

Factors associated with iva test as early screening for cervical cancer in women of reproductive age

Yunita Liana¹, Herlina²

^{1,2}Bina Husada College Of Health Sciences, Palembang, Indonesia

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ABSTRACT

The research's purpose is to identify factors associated to inspect visually using acetic acid for detect cervical cancer in women of reproductive age. Cross-sectional research methods were used for the study. The research sample was 98 women of reproductive age with a purposive sampling technique. The research tool was a questionnaire. The Chi-square test was used to analyze the research data. The results showed an association between knowledge and the examination IVA test (p -value= 0,001), husband support and the examination IVA test (p -value=0,000), health worker support and the examination IVA test (p -value=0,000), and distance to health services with the examination IVA test (p -value=0,000). Knowledge, husband support, health worker support, and the distance to health services and the examination IVA test are all elements that associated the in fertile women. Based on the results of the study it is expected that women of childbearing age can increase awareness in carrying out IVA examinations and that health workers can increase the motivation of women of childbearing age in carrying out IVA examinations. Knowledge, husband support, health worker support, and the distance to health services and the examination IVA test are all elements that associated the in fertile women. The implications for the community health centers are to increase the knowledge of husband and wife through health education activities about the importance of IVA examinations and to motivate women of childbearing age to carry out IVA examinations as early detection of cervical cancer.

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Corresponding Author:

Yunita Liana,

Nursing,

Bina Husada College Of Health Sciences,

Jl. Syech A Somad No.28, 22 Ilir, Kec. Bukit Kecil, Kota Palembang, Sumatera Selatan 3013

Email: yunitaliana906@gmail.com

INTRODUCTION

Cervical cancer is an prevalent disease that is the major cause of mortality in women of reproductive age, with 600 people dying from it every day. By 2030, cancer will still have caused almost 13,2 million population each and every year, according to the International Agency for Research on Cancer (IARC) (Ge'e et al., 2021). Cervical cancer kills 13,9 people every 100,000 in

Indonesia, with a prevalence rate of 23.4% (P2PTM Kemenkes RI, 2019). Cervical cancer is the second most frequent malignancy, accounting for 36,633 of all cancer cases (9,2%) (Putri, 2022).

The IVA test as early cervical cancer screening is a government recommendation in Indonesia to decrease incidence of cancer. Acetic acid levels were measured visually in women of reproductive age (P2PTM Kemenkes RI, 2019). The IVA examination is a simple, quick, and inexpensive method of screening for cervical cancer. The earlier cancer cells are detected, the faster they can be treated, which has an impact on women of reproductive age's life expectancy. Acetic acid visual examination has a sensitivity of around 56-94% and a specificity of 74-94%. Cervical cancer cases are reduced by 83,6% when screening is done every five years (Asmin, 2020). Precancerous and cancerous cervical lesions can be detected with this method in low-income countries, the IVA test provides a quick result, inexpensive, and efficient alternative to cytology testing (Sauvaget, C., Fayette, J. M., Muwonge, R., Wesley, R., & Sankaranarayanan, 2011). The IVA test really does have an excellent accuracy however a lower accuracy level in detecting precancerous lesions in cervical cancer. Pap smears are sensitive and precise, yet they frequently provide negative test results. According to some of these findings, to improve screening efficiency, community screening in Vietnam should include both a confirmatory Pap test and an assessment IVA test. Acetic acid testing for CIN2+ has the following characteristics: 88.8% sensitivity, 43,8% specificity, accuracy, positive predictive value (PPV), and negative predictive value (NPV), respectively. The diagnostic results for the Pap smear were 58,0%, 85,2%, 69,9%, 83,3%, and 61,3%, respectively, for sensitivity, specificity, accuracy, PPV, and NPV. The visual inspection with acetic acid (VIA) is extremely sensitive for detecting precancerous lesions during cervical cancer screening (Huy et al., 2018).

The examination IVA test is influenced by predisposing factors, enabling factors, and reinforcing factors. Other factors are education, attitudes, risk factors for cervical cancer, access to information, affordability, health insurance participation, support from health workers, family support, and the role of health workers (Apriyanti & Adista, 2020). The results of one's physical assessments, such as the vision, hearing, and the sensation of touch, and others on an item, are used to gather knowledge about a visual inspection of acetic acid. If a person has good information, they will also have good conduct when it comes to enhancing their health (Asmin, 2020).

A knowing husband encourages his wife to engage in healthy behaviors, one of which is a routine the examination IVA test at the local health facility, such as a health center or hospital (Noviasari, 2021). Previous research found that the majority of respondents (38 people (63,3%) did not perform a visual examination of acetic acid; 39 people (65,0%) had good knowledge; 48 people (80,0%) had good support from their husbands; and 32 people (53,3%) had good support from health workers (Sundari & Setiawati, 2018). Sondang's (2019) research concluded that There is a correlation with the husband's support and the actions of a woman of reproductive age (30-50 years old) when performing an visual inspection with acetic acid (VIA), with a ρ -value = 0,001 (Sondang & Hadi, 2019).

