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## THE RELATIONSHIP OF ATTITUDES AND BEHAVIOR WITH COMPLIANCE OF WOMEN OF FERTILIZING AGE IN CARRYING OUT VISUAL INSPECTION EXAMINATIONS FOR ACETIC ACID (VIA) AT TEBING HEALTH CENTER, KARIMUN DISTRICT, 2024

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### Abstract

Lack of compliance with Visual Inspection with Acetic Acid (VIA) screening is a significant health problem, especially in the effort to prevent early cervical cancer. Although VIA is an effective, simple, and relatively inexpensive screening method, the participation rate of women of childbearing age is still low. There are many factors that influence compliance with VIA examination, including attitude and behavior. This study aims to determine the relationship between attitudes and behavior of women of childbearing age in conducting an examination (VIA) at Puskesmas Tebing, Karimun Regency. This study is an observational analytic study with a Crosssectional Study design approach. Simple random sampling technique as many as 66 respondents. The research instrument used a questionnaire. Data were analyzed using the Chi Square test. Univariate results on respondents showed 65.2% had a negative attitude and 34.8% had a positive attitude. 86.4% had poor behavior, 1.5% had moderate behavior and 12.1% had good behavior. Based on the level of respondent compliance in VIA examination, 86.4% were non-compliant and 13.6% were compliant. The results of the Chi Square Test obtained a significant relationship between attitude and compliance of WUS in performing VIA examination with a p-value ( $p=0.01$ ) and there is a significant relationship between behavior and compliance of WUS in performing VIA examination with a p-value ( $p=0.01$ ). It is expected that health workers provide counseling and motivation so that WUS can perform VIA routinely.

**Keywords:** Attitude, Behavior, Compliance, VIA Examination

## INTRODUCTION

Cervical cancer is the most common cancer in the world, amounting to 3.1% of cases or 604,127 people, and the death rate from cervical cancer is 341,831 of the total number of cancer patients in the world (Globocan, 2020). WHO projects that new cases of cervical cancer in developing countries in 2025 could be 668,120 cases from 2008 which was only 452,902 cases (Fauza, 2019).

In Indonesia, according to data from the Ministry of Health as of January 31, 2020, the prevalence of cervical cancer is 23.4 per 100,000 population, with an average annual mortality rate of 13.9 per 100,000. It is estimated that every year there are around 15,000 new cases of Indonesian women detected with cervical cancer and 8,000 women die from cervical cancer (Fauza, 2019). Cervical cancer can be found in the pre-cancerous stage (Precancerous Lesions). If found at an earlier stage, it can reduce mortality and save very high health costs (Juanda and Kesuma, 2015), therefore prevention and early detection of cervical cancer is one of the main steps that must be taken. One of the early detection that is highly recommended and has become a government program is Visual Inspection of Acetic Acid (Ratnasari and Haque, 2024). Early detection with IVA examination is used with consideration because it has advantages compared to other examinations. The advantages of VIA examination include being quick and simple, not requiring sophisticated laboratory test equipment, being able to detect pre-cancerous lesions of the cervix and being easy to use (Pakpahan et al 2021). With the early detection of cervical cancer through IVA

examination, it is expected that the incidence of cervical cancer will decrease, but in reality the incidence of cervical cancer in Indonesia is still high. This is because the awareness of women who are married and or have had sexual intercourse in conducting early detection is still low, namely 55% (Susanti, 2018). According to the 2020 Indonesian Health Profile, the prevalence of women of childbearing age in Indonesia, namely the age range of 30-50 years, who have carried out early detection of cervical cancer using the IVA method is around 8.3%. Predisposing behavior to early detection of cervical cancer is influenced by attitude. A positive attitude towards cervical cancer can support a woman to undergo cervical cancer screening. Negative attitudes are that there is no need to undergo screening if there are no symptoms and it is better to live life as usual. These statements can be an obstacle for women to undergo cervical cancer screening (Pusparini, 2019). A negative attitude towards early detection of cervical cancer, especially towards VIA screening, will affect one's behavior. A negative attitude will cause negative behavior as well. The behavior of early detection of cervical cancer is a factor that affects the incidence of cervical cancer (Ratnasari and Haque, 2024).

