

Relation Between Perceived Barriers and Cues to Action With The Intention on Cervical Cancer Early Detection

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Abstract— Cervical Cancer is one of the causes of cancer death. Cervical cancer ranks fourth of the types of cancer in women. Factors associated with the high incidence and death rates in cervical cancer is the low awareness of prevention and early detection. Many factors that influence a person's behavior to act and perform early detection of cervical cancer are related to behavior theory like perceived barriers and cues to action. The aim of this study was to know relation between perceived barriers and cues to action with the intention on cervical cancer early detection based on age, parity, education and knowledge. Design research was cross-sectional with 190 mothers in Bandung City, Indonesia. Data analysis was using Chi-Square test, Breslow-Day, Cochran's Mantel-Haenszel. The results showed that there was a relationship between perceived barrier with intention on cervical cancer early detection based on age, parity, education ($P < 0.05$). There was a relationship between cues to action with intention on cervical cancer early detection based on age, parity, education and knowledge (< 0.05). Health workers are expected to give attention determinant factors related as perceived barriers and cues to action in promotion cervical cancer programs.

Keywords— Perceived Barriers, Cues to action, Cervical Cancer.

Introduction

Cervical Cancer is one of the causes of cancer death in women in the world. Cervical cancer is caused by the Human Papilloma Virus (HPV). The development of cervical cancer are epithelial infection, zone metaplasia transformation, epithelial development into precancerous lesions and invasive cancer. Infection occurs in 5-10 years.(1) This cancer can cause death because cervical cancer can spread and cause problems.(2)

According to Globocan 2018, cervical cancer ranks fourth of the types of cancer in women that cause death after breast cancer, colorectal cancer and lung cancer.(3) The incidence of cervical cancer very high in developing countries. Incidence of cervical cancer in is 88% in 2008 and this is expected to continue increase as much 98% in 2030.(4)

Factors associated with the high incidence and death rates in cervical cancer is the low awareness of prevention and early detection. Early detection of cervical cancer can be done through the Pap smear or Visual acetat acid test (VIA Test). Pap smear is an effective screening for early detection of cervical cancer, its can reduction in the incidence of invasive cervical cancer and cervical cancer mortality.(5) The Alliance for Cervical Cancer Prevention (ACCP) recommends early detection of cervical cancer in low-resource settings through the Visual inspection acetat Acid (VIA Test). This test is most efficient and effective for early detection servical cancer.(4)

In developing countries including Indonesia, cervical cancer screening coverage is still low. Cervical cancer screening coverage in North Africa as much as 6%, in Bhutan as much as 12%, in Nigeria as much as 8.3%. Indonesia as a Developing Country, as much as 5%. In general, women do cervical cancer screening if they experience symptoms that are already at an advanced stage.(6)

Many factors that influence a person's behavior to act and perform early detection of cervical cancer are related to behavior theory. According to The theory of reasoned action (TRA), behavior is determined based on the prediction of a person's intention. Intention is influenced by subjective attitudes and norms. If someone intends to do a behavior then that person will likely do it.(7) attitudes related to belief. According to the theory of health believe the model of a person's behavior can be influenced by barriers and cues to action. Perceived barrier is someone's perception of negative aspects that become a barrier to taking recommended actions, such as high costs, unpleasant actions, sick examinations. dangerous side effects. A person's perception of making decisions to act is triggered by the cue of action. Cue of action can come from internal, for example, symptoms of a disease or externally, for example the interaction of health workers or cadres, mass media, health education. Perceived barrier, cue of action, intention on health screening as cervical cancer early detection can be influenced by individual characteristics such as age, education, parity, and knowledge.(8)

Based on the background of this study, researchers are interested in knowing the relationship between perceived barriers and cues to action with the intention on cervical cancer early detection based on age, education, parity and knowledge.

Methodology

The design of this study was a cross sectional study. The research variables are measured or collected at the same time. The target population in this study were all married women in Bandung, West Java, Indonesia. The affordable population is all married women who are included in this study until the target was met. The sample is a part or representative of the population under study. The sample size plays an important role in the estimation and interpretation of results. The sample of this study was all married women who met the inclusion and exclusion criteria. The inclusion criteria was already married, never had a total hysterectomy, willing to be the subject of research. Exclusion criteria was have cervical cancer. Samples were selected by consecutive sampling, samples were selected that met the research criteria until the number of samples was met.

