

Education Using Lecture and Leaflet on Knowledge and Attitude of Women on Visual Inspection of Acetic Acid

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ABSTRACT

Awareness of women in conducting Visual Inspection of Acetic Acid (VIA) as an early screening for cervical cancer is still quite low, therefore efforts are needed to increase it by education for women with lecture method or leaflet. The purpose of this paper is to determine the effect of providing health education with lecture and leaflet methods on knowledge and attitudes of women about VIA. There are 10 research articles related to knowledge and attitudes using the lecture method and leaflets about VIA obtained through Google Scholar, Garuda Portal, and Research Gate. Based on the results of research articles study, there was an effect of providing education with the lecture method on knowledge of 1.45; [95% CI: 0.240-2.670, Z=2.349, p=0.018834]; and there was an effect on attitude of 1.04; [95% CI: 0.170-1.920, Z=2.311, p=0.019775]. There was an effect of providing education with leaflets on knowledge of 1.71; [95% CI: 0.580-2.840, Z=2.957, p=0.003103]; and there was no effect on the attitude of 0.58; [95% CI: 0.580-2.840, Z=2.957, p=0.003103]. The conclusions are there is an effect of providing health education with the lecture method on knowledge and there is an effect of providing health education with the leaflet method on knowledge.

Keywords: Education, lectures, leaflets, visual inspection of acetic acid

INTRODUCTION

Visual Inspection with Acetic Acid is a method for early detection of pre-cancerous lesions by using a cotton swab that has been dipped in vinegar or acetic acid with a concentration of 3-5% which will later be smeared on the vagina, precisely in the portio area with a clockwise smearing technique.¹ The abnormal area will be discolored with a firm white border (aceto white epithelium), which indicates that the cervix may have a precancerous lesion. The IVA test procedure is painless. This test results in high accuracy, sensitivity and specificity at a very low cost. Besides being cheap, the IVA test is carried out en masse with quick results and educates the public. The IVA method is a more practical and inexpensive screening method.²

The target of the VIA examination is women aged 30-50 years, although women who are susceptible to pre-cancer are aged 20-30 years, but with age the incidence of pre-

cancerous wounds increases because of the risk of persistent and persistent infection.³ The VIA examination aims to find pre-cancerous cervical lesions before they become cancerous. The A method is easier, simpler and more effective. This method can be carried out at all levels of health care by trained health workers.⁴ In 2018 cervical cancer in the world ranked fourth after breast cancer, colon and liver cancer with a prevalence of 168,411 (54%) while in Indonesia it ranked second after breast cancer with a prevalence of 18.279 (10,12%) (WHO, 2018).⁵

Based on data from the GLOBOCAN International Agency for Research on Cancer (IARC), it is known that in 2018 there were 18,1 million new cases and 9,6 million deaths due to cancer worldwide. New cases of cancer in Indonesia reached 32.469 or 17,2% of women's cancers in Indonesia and the death rate from cervical cancer reached 18.279 per year, which means that 50 Indonesian women die every day

from cervical cancer. This is a drastic increase from the 2012 globocan data which states that there are 26 women in Indonesia who die every day from cervical cancer.⁶ The American Cancer Society's estimate for cervical cancer in the United States for 2018 is approximately 13,240 new cases of invasive cervical cancer. Around 4,170 women will die from cervical cancer.⁷ In 2018, an estimated 930 new cases of cervical cancer will be diagnosed in Australia (Australian Institute of Health and Welfare, Januari 2018). In Hong Kong, cervical cancer was the seventh most common cancer among women with 500 new cases in 2015, accounting for 3,3% of all new cancer cases in women. In Indonesia, the incidence of cancer ranks number 8 in Southeast Asia and number 23 in Asia. Cervical cancer ranks second after breast cancer which is most commonly encountered in Indonesian women. The incidence of cervical cancer is 23,4 per 100,000 population with an average death rate of 13,9 per 100,000 population, meaning that almost 50% of cervical cancer ends in death.⁸

The prevalence of cancer in Indonesia itself shows an increase from 1,4 per 100,000 population in 2013 to 1,79 per 100,000 population in 2018, the highest incidence is in women 2.9 per 100,000 population and 0.7 per 100,000 population in men. The highest prevalence is in the province of DI Yogyakarta 4,86 per 100,000 population, followed by the province of West Sumatra 2,47 per 100,000 population and the province of Gorontalo third at 2.44 per 100,000 population, for the province of South Kalimantan, which is ranked ninth.⁹