Based on data from the Riau Islands Provincial Health Office in 2023, of the total provincial VIA target of 171,163 people, 24,747 people were tested with the results of 242 people with positive VIA, 22 people suspected cancer and 44 people with other gynecological abnormalities. According to 2023 data from the Karimun Regency Health Office, of the total number of

IVA targets in the Regency of 11,410 people, 2,172 people were tested with the results of 57 people with positive VIA, 5 people suspected cancer and 5 people with other gynecological abnormalities, while from 13 Puskesmas in Karimun, Puskesmas Tebing is the Puskesmas with the lowest IVA achievement, namely out of 1460 target women of childbearing age only 33 people or 2.26% came to do an IVA examination.

Based on an initial survey conducted on June 19, 2024, out of 10 women of childbearing age in the working area of Puskesmas Tebing who were interviewed regarding cervical cancer, 8 had a negative attitude or did not support early detection of cervical cancer. They reasoned that they were afraid, embarrassed and not ready to accept the results if the examination later revealed that they had cervical cancer.

Based on the description above, the authors are interested in conducting research with the title "Relationship between Attitudes and Behavior with Compliance of Women of Fertile Age in conducting Acetic Acid Visual Inspection (VIA) at Puskesmas Tebing Karimun Regency in 2024".

## RESEARCH METHODS

This study is an analytical study with a cross sectional design because data collection of independent and dependent variables is carried out simultaneously or at once. The sample in this study were Women of Fertile Age (WUS) in the Tebing Health Center Working Area, totaling 66 respondents who were taken using simple random sampling technique, namely random sampling and the samples selected were in accordance with the predetermined

inclusion and exclusion criteria. This research was conducted at the Tebing Health Center Work Area, Karimun Regency in August 2024.

The research instruments that will be used in this study are attitude and behavior questionnaires. The attitude and behavior questionnaire used is a questionnaire made by the researcher and has been tested for validity with a value of  $r > 0.361$ , while the reliability test results obtained a Cronbach alpha value of 0.823 for the attitude questionnaire and 0.645 for the behavior questionnaire.

The analytical tests used in this study were univariate and bivariate. Univariate analysis was conducted to determine the frequency distribution of attitudes, behaviors, and compliance with VIA examination (according to the results of filling out the questionnaire), while bivariate analysis was conducted to see the relationship between attitudes and behaviors with compliance with VIA examination. Analysis was conducted using the Chi Square test.

## RESEARCH RESULTS

**Table 1 Frequency Distribution of Respondents Based on Attitude in Performing VIA Examination at Tebing Health Center Karimun Regency in 2024**

Attitude	f	%
Negative	43	65,2 %
Positive	23	34,8 %
Total	66	100 %

Based on the table above, it is known that out of 66 respondents of women of childbearing age, 43 respondents (65.2%) have a negative attitude and 23 respondents (34.8%) have a positive attitude in conducting VIA examinations. This means that from this study it was found that more respondents had a negative attitude in conducting an IVA examination at the Tebing Health Center because they felt embarrassed and afraid of the results of the examination.

**Table 2 Frequency Distribution of Respondents Based on Behavior in Conducting VIA Examination at the Tebing Health Center, Karimun Regency in 2024**

Behavior	f	%
Less	57	86,4 %
Medium	1	1,5 %
Good	8	12,1 %
Total	66	100 %

Based on Table 4.2, it is known that of the 66 respondents of Fertile Age Women, 57 respondents (86.4%) had poor behavior, 1 respondent (1.5%) had moderate behavior and 8 respondents (12.1%) had good behavior in conducting VIA examinations. This means that from this study it was found that more respondents had poor behavior in conducting VIA examinations at Puskesmas Tebing because they felt embarrassed and afraid of conducting VIA examinations, besides that education and knowledge factors also influenced the low behavior of this examination.

**Table 3 Frequency Distribution of Respondents Based on Compliance in Performing VIA Examination at Puskesmas Tebing, Karimun Regency, 2024**

VIA Screening Compliance	f	%
Non-compliant	57	86,4 %
Compliant	9	13,6 %
Total	66	100 %

Based on Table 4.3, it is known that of the 66 respondents of women of childbearing age, 57 respondents (86.4%) were non-compliant and 9 respondents (13.6%) were compliant in conducting VIA examinations. This means that from this study, it was found that most respondents were not compliant in conducting VIA examinations at the Tebing Health Center due to the lack of knowledge of WUS about VIA examinations so that most felt embarrassed and afraid to examine themselves once in 3 years.

