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Factors Associated with the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with Visual Inspection Examination Method Acetic Acid (IVA) in the Working Area of the Coconut Health Center West Bangka Regency in 2023

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ABSTRACT

Cervical cancer is a malignant process or growth of a malignant tumor on the cervix so that the surrounding tissue cannot perform its function properly. The purpose of this study was to look at the factors associated with the behavior of women of childbearing age in early detection of cervical cancer using the Acetic Acid Inspection (IVA) method in the Kelapa Health Center Work Area. This study was conducted using a cross sectional design and chi-square test with the results in the form of bivariate analysis and univariate analysis. The research population was women who visited the Kelapa health center in Januari-April 2023 with a total of 61 people. The research instrument used a questionnaire consisting of a questionnaire on WUS behavior, level of knowledge, attitudes, family support and support from health workers. The results of the study concluded that there was a relationship between knowledge (0.005), there was a relationship between attitudes (0.025), family support (0.018) and there was no relationship between support from health workers (0.856).

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1. Introduction

Cervical cancer is a serious health problem that has received attention in the world. Every year, more than 300,000 women die from cervical cancer. This type of cancer ranks fourth in women worldwide. It is estimated that the number of new cases in 2018 reached 570,000, accounting for 6.6% of all cancer cases in women (Ge'e et al., 2021).

Cervical cancer is currently a very worrying type of cancer and is growing rapidly. According to the World Health Organization (WHO), cervical cancer was the most common type of cancer in women worldwide in 2020, with 570,000 women diagnosed with the disease and 311,000 women dying from it (Margareta Pratiwi, Nurhayati, 2022).

Breast cancer and cervical cancer are the two most common cancers in Indonesia. Both cancers have a high mortality rate due to delays in diagnosis and treatment. Almost 70% of cancer patients are detected at an advanced stage. This is unfortunate because cervical cancer can be detected at a stage before cancer occurs (precancerous lesions) and can be treated to prevent it from becoming cancerous (Kemenkes RI, 2023) .

Based on data from the Indonesian Ministry of Health in 2022, out of 2,175,314 women aged 30 to 50 years who were detected in the early stages of cervical cancer, there were 7,869 women (0.36%) who were detected positive for IVA and 1,232 women (0.06%) who were likely to be positive for cervical cancer (Kemenkes RI, 2023).

Data from the Provincial Health Office of the Bangka Belitung Islands in 2022, the number of female population aged 30-50 years in 2022 amounted to around 225,585 people. Of these, there are 28,140 who undergo cervical and breast examinations. Where the people of West Bangka Regency have undergone the least cervical and breast examinations, which is as many as 863 people (Dinkes Provinsi Bangka Belitung, 2022).

Based on data from the Kelapa Health Center in West Bangka district, there were 72 people who underwent IVA examinations in 2021, 200 people in 2021, and 110 people in 2022 with the age of 30 to 50 years.

Examination with the Visual Inspection method with Acetic Acid (IVA) is one of the ways that can be used for early detection of cervical cancer to get results quickly. The IVA test can be done by any health worker who is trained in performing the examination. Acetic acid is a saturated fatty acid with a chemical formula CH3COOH and is a typical ingredient in the manufacture of vinegar solutions (Ftrisia, 2022).

Many causative factors can influence a woman's decision when she wants to be screened for cervical cancer. Individual factors are among the most common, including levels of awareness, knowledge, anxiety, feelings of embarrassment when wanting to get tested, and unwanted test results (Khairunnisa et al., 2023).

There are several factors that can affect the low behavior of women of childbearing age in the early detection of cervical cancer with the Acetic Acid (IVA) Visual Inspection Examination Method according to (Friska Realita et al., 2023) one of which is the level of knowledge, where low knowledge can cause a lack of motivation for WUS to carry out IVA examinations.

