Prevention of Cervical Cancer

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Prevention of Cervical Cancer among Mother in Yogyakarta, Indonesia

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Article Info	ABSTRACT
	Cervical cancer was one of the global commitments in Sustainable Development Goals (SDGs). Cervical cancer represents 7.5% of all deaths caused by cancer in women. The method to screening cervical cancer is pap smear test and Visual Inspection of Acetic Acid (VIA) test. Indonesia is the second country in the world has the most cervical cancer cases. This study aims to determine the behavior of cervical cancer prevention on housewives. This is kuantitatif research with cross sectional design. The subjects of this study were housewives in the Kota Yogyakarta and Sleman regency amounting to 350 people. The analysis used is univariate, bivariate and multivariate analysis. The results showed that there were 45.1% of mothers' have did the implementation of VIA. There is a relationship of education (p=0.024), level of knowledge (p=0.036), and maternal attitudes with cervical cancer prevention behavior. There were no correlation between age (p=0), parity (p=0.816), and family income (p=0.174) with the mother's behavior in the implementation of theVIA's test. Multivariate analysis showed maternal attitude (CI=0.335-0.788) that affect the behavior of the VIA.

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1. INTRODUCTION

Cervical cancer cases in 2012 included 528 000 new cases, which have been diagnosed worldwide and 85% occur in less developed areas. Cervical cancer causes 266 000 women to die of cervical cancer every year. Cervical cancer represents 7.5% of all deaths caused by cancer in women. From those data, we know that cervical cancer is a threat for the health that should be pressed down at least until 2030 which consist of currative action to the people living with cervical cancer [1].

Indonesia is the second country in the world after China has the most cervical cancer [1]. Based on data from the Ministry of Health in 2015, on average every hour the number of Cervical Cancer sufferers increased by 2.5 people and 1.1 women died of cervical cancer. The prevalence and estimation of cervical cancer patients in 2013 in Indonesia was 0.8 ‰ with an estimated total of 98,692 cases. Riau Islands Province, North Maluku Province, and D.I.Y Province (Yogyakarta Special Region) have the highest prevalence of cervical cancer which is 1.5% with a total of 2,703 cases [2].

Prevention of cervical cancer can be done by performing an early cervical health examination (screening), because symptoms of cervical cancer are not seen until the stage is more severe [3]. High-quality screening with cytology (Papanicolaou [Pap] testing) has markedly reduced mortality from squamous cell cervical cancer, which comprises 80% to 90% of cervical cancers [4-6]. Examination of early detection of

cervical cancer with VIA is a visual examination of the cervix using vinegar, meaning seeing the cervix with the naked eye to detect abnormalities after applying acetic acid or vinegar (3-5%).

To improve the implementation of prevention and early detection of cancer in women in Indonesia, the government is optimizing the cervical cancer early detection program for the 2015-2019 period. The effort taken was an early detection movement through the method of simultaneous VIA examination in all parts of Indonesia on April 21, 2015. This movement will last for five years and it is expected that by 2019 the number of women of childbearing age who are carried out early detection reaches 50 percent [2].

Mothers' awareness and preparedness with respect to the prevention of cervical cancer in their adolescent daughters were low and inadequate. Mothers should be informed and motivated to play a role in the education of their daughters regarding cervical cancer prevention. Strategies for disseminating information regarding early cervical cancer prevention for adolescent girls are recommended by communicating with both the girls and their mothers and providing them with education regarding cervical cancer prevention [7].This study aimed to determine the factors that influence mother in behavior of cervical cancer prevention.

2. RESEARCH METHOD

This study used analytic survey with cross-sectional design. This study conducted on housewives in the Kota Yogyakarta and Sleman who were members of the Family Empowerment and Welfare amounting to 350 people. This study was conducted in 2016. The population target in this study was housewives who were members of the Family Empowerment and Welfare to manage the confounding variables. To determine the sample size, we used the formula for sample size with calculation of proportion as per Lemeshow with minimum sample size obtained was 350 respondent. Proportional sampling was used to determine the sample chosen. Variables in this study used the theoritical framework approach of Theory of Precede-Proced (Lawrence Green) [8]. Independent variable consist of the characteristic of respondent (age, parity, education, family income), knowledge level about VIA, and mother' attitude toward VIA. The dependent variable was cervical cancer prevention behavior in mother. This study took primary data. Instrument used in this study was quetionaire. Quetionaire used was development from questionaire about mothers' knowledge, attitude and behavior toward VIA which have been tested the validity and reliability at Bantul district.

