.05)$ , indicating that there was no significant difference in the attitudes of women of childbearing age before and after being given health promotion using leaflets.

**Table 4.** The results of the Mann Whitney test differed in the results of WUS Knowledge Given Health Promotion with Video Media and Leaflet valu

Knowledge	Media	n	Mean rank	Sum of Rank	P
Pengetahuan	Video	30	36,00	1080,00	0.011
	Leaflet	30	25,00	750,00	

The results of statistical calculations using the Man Whitney U Test obtained p value of 0.011 <math>\alpha</math> (0.05), which indicates that there is a significant difference in the knowledge of women of reproductive age

Conducted an IVA examination between groups given health promotion using video media and groups given health promotion using leaflets with an average value of increase The results of statistical calculations

using the Man Whitney U Test obtained p value of 0.011 <math>\alpha</math> (0.05), which indicates that there is a significant difference in the knowledge of women of reproductive age The knowledge in the video media group was 0.90 while the leaflet group was 0.53, so it can be concluded that video media was more effective in increasing the knowledge of women of childbearing age in early detection of cervical cancer through IVA examination.

**Table 5.** The results of the Ttest test are the differences in the results of the attitudes of women who are given health promotion with video media and leaflets

	Media	n	Mean	Standar Deviation	P
Attitude	Video	30	76,5000	1,92533	0.000
	Leaflet	30	68,8333	2,43655	

For the attitude variable, the results of statistical calculations using the T test obtained a p value of 0.000 <math>\alpha</math> (0.05) which shows that there is a significant difference in the attitudes of women of childbearing age in conducting IVA examinations between groups using video media and groups using leaflets with an average value of increasing attitudes inthe video media group was 9.33, while the leaflet group was 0.26, so it can be concluded that video media is more effective in improving the attitudes of women of childbearing age in early detection of cervical cancer through IVA examination.

**4. DISCUSSION**

Based on the results of research on the knowledge of respondents before being given health promotion using video media and leaflets, in the video media group most of the respondents had good knowledge, and in the leaflet group most respondents also had good knowledge. The majority of respondents who had good knowledge of the video media group before being given health promotion (100%) knew that in carrying out IVA examinations there must be a light source to see the cervix. The majority of respondents who were well-informed in the leaflet group all (100%) knew the purpose of IVA for know the symptoms of early cervical abnormalities (cervix) early so that they can be treated immediately and know that in carrying out an IVA examination, there must be a light source to see the cervix. This research is also in accordance with that conducted by 6 in the midwifery scientific journal in 2017 concerning the comparison of the effectiveness of health promotion

with films and leaflets in Pontianak City <sup>8</sup>that before respondents received health promotion through film media, only part of the level of knowledge was good, and some of them had poor knowledge. Before respondents received health promotion through leaflets some respondents had good knowledge, and some had less knowledge.

This research is in line with research conducted by Mulyati *et al.*, [13] through health promotion with the media of films and leaflets there is an increase. The knowledge possessed by WUS in the work area of Puskesmas Pal III before being given health promotion was good. A person's knowledge can influence a person's attitude and behavior to detect cervical cancer early through the IVA method Health promotion by using leaflet media is also effective because it can be reread after the extension has ended. And giving leaflets can increasing knowledge and encouraging women's participation in participating in early detection of cervical cancer with IVA examinations. However, in this study more respondents were given video media which experienced increased knowledge. Respondents who had a positive attitude to the video media group before the health promotion stated that they strongly agreed that they were not calm if they had not done an IVA examination and strongly disagreed with the aspect of the explanation about IVA that would not improve myself to do an IVA examination. The respondent who had a positive attitude in the leaflet group stated that he strongly disagreed if I would refuse if a health worker offered to do an IVA even though it was free and was happy to meet a midwife to do an IVA examination. Respondents who had a negative attitude before being given health promotion used video media

and leaflets because most of them stated that they disagreed with the aspect of knowing about the IVA examination. These results prove that the attitude of respondents in the work area of Talang Banjar Public Health Center, Jambi City, about early detection of cervical cancer using the IVA test method before being given health promotion using video media and leaflets, some of them already have a positive attitude. The lack of attitude is due to the lack of information obtained about early detection of cervical cancer. This research is in line with research conducted by [7] who stated that there was an increase in respondent's good attitude after being given treatment with film media. Health promotion using film media has a positive influence on mothers' attitudes to detect cervical cancer early. The attitude of WUS before and after being given health promotion using film media. Based on the results of the study, it can also be seen that the difference in the posttest attitudes of the video media and leaflet groups, the video media have higher mean posttest scores than the leaflet group. Thus it can be said that video media is more effectively used to change attitudes from negative to positive in health promotion about early detection of cervical cancer.

Leaflets [9] forms of conveying health information or messages through folded sheets, containing in the form of sentences or pictures or a combination. Leaflets have the advantage of being able to provide detailed information, easy to make, reproduce and revise. The leaflet is one of the teaching aids that are structured on the principle that human knowledge is received or captured through the five senses. A good leaflet is to use simple language, easy to understand by the reader, the title used is attractive to read and combined with writing and pictures and the material is in accordance with the intended target. Leaflets can be widely distributed and are a useful way of conveying information to women and their families or supporting information they receive [10]. Leaflet media has several drawbacks when compared to video media, one of which is the leaflet media that only contains images while videos contain moving images. Video media is more flexible in providing an explanation of the concept of material because video usually directly depicts information through illustrations. In addition, video media can also present speakers who do understand certain materials and skills so that the explanation from the speakers can be immediately understood by the audience. The explanation that is presented in the video is more complete and complete than the leaflet considering that the leaflet has limited space and the number of pictures that make writing less. [10] There was no significant difference between attitudes (0.002) before and after being given health promotion with leaflets on attitudes (0.065) in IVA examinations. This insignificant difference was due to exposure to media or information sources, namely health promotion with leaflets that were less targeted, regarding early detection of cervical cancer and IVA

tests, thus making positive women's attitudes to negative in preventing cervical cancer. In this study, researchers used video media and leaflets as a medium for health education about cervical cancer and IVA examinations. [10] Leaflet media fulfills several factors that determine the effectiveness of visual print media. According to the Notoatmodjo [10] forms of leaflets made are the basic material for thick leaflet paper, the material is systematically arranged and the writing is well printed so that it is easy to read, the selection of contrasting but harmonious colors so as to attract attention, use good, clear and correct language and add illustrations or images become an advantage so that they provide an overview and support the reader's understanding as well as beautify the leaflet.

## 5. CONCLUSION

Most of them had poor knowledge before being given video media and leaflets. After the intervention, most of them had good knowledge. Most had a bad attitude before being given video media and leaflets. After the intervention, most of the respondents had a good attitude. Video media is more effective in increasing the knowledge and attitudes of women of childbearing age in early detection of cervical cancer through IVA examinations.

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