**Table 4 Relationship between Attitude and Adherence of Women of Fertile Age in Performing VIA Examination at Puskesmas Tebing, Karimun Regency Year 2024**

Attitude	VIA examination				Total		P value
	Non-compliant		Compliant				
	f	%	f	%	f	%	
Negative	43	100	0	0,0	43	100	0,01
Positive	14	60,9	9	39,1	23	100	
Total	57	86,4	9	13,6	66	100	

Based on table 4.4 above, it can be seen that out of 57 respondents who were not compliant in conducting VIA examinations had a negative attitude as many as 43 respondents, and among

respondents who had a positive attitude were found to be 14 respondents in conducting VIA examinations. Whereas from 9 respondents who were compliant in conducting VIA examinations all had a positive attitude in conducting VIA examinations. The statistical test results obtained a value of  $p < 0.05$  ( $p = 0.01$ ) which can be concluded that there is a significant relationship between attitude and respondent compliance in conducting VIA examinations at the Tebing Health Center, Karimun Regency in 2024.

**Table 5 Behavioral Relationship with Adherence of Women of Fertile Age in Performing VIA Examination at Tebing Health Center Karimun Regency in 2024**

Behavior	VIA examination				Total		P value
	Non-compliant		Compliant				
	f	%	f	%	f	%	
Less	57	100	0	0,0	57	100	0,01
Medium	0	0,0	1	100	1	100	
Good	0	0,0	8	100	8	100	
Total	57	86.4	9	13.6	66	100	

Based on table 4.5 above, it can be seen that 57 respondents who were not compliant in conducting VIA examinations had poor behavior as many as 57 respondents, and among respondents who had moderate and good behavior found none (0%) in conducting VIA examinations. Whereas from 9 respondents who were compliant in conducting VIA examinations were not found to have poor behavior, there was 1 respondent who had moderate behavior and there were 8 respondents who had good behavior in conducting VIA examinations. The statistical test results obtained a value of  $p < 0.05$  ( $p = 0.01$ )

which can be concluded that there is a significant relationship between behavior and respondent compliance in conducting VIA examinations at Puskesmas Tebing, Karimun Regency in 2024.

## DISCUSSION

### a. Attitude of women of childbearing age in performing Visual Inspection of Acetic Acid (VIA) Examination

In this study, it was found that more than half of the respondents, namely 43 people (65.2%) at the Tebing Health Center, Karimun Regency in 2024, had a negative attitude towards performing VIA examinations.

Attitude is a reaction or response that is still closed from a person to a stimulus or object (Notoatmodjo, 2018). Attitude also means a pattern of behavior, tendency and predisposition to adapt to certain situations. Attitude can also mean positive or negative thoughts accepting (favorable) or rejecting (unfavorable) something (Skinner, 2014).

These results are in line with the research of Suratin and Susanti (2018) who conducted research at the Sekupang Health Center and found that more than half of women of childbearing age (64.8%) had a negative attitude towards VIA examination. The results of this study are also supported by research by Titin et al (2023) which found that almost half of women of childbearing age (38.9%) had a negative attitude towards VIA examination.

In this study, the questionnaire used to measure attitudes consisted of 10 questions consisting of favorable and unfavorable questions, and based on interviews, it was found that almost half of the respondents had a negative attitude.

Based on the researcher's assumptions, there are many factors that influence attitude formation, including respondents' fear of performing VIA examinations, they have imagined pain and fear of the results if later after being examined they are found to have a dangerous disease, this is evidenced by the results of interviews which found more than half of the respondents (59.1%) were afraid of performing VIA examinations and 75.8% of the respondents thought that VIA examinations caused pain.

As many as 21.2% of respondents thought they were afraid of the results, besides that the attitude formed was also caused by the VIA examination procedure which according to them was still taboo, namely by examining through the vagina, this was evidenced by the answers of respondents who found 66.7% of respondents strongly agreed that they felt embarrassed to do the VIA examination.

However, most of the respondents realized that VIA examination was very important, especially for women of childbearing age, this was evidenced by the answers of most of the respondents (98.5%) who strongly agreed that VIA examination was important for their age, and there

were still many respondents who considered VIA examination necessary and not detrimental. This is evidenced by the answers of 72.7% of respondents that the VIA examination will not be detrimental.

#### **b. Behavior of women of childbearing age in performing Visual Inspection of Acetic Acid (VIA) Examination**

This study found that most of the respondents, namely 57 people (86.4%) at Puskesmas Tebing, Karimun Regency in 2024, had poor behavior in conducting VIA examinations.

Behavior is a series of actions, responses, or reactions shown by individuals in response to certain stimuli or situations. Behavior reflects how a person thinks, feels, and acts in various contexts, including social interactions, decision making, and responses to the surrounding environment (Notoatmodjo, 2018).

