Cues to Action to Utilization of Cervical Cancer Screening Services among Women of Reproductive age in Kediri, East Java, Indonesia

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Abstract

Cervical cancer is currently ranked among the top among the various types of cancer that causes death in women in the world. The majority of women diagnosed with cervical cancer do not perform screening tests or do not follow up after being found abnormal results. The purpose of this study was to determine the correlation between cues to action or trigger and the implementation of early detection of cervical cancer using Visual Inspection with Acetic Acid (VIA) method in Kediri, Indonesia. This study used a case-control design. The sampling technique was a multi-stage random sampling method. The sample was 410 respondents. The data were analyzed using logistic regression. The results showed that the trigger affects the implementation of early detection of cervical cancer using the VIA method. Based on the results, the Odds Ratio (OR) cues to action or trigger values were: 1) Information from high television was obtained OR value: 2.7; 2) Recommendation from high physician was obtained OR: 2,3; 3) Recommendation from midwife was obtained OR: 2.6; 4) The recommendation from a friend was obtained OR: 2.5; 5) Having ever seen high cervical cancer patients was obtained OR: 1.6; 6) Having ever read a book or a high leaflet was obtained OR: 1.8. It showed that the higher cues to action or trigger were given to the women, the higher the probability of women to perform the early detection of cervical cancer using the VIA method. Based on the results, the appropriate cues to action or trigger need to be selected to improve the behavior of early detection of cervical cancer VIA method in women.

Keywords: *Cervical Cancer, Early Detection, Cues to Action.*

Introduction

Currently, cervical cancer ranks second among the various cancers that cause deaths in women in the world and 85% occur in women in developing countries[1,2]. Cervical cancer was a preventable and treatable disease if cervical cancer was detected early[3]. In Indonesia, an estimated 13,762 women every year were diagnosed with cervical cancer and 7,493 had died. Cervical cancer in Indonesia was also ranked second in terms of a number of cancer patients in women after breast cancer[2]. Cervical cancer was actually a preventable disease if cervical cancer was detected at the stage of precancerous lesions and treated with the correct procedure[4].

VIA method was particularly a suitable method in developing countries such as Indonesia because of the

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easy or simple technique, low cost and high sensitivity, fast and accurate enough to find abnormalities at the stage of cell abnormality or dysplasia or before precancer[5]. Implementation of early detection of cervical cancer VIA method in Kediri was still very low, less than one percent of the target Health Department of Kediri which set 10%[6].

The efforts had been made to increase women's participation in early detection of cervical cancer such as dissemination of information or counseling about early detection of cervical cancer through printed, electronic and health workers, but women visit rates associated with early detection of cervical cancers were still low[7]. Based on the theory of the Health Belief Model and Fog Behavior Model, the existence of cues to action or trigger was needed to improve the behavior of early detection of cervical cancer in women. The cues to action or trigger were effective. Thus, the trigger could increase the motivation and the ability of women to perform early detection of cervical cancer. The Fog Behavior model also asserted that a person would like to perform target behavior if she had: 1) sufficient motivation, 2) sufficient ability to perform the behavior, and 3) effective or triggered triggers for behavior[8]. In addition, research data on the effective trigger to improve the behavior of early detection of cervical cancer VIA method was very low. Thus, the purpose of this study was to determine the effect of a trigger on the implementation of early detection of cervical cancer VIA method in women in Kediri, Indonesia.

Material and Method

This study used a case-control design that tried to explain the effect of a trigger on the implementation of early detection of cervical cancer VIA method. The populations of the study were all woman who was married and not pregnant at the Health Center Working Area of Health Office of Kediri City 2017. The Sample in this study was some woman who is married and not pregnant in Kediri city year 2017. In this study, the respondents were 410 respondents who were divided into 205 cases and 205 control. The sample was selected using a multi-stage random sampling method with multilevel sampling.

