

WUS' Perception Of VIA Detection Examination Early Cancer Of Cervic With Approach Health Belief Model In Community Health Center Sudiang Raya Makassar City

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Abstract

Cervical cancer is a form of malignancy that occurs in the cervix caused by abnormal tissue growth. The government has carried out an early detection program for cervical cancer through an VIA examination. The participation of women to carry out the VIA (Visual inspection with acetic acid) examination is still low. According to the Health Belief Model (HBM) theory, the decision to participate in preventing or detecting a disease is determined by many factors including knowledge, perceived vulnerability, perceived severity, perceived benefits, and perceived barriers. This study aims to determine the perception of WUS on the VIA examination for early detection of cervical cancer at the Sudiang Raya Public Health Center, Makassar City. The type of research used is quantitative with cross-sectional method. The sample size is 257 respondents, the sampling is done by consecutive sampling. Data analysis used chi-square test and logistic regression test. The results showed that there was a significant relationship between knowledge ($p = 0.037$), perceived threat ($p = 0.000$), and perceived barriers ($p = 0.000$) on the VIA examination for early detection of cervical cancer. While the perception of benefits ($p = 0.743$) there is no significant relationship. The most related factor is perceived obstacle $\text{Exp (B)} = 6.153$. Perceptions of barriers that are less or not afraid are 6,153 times more likely to carry out an VIA examination compared to respondents who have a perception of sufficient barriers or feel afraid. Therefore, it is necessary to provide information about the importance of VIA examination in early detection of cervical cancer so that the perception of WUS barriers can be overcome.

Keywords: Cervical Cancer, VIA Examination, WUS, Health Belief Model.

Introduction

Cancer ranks as the leading cause of death and an important barrier to increasing life expectancy in every country in the world [1]. According to the World Health Organization (WHO), cervical cancer is the fourth most common type of cancer in women in the world with an incidence of 569,847 people [2]. The death rate from cervical cancer reaches 311,365 people worldwide [2]. Meanwhile, in 2020 the number of new cases of cervical cancer was 604,127 cases with a total number of deaths of 341,831 cases [2]. Cervical cancer is a form of malignancy that occurs in the cervix (cervix) caused by abnormal growth of cervical epithelial tissue due to persistent infection with human papilloma virus (HPV) [3]. In

Indonesia, cervical cancer is the second most common type of cancer in women [2].

Based on 2019 Ministry of Health data, the incidence of cervical cancer cases was 32,469 with a death rate of 18,279. While data from [4], in Indonesia cervical cancer cases were 36,663 people, the death rate from cervical cancer reached 21,003 people (The Global Cancer Observatory, 2020). Data from the South Sulawesi Provincial Health Office (2018) states that the incidence of cervical cancer in 2016 was 2,066 cases, in 2017 there were 536 cases. Meanwhile, based on data from RSUP. DR. Wahidin Sudirohusodo Makassar obtained the incidence of cervical cancer in 2018 as many as 308 people, in 2019 as many as 322 people, in 2020 as many as 273 people, and in

2021 as many as 307 people. Based on data from the Makassar City Health Office, cervical cancer cases in Makassar City in 2020 were 47 cases, of which there were 44 new cases, and 3 died.

The government has carried out an early detection program for cervical cancer as a strategic plan for the Ministry of Health of the Republic of Indonesia where this program is carried out to reduce morbidity, disability, and death from cancer through early detection of cervical cancer through an VIA (visual inspection of acetic acid) examination since 2015. The VIA method or often called the VIA test is an easy method with a simple but effective way to detect cervical cancer as early as possible. The VIA test is done by applying 3-5% acetic acid to the surface of the cervix. The results can be known immediately at the time of examination [5]. The participation of women to carry out an VIA examination is still low, where in most cases they find out they have cancer after an advanced stage so that the chances of recovery are getting smaller [6].