According to (Sari, dkk. 2010 dalam (Friska Realita et al., 2023)) recommend for personnel Health to participate helps increase awareness of cervical cancer in women of childbearing age By providing counseling related to cervical cancer, not just instructing the community to carry out early detection, but also with more emphasis on information about the dangers of cervical cancer, symptoms, causes, prevention, and treatment. This strategy may be able to increase public awareness about the Importance of Cervical Cancer Screening

According to (Riri dan Chikma, 2019 in (Putrisuastini et al., 2023)) Another factor that can cause low participation of WUS in conducting IVA examinations is the lack of understanding and awareness of women regarding one of the methods for early detection of cervical cancer or cervical cancer that occurs in WUS.

2. Methods

In this study, the author uses a type of descriptive research with an approach cross-sectional to see the relationship between variables by measuring each subject at the same time. The number of samples in the study was 61 people using the purposive sampling technique and sampling was based on inference, so that the representativeness of sampling was determined by the researcher based on the consideration of experienced people. The determination of sample size is determined using the Lemeshow formula. The instrument in the study used a questionnaire. This research was conducted in January 2023 at the Kelapa Health Center.

3. Results and Discussion

Result

a. Analisa Univariat

Table 1.
Distribution of Respnden Based on the characteristics of the response to conduct IVA examinations at the Kelapa Health Center

Respondent characteristics	Frequency (n)	Percentage (%)
IVA Examination		
No check	36	59
Check	25	41
Total	61	100

In table 1, it is known that the characteristics of the IVA examination of the respondents from 61 respondents were obtained by 36 people (59%) with the results of the examination not examined and 25 people (41%) with the results of the examination.

Table 2.
Distribution of Respondents Based on Knowledge at the Kelapa Health Center

Respondent characteristics	Frequency (n)	Percentage (%)
Knowledge		
Less	35	57,4
Good	26	42,6
Total	61	100

In table 2, it is known that the knowledge characteristics of the respondents from 61 respondents were obtained by 35 people (57.4%) with poor knowledge results and 26 people (42.6%) with good knowledge results.

Table 3.
Distribution of Respondents Based on Attitudes at the Kelapa Health Center

Respondent characteristics	Frequency (n)	Percentage (%)
Attitude		
Less supportive	30	49,2
Support	31	50,8
Total	61	100

In table 3, it is known that the characteristics of the respondents' attitudes from 61 respondents were obtained by 30 people (49.2%) with the results of a less supportive attitude and 31 people (50.8%) with the results of a supportive attitude.

Table 4.
Distribution of Respnden Based on Family Support at the Kelapa Health Center

Respondent characteristics	Frequency (n)	Percentage (%)
Family Support		
Less supportive	33	54,1
Support	28	45,9
Total	61	100

In table 4, it is known that the characteristics of respondents' family support from 61 respondents were obtained by 33 people (54.1%) with the results of less supportive family support and 28 people (45.9%) with the results of supportive family support.

Tablel 5.
Distribution of Respnden Based on the Support of Health Workers at the Kelapa Health Center

Respondent characteristics	Frequency (n)	Percentage (%)
Healthcare Worker Support		
Less supportive	26	42,6
Support	35	57,4
Total	61	100

In table 5, it is known that the characteristics of the support of the respondent health workers out of 61 respondents were obtained by 26 people (42.6%) with the results of family support of the health workers were less supportive and 35 people (57.4%) with the results of the support of the health workers who were supportive.

b. Analisa Bivariat

Table 6.
The Relationship of Knowledge to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

Knowledge	IVA Examination				Total	P-value	OR
	Not Checking		Check				
	n	%	n	%			
Less	26	74.3	9	25.7	35	0.005	4.622
Good	10	38.5	16	61.5	26		(1.546-
Total	36	59	25	41	61		13.815)

In table 6, it is known that respondents who did not conduct IVA examinations had less knowledge as many as 26 people (74.3%) than those who had good knowledge as many as 10 people (38.5%). The results of the Chi-square test obtained a p-value of 0.005 (α<0.05), which means that there is a relationship between knowledge and IVA method examination. Based on the OR value of knowledge of 4,622, which means that respondents with poor knowledge have a risk of 4,622 times not to do early detection of cervical cancer using the IVA method.