The data were collected by giving questionnaires that had been tested for validity and reliability. The activity of questionnaires begins with determining the respondents who become case groups. After meeting the respondents who became the next case, then looking for the respondents who became the control. After meeting prospective respondents, the researcher explained the purpose of this study, how to fill out the questionnaire, the benefits of research for research subjects, and the confidentiality of the results of questionnaires that had been filled by respondents. Having understood the explanations given, the respondents were required to fill out the approval format to be the respondent, in which the woman was entitled to choose to be a respondent or unwilling, after determining the choice of participation, and then requesting to sign the approval format. In the case and control, respondents were given a questionnaire with the same questionnaire.

Findings:

Table 1. Cues to Action or Trigger Influence to the Implementation of Early Detection of Cervical Cancer VIA Method at Health Center Working Area of Health Office of Kediri City 2017

No	The Characteristics	Categories	VIA checking up				Total		OR value	CI 95%
			Yes		No					
			N	Percentage	N	Percentage	N	Percentage		
1	Physic	Heavy	203	49.8	205	50.2	408	100	-	-
		Very heavy	2	100	0	0.0	2	100	-	-
2	Information from televisions	High	105	64.8	57	35.2	162	100	2.7	1.8–4.1
		Low	100	40.3	148	59.7	248	100	ref	
		P value = 0.000**								
3	Recommendation from the doctor		93	62.8	55	37.2	148	100	2.3	1.5–3.4
		Low	112	42.7	150	57.3	262	100	ref	
		P value = 0.000**								

No	The Characteristics	Categories	VIA checking up				Total		OR value	CI 95%
			Yes		No					
			N	Percentage	N	Percentage	N	Percentage		
4	Recommendation from the midwife	High	92	65.2	49	34.8	141	100	2.6	1.7–3.9
		Low	113	42.0	156	58.0	269	100	ref	
		P value = 0.000**								
5	Friend suggestion	High	106	63.5	61	36.5	167	100	2.5	1.7–3.8
		Low	99	40.7	144	59.3	243	100	ref	
		P value = 0.000**								
6	Having seen to the women who have cervical cancer	High	79	57.7	58	42.3	137	100	1.6	1.1–2.4
		Low	126	46.2	147	53.8	273	100	ref	
		P value = 0.028*								
7	Having seen friends who have cervical cancer	High	66	57.4	49	42.6	115	100	1.5	0.9–2.3
		Low	139	47.1	156	52.9	295	100	ref	
		P value = 0.06								
8	Reading book or leaflet	High	74	59.7	50	40.3	124	100	1.8	1.2–2.7
		Low	131	45.8	155	54.2	286	100	ref	
		P value = 0.01*								

Table 1 describes the results of two variables analysis between various triggers in the behavior of early detection of cervical cancer with the implementation of VIA checking up. The result of bivariable analysis between information from television with VIA implementation showed that the information from television had a statistically significant relationship with VIA implementation. The analysis results were obtained OR: 2.7 (95% CI 1.8 - 4.1) on information from high television. Based on the results, women who received information from high television about early detection of cervical cancer had a 2.7 times higher possibility to perform VIA examination compared with women received information from low television.

The result of bivariable analysis between a recommendation from a physician and VIA implementation showed that recommendation from a doctor was statistically had a significant relationship with VIA implementation. The analysis results were obtained OR: 2.3 (95% CI 1.5 - 3.4) on the recommendation of a high doctor. Based on the results, women who received recommendations from high doctors had a 2.3 times higher possibility to perform VIA examination compared with women who received recommendations from low physicians.

The result of bivariable analysis between a recommendation from a midwife and VIA implementation showed that recommendation from a midwife had a statistically significant relationship with VIA implementation. The analysis results were obtained OR: 2.6 (95% CI 1.7 - 3.9) on the recommendation of a high midwife. Based on the results, women who received recommendations from midwives have a 2.6 times higher possibility to perform VIA examinations compared with women who received recommendations from low midwives.

The result of bivariable analysis between friend suggestion and VIA implementation showed that friend suggestion had a statistically significant correlation with VIA implementation. The analysis results were obtained OR: 2.5 (95% CI 1.7 - 3.8) at the advice of a friend. Based on the results, women who received advice from high friends had 2.5 times higher possibility to perform VIA examination compared with women who received low friend suggestions.