South Kalimantan Province in 2019 with a target number of was 30-50 years amounted to 120,369 people and 27,957 people who carried out IVA examinations with a percentage of 23,2% with the highest coverage in Tapin district 57,8% and the lowest coverage in Hulu Sungai Utara district 9,1%. In the working area of Banjarmasin City with a target number of 21,069 people and those who carry out IVA examinations are 3,423 people with a percentage of 16.2%.¹⁰

Awareness of Indonesian women in carrying out an IVA examination as an early screening for cervical cancer is still quite low where the screening coverage is only 11% with a Pap smear examination of about 7% and an IVA examination of about 4%. So many cases of cervical cancer are found that have entered an advanced stage. One of the causes of low screening is feeling lazy or reluctant to do routine screening.⁸

The low participation of women of childbearing age to do the IVA test is influenced by several factors, according to Lawrence

Green's theory (1980) predisposing factors that influence a person's behavior are knowledge, attitudes, beliefs, beliefs and others.¹¹ One's participation can be interpreted as involvement and in a certain activity either directly or indirectly influenced by good knowledge and attitudes so that involvement occurs starting from ideas, formulation, policy to program implementation.¹²

Knowledge is needed to provide accurate information, women who have sufficient knowledge can take appropriate actions to maintain and maintain their reproductive health.¹³ Knowledge can influence and encourage the attitude of women of childbearing age to do the IVA Test.¹⁴

Participation in the VIA examination is a form of behavior caused by various things, including predisposing factors (knowledge, attitudes, etc.), enabling and reinforcing.¹⁵ Knowledge is the result of human sensing, or the result of someone knowing about objects through the senses they have (eyes, nose, ears and so on). People who adopt actions in a person will occur an awareness process where the person realizes in the sense of knowing in advance about the object (stimulus), feeling interested (interest) in a particular stimulus or object.¹⁵ According to Snehendu B.Kar's theory, health behavior is not only determined by a person's intentions towards health objects, but also the existence of social support, health information, the freedom of an individual to make decisions and situations that allow a person to act.¹⁶ Providing information by means of lectures with the help of leaflets to the public about IVA starting from the understanding, benefits, and objectives of the VIA examination. Counseling by means of lectures and respondents were given leaflets making the material provided easier to understand.¹⁷

This is in accordance with Edgar Dale's cone theory which compiles the function of teaching aids based on the principle that knowledge in humans is received through the five senses and is influenced by the intensity of different teaching aids. The more the senses are used, the more and clearer the knowledge will be. Health education media is needed to foster interest in learning, help the target to understand better, remember well and help overcome language difficulties. The media used can support the provision of material delivered through lectures.

Providing information will increase public knowledge. Furthermore, knowledge will raise awareness and eventually will cause someone to behave in accordance with the knowledge he has.¹⁸ In line with the research of Nita & Novi Indrayani (2020) The results of this study show

that there is an effect of health education on increasing WUS knowledge and attitudes about cervical cancer prevention through VIA screening.¹⁹

Based on the results of Sepa's research²⁰ (2015), the results obtained before counseling interest in VIA examination were in the less category. Research results from Hesty, Rahmah and Nurfitriani²¹ (2019), there is an effect of health education on VIA on knowledge and attitudes at the Putri Ayu Health Center in Jambi City in 2018. In line with the research of Taqwin et al²² where there is an effect of counseling about VIA with the knowledge and attitudes of couples of childbearing age at the Birobuli Health Center. The results of the research by Fitri Ika Wulandari et al²³ (2018) where there is a positive effect of providing health education with the lecture method for early detection of VIA in WUS in Toriyo village. Research results of Nurhikmah et al¹² (2019) that leaflets have an effect on knowledge about VIA examinations at Batukara Health Center. Not in line with research by Sitti Khadijah²⁴ that the behavior of respondents in conducting the IVA test after being given counseling the majority of respondents did not do it and there was no difference in the level of knowledge of the respondents before and after being given counseling.