Table 7.
The Relationship of Attitudes to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

Attitude	IVA Examination				Total	P-value	OR
	Not Checking		Check				
	n	%	n	%			
Less Support	22	73.3	8	26.7	30		
Support	14	45.2	17	54.8	31	0.025	3.339 (1.140-9.782)
Total	36	59	25	41	61		

In table 7, it is known that respondents who do not conduct IVA examinations have a less attitude as many as 22 people (73.3%) than those who have a supportive attitude as many as 14 people (45.2%). The results of the Chi-square test obtained a p-value of 0.025 (α<0.05), which means that there is a relationship between attitudes to the IVA method examination. Based on the OR value of 3,339, which means that a less supportive attitude has a risk of 3,339 times not to do early detection of cervical cancer using the IVA method.

Table 8.
The Relationship of Family Support to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

Family Support	IVA Examination		Total	P-value	OR
	Not Checking	Check			

	n	%	n	%			
Less	24	72.7	9	27.3	33	0,018	3.556
Support	12	42.9	16	5.1	28		(1.218-
Total	36	59	25	41	61		10.376)

In table 8, it is known that the majority of respondents do not receive family support in conducting IVA examinations as many as 24 people (72.7%) while those who receive family support are 12 people (42.9%). The results of the Chi-square test obtained a p-value of 0.018 (α<0.05), which means that there is a relationship between family support and IVA method examination. With an OR value of 3,556, which means that the level of support from a less supportive family is 3,556 times more likely not to carry out early detection of cervical cancer IVA method.

Table 9.
The Relationship of Health Workers' Support to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

Healthcare Worker Support	IVA Examination				Total	P-value	OR
	Not Checking		Check				
	n	%	n	%			
Less	15	57,7	11	42,3	30	0.856	0.909 (0.324-0.549)
Support	21	60,0	14	40,0	31		
Total	36	59	25	41	61		

In table 9, it is known that respondents who did not carry out IVA examinations and did not receive support from health workers were 15 people (57.7%) and received the support of health workers as many as 21 people (60%). The results of the Chi-square test obtained a p-value of 0.856 (α>0.05), which means that there was no relationship between the support of health workers and the IVA method examination. With an OR value of 0.909, which means that the support of health workers who are less supportive has a risk of 0.909 times not doing early detection of cervical cancer with the IVA method.

Discusion

The relationship of knowledge to the behavior of women of childbearing age in the early detection of cervical cancer with the IVA examination method

The results of the Chi-square test obtained a p-value of 0.005 (α < 0.05), which means that there is a significant relationship between knowledge of WUS behavior in early detection of cervical cancer and the IVA examination method. The OR value of 4,622 which means a poor level of knowledge is 4,622 times more likely not to carry out early detection of cervical cancer using the IVA method. In line with the 2021 Meidiana study which stated that lack of knowledge can affect the behavior of women of childbearing age in conducting IVA test examinations (Madiana, 2021).

According to Dewi, et al. 2021 Respondents who have good knowledge about IVA examinations have high awareness to improve their health and are more likely to undergo IVA examinations, while respondents who have less knowledge of IVA examinations are less likely to be unaware of the dangers of cervical cancer and the importance of early detection of cervical cancer with the IVA method (Dewi et al., 2021).

This study shows that knowledge can affect WUS when conducting IVA examinations. The low knowledge of WUS is caused by the lack of information they get. To increase maternal knowledge about cervical cancer at IVA examinations, it is supported both formally (providing information at the service site) and informally (providing information during social gatherings, lectures, etc.) both by health workers and local authorities.

