RESEARCH ARTICLE

Analysis of Factors Affecting the Participation of Women of Childbearing Age in Visual Inspection with Acetic Acid (VIA) in the Community Health Center of Bangkalan

Uswatun Khasanah[1*], Siti Anisak[1], Nurlailis Saadah[1], Esyuananik[1], Anis Nur Laili[1]

Midwifery Department, Poltekkes Kemenkes Surabaya; Jl. Pucang Jajar Tengah 56 Surabaya.

*Corresponding Author: Uswatun Khasanah

Abstract

Cervical cancer is a malignant disease that it is possible to cause death. Unfortunately, the community still has a very low awareness to check themselves.More than 70% of sufferers come to the hospital at an advanced stage that is difficult tocure. This study aims to analyze the factors that influence the participation of women of childbearing age in visual inspection using acetic acid in the community health center of Bangkalan. The study was conducted in March-June 2019 with a cross sectional study design. The number of research subjects was 104 women of childbearing age taken by cluster random sampling.The dependent variable included predisposing factors (knowledge, motivation, culture), supporting factors (distance to health facilities and income) and reinforcing factors (midwife counseling). The independent variable included the participation of women in childbearing age in the VIA test. Data analysis was performed using the chi square test and logistic regression with a significance level of $\alpha = 5\%$. The results showed that knowledge had an influence on the participation of women in childbearing age in VIA tests (p value $0.047 <0.05$), while other variables (motivation, culture, distance to health facilities, income and counseling) had no effect (p value> 0.05).Knowledge is the initial factor of a behavior that is expected to be positively correlated with behavior. In addition, environmental influences (including culture) also shape the behavior. However,not all people are aware and ready to implement behavioral changes. The existence of socio-cultural influences with gender bias, as well as the lack of information and the ability to receive and absorb information can influence the norms and beliefs of the community in utilizing health services including the effort to take part in VIA tests. For this reason, it is necessary to conduct socialization to targets related to VIA inspection through printed and electronic media. In addition, health workers need to improve their skills in counseling based on VIA counseling standards.

Keywords: *Predisposing Factor, Reinforcing Factor, Enabling Factor, Women of Childbearing Age Participation, VIA Test.*

Introduction

Background

Cervical cancer is a malignant disease that it is possible to cause death. Unfortunately, the community still has a very low awareness to check themselves. More than 70% of sufferers come to the hospital at an advanced stage that is difficult to cure [1]. Based on 2010 Hospital Information System data, there were 12,014 (28.7%) cases of breast cancer hospitalization and 5,349 (12.8%) cases of cervical cancer [2]. Ardiansyahin *Balitbangkes* (the Health Research and Development Agency) 2006 stated that in Indonesia there is one mother who dies of cervical cancer every hour. 80% of cervical cancer sufferers in the world are in developing countries. Most of these sufferers are in Indonesia [3]. Symptoms of cervical cancer can be found early with VIA and pap smear examination, but many women are still reluctant to do it.This is caused by a variety of reasons, including fear and shame for conducting VIA tests, community health centers that do not have VIA officers, and lack of funds for activities such as material purchases, form doubling, and public outreach [4].

Purpose

This study aims to analyze the factors that influence the participation of women of childbearing age in visual inspection using acetic acid in the community health center of Bangkalan. This research is expected to provide scientific information about the importance of early detection of cervical cancer by VIA method.

Methods

This study utilized a cross sectional design. The populations in this study were all women of childbearing age in 5 community health centers of Bangkalan District in the January-May 2019 period that had been counseled about VIA examination with cluster random sampling technique. This study took a sample of 104 respondents.

The dependent variable included predisposing factors (knowledge, motivation, culture), enabling factors (distance to health facilities and income), and reinforcing factors (midwife counseling). The independent variable was the participation of women of childbearing age in VIA test. Data were taken using a questionnaire that had been tested for validity and reliability and were processed with a statistical test of chi square test and logistic regression with a significance level of $\alpha=5\%$.