The results of bivariable analysis between having seen women with cervical cancer with the implementation of VIA showed that having seen women with cervical cancer statistically had a significant relationship with the implementation of VIA. The analysis results were obtained OR: 1.6 (95% CI 1.1 - 2.4) in ever saw women suffering from high cervical cancer. Based on the results, women who had seen women with high cervical cancer had 1.6 times higher possibilities to perform

VIA examination compared with women who had seen women with low cervical cancer.

The results of bivariable analysis between having seen a friend who had cancer with VIA implementation showed that having seen a friend who had cancer had not statistically had a significant relationship with VIA implementation (p-value 0.06 > α = 0.05).

The result of bivariable analysis between the reading book or leaflet with VIA implementation showed that reading books or leaflets statistically had a significant relationship with VIA implementation. The analysis results were obtained OR: 1.8 (95% CI 1.2 - 2.7) on high reading books or higher possibilities to VIA checking up compared with women who low read books or leaflets.

Discussion

Trigger or cues to action was a stimulus that motivates individuals to perform actions appropriate to health behavior[9]. The trigger was one of the triggering factors for deciding to accept or to reject alternate precautions. Triggers were needed to encourage individual involvement in health behaviors. These cues could be internal; the internal cues within the individual such as perceived and external symptoms derived from interpersonal interactions such as mass media, messages, advice, advice or consultation with health workers. In this study, the results showed that women who received the appropriate trigger would perform early detection of cervical cancer by using the VIA method.

Trigger or cues to action was a factor that leads to a change in one's behavior[10]. According to the results of this study, in terms of triggers, most respondents performed early detection of cervical cancer VIA method because of the advice of midwives, doctors and reading leaflets.

Based on the result of this research, the trigger variable consists of six indicators including information from television, the recommendation from a doctor, the recommendation from a midwife, suggestion of a friend, having seen cervical cancer patient, and reading book or leaflet. The physical condition indicator did not qualify as the compiler of the trigger variable, this is not in accordance with the trigger theory in[11], but in accordance with the results of the study[12] where the most dominant trigger was recommended by health personnel including the main midwife next recommendation from the doctor. The physical condition in this research did not become a trigger. The possible cause was the respondents in this study were all people who were still not affected by cervical cancer. Cervical cancer of stage one or stage of precancerous lesions did not show any complaints or signs and symptoms of any kind.

Based on the research[13] mentioned that the trigger in the form of recommendations from doctors and recommendations from the family proved to influence the use of influenza vaccine by parents in children. Triggers prove effective in reducing perceived obstacles or minimizing parental awareness about the negative effects of vaccine delivery and might increase perceived benefits about the effectiveness of influenza vaccine delivery in infants. thus increasing external motivation for using the influenza vaccine.

Research[14] suggested that cues to action or triggers were associated with adherence to taking antihypertensive drugs. Reading about disease information, knowing about services, and consulting with others about illness could trigger a person against compliance. Triggers were needed to encourage individual involvement in health behaviors. The trigger could come from internal or external. Internal triggers such as physiological cues such as pain. External triggers such as illness from family members, media reports[15]. The existence of clues, education, symptoms or information media could influence a person about the dangers of illness, thus, they felt the need to take action[16].

According to[11] one of the triggering sources was the physiological condition of humans in the form of a sense of discomfort or tension. When the tension was strong enough, it would motivate humans to act to meet their needs. Previous human experience and current physical condition would greatly affect the behavior to be taken. Research conducted by[12], mentions that medical triggers have greater or more effective power in losing weight than other triggers. Medical triggers could be advice from doctors or stories of patients who have been sick from being overweight. Medical triggers would cause health threats and increase motivation in patients to control weight.

Conclusion

There was an existence of a trigger effect on the implementation of early detection of cervical cancer VIA method. The trigger in this study consisted of information from television, recommendations from doctors, recommendations from midwives, advice from

friends, have seen cervical cancer patients, have seen cancer patients and read books. Based on the Odds Ratio (OR) the highest influence was information from televisions.

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