Relationship of attitudes to the behavior of women of childbearing age in early detection of cervical cancer with IVA examination method

The results of the Chi-square test obtained a p-value of 0.025 (α < 0.05), which means that there is a significant relationship between attitudes towards the behavior of women of childbearing age in the early detection of cervical cancer with the IVA examination method with an OR value of 3,339 which means that the level of less supportive attitude is 3,339 times more risky not to do early detection of cervical cancer using the IVA method. In line with the research of Marbun et al., 2020 which stated that attitude can affect WUS in the early detection of cervical cancer (Marbun et al., 2020)

According to Nasution (2021) Attitude can determine a person's progress in a better direction. To foster a good attitude, it can be done by empowering health workers to educate the public about the importance of cervical cancer screening through the IVA method on a regular basis. Good attitude leads to good behavior in female couples of childbearing age (WUS) who are screened for cervical cancer with the IVA method (Nasution, 2021).

The results show that attitudes have an effect on the IVA test method. The reasons for the negative attitude towards WUS include that cervical cancer screening is an unimportant action, arguing that there is no risk of developing cervical cancer, the absence of worrying symptoms, fear of pain, and shame and fear of abnormal results. The respondents' positive attitude was based on the awareness that cervical cancer must be detected early to avoid delays in treatment.

The Relationship of Family Support to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

The results of the Chi-square test obtained a p-value of 0.018 (α<0.05), which means that there is a significant relationship between family support and IVA method examination. With an OR value of 3,556, which means that family support that is less supportive is 3,556 times more likely not to do early detection of cervical cancer with the IVA method. In line with research (Shalikhah, 2019) which states that there is a significant relationship between family support and early detection behavior of cervical cancer with IVA.

One type of family support is provided by the husband where the husband is part of the family. If a husband understands healthy living habits, then he will be more supportive of his wife's health. Support from the husband brings psychological benefits. In other words, it can provide a sense of security and encourage individuals to practice healthy behaviors. Family support that can be provided includes informational support, appreciative support, emotional support, and instrumental support (Jamilah et al., 2022).

Based on the results of research and theory, as well as several related research findings, researchers argue that there is a relationship between family support for the behavior of women of childbearing age in cervical cancer screening with the IVA method. These results show that support has a significant influence on respondents' motivation in maintaining health. The role of the husband as a decision-maker has a significant influence on WUS behavior when conducting IVA examinations. Thus, it is very important for families to provide emotional support to respondents when conducting IVA examinations.

Relationship of Health Workers' Support to the Behavior of Women of Childbearing Age in Early Detection of Cervical Cancer with IVA Examination Method

The results of the Chi-square test obtained a p-value of 0.856 (α>0.05), which means that there is no relationship between the support of health workers and the IVA method examination. With an OR value of s0.909, which means that the level of support of health workers who are less supportive is 0.909 times more likely not to carry out early detection of cervical cancer with the IVA method. This is not in line with the research of Citra & Ismarwati (2019) which shows that the support of health workers affects WUS behavior in IVA examinations (Citra & Ismarwati, 2019).

Data shows that the support of health workers has no effect on the IVA examination method. Most health workers have provided maximum health services to WUS to carry out early detection of cervical cancer, some efforts have been made one example by conducting counseling, but the lack of knowledge and self-awareness makes women of childbearing age unwilling to do IVA examinations. In this case, health workers should make extra efforts to increase WUS awareness in the importance of early detection of cervical cancer.

In line with research (Rahmi & Sinta, 2020) There was no relationship between the support of health workers and women's behavior in conducting IVA tests, this was because most respondents were afraid to take the test and were embarrassed by the stages of the examination. In addition, respondents also said that they were in good health and did not need to undergo examinations, and they only sought treatment when they felt unwell or sick.

4. Conclusion

In the above research It can be seen that there are several factors that cause the low WUS that conducts IVA examinations. The reasons include a low level of knowledge, attitude, and family support for early detection of cervical cancer with the IVA examination method. Based on these factors, it is necessary to increase socialization of WUS and their families regarding the benefits and objectives of early detection of cervical cancer using the IVA method, so that it is expected to foster a positive attitude for women or can motivate women to carry out early detection of cervical cancer.

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