Results

Effects of Predisposing Factors (Knowledge, Motivation and Culture) on the Participation of Women of Childbearing Age in VIA Test

Table 1: Effects of Predisposing Factors (Knowledge, Motivation and Culture) on the Participation of Women of Childbearing Age in VIA Test

Variables	Participation in VIA Test		P-value (CI 95%)	OR
	Do Not Participate	Participate		
Knowledge			0.047	4.154
Poor	9	13		1.920
Fair	8	25		
Good	7	42		
Motivation			0.706	1.33
Low	14	41		
High	10	39		
Culture			0.278	1.86
Does not support	12	28		
Support	12	52		

Table 1 shows that of the 3 sub-variable predisposing factors, knowledge is the only factor that has an influence on the participation of women of childbearing age in the VIA test (p-value <0.05). Most mothers who have good knowledge have 4.154 times greater opportunity to join VIA than mothers with poor knowledge, and have 1.920 times greater opportunity than mothers with fair knowledge.Sub-variable of motivation shows that respondents who participated in the VIA test and those who did not have low motivation with an OR value of 1.33. It means that the respondents who have high motivation only have 1.33 times more chance to take the VIA test than those who have low motivation.Furthermore, the respondents with supportive or unsupportive culture tend to take a VIA test with an OR value of 1.86; which means that the respondents with a supportive culture only have 1.86 times more chance to take a VIA test than those with unsupportive culture

Effects of Enabling Factors (Distance to the Community Health Center and Income) on the Participation of Women of Childbearing Age in VIA Test

Table 2: Effects of Enabling Factors (Distance to The Community Health Canter and Income) on The Participation of Women of Childbearing Age in VIA Test

Variables	Participation in VIA Test		p-value	OR
	Do Not Participate	Participate		
Distance				
Far	5	13	0.556	1.36
Near	19	67		
Income				
Low	6	21	1.000	0.94
High	18	59		

Table 2 shows the results that enabling factors in both the distance and income sub-variables did not affect the participation of women of childbearing age in VIA test (p-value > 0.05). Most of the respondents who attend or do not attend the VIA test live close to a health facility with an OR value of 1.36. It means that the respondents with a short distance of residence to a health facility have a 1.36 times greater chance of taking a VIA test than those with a distance of residence far from a health facility. The similar results are obtained in the income sub-variable. Most respondents who take part in or do not take a VIA test have a high income with an OR value of 0.94, which means that the respondents who have a high income only have a 0.94 times greater chance of taking a VIA test than those who have a low income.

Effects of Reinforcing Factor (Midwife Counseling) on the Participation of **Women of Childbearing Age in the VIA Test**

Table 3: Effects of Reinforcing Factor (Midwife Counselling) on the Participation of Women of Childbearing Age in the VIA Test

Variables	Participation in VIA Test		*p-value*	OR
	Do Not Participate	Participate		
Midwife counseling				
According to the standard	7	16	0.354	1.65
Not according to standard	17	64		

The data in table 3 shows that the counseling sub-variable has no influence on the participation of women of childbearing age in the VIA test. Most respondents who do or do not attend the VIA test have received counseling from midwives who do not meet the standards with an OR value of 1.65. It means that the respondents who have received VIA counseling from midwives in accordance with the standard of counseling are only 1.65 times more likely to take a VIA test than those who receive counseling that is not in accordance with the standard

Discussion

Effects of Predisposing Factors (Knowledge, Motivation and Culture) on the Participation of Women of Childbearing Age in VIA Test

Based on the results of statistical tests on predisposing factors, the knowledge sub-variable was the only factor that had an influence on the participation of women of childbearing age in VIA test (p-value <0.05). It means that there were significant differences in terms of statistics, goodor fair or poor knowledge of midwives towards the participation of women of childbearing age in VIA test.

This is in line with a research conducted by Nur Asni Arti (2017) on the Early Detection Factors of Cervical Cancer with VIA Method in Women of childbearing age which showed that there was a significant relationship between knowledge and early detection of cervical cancer through the VIA method [5].

It was also supported by the results of a research conducted by Miftahil Fauza (2019) about Factors Associated with Early Detection of Cervical Cancer with VIA Method at the Community Health Center of Padang [6]. Knowledge is the initial factor of an expected behavior and is generally positively correlated with behavior.

The respondents tended to do activities related to the knowledge they knew [7]. The results showed that the motivational and cultural sub-variables did not have an influence on the participation of women of childbearing age in the VIA test (p-value > 0.05). This is in line with Ni Wayan Suarniti's research (2014) on the Knowledge and Motivation of women of childbearing age on VIA tests in the Bali Province of Indonesia

which mentioned no significant difference both in internal and external motivation between women of childbearing age who underwent and who did not undergo the VIA test [8]. Moreover, Pharta Basu (2009) in Southern India pointed out that women who took cervical cancer screening were women who were highly educated but did not have the motivation to do it [9]. According to Abraham Maslow's theory, motivation arises since there are needs by which humans tend to meet their basic needs and then try to meet the needs at a higher level.

The participation of women of childbearing age in the VIA test is included in the safety and security needs; that is feeling safe from the threat of accidents and obtaining safety [10]. Although the motivation of the respondents was high, but they were still reluctant to take the VIA test because they thought that this test was not important at the moment due to the absence of any complaints. Burhus Frederic Skinner, as quoted by Azwar, strongly emphasized the influence of the environment (including culture) in shaping one's personality.