3. RESULTS AND DISCUSSION

This study conducted on 350 respondents was housewives were members of the Family Empowerment and Welfare. The characteristic of the respondent showed in Table 1. Table 1 shows that the major proportion of respondents were aged >35 years old (76.6%), with the highest parity was secundipara in the amount of 166 respondents (47.5%). More than half of the respondents with secondary education amounted to 191 respondents (54.6%). Family income >IDR 1,450,000,00 as many as 189 respondents (54%).

Table 1. Respondent's Characteristic

Characteristic	Amount (n=350)	Percentage (%)
Age		
≤35 years	82	23.4
>35 years	268	76.6
Parity		
Nulipara	6	1.7
Primipara	83	23.7
Secundipara	166	47.5
Multi gravida	95	27.1
Education		
Basic	91	26.0
Medium	191	54.6
High	68	19.4
Family Income		
> IDR 1,450,000,00	189	54.0
≤IDR 1,450,000,00	161	46.0

Table 2 shows that most respondent have not enough knowledge about VIA (80.6%). However, there are still 35 respondents (10%) with a lack of knowledge.The role of health workers is needed in providing insight to mothers regarding early detection of cervical cancer (VIA). Most respondent have

positive attitude toward VIA (54.6%). The behavior of the VIA inspection there are 192 respondents (54.9%) for not VIA.

Table 2. Mothers' Knowledge Level, Attitude, and Behavior toward VIA Test

Characteristic	Amount (n=350)	Percentage (%)
Knowledge level about VIA		
Good	33	9.4
Adequate	282	80.6
Poor	35	10.0
Mothers' attitude toward VIA		
Positive	191	54.6
Negative	159	45.4
Mothers' behavior toward VIA		
Do VIA	158	45.1
Not Do VIA	192	54.9

Bivariate analysis was used to analyze independent and dependent variables. The relation between independent and dependent variables is showed in Table 3. Table 3 shows that factors relating to the behavior of VIA with a p-value <0.05 was educational p=0.024, p=0.036 level of knowledge, and attitudes toward VIA inspection p=0.002. 268 respondents with age>35 years as many as 147 respondents (54.9%) did not do VIA. 166 respondents with secundipara parity as many as 90 respondents (54.2%) did not do VIA. 189 respondents with family income >Rp 1.450.000,00 as many as 110 respondents (58.2%) did not do an VIA. So it can be concluded that there is no significant relationship between parity and family income with IVA behavior (p-value 0.816 and 0.174).

Table 3. The Relationship between Mothers' Characteristic, Knowledge Level,
Attitude, and Behavior toward VIA

Variable	Behavior toward VIA						p-value
	Not Do VIA		Do VIA		Total		
	n=192	%	n=158	%	n=350	%	
Age							
≤35 years	45	54.9	37	45.1	82	100	
> 35 years	147	54.9	121	45.1	268	100	
Parity							
Nulipara	3	50	3	50	6	100	
Primipara	48	57.8	35	42.2	83	100	0.816
Sekundipara	90	54.2	76	45.8	166	100	
Multipara	51	53.7	44	46.3	95	100	
Education Level							
Basic	57	62.6	34	37.4	91	100	
Medium	102	53.4	89	46.6	191	100	0.024*
High	33	48.5	35	51.5	68	100	
Family Income							
> Rp.1,450,000,00	110	58.2	79	41.8	189	100	0.174
≤Rp.1,450,000,00	82	51	79	49	161	100	
Knowledge level							
Superior	16	48.5	17	51.5	33	100	
Satisfactory	150	53.2	132	46.8	282	100	0.036*
Unsatisfactory	26	74.3	9	25.7	35	100	
Attitude toward VIA							
Positive	119	62.3	72	37.7	191	100	0.002*
Negative	73	45.9	86	54.1	159	100	

Multivariate analysis were done to independent variable that have p <0.002. The result of multivariate analysis showed in Tabel 4. Table 4 shows that the results of statistical tests with logistic regression found that the attitude has a p-value of 0.002. This shows that the factor that most influences the behavior toward VIA is the attitude of respondents.

Cervical cancer could be prevented by screening VIA. Previous research showed that women between the age group 31 to 40 years had more awareness about cervical cancer [9]. Respondents are older than 30 years have a possibility of having a precancerous lesion is higher than under 30 years of age so that respondents in that age will find it more important to conduct tests VIA [10]. The results of this study found

no correlation of age to the preventive behavior of IVA cervical cancer (p=0). The results of this study are in accordance with Gustiana D's study that there was no significant relationship between age and early detection of cervical cancer p=0.306. It can be associated with susceptibility to disease. Age can not be used as a benchmark for a person to prevent cervical cancer. This can be due to ignorance, no complaints, nor do to prevent cervical cancer has not been necessary [11].