In this study, the type I error was 5%, the hypothesis was one-way, so that $Z \alpha = 1.96$. Type II error is set at 20%, then $Z \beta = 0.84$. The proportion of the dependent variable and the independent variable in the previous study was 39.3% and the expected proportion of the dependent variable and independent variable was at least 49.3%. The number of samples in this study consisted of 190 mother.

The data used in this study was primary data. Respondents were filling questionnaire after being given an explanation and giving their approval. The instrument in this study was a questionnaire. The questionnaire consist of statement to measure the variables of barriers perceived and cues to action were using the Guttman scale. The questionnaire to measure intention was using a Likert scale. Data analysis was using Chi-Square test, Breslow-Day, Cochran's Mantel-Haenszel by SPSS.

RESULTS

The study was conducted on 190 women in Bandung City, Indonesia. They Perceived barrier, cues to action and intention were measured using a questionnaire. The measurement results are shown in the following table.

Table 1.1
Relation Between Perceived Barriers with The Intention on Cervical Cancer Early Detection

	Perceived Barriers	Intention				P Value*	P Value **
		High		Low			
		N	%	N	%		
Age							
<30	High	14	34,1	27	65,9	0,023	<0,001
	Low	9	52,9	8	47,1		
≥30	High	31	37,8	51	62,2		
	Low	44	88,0	6	12,0		
Education							
primary school	High	3	30,0	7	70	0,448	<0,001
	Low	4	100,0	0	0,0		
Junior High School	High	14	35,9	25	64,1		
	Low	7	70,0	3	30,0		
High School	High	25	36,8	43	63,2		
	Low	45	76,3	14	23,7		
Parity							
0	High	6	54,5	5	45,5	0,104	<0,001
	Low	3	50,0	3	50,0		
1	High	16	34,8	30	65,2		
	Low	14	77,8	4	22,2		
≥2	High	20	33,3	40	66,7		
	Low	39	79,6	10	20,4		
Knowledge							
Good	High	11	64,7	6	35,3	0,858	0,858
	Low	29	85,3	5	14,7		
Moderate	High	13	31,7	28	68,3		
	Low	16	69,6	7	30,4		
Less	High	18	30,5	41	69,5		
	Low	11	68,8	5	31,2		

*Chi-square Test and Breslow-Day for kovariat analysis

**Chi-square and Cochran's Mantel-Haenszel

The results of this study (Table 1.1) show that the factors of age, education, parity and knowledge do not distort the relationship between perceptions of barrier and respondents intention for early detection of cervical cancer (P value > 0.05). The results of the stratification analysis showed that there was a relationship between the barrier perception factor and the respondent's intention for early detection of cervical cancer based on factors of age, education and parity (P value < 0.05) but there wasn't a relationship between the barrier perception factor and the respondent's intention for early detection of cervical cancer based on knowledge (P value > 0.05).

Table 1.2

Relation Between Perceived Barriers With The Intention on Cervical Cancer Early Detection

	Cues To action	Intention				P Value*	P Value**
		High		Low			
		N	%	N	%		
Age							
<30	High	20	66,7	10	33,3	0,410	<0,001
	Low	3	10,7	25	89,3		
≥30	High	55	79,7	14	20,3		
	Low	20	31,7	43	68,3		
Education							
primary school	High	4	66,7	2	33,3	0,561	<0,001
	Low	2	37,5	5	62,5		
Junior High School	High	14	70,0	6	30,0		
	Low	7	24,1	22	75,9		
High School	High	57	78,1	16	21,9		
	Low	13	24,1	41	75,9		
Parity							
0	High	7	70,0	3	30,0	0,886	<0,001
	Low	2	28,6	5	71,4		
1	High	24	70,6	10	29,4		
	Low	6	20,0	24	80,0		
≥2	High	44	80,0	11	20,0		
	Low	15	27,8	39	72,2		
Knowledge							
Good	High	35	87,5	5	12,5	0,945	<0,001
	Low	5	45,5	5	54,5		
Moderate	High	20	69,0	9	31,0		
	Low	9	25,7	26	74,3		
Less	High	20	66,7	10	33,3		
	Low	9	20,0	36	80,0		