Many methods can be used to provide Health Education to WUS, for example through films, videos, lectures, leaflets and posters. According to Notoadmodjo¹⁵ (2012) The lecture method has advantages when compared to other methods, namely a simple method that is effective in delivering information to targets with high and low education and can be used in large groups. The advantage of counseling with the lecture method is that it is easy to use, can influence opinions and stimulate critical thinking. The effectiveness of using lectures can be increased by combining it with various health education media. In line with research from Sri Juwarni dan Masdewi Nasution²⁵ (2017) that the provision of health education in the form of counseling and leaflets has a very good influence on increasing respondents' knowledge about cervical cancer prevention through VIA examination. Based on the

description of the background above, with the results of a systematic review search and the effect of health education with lecture and leaflet methods on WUS knowledge and attitudes about VIA".

Urgency of this research was to explain which media that more effective to use to increase knowledge about IVA. Until now, researchers have found quite a lot of research results but there is no review that provides a complete picture, so it is necessary to do a systematic review on this topic.

METHOD

This study uses a meta-analysis study. This research protocol uses the concept of Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA). Data search refers to data base sources such as Wiley, Google Scholar, PubMed, Directory of Open Access Journals (DOAJ) which are adjusted to the research title. Quality or feasibility assessment is based on data (research articles) by meeting predetermined inclusion criteria, namely the type of study is quantitative, the study design is cross sectional, the type of journal used is original research article, the article to be analyzed consists of international journals and national journals, reputable international journals (indexed by Scopus and/or Web of Science), accredited national journals (indexed by Sinta 1 to Sinta 4), recent articles (5 - 10 years earlier), research articles with full text (full text) using software Meta-mar version 2.7.0 which was released in April 2020. Online web application <https://www.meta-mar.com/>, this software is used to calculate or convert effect sizes values in research using SMD data (Sample Size, Mean, Standard Deviation).

RESULT AND DISCUSSION

Providing health education with the lecture method on knowledge at WUS about VIA

The results of statistical tests using Meta-mar software version 2.7.0 on 5 articles that meet the inclusion criteria can be seen in table 1 below:

Table 1. Effect Size Combined Lecture Research with Knowledge

Model	Effect size and 95% CI				Significant Test	
	Number of studies	Combined Effect	Lower limit	Upper limit	Z	P
Random	5	1.45	2.670	0.240	2.349	0.018834

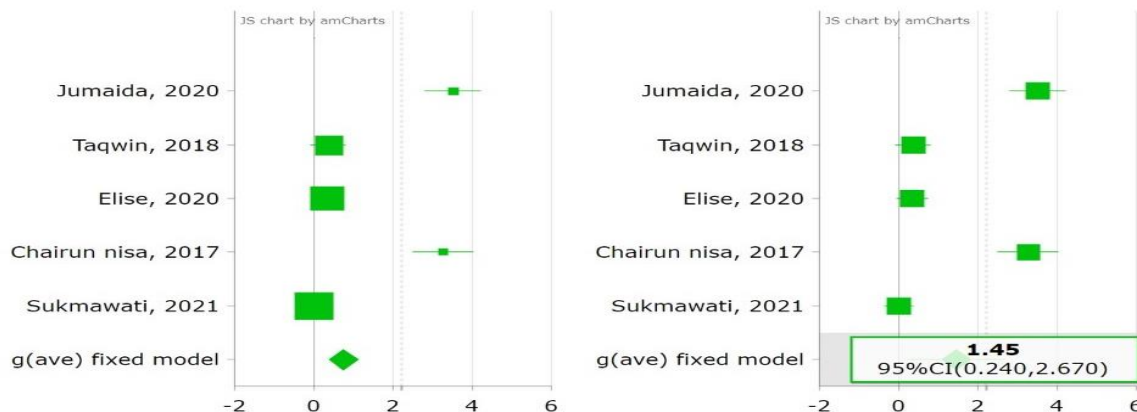


Figure 1. Forest plot graph

The results showed that the combined effect of these five studies was 1,45 with a confidence interval of 0,240-2,670. The combined effect also produces a Z value of 2,349 and a p value of 0.018834. Because the p value <0,05, it can be concluded that there is an effect of providing health counseling with the lecture method on knowledge of WUS about VIA with a tendency for WUS who are given counseling using the lecture method have 1,45

times better knowledge than WUS who are not given education with the lecture method.