Previous research found a link between the husband's support, knowledge, and health support and the examination IVA test, with all ρ -value less than 0,05 (Nisaa et al., 2019). As many as 219 people responded to related research. The wife's mean age is 33.03 years (standard deviation = 6,44), while the husband's mean age is 37.51 years (standard deviation = 7,45). Only 7,31% of people have ever had an acetic acid visual test, with the majority (65,75%) having had one in the previous four years. The husband's assistance has the greatest direct impact on Papanicolaou test utilization, with a direction coefficient of 0,312. (ρ -value = 0,001). Self-efficacy relationship with husband's support and the examination IVA test (coefficient of varians = 0,123, ρ -value = 0,001) (Juwitasari et al., 2021).

IVA examinations must also be supported by the role and support of health workers because women of reproductive age are increasingly motivated to carry out the examination IVA

test (Jaya, 2020). The examination IVA test is influenced by distance and health facilities because if the distance to the facility is close, it will make it easier for someone to reach it without having to experience physical fatigue (Simanjuntak et al., 2021). Based on research conducted by Nislawati (2016) by research results from 162 respondents (60.7%) lack knowledge. The distance to a health facility is far many as 152 respondents (57%). The assistance of healthcare workers for women of reproductive age is not as much as 147 respondents (55%). In 2016, there was a significant relationship between support and women of reproductive age participating in the early detection of cervical cancer using the examination visual inspection with acetic acid method at the Pangklan Kuras Health Center's Pustu Desa Dundang Working Area (Nislawaty & Meidiana, 2018).

According to the Pematang Panggang Health Center, there were 4.313 reproductive-age women in 2019, 5.822 in 2020, and 4.493 in 2021. Cervical cancer is still prevalent, yet there is a dearth of knowledge about IVA examinations (Profil Puskemas, 2022).

The purpose of this research is to determine the associated between knowledge and IVA examination, to determine the associated between husband support and the examination visual inspection with acetic acid, to determine the associated between health worker support and the examination visual inspection with acetic acid, find out the associated between distance and the examination visual inspection with acetic acid in fertile women in the working area of the Pematang Panggang IV Health Center, Mesuji Raya District, Ogan Komering Ilir Regency in 2022.

RESEARCH METHOD

This research is cross-sectional in design. The subjects of the study was women of reproductive age at the Pematang Panggang IV Healthcare Center is located in the OKI Regency's Mesuji Raya District. The study was done between July 4 and July 8, 2022. With 98 responders, an intentional sample technique was adopted. The sample inclusion criteria for this study were women of childbearing age who were married, willing to be respondents, living in Pematang Panggang, aged 25 to 35 years, able to communicate well, and able to read and write. The independent factors in this study were knowledge, husband support, health worker support, and distance. The dependent variable is the the examination visual inspection with acetic acid.

The research instrument used was a questionnaire. The stages of the research started with the researcher introducing himself to the respondents, then explaining the purpose of the study, asking for informed consent from the respondents, giving the questionnaire, and explaining how to fill out the questionnaire. The questionnaire is returned to the researcher if the respondent has finished filling out the questionnaire. The researcher thanked the respondents after collecting the questionnaires. The Chi-square test was used to analyze research data.

This study's research ethics involved women of reproductive age as research subjects. As a result, the procedure must adhere to research ethics standards. After explaining the research process, the researcher asked for the respondent's consent to participate as a respondent in this study. Respondents signed an informed consent form, and the researchers guaranteed the data's confidentiality.

RESULTS AND DISCUSSIONS

Univariate Analysis

The results of univariate analysis of the independent variables and the dependent variable included the frequency distribution of knowledge, husband support, health worker support, distance to the service area, and the the examination visual inspection with acetic acid for women of reproductive age.

Table 1. The Frequency Distribution Independent and Dependent Variable

Variable	Total (n)	Percent (%)
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Knowledge		
- Good	45	49,5
- Not good	53	54,1
Husband Support		
- Support	42	42,9
- Does no support	56	57,1
Health Worker Support		
- Support	56	57,1
- Does no support	42	42,9
Distance To Health Services		
- Close	48	49,0
- Far	50	51,0
The IVA Test		
- Done	56	57,1
- Not Do	42	42,9

Based on table 1, out of a total of 98 respondents, the majority had not good knowledge of 53 respondents (54.1%), most of the respondents get support from their husbands as majority as 56 respondents (57.1%), most of the respondents get advice from health workers as many as 56 respondents (57.1%), most of the respondents had long distances to health services as many as 50 respondents (51.0%), and some respondents did not carry out visual inspection inspections with acetic acid as many as 56 respondents (57.1%).