Data from the Ministry of Health in 2020, in Indonesia the achievement of the VIA examination visit program in 2019 was 12.2%, of which 50,171 positive VIAs, 5,847 suspected cancer. Then, in 2020 the number of VIA examination visits decreased by 8.3%, of which 84,185 positive VIAs were suspected, 5,015 people suspected cancer. Based on data from the South Sulawesi Provincial Health Office 2020, program achievements based on the number of VIA examination visits in 2019 were 39.6%. While in 2020 it was 3.4%. Data from the Makassar City Health Service for 2020-2021 shows that the number of VIA examination visits in 2020 is 703 people, of which 15 people are positive VIA, 2 people suspect cancer. Meanwhile, in 2021, the number of VIA examination visits was 404 people, of which 5 people were positive VIA, 2 people suspected of having cancer.

Data from the Sudiang Raya Health Center Makassar City shows the coverage of VIA examinations has decreased, where in 2016 the number of VIA examination coverage was 91 people, in 2017 as many as 42 people, in 2018 as many as 11 people, 2019 as many as 27 people, 2020 as many as 9 people, and 2021 there are none who did the inspection.

According to the Health Belief Model (HBM) the decision to participate in a program designed to prevent or detect a disease is determined by many factors including knowledge, perceived susceptibility, awareness of the impact of the disease or perceived severity, perceived benefits of

undergoing screening, perceived barriers and costs of screening methods [7]. The results of the study [8] reveal that perceptions can influence a person to perform an VIA test. Positive perception is an individual's assessment of an object or information with a positive view or in accordance with what is expected and the perceived object or existing rules [9]. Meanwhile, negative perception is an individual's perception of certain objects or information with a negative view, contrary to what is expected from the perceived object or from existing regulations.

Methods

This type of research uses quantitative research methods using a cross-sectional approach. The population in this study were all women of childbearing age who were the targets of the VIA examination at the Sudiang Raya Public Health Center Makassar with a total of 5,148. The sample in this study were 257 WUS who were the targets of the VIA examination. The researcher used non-probability sampling with consecutive sampling method. The inclusion criteria include, women of childbearing age aged 30-50 years, married, women of childbearing age who have not or have had an VIA examination within a period of five years (2016-2021), women of childbearing age who are willing to become respondents in the study. , women of childbearing age who visited the Sudiang Raya Health Center, women of childbearing age who visited the Posyandu (Integrated Service Post) in the working area of the Sudiang Raya Health Center, were able to speak fluent Indonesian. Meanwhile, the exclusion criteria included women of childbearing age who were < 30 years old and > 50 years old, women of childbearing age who were seriously ill. The instruments used in this study were informed consent, questionnaire sheets.

Results and Discussion

Table 1. The general characteristics of research subjects show that the age group of research subjects is mostly in the age group of 30-39 years, amounting to 143 people (55.6%). Level of education, the most research subjects with education graduated from high school/equivalent as many as 146 people (56.8%). Most of the research subjects work as housewives (IRT) as many as 231 people (89.9%). The parity of the research subjects was at most 1-2 times as many as 119 people (46.3%). Married age of research subjects is 11-20 years at most as many as 131 people (51%).

Table 1. General Characteristics of Research Subjects

Characteristics of Respondents	VIA Examination	
	Frequency	Percentage
	n	%
Age		
30-39	143	55,6
40-50	114	44,4
Total	257	100
Education		
finished elementary school	26	10,1
Graduated from junior high school/equivalent	51	19,8
High school graduate/equivalent	146	56,8
Graduated Diploma	10	3,9
Graduate	22	8,6
Graduated Master	2	0,8
Total	257	100
Work		
Housewife	231	89,9
Employee	3	1,2
Self-employed	12	4,7
civil servant	6	2,3
Nurse	1	0,4
Lecturer	2	0,8
Teacher	2	0,8
Total	257	100
Paritas (Number of births)		
Never	12	4,7
1-2 times	119	46,3
3-4 times	101	39,3
5-6 times	22	8,6
7-8 times	1	0,4
9-10 times	1	0,4
11-12 times	1	0,4
Total	257	100
Married Age		
11-20 years old	131	51
21-30 years old	121	47,1
31-40 years old	5	1,9
Total	257	100

Source: Primary Data, 2022

Table 2 The majority of WUS participation in early detection of VIA examination has never done it, namely as many as 225 people (85.5%). The frequency of examination of research subjects

mostly did 1 time, namely 21 people (8.2%). The last examination of the research subjects was mostly 3-4 years old, namely 15 people (5.9%).