These results are in line with research conducted by Arisca et al (2019) which found 93.3% of WUS in the Benculuk working area of Banyuwangi regency behaved badly towards VIA examination and research by Citra and Ismarwati (2019) which also found something similar, namely as many as 59.9% of WUS in Ngipik Hamlet, Banguntapan I Bantul Yogyakarta Health Center working area who behaved badly towards VIA examination.

In this study, the behavior of respondents was influenced by the stimulation of information about

VIA examination, Respondents rarely find out how to do VIA examination, as with the results of interviews using questionnaires, the results of most of the respondents (72.7%) never sought information about VIA examination and only 16.7% were enthusiastic about attending counseling about VIA, and only 13.6% asked for a schedule for VIA examination if VIA examination had not been held by the puskesmas.

The lack of good behavior towards VIA examination is also due to the process of VIA examination, with VIA examination, patients feel embarrassed because it involves an intimate area, namely the cervix, which must be examined directly by a health worker. During the examination, patients are asked to be in a lithotomy position, with their legs open, which can make them feel vulnerable or uncomfortable.

In addition, cultural factors and social norms that consider conversations about reproductive health or genital examination as taboo can strengthen the sense of shame. This is evidenced by the results of the respondents' questionnaire answers which found 77.3% of respondents felt embarrassed to do an IVA examination.

**c. Compliance of women of childbearing age in performing visual inspection of acetic acid (VIA) examination**

This study found that most of the respondents, namely 57 people

(86.4%) at the Tebing Health Center, Karimun Regency in 2024, were not compliant in conducting VIA examinations.

The compliance of VIA examination examined in this study is the respondent's compliance whether to perform VIA examination during the last 3 years. VIA is one of the screening methods to detect cervical cancer. VIA examination compliance refers to the extent to which individuals, especially women of childbearing age, undergo this examination routinely in accordance with health recommendations (Kemenkes, 2019). The low compliance of WUS in conducting VIA examinations can be caused by several factors such as limited knowledge of WUS regarding the benefits of VIA examinations to determine whether they have cervical cancer or not (Nadia et. al, 2022).

The respondent's lack of knowledge is related to the respondent's level of education. In this study, almost half of the respondents (42.4%) had elementary school education. Education plays an important role in the ability to receive information related to VIA examination for cervical cancer detection. Baidah et. al (2022) have proven the relationship between education and the behavior of performing VIA examinations. Nisah (2018) also found that education is related to behavior. In addition, according to respondents, they feel that their reproductive organs are fine, there are no symptoms of pain. So there is

no need for an IVA examination. The low compliance of VIA examination in WUS is also caused by the respondent's assumption that she is healthy because there are no abnormalities in her reproductive tract so there is no need to do the examination, and can also be caused by the lack of information obtained regarding cervical cancer, causes, signs and symptoms and how to prevent it.

**d. Relationship between Attitude and Compliance of Women of Fertile Age in performing Visual Inspection of Acetic Acid (VIA) Examination**

In this study, it was found that there was a significant relationship between attitude and compliance with performing VIA examinations at the Tebing Health Center, Karimun Regency ( $p=0.01$ ).

The relationship between attitude and WUS compliance in conducting VIA examinations is because attitudes reflect the feelings, beliefs and understanding of individuals towards an action (Notoatmodjo, 2018). A positive or negative attitude towards VIA examination affects whether WUS will comply with the recommendation to conduct the examination. If a woman has a positive attitude towards the examination to detect cervical cancer early and maintain her health, then she tends to be more compliant and willing to do it, on the other hand, if a negative attitude arises, for example because of fear, feeling embarrassed or not

understanding the benefits of the examination, then the level of compliance will be low (Lestari et al, 2024).

These results are in accordance with the research of Lestari DA (2023) which found the results of a strong relationship between attitudes and WUS compliance in the VIA test examination ( $p\text{-value} = 0.001$ , correlation coefficient = 0.527) in Loa Pari Village, Teluk Dalam Health Center Working Area, and research by Titin et al (2023) who conducted research on WUS in the Melak Health Center Working Area and found that attitudes had a significant relationship with WUS compliance in undergoing VIA tests, as well as research by Nurjanan (2020) who also found the same thing in his research, namely that there was a significant relationship between attitudes and conducting VIA examinations.

A person's attitude is not always in line with their behavior, including compliance with VIA examination. In this study, it was found that 60.9% of non-compliant respondents had a positive attitude. This is due to external influences (normal social and environmental pressures). A positive but non-compliant attitude may be hindered by external constraints, such as fear or concern about the results. Despite knowing and understanding the benefits of VIA, some people may feel anxious or fearful of the results, thus avoiding the procedure despite good intentions.