Providing health education with the lecture method on attitudes to WUS about VIA

The results of statistical tests using Meta-mar software version 2.7.0 on 3 articles that meet the inclusion criteria can be seen in table 2 below:

Table 2. Effect Size of Combined Lecture Research with Attitude

Model	Effect size and 95% CI			Significant Test		
	Number of studies	Combined Effect	Lower limit	Upper limit	Z	P
Random	3	1.04	1.920	0.170	2.311	0.019775

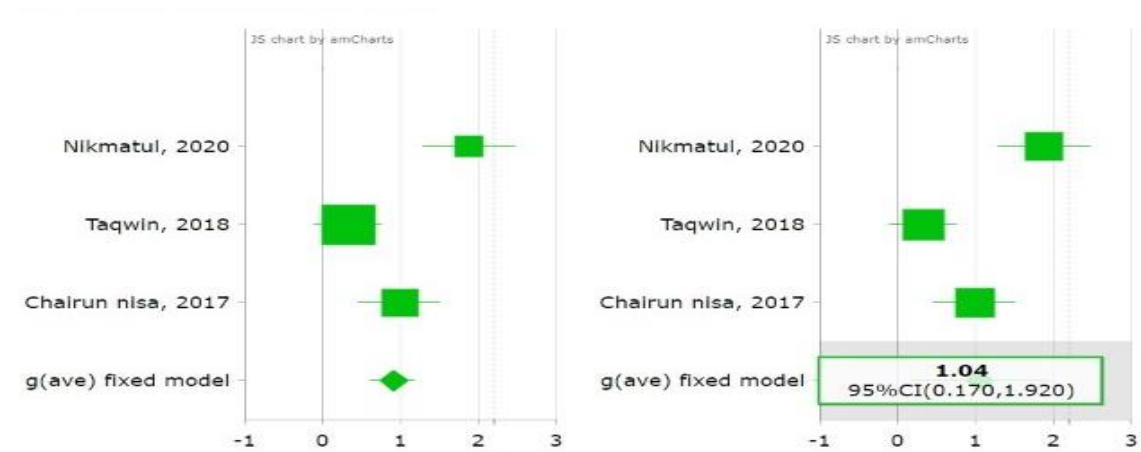


Figure 2. Graph of forest plot

The results showed that the combined effect of these three studies was 1.04 with a confidence interval of 0,170-1,920. The combined effect also produces a Z value of 2.311 and a p value of 0,019775. Because the p value <0,05, it can be concluded that there is an effect of giving health counseling with the lecture method on attitudes to WUS about VIA with a tendency for WUS who are given

counseling by the lecture method have a 1,04-fold positive attitude compared to WUS who are not given counseling by the lecture method.

One of the efforts to increase knowledge is through health education. Health Education is a method to increase health knowledge for individuals, families, groups and communities so that it will affect a person's behavior and health. Health education is a continuous,

dynamic and planned teaching and learning process throughout life and in different settings implemented through partnerships and interpersonal education to facilitate and empower the person to promote lifestyle outcomes related to behavioral changes that promote positive health status outcomes.²⁶

Providing health education with leaflets on knowledge to WUS about IVA

The results of statistical tests using Meta-mar software version 2.7.0 on 4 articles that meet the inclusion criteria can be seen in table 3 below:

Tabel 3. Effect Size for Combined Leaflet Research with attitude

Model	Ukuran efek dan 95% CI			Significant Test		
	Number of research	Combined effect	Lower limit	Upper limit	Z	P
Random	4	1.71	2.840	0.580	2.957	0.003103