Table 2. WUS Participation in Early Detection of Cervical Cancer

Early Detection of Cervical Cancer	Frequency	Percentage %
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VIA Examination		
Once	32	12,5
Never	225	87,5
Total	257	100
VIA Check Frequency		
1 time	21	8,2
2 times	7	2,7
3 times	4	1,6
Total	32	100
Last Check		
1-2 years	5	1,9
3-4 years	15	5,9
5-6 years	12	4,7
Total	32	100

Source: Primary Data, 2022

Table 3 Knowledge of research subjects mostly good, namely 138 people (54.1%).

Table 3. Knowledge of WUS

Knowledge	Frequency	Percentage (%)
Well	139	54,1
Not enough	118	45,9
Total	257	100

Source: Primary Data, 2022

Table 4 The threat perception of research subjects is mostly sufficient, namely 144 people (56%)

Table 4. WUS Threat Perception

Threat Perception	Frequency	Percentage (%)
Enough	144	56,0
Not enough	113	44,0
Total	257	100

Source: Primary Data, 2022

Table 5 The perception of the benefits of research subjects is mostly sufficient, namely 235 people (91.4%).

Table 5. Perceived Benefits of WUS

Benefits Perception	Frequency	Percentage (%)
Enough	235	91,4
Not enough	22	8,6
Total	257	100

Source: Primary Data, 2022

Table 6. Obstacles perception of research subjects mostly less, namely 171 people (66.5%).

Table 6. Perception of WUS Barriers

Perception Barriers	Frequency	Percentage (%)
Enough	171	66,5
Not enough	86	33,5
Total	257	100

Source: Primary Data, 2022

Table 7 shows that there are 23 respondents (16.5%) who have good knowledge and have never done VIA examination, while 116 respondents (83.5%). There were 9 respondents (7.6%) who had less knowledge and had never conducted an VIA examination, while 109 people

(92.4%). The results of the chi-square statistical test obtained a p-value of 0.037 ($p < 0.05$), which means that there is a relationship between WUS knowledge and VIA examination in early detection of cervical cancer.

Table 7. The Relationship of Respondents' Knowledge of the VIA Examination

		Checkup		Total	p-value
		Ever	Never		
Knowledge	Well	23	116	139	0.037
	Total Knowledge	16.5%	83.5%	100%	
	Not enough	9	109	118	
	Total knowledge	7.6%	92.4%	100%	

Source: Primary Data, 2022

Table 8 shows that respondents who have a sufficient threat perception and have had an VIA examination as many as 27 people (18.8%), while respondents who have a sufficient threat perception and have never conducted an VIA examination are 117 people (81.3%). There were 5 respondents (4.4%), who had less threat perception

and had never conducted an VIA examination, while 108 respondents (95.6%). The results of the statistical test obtained a p-value of 0.000 ($p < 0.05$), which means that there is a relationship between perceived threats to VIA examinations for women of childbearing age in early detection of cervical cancer.