Table 4. Multivariate Analysis Result

	B	Sig.	Exp(B)	95.0% C.I.for EXP(B)	
				Lower	Upper
Attitude toward VIA test	-.666	.002	.514	.335	788
Constant	.164	.303	1.178		

The results of previous studies conducted by Yuliwati also showed that there was no significant relationship between age and maternal behavior to check VIA [12]. However, different research results Eva who showed that age has a significant relationship with the knowledge that motivates behavior of women for the early detection of cervical cancer by VIA in the district of Central Bogor p=0.001 [13].

The results of Heni P et al's research showed that parity had a significant relationship to precancerous cervical lesions [14]. While the chi square test result in this study indicate that there is no significant relationship between parity against the IVA behavior p=0.816. The results of this study are inconsistent with Dinengsih research and Sitanggang stated that there is a significant relationship between parity with IVA inspection. A third parity or more are at risk of developing cervical cancer. Multiparity suspected of causing a decrease in endurance. So it is necessary to do the IVA method to detect early cervical cancer [15].

The level of education a person can support or influence a person's level of knowledge and a low level of education is always related to information and knowledge is limited, the higher one's education the higher one's own understanding and knowledge of information obtained would be even higher [16]. Based on the results of this study indicate that there is a significant relationship between education with VIA behavior p=0.024. This research is in line with research conducted by Jia on several women in the city of Wufeng, China who explained that education affects the implementation of early detection of cervical cancer by 0.00 (p=0.05) with the most characteristics at the low level of education (48.4%) who are willing to carry out early detection of cervical cancer [12]. This is also confirmed by the results of further research by Eva, explains that the education factor has a significant relationship with the level of knowledge possessed by women of childbearing age, where the group of higher education have proportion of knowledge both larger than the group of secondary education and low [13]. The level of education is one of the factors that determine a person's knowledge and perception of the importance of a case, including the importance of early detection of cervical cancer, caused by highly educated person will be broader view and more receptive to the ideas and new ways of life. It can be concluded that highly educated people will make early detection of cervical cancer [12].

The results showed that no significant relationship between family income on behavior IVA p=0.174. The results are consistent with research Gustiana states that there is no relationship to the economic status of cervical cancer prevention behavior (p=0.561), research found that respondents with lower economic status also have a good preventive health behaviors [11]. Another study conducted by Wahyuni states that there is no economic status relationship to the behavior of early detection of cervical cancer [19]. Socio-economic conditions affecting the health status change process as it affects the thoughts or beliefs that can lead to changes in health behavior. The incidence of cervical cancer is twice as large in women who have low social classes. In contrast to the results of research Febriani, women who have high incomes likely better prevention of cervical cancer, compared to women with low incomes [17].

Increased knowledge can change people's behavior from negative to positive, in addition to the knowledge also build trust [11]. Having knowledge of a disease, the concept of a disease will be formed in the individual so that it will determine a person's health behavior [20]. Lack of related knowledge about cervical cancer can be an important factor for the high incidence of cervical cancer [9]. Based on the results of chi-square test showed that there is a relationship with the level of knowledge of the behavior of IVA p=0.036. The results are consistent with research conducted by Yao Jia on women in the town of Wufeng China stated there is a significant relationship between knowledge with behavioral examination early detection of cervical cancer through IVA method with p=0.000 [17]. In addition, research conducted by Nesrin, Turkish women gained knowledge influence the early detection of cervical cancer (p=0.001) [21]. Based on research conducted by Khosidah, good knowledge possessed by women of childbearing age about

cervical cancer and its examination can be a motivating factor to try to avoid cervical cancer. Various sources of information that can now be easily accessed by women of childbearing age allow knowledge of cervical cancer and the examination will be better. Lack of knowledge and awareness of the importance of examination is an inhibiting factor for screening for cervical cancer [22] [17].

Attitude is one of the personality elements that a person has to determine his actions and behave towards an object accompanied by positive and negative feelings. Attitudes influence the formation of interest because of the tendency in the subject to accept or reject an object that is good or not [23]. The chi square test results show that there is a significant relationship between attitudes toward behavior IVA p=0.002. The results of this study are in line with Febriani's research the attitude of adult women in having a significant relationship with the examination of early detection of cervical cancer p=0.025[18]. TRA explains that beliefs can affect attitudes and social norms which would change the form of the desire well behaved guided or happen in an individual's behavior. This theory confirms the role of one's intention in determining whether a behavior will occur [24].

4.   CONCLUSION

Respondent joined this study were mostly aged >35 years old, secundipara, medium level of knowledge, family income more than minumum income regional. There is a relationship of education, level of knowledge, and attitudes with cervical cancer prevention behavior. There is no correlation between age, parity, and family income with the mother's behavior on VIA tets. Attitudetowards VIA tes is the most affect to behavior of the VIA.

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