The Family Support and Knowledge of Childbearing Age Women Intention to Prevent Cervical Cancer by Using Visual Inspection with Acetic Acid (VIA) Examination

Supatmi Supatmi [1,2]*, Ade Susanti[2], Dinda Tri Wahyuni[2], Esty Yunitasari[1]

Abstract--- Cervical cancer is second cancer for women in the world especially in development countries. Examining visual inspection with Acetic Acid (VIA) is one of the ways to detect early the cervical cancer easily and simply, but actually there are still many women of childbearing age who don't want to do it because the family support and knowledge are still low. This study aims to determine the relationship between the family support and knowledge with intention women of childbearing age to VIA. The research method was correlation analytical by used sectional cross. The population was 72 respondents and the sampling 61 respondents which used simple random sampling. The independent variable was the family support and knowledge and the dependent variable was women of childbearing age. The instrument used was questionnaire. The data analysis used was Spearman Rank Test p < 0,05. There was relation between family support and intention women of childbearing age to examine visual inspection with acetic acid (VIA) (p = 0,000; r=0482), and there was relation between knowledge and intention women of childbearing age to VIA (p = 0,003; r=0,376). The family support and knowledge related intention women of childbearing age to examine visual inspection with acetic acid (VIA). The specific knowledge about cancer screening cervical cancer and the family support was important element in order to determine what woman would examine visual inspection by used acetic acid (VIA).

Keywords--- .Family Support; Knowledge; Intention; Women of Childbearing Age; Visual Inspection with Acetic Acid (VIA)

I. INTRODUCTION

Cervical cancer is gynecology cancer which is the most general, and one of the main factors of woman's death. It contributes about 12% from all cancer to the women and becomes second cancer incident for women in the world especially in development countries [1]. So that the cancer problems in Indonesia can be overcame well and quickly. National Cancer Control Committee gives more attention, especially to society to increase early detection of cancer. Early detection which is the effort to identify disease clinically cannot be diagnosed by certain test [2]. One of the programs of

[1] *Faculty of Nursing, Universitas Airlangga, Surabaya, Indonesia*
[2] *Faculty of Health Sciences, Universitas Muhammadiyah Surabaya, Indonesia*

Corresponding author:
Supatmi Supatmi
Email: supatmi-2018@fkp.unair.ac.id

early detection cervical cancer is a test of Visual Inspection with Acetic Acid (VIA) or Cervical Cancer Screening Techniques [3].

Of various cervical cancer screening techniques, VIA is a simple and inexpensive screening method [4]. It has been validated and recommended by the World Health Organization (WHO) as an alternative method to conventional papanicolaou smears in screening for cervical cancer [5]. The goal of a screening program is to detect people who are at a higher risk of developing cancer. In order to have a successful cancer screening program and reduce mortality, about 70% of the target population needs to be screened at regular intervals. Awareness about cancer among general public is very poor and there are only few centers with cancer screening facilities throughout the country which makes early detection and treatment of common cancers very difficult [6]

The early detection charge of cervical cancer in Indonesia already covered by Indonesian national health care insurance (BPJS) including for VIA. Based on the BPJS data in 2014 to October 2016, it had 95.803 members of National Security Health Care Insurance(JKN-BPJS) which had service of cervical cancer screening techniques (VIA). Meanwhile the total of service of cervical cancer screening techniques (VIA) in 2008 to 2016 is 1.623.913 women (4,34%) from total target 37,5 million of women in Indonesia [7]. From 479.953 women which is age of 30 – 50, there are 877 women who are positive of cervical cancer screening techniques (VIA) [8]. This scope is still low, even though early detection is one of the effective step to decrease the number of women death especially for cervical cancer. From many surveys, it can be seen that one of factors causing a high number of advanced cancer cases is the patient does not want to check by themselves because the medical facility will check the part of private body for the women and also they still do not understand the knowledge of cervical cancer which make one of the factors to inhibit the early detection for cervical cancer [9]. The lack of knowledge of a woman effects the implementation of early detection of cervical cancer. The knowledge is one f the factors which build the woman attitude to care to their body condition especially for cervical cancer stated by Lawrence Green. Action in the form of early detection of cervical cancer that does not get social support from family members tends to make a woman feel uncomfortable So, to be able to behave health (early detection of cervical cancer method VIA), a woman needs social support from other family members [10]. The results of research from Purnamasari (2018) stated that women who did not undergo VIA were women with low family support. According to Snehendu Kar's theory (health behavior is not only determined by one's intention to health objects, but also the existence of social support, health information, freedom of an individual to make decisions and situations that allow a person to act [11]. The studi purpose to determine the relationship between the family support and knowledge with intention in women of childbearing age to examining visual inspection with acetic acid VIA.