Table 8. The Relationship of Respondents' Threat Perceptions to the VIA Examination

		Checkup		Total	p-value
		Ever	Never		
Threat Perception	Enough	27	117	144	0.000
	Total Threat Perception	18.8%	81.3%	100%	
	Not enough	5	108	113	
	Total Threat Perception	4.4%	95.6%	100%	

Source: Primary Data, 2022

Table 9 shows that there are 29 respondents (12.3%) who have a perception of sufficient benefit and have never done an VIA examination, while 206 respondents (87.7%) have a sufficient perception of benefit and have never done an VIA examination. There were 3 respondents (13.6%) who had a perception of less benefit and had never

done an VIA examination, while 19 people (86.4%). The results of the chi-square statistical test obtained a p-value of 0.743 ($p > 0.05$), which means that there is no relationship between perceived benefits of VIA examinations for women of childbearing age in early detection of cervical cancer.

Table 9. The Relationship of Respondents' Benefit Perceptions on the VIA Examination

		Checkup		Total	p-value
		Ever	Never		
Benefits Perception	Enough	29	206	235	0.743
	Total Perceived Benefits	12.3%	87.7%	100%	
	Not enough	3	19	22	
	Total Perceived Benefits	13.6%	86.4%	100%	

Source: Primary Data, 2022

Table 10 shows that there are 2 respondents (2.3%), who have sufficient perception of barriers and have never done VIA examination (97.7%).

There were 30 respondents (17.5%) who had a perception of less barriers and had never

conducted an VIA examination, while 141 respondents (82.5%).

The results of the chi-square statistical test obtained a p-value of 0.000 ($p < 0.05$), which means

that there is a relationship between perceived barriers to VIA examinations for women of childbearing age in early detection of cervical cancer.

Table 10. The Relationship between Respondents' Perceptions of Obstacles to the VIA Examination

		Checkup		Total	p-value
		Ever	Never		
Perception Barriers	Enough	2	84	86	0.000
	Total Perception Barriers	2.3%	97.7%	100%	
	Not enough	30	141	171	
	Total Perception Barriers	17.5%	82.5%	100%	

Source: Primary Data, 2022

Table 11 shows that the results of logistic regression analysis have three variables that influence the VIA examination of women of childbearing age, statistically p value < 0.05 , namely the knowledge variable (0.183), threat

perception (0.009), and perceived obstacle (0.015). The most related variable is the perception of obstacles seen from the value of the Exp table (B) which is 6.318.

Table 11. Results of Logistics Regression Test Analysis of Knowledge of Threat Perception Variables, Perceptions of Obstacles to VIA Examination

Variable	B	S.E.	Wald	Df	Sig	Exp(B)	CI 95%	
							lower	Upper
Knowledge	0.577	.433	1.775	1	0.183	1.781	0.762	4.164
Threat Perception	1.348	.515	6.863	1	0.009	3.850	1.404	10.557
Barriers Perception	1.843	.755	5.962	1	0.015	6.318	1.439	27.742

Source: Primary Data, 2022

Relationship of Knowledge with VIA Examination for Early Detection of Cervical Cancer

The results of the chi-square statistical test obtained a p-value of 0.037 ($p < 0.05$). This shows that there is a relationship between WUS knowledge and VIA examination in early detection of cervical cancer at the Sudiang Raya Public Health Center Makassar City.

In line with the results of the study [10] obtained a p-value of 0.048 statistically there is a significant relationship between knowledge and participation in the VIA examination. These results indicate that there is a significant relationship between knowledge and behavior of women of childbearing age in cervical cancer screening with the VIA test.

The effect of knowledge and behavior on the examination of women of childbearing age on the VIA test is included in the low category. It can be concluded that women of childbearing age who have good knowledge perform cervical cancer screening with the VIA test. On the other hand,

women of childbearing age who have less knowledge are not willing to take the VIA test.

The Relationship between Threat Perception and VIA Examination for Early Detection of Cervical Cancer

The results of statistical analysis using the chi-square test showed that the p-value of the study was 0.000 ($0.000 < 0.05$), meaning that there was a relationship between perceived threats to VIA examinations for women of childbearing age in early detection of cervical cancer.

In line with the results of the study [11] showed that there was an influence of the perception of the threat of cervical cancer with the participation of couples of childbearing age in detection by the VIA method with p value = 0.045 meaning < 0.05 . This means that there is a direct influence between perceived threat and women's participation in early detection of cervical cancer using the VIA method.