Bivariate Analysis

The chi-square test was used in bivariate analysis to determine the association between knowledge, husband's support, health worker support, distance to health services and the examination IVA test.

Table 2. The Association Between Knowledge And The Examination IVA Test

Knowledge	The IVA Test				Total		<i>p-value</i>
	Done		Not Do		n	%	
	n	%	n	%			
- Good	30	30,6	15	15,3	45	100	0,001
- Not Good	17	17,3	36	36,7	51	100	
Total	47	48,0	51	52,0	98	100	

Based on the table.2, showed that out of the 47 respondents who had good knowledge and carried out IVA examinations, there were 30 respondents (30, 6%) more than the respondents who had poor knowledge of 17 respondents (17, 3%).

Based on the results of the chi-square test, the p -value = 0,001 means that there is a association between knowledge and the IVA test in women of reproductive age.

Good information obtained from sources such as mass media (print and electronic), books, and health magazines. Good knowledge demonstrates that the respondent understands the cancer cervix. Knowledge is the result of knowing in such a way that it influences people's decisions (Notoadmodjo, 2003).

The findings of this study are consistent with previous research. According to the majority of research findings, 41 women of reproductive age (45.6%) understand the examination visual inspection with acetic acid), for early cervical cancer screening. This was cited as the primary reason for an IVA examination by 49 respondents (54.4%). There is a p -value of 0.021 between women of reproductive age's knowledge of the visual inspection with acetic acid (VIA) procedure for early detection of cervical cancer and their desire to undergo an IVA test (p 0.05) (Susilawati et al., 2022). So, if women of reproductive age lack knowledge, it will affect their health behavior, and they will not perform an examination visual inspection with acetic acid.

According to self-reports, the examination visual inspection with acetic acid screening was not extensively used in the research area. It was discovered that older individuals who had a history of STIs, were aware of cervical cancer and the examination visual inspection with acetic acid, felt vulnerable, had received information from health professionals, and had received public health education from health educators were more likely to utilize the examination visual inspection with acetic acid screening services. These findings imply that clinical and educational activities at the community and healthcare institution levels should be strengthened in order to promote understanding of cervical cancer risk factors and encourage women to seek screenings in regions where service utilization is authorized (Azene, 2021).

Table 3. The Association Between Husband's Support And The Examination IVA Test

Husband Support	The IVA Test				Total		p-value
	Done		Not Do		n	%	
	n	%	n	%			
- Support	32	32,7	10	10,2	42	100	0,000
- Does no support	15	15,3	41	41,8	56	100	
Total	47	48,0	51	52,0	98	100	

Table 3 shows that of the 47 respondents who received husband support and carried out an IVA examination, there were some 32 respondents (32,7%) compared to 15 respondents (15,3%) who did not receive husband support.

The Chi-square statistical test resulted in a value of = 0,000, showing that there is an association between husband support and the examination IVA test.

The husband's support is critical since it promotes cervical cancer identification early. Providing knowledge and emotional support is one method to obtain the support of your husband. Because the husband is the wife's closest companion, a lady who receives support from her husband is more likely to do an examination visual inspection with acetic acid. The husband's involvement in aiding moms with health checkups is crucial. In addition to financial help, the spouse participates in healthcare decision-making. Husbands and families are the closest persons to reproductive-age women with whom they may share thoughts and information (Wahyuni & Adiyasa, 2019).

On the basis of a visual inspection of acetic acid, Sondang (2019) discovered an association between husband support and the behavior of women of reproductive age (30-50 years) with a p-value of 0.001 (Sondang & Hadi, 2019). So, if a fertile woman does not receive support from her husband in terms of health behavior, it will automatically influence fertile women's attitudes toward the examination visual inspection with acetic acid.

One reinforcing factor that can influence someone's behavior is husband support (Damayanti & Permatasari, 2021). Emotional support, information, instrumental support, and rewards are all examples of ways to help the husband. Previous research found a relationship between husband or family support and the use of the examination visual inspection with acetic acid at the Mandala Health Center, with a value of -value = 0.044 (Friedman MM., 2010).

Table 4. The Association Between Health Worker Support And The Examination IVA Test

Health Worker Support	The IVA Test				Total		p-value
	Done		Not Do		n	%	
	n	%	n	%			
- Support	44	44,9	12	12,2	56	100	0,000
- Does no support	3	3,1	39	39,8	42	100	
Total	47	48,0	51	52,0	98	100	

Table 4 shows that of the 47 respondents who received health worker support and carried out an IVA examination, there were some 44 respondents (44,9%) compared to 3 respondents (3,1%) who did not receive health worker support.

The Chi-square statistical test resulted in a value of = 0,000, showing that there is an association between health worker support and the examination IVA test.