**e. Relationship between Behavior and Compliance of Women of Fertile Age in Performing Visual Inspection of Acetic Acid (VIA) Examination**

In this study, it was found that there was a significant relationship between behavior and compliance with performing VIA examinations ( $p=0.01$ ).

VIA screening adherence is the consistency of following medical recommendations to undergo VIA screening. The level of compliance can be influenced by knowledge, attitudes, risk perception, service accessibility, and social support (MOH, 2017). All of these will be formed into a behavior.

There is a significant relationship between behavior and compliance with VIA examination in WUS because behavior is all actions, responses or reactions of a person to stimuli or the environment, both physical and emotional. Behavior includes how a person acts, speaks, thinks, and interacts with others and how a person responds to certain situations (Sarafino and Smith, 2014).

According to Benyamin Bloom's theory, there are 3 domains in the formation of behavior consisting of a cognitive stage where a person first knows the stimuli that can give rise to knowledge. Then there is an affective domain in the form of an attitude towards a known object. After the object is known, it will give rise to a response in the form of an action called the psychomotor

domain (Neherta and Refnandes, 2023).

Notoadmodjo (2018), explains that the factor that can influence a person's behavior is also knowledge. Behavior based on knowledge will last longer than behavior that is not based on knowledge and good knowledge must also be accompanied by a good attitude in order to make it easier to achieve the goal of early detection of cervical cancer, namely reducing the number of cases of cervical cancer, besides that values, emotions, social norms, and previous experiences will also affect behavior (Sarafino and Smith, 2014).

This result is supported by Nurjanan's research (2020) which proves that there is a significant relationship between behavior and WUS compliance in VIA examination, and the results of research by Manihuruk et al (2021) which found that there is a significant relationship between behavior and VIA examination in WUS (Manihuruk, 2021).

In this study, the respondents' perspective was tested through 10 behavioral questions, which consisted of positive and negative questions. Based on the results it was found that all non-compliant respondents had poor behavior. Based on these results it can be seen that if someone already has a lack of behavior towards VIA examination, then he will not comply with the examination. As one example in this study, based on the results of the behavioral interview, it was found that 78.8% of respondents always

did not ask for the schedule of VIA examination. This illustrates that respondents do not care about the VIA examination so that it has an impact on their compliance in conducting VIA examinations.

The results of this study also found that of the 8 respondents who had good behavior, all were compliant in conducting VIA examinations. This is due to many factors. If good behavior has been established, the next thing to do is to provide motivation and support so that respondents perform VIA examinations. The most important support and motivation apart from health workers is family support, especially husbands, but in this study it is not discussed further because it is not included in the research variables.

## CONCLUSION

Based on the results of research on "The Relationship between Attitudes and Behavior with Compliance of Women of Fertile Age in conducting Visual Inspection of Acetic Acid (VIA) at Puskesmas Tebing, Karimun Regency in 2024", the following conclusions were obtained:

- a. More than half of the respondents, namely 43 people (65.2%) at the Tebing Health Center, Karimun Regency in 2024 had a negative attitude towards performing VIA examinations.
- b. Most of the respondents, namely 57 people (86.4%) at Puskesmas Tebing, Karimun Regency in 2024 had poor behavior in conducting VIA examinations.
- c. Most of the respondents, namely 57 people (86.4%) at the Tebing Health

Center, Karimun Regency in 2024 were not compliant in conducting VIA examinations.

- d. There is a significant relationship ( $p=0.01$ ) between attitude and compliance of women of childbearing age in conducting VIA examinations at the Tebing Health Center, Karimun Regency in 2024.
- e. There is a significant relationship ( $p=0.01$ ) between behavior and compliance of women of childbearing age in conducting VIA examinations at the Tebing Health Center, Karimun Regency in 2024.

## ADVICE

Based on the above conclusions, the author can put forward the following suggestions:

- a. For Health Workers  
It is recommended that health workers at the Tebing Health Center, Karimun Regency, provide counseling and motivation to WUS to conduct VIA examinations.
- b. For Respondents  
Respondents are advised to involve their families, especially their husbands, in improving the compliance of WUS in VIA examination.
- c. For Future Researchers  
It is recommended for further research on other factors associated with WUS compliance in conducting VIA examinations, namely Knowledge, Perception, Age, Occupation, Education, Socio-economic, Husband and family support, Officer support, Friend support, Access to health services, Affordability of costs and access to information or mass media.

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