*Chi-square Test and Breslow-Day

**Chi-square Test and Cochran's Mantel-Haenszel

The results of this study (Table 1.2) show that the factors of age, education, parity and knowledge do not distort the relationship between perceptions of barrier and respondents' intention for early detection of cervical cancer (P value > 0.05). The results of the stratification analysis showed that there was a relationship between the barrier perception factor and the respondent's intention for early detection of cervical cancer based on factors of age, education, parity and knowledge (P value < 0.05).

DISCUSSION

Many factors that influence a person's behavior to act and perform early detection of cervical cancer are related to behavior theory. The intentions and beliefs of such agents will be related. (9) According to The theory of reasoned action (TRA), behavior is determined based on the prediction of a person's intention. Intention is influenced by subjective attitudes and norms. if someone intends to do a behavior then that person will likely do it. (7) attitudes related to belief. According to the theory of health believe the model of a person's behavior can be influenced by barriers and cues to action. Perceived barriers proved to be the most powerful on health believe model (8) individual characteristics such as age, education, parity, and knowledge are factor which can related to behavior theory. (10)

Perceived barrier, cue of action, intention on health screening as cervical cancer early detection can be influenced by individual characteristics such as age, education, parity, and knowledge.(8) Result of this study showed there was a relationship between perceived barrier with intention on cervical cancer early detection based on age, parity, education ($P < 0.05$). There was a relationship between cues to action with intention on cervical cancer early detection based on age, parity, education and knowledge (< 0.05).

Perceived barrier is someone's perception of negative aspects perception that become a barrier to taking recommended actions, such as high costs, unpleasant actions, sick examinations, dangerous side effects. Women who have negative aspect perception will have low intention to early detection cervical cancer. This perception is wrong perception because screening early detection is cheap. Cervical-cancer screening strategies with visual inspection acetat acid (VIA) of the cervix with acetic acid have cost-effective.(11) Visual inspection with acetic acid is an acceptable screening method for cervical cancer and an efficient and cost-effective method in screening.(12) Screening cervical cancer associated with a reduction in the incidence of invasive cervical cancer and cervical cancer mortality, its good effect to women to preventive cervical cancer.(5)

The wrong perception about early detection cervical cancer cause high perceived barrier. It's caused because lack knowledge about detection cervical cancer. According the research in Indian, knowledge of cancer cervix is low make early detection cervical cancer low too. There is an urgent need for information to women to improve their knowledge and awareness about early detection cervical cancer, so if they have high knowledge, they can have low perceived barrier and can have high intention.(13)

Perceptions of resistance can also be related to maternal intention for early detection of cervical cancer. The big obstacle will be become an obstacle in taking preventive action or treatment disease. In conducting early detection of cervical cancer, the mother's perception of fear, no time for early detection, cost, feeling healthy, inadequate health facilities are frequent obstacles.

This study results showed that there was a relationship between perceived and intense cues ($P < 0.05$). Women perception of making decisions to act is triggered by the cue of action. Cues to action can come from internal (example: symptoms of a disease) or externally (example: the interaction of health workers or cadres, mass media, health education. (8) Cues to action are another perceptual factor that can be related to intentions. Health education is an example in cues action. Based on research in Kenya, a high percent of women knew that it is appropriate for all women to get cervical cancer screening, but only a small proportion of women actually got screening. There need educational materials for this population which remediate misconceptions in women. (14) The research in Sweden, communication between health worker and women, respectful and sympathetic care were influence to women to get early detection.(15)

CONCLUSION

There is a relationship between perceived barriers, cues to action with the mother's intention to have early detection of cervical cancer. Health workers are expected to give attention determinant factors related as perceived barriers and cues to action in promotion cervical cancer programs. Health workers can develop material education about cervical cancer and early detection cervical cancer .

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