According to previous research, there is a significant relationship between support and women of reproductive age participating in the early detection of cervical cancer using the visual examination of the acetic acid method at the Pangklan Kuras Health Center's Pustu Desa Dundang Working Area in 2016. As a result, if the distance to medical services is short, people will conduct visual examinations of acetic acid, which will influence their behavior in using and utilizing health facilities (Nislawaty & Meidiana, 2018).

The active role of health workers in guiding patients to meet healthcare needs is important. Health workers can provide an approach to patient problems (assessment) so that patients can find solutions and make decisions in selecting recommended health services (Pebrina et al., 2019). A health worker is someone who must provide information in the health sector and must have the right attitude and behavior toward health. Support from health workers was obtained as one of the incentives for women to play an active role in carrying out the examination visual inspection with acetic acid. Health workers have a very important role in the role of health to be able to improve behavior in screening cervical cancer (Wuriningsih et al., 2021).

In previous studies, up to 2312 women were interviewed. The most frequently cited reason for women participating in tests was support from husbands and local authorities. The majority of participants anticipate receiving immediate screening test results and prompt medical attention for any abnormalities discovered. After receiving encouragement from her husband and local officials, a woman in southeast Nigeria decided to use cervical cancer screening services. Treatment and immediate outcomes will have the most impact. Cervical cancer prevention programs must include family and community involvement. This, along with a "see and treat" strategy, may be required to address the low uptake of cervical cancer screening programs in Nigeria and other rural areas (Chigbu, C. O., Onyebuchi, A. K., Ajah, L. O., & Onwudiwe, 2013).

Table 5. The Association Between Distance To Health Services And The Examination IVA Test

Distance To Health Services	The IVA Test				Total		<i>p-value</i>
	Done		Not Do		n	%	
	n	%	n	%	n	%	
- Close	38	38,8	10	10,2	48	100	0,000
- Far	9	9,2	41	41,8	50	100	
Total	47	48,0	51	52,0	98	100	

Table 5 shows that of the 47 respondents who have a close distance to health services and carry out IVA examinations, there are 38 respondents (38,8%) more than respondents who are far from health services, as many as 9 respondents (9,2%).

The Chi-square statistical test resulted in a value of = 0,000, showing that there is an association between distance to health services and the examination IVA test.

Access to health services implies that health services must be available to the community without being hampered by geographical, social, economic, organizational, or linguistic constraints. Distance is defined as the space between two objects or locations. The greater the distance between one's place of residence and one's place of activity, the less motivated one is to engage in activities. Conversely, the shorter the distance between the place of residence and the place of activity, the more likely it is that business will increase. The influence of the distance between the place of residence and the place of activity is inextricably linked to the amount of money spent and the length of time spent. Because public awareness of the importance of health is still low, the distance between the home and the location of health services influences their behavior. In 2016, there was a significant relationship between support and women of reproductive age participating in the early detection of cervical cancer using the IVA method at the Pangklan Kuras Health Center's Pustu Desa Dundang Working Area (Nislawaty & Meidiana, 2018).

If the distance to medical services is short, individuals will undertake a examination visual inspection with acetic acid as this will impact their behavior in using and utilizing healthcare facilities. The visual inspection with acetic acid (VIA) of acetic acid is an excellent secondary preventive against cervical cancer, is simple, and may be used in place of Pap smears. The examination visual inspection with acetic acid involvement in women of reproductive age determines the presence of reinforcing variables such as the availability of the husband's support (Parapat et al., 2016).

CONCLUSION

The conclusion was that out of a total of 98 respondents, the majority had not good knowledge of 53 respondents (54.1%), most of the respondents get support from their husbands as majority as 56 respondents (57.1%), most of the respondents get advice from health workers as many as 56 respondents (57.1%), most of the respondents had long distances to health services as many as 50 respondents (51.0%), and some respondents did not carry out visual inspection inspections with acetic acid as many as 56 respondents (57.1%). There is a association between knowledge and the IVA test in women of reproductive age, the p-value=0,001. There is an association between husband support and the examination IVA test, the p-value=0,000. There is an association between health worker support and the examination IVA test, the p-value=0,000. There is an association between distance to health services and the examination IVA test, the p-value=0,000. Based on the results of the study it is expected that women of childbearing age can increase awareness in carrying out VIA examinations and that health workers can increase the motivation of women of childbearing age in carrying out IVA examinations. This study only examines several factors related to the examination visual inspection with acetic acid. For further researchers, they can examine other factors that have not been studied and use multivariate analysis to identify the most dominant or influential factors. Knowledge, husband support, health worker support, and the distance to health services and the examination IVA test are all elements that associated the in fertile women. The implications for the community health centers are to increase the knowledge of husband and wife through health education activities about the importance of VIA examinations and to motivate women of childbearing age to carry out VIA examinations as early detection of cervical cancer.

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