The more severe the risk of a disease, the more likely the individual is to be exposed to the disease and the greater the perceived threat. This sense of

threat drives the individual to take action to prevent or cure a disease [12].

The Relationship of Perceived Benefits with VIA Examination for Early Detection of Cervical Cancer.

The results of statistical analysis using the chi-square test showed a p-value of 0.743 ($0.743 > 0.05$), meaning that there was no relationship between perceived benefits of VIA examinations for women of childbearing age in early detection of cervical cancer.

The results of this study are in line with research [13] which shows that there is no significant correlation between perceived benefits and participation in the VIA test (p-value = 1,000). The majority of respondents, both with high perceived benefits and low perceived benefits, did not take the VIA test.

A person's perception or belief about a health service can influence their behavior to use the service. However, the perception of benefits can only trigger an action when combined with other factors such as their belief in their susceptibility to a disease and belief in the perceived barriers to taking an action. In addition, it can also be determined by other factors such as the state of the surrounding environment [7].

Relation of Perceived Barriers to VIA Examination for Early Detection of Cervical Cancer

The results of statistical analysis using the chi-square test showed a p-value of 0.000 ($0.000 < 0.05$), meaning that there was a relationship between perceived barriers to VIA examinations for women of childbearing age in early detection of cervical cancer. The results of this study are in line with research [7] which shows that the results of statistical tests obtained a p-value of 0.001 meaning that there is a relationship between perceived barriers and WUS participation in early detection of cervical cancer using the VIA method.

The most common barriers that women do not do the VIA test because of shame and fear of the test results. The perception of obstacles felt by women of childbearing age who wanted to do the VIA test in this study was the lack of information about early detection of cervical cancer with the VIA method. Meanwhile, the obstacles experienced by women of childbearing age who do not want to do an VIA examination are the fear of taking an VIA test and the results of the test, so there are still women who do not want to do an VIA test.

Variables Most Associated with Lack of VIA

Examination in Early Detection of Cervical Cancer

The results of multivariate analysis showed that there were three variables related to early detection of cervical cancer, namely knowledge $p = 0.183$, perceived threat $p = 0.009$, perception of barriers $p = 0.015$.

The most dominant variable to the lack of VIA examination is the perception of obstacles. Respondents who have a perception of barriers that are less or do not feel afraid are 6,318 times more likely to carry out an VIA examination compared to respondents who have a perception of sufficient barriers or feel afraid.

This is in line with research [13] in Palembang which showed that based on a multivariate analysis the perception of barriers was the dominant factor influencing participation in the VIA test in women of childbearing age.

Conclusion

The results showed that there was a significant relationship between knowledge ($p = 0.037$), perceived threat ($p = 0.000$), and perceived barriers ($p = 0.000$) on the VIA examination for early detection of cervical cancer. While the perception of benefits ($p = 0.743$) there is no significant relationship.

The most related factor is perceived obstacle Exp (B) = 6.153. Perceptions of barriers that are less or not afraid are 6,153 times more likely to carry out an VIA examination compared to respondents who have a perception of sufficient barriers or feel afraid.

Research Limitations

This study did not use random sampling, so door to door was not carried out because data on women of childbearing age aged 30-50 years who were the targets of the VIA examination were not available at the Sudiang Raya Public Health Center. The study was conducted during the Covid-19 pandemic, so there were several women of childbearing age who refused to be the research sample because they thought that the questionnaire was related to the vaccine. In addition, there are some respondents who also think that when they have filled out the questionnaire, they are required to carry out an VIA examination, even though the researcher has explained that this questionnaire is only a research and has nothing to do with the implementation of the examination.

Statement of Ethics

Health Research Ethics Commission, Faculty of Public Health, Hasanuddin University on March 10, 2022 with the number: 2505/UN4.14.1/TP.01.02/2022.

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