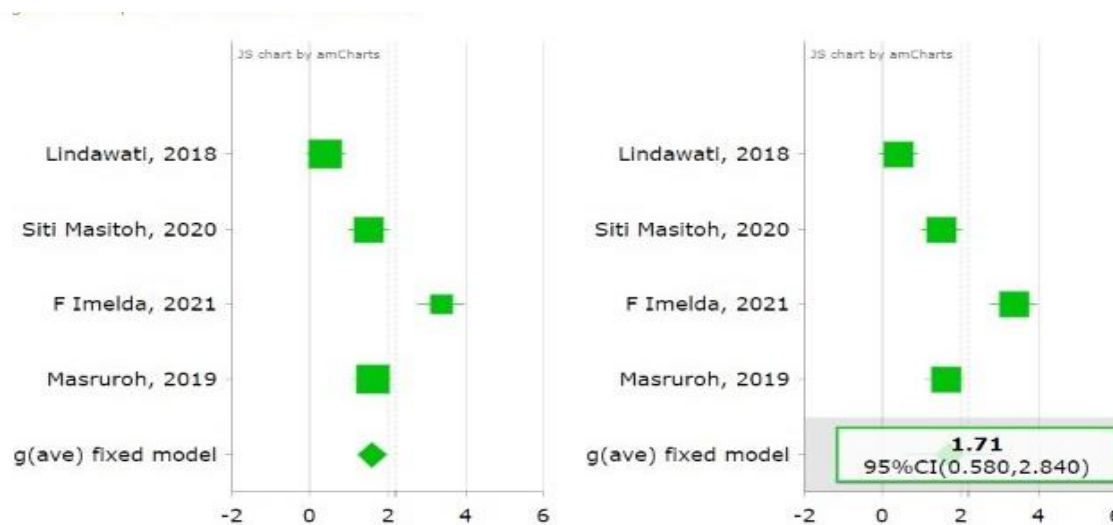


Figure 3. Graph of forest plot

The results showed that the combined effect of these four studies was 1,71 with a confidence interval of 0,580-2,840. The combined effect also produces a Z value of 2,957 and a p value of 0,003103. Because the p value <0,05, it can be concluded that there is an effect of providing health counseling with leaflets on WUS knowledge about VIA with a tendency for WUS who are given counseling with leaflets having 1,71 times better knowledge than WUS who are not given leaflet counseling.

Based on the data above, it shows that WUS who are given education using leaflets tend to have 1,71 times more good knowledge than WUS who are given counseling with the lecture method of 1,45 times. This shows that the provision of education using leaflet media is more effective because it can be re-read after the extension ends. And the provision of leaflets can increase knowledge and encourage women's participation in taking IVA examinations.

The use of teaching aids when conducting counseling causes humans to receive knowledge through the five senses and is influenced by the intensity of different teaching aids. The more the senses are used,

the more and clearer the knowledge will be. Health education media is needed to foster interest in learning, help the target to understand better, remember well and help overcome language difficulties. The media used can support the provision of material delivered through lectures. The use of leaflet media will be interesting and provide motivation to get information.²⁷

Leaflet is one of the teaching aids that is arranged based 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 interesting to read and the combination of 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.

Providing health education with leaflets on attitudes to WUS about IVA

The results of statistical tests using Meta-mar software version 2.7.0 on 2 articles that meet the inclusion criteria can be seen in table 4 below:

Table 4. Effect Size of Combined Leaflet Research with Attitude

Model	Ukuran efek dan 95% CI				Tes Signifikan	
	Number of research	Combined effect	Lower limit	Upper limit	Z	P
Random	2	0.58	1.520	-0.350	1.222	0.221808



Figure 4. Graph of forest plot

The results showed that the combined effect of these two studies was 0,58 with a confidence interval of -0,350-1,520. The combined effect also produces a Z value of 1,222 and a p value of 0,221808. Because the p value <0,05, it can be concluded that there is no effect of providing health education with leaflets on attitudes to WUS about VIA with a tendency for WUS who are not given counseling with leaflets having 0,58 times positive attitude compared to WUS who are given counseling with leaflets.

Based on the data above, it shows that WUS who were given counseling with lectures tended to have a 1,04 times positive attitude compared to WUS who were given counseling using the leaflet method of 1,222 times. This is because the lecture method is easy to use, can influence opinions and stimulate critical thinking. The effectiveness of the use of lectures can be increased by combining it with various health education media.

Health education can increase knowledge and reasoning, interactive health education can provide new experiences and can be applied to society. This research is supported by Nikmatul's research (2020) that it is proven to improve WUS attitudes about early detection of cervical cancer with the lecture method. This is due to WUS's great curiosity about cervical cancer and how to detect cervical cancer early. Changes in the attitude of WUS from initially negative to positive in an effort to detect cervical cancer early. This attitude itself consists of three components, namely cognitive (views, knowledge, beliefs and perceptions), affective (feeling happy or

positive and not happy or negative towards an object), conative (tendency to act on attitude objects).^{28,29,30}

According to Notoatmodjo¹⁵ (2012) said that an attitude has not automatically manifested itself in an action. To realize an attitude into a real action, a supporting factor or an enabling condition is needed, including facilities. In addition to the facility factor, support from other parties is also needed.

CONCLUSION

The conclusion of the meta-analysis of these articles are there is an effect of providing health education with the lecture method on knowledge and there is an effect of providing health education with the leaflet method on knowledge

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