Personality is a consistent pattern of behavior that illustrates the history of the reinforcement we experience. Culture provides a pattern of experience for individuals in a society. It has formed the directing line of individual attitudes towards various problems [11]. In fact, not all people are aware and ready to implement behavioral changes.

The existence of socio-cultural influences with gender bias, as well as the lack of information and the ability to receive and absorb information can influence the norms and beliefs of the community in utilizing health services including the effort to take part in VIA tests.

Effects of Enabling Factors (Distance to the Community Health Center and Income) on the Participation of Women of Childbearing Age in VIA Test

The results showed that there was no effect of distance to the community health center on the participation of women of childbearing age on VIA test (p-value = 0.556). It is in line with a research conducted by Flora Theodora Parapat (2016) on Factors Associated with Early Detection Behavior of Cervical Cancer using VIA Method at the Community Health Center of CandirotoTemanggung which found that there was no relationship between distance to the community health center and VIA test visits [12]. The community will usually look for a place of medical help to a health facility close to where they live.

The low utilization of health facilities such as the community health center, hospitals, and so on, is frequently caused by the distance between the facility and community houses that are too far away both physically and socially.Distance and travel time are factors that influence the utilization of health services, especially for reproductive health services.

The distance between the house and the location of the health service affects the search for services [13]. However, close distance to the health facilities does not fully guarantee the community to access health services in conducting VIA tests. It is likely because the VIA test is considered not so important at the moment due to the absence of any complaints and the existence of fear if the results will be positive.

Statistical test results on income sub-variable indicate that there was no effect of income on the participation of women of childbearing age in the VIA test (p-value = 1.000). This is in line with a research of Niluh Nita Silfia (2017) on the Relationship of Characteristics, Knowledge and Attitudes with VIA Test in women of childbearing age in the community health center of Talise which found that there was no relationship between economic status and VIA test [14].

Income has a large contribution to the participation of women of childbearing age in the IVA test. VIA test is one of the programs of the community health center where people who want to do the test are free of charge.

Lack of information and socialization about VIA tests to the public might be the cause of the low level of participation of women of childbearing age in the test. Additionally, there is also a fear of respondents who consider that VIA examination is not important as long as there are no complaints.

Therefore, although this test is free of charge, the woman of childbearing age is still reluctant to take the test. It is supported by a research conducted by Ralince (2017) which asserted that the lack of interest of mothers to take VIA tests at the community health center of Binjai Estate was caused by feelings of taboo, fear of checking and fear of discovered disease, having no complaints, and lacking of socialization [15].

Effects of Reinforcing Factor (Midwife Counseling) on the Participation of Women of Childbearing Age in the VIA Test

Data from the statistical test results showed that the counseling sub-variable had no influence on the participation of women of childbearing age in the VIA test (p-value = 0.354). Counseling is a service process that involves the professional ability of service providers and service recipients, i.e. people who previously could not do much can do something after receiving the service [16].

The implementation of counseling services by midwives is expected to increase the ability of clients as an effort to identify problems, formulate alternative solutions to problems, and assess the results of actions quickly and accurately. Clients have experience in dealing with health problems later on, and the emergence of independence in solving health problems.

Counseling on the early detection of cervical cancer is very important given to women of childbearing age who have been active in sexual intercourse using the VIA method. Most respondents stated that midwives did counseling that was not in accordance with the standard of counseling that should have been done.

The midwives did not explain the risk factors for cervical cancer, how to detect, what VIA was, the purpose of VIA test, the benefits of VIA test, VIA service location, VIA test results and management, so that the

respondents were lack of understanding and it ultimately affected their exclusion on the VIA test.

The results of the study by Meytri Saraswati (2017) affirmed that "the ineffectiveness of promotional and educational efforts through media, outreach and counseling has a major effect on cervical cancer early detection program indicators, namely the coverage of VIA tests [17]. Siti Nuraeni (2016) in her research stated that the condition of the community health center that served patients in large numbers with limited time and number of health workers caused the counseling process provided to patients was very limited and often did not reach the goal [18]. If a woman believes in the competence

and honesty of a health worker, it will be more likely for her to do the testing and if necessary receive treatment and return for further visits. In addition, she might invite others to take VIA test [13].

Conclusion

Knowledge was the only predisposing factor that influenced the participation of women of childbearing age in VIA test, while motivation and culture did not have a significant influence. Similarly, the enabling factor for both the distance and income sub-variables and the reinforcing factor (midwife counseling) did not have an influence on the participation of women of childbearing age in taking VIA tests.

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