II. METHODS

The design of this study was correlational with a cross-sectional approach. The population consisted of 72 women of childbearing who were married and the number of samples involved in this study was 61. Selecting the respondents was done through the simple random sampling method according to the chosen inclusion and exclusion criteria. The inclusion criteria of the sample were women of childbearing age who were married, could read and write, did not experience psychiatric disorders and were willing to become respondents. The research location was Mulyorejo Surabaya from July to August 2019. The independent variables of the study were family support and knowledge. The dependent variable is women of childbearing age interest in conducting checks of VIA checks. The instruments used were three types of questionnaires in the form of a cervical cancer knowledge test questionnaire with 15 questions using Likert and Guttman

scales, family support with DUFF (Duke-UN Functional social support) which was modified with 15 question items consisting of emotional support, information, appreciation, and instrumental and intention with questionnaire with 12 questions. Data Analysis: The descriptive statistics method was employed to analyze the data to generate the study results in forms of frequencies and percentages. This method allowed summarizing the characteristics of the study subjects based on the variables selected. Inferential analyzed using Spearman's Rho test.

III. RESULTS

The respondents were aged between 19-23 years by as many as 61 people (26.2%). The majority of the respondents had completed junior high school education by as many as 24 people (39.3%). The dominant job was housewife by as many as 34 people (455,7%). distance from home from health services $\geq$ 500 meter was 46 people (75,4%), the majority of respondents never knew information about VIA examinations as many as 42 respondents (68.9%). Family support of 61 respondents had the highest value of middle are 43 respondents (70.5%) and the lowest was low family support of 4 respondents (6.6%), the knowledge of the highest respondents was moderate at 40 respondents (65.6%) and the knowledge of the lowest respondents was low at 5 respondents (8.2%), the highest respondent's intention is moderate at 29 respondents (47.5%) and the lowest was low as many as 13 respondents (21.3%) (Table 1).

Table 1. Demographic data, family support, knowledge

Variable	Frekuensi	Prosentase (%)
Age		
19-23 y.o.	16	26.2
24-28 y.o.	10	16.4
29-33 y.o.	8	13.1
34-38 y.o.	10	16.4
39-43 y.o.	4	66
44-48 y.o.	6	9.8
49-53 y.o.	7	11.5
Education		
Elementary school	6	9.8
Junior high school	24	39.3
Senior high school	18	29.5
Colleges	13	21.3
Occupation		
Housewife	34	55.7
Government office	14	23.0
Self employed	13	21.3
Distance home for health service		
$\leq$ 500 m	2	3.3
500 m	13	21,3
$\geq$ 500 m	46	75.4
Information		
Ever	19	31.1
Not ever	42	68.9
Family support		
Low	4	6.6
Middle	43	70.5
High	14	23.0
Knowledge		
Low	5	8.2
Middle	40	65.6

Variable	Frekuensi	Prosentase (%)
High	16	26.2
Intention		
Low	13	21.3
Middle	29	47.5
High	19	31.1

Family support with middle criteria with low interest were 10 respondents, with middle intention were 23 respondents, with high interest were 10 respondents and with middle family support were 43 respondents (70.5%) while respondents with low family support and low interest were 3 respondents. The results showed that the correlation coefficient (r) between family support and the intention woman of childbearing to examination VIA was (r) 0.482 with a significance level (p) = 0,000 (Table 2).

Medium knowledge with low interest were 7 respondents, middle intention were 26 respondents and high interest were 7 respondents, so the total number of respondents with high knowledge is 40 people (65.6%). The results showed that the correlation coefficient (r) between knowledge and the intention woman of childbearing to examination VIA was (r) 0376 with a significance level (p) = 0,003< 0.05 (Table 2).

Table 2. Cross tabulation of variables and statistical result

Variable		Intention			Spearmen Rho'
		Low	Middle	High	
Family support	Low	3	1	0	*p= 0.000*
	Middle	10	23	10	*r= 0.482*
	High	0	5	14	
Knowledge	Low	3	1	1	*p= 0.003*
	Middle	7	26	7	*r= 0.376*
	High	3	2	11	

IV. DISCUSSION

Family support is mostly within the criteria of 43 respondents (70.5%) with low intention of 10 people, middle 23 people and high intention of 10 people. There is a relationship between family support and woman of childbearing age intention in VIA examination with r = 0.0476, p = 0.000, <0.005. The theory of Snehandu Kar identifies that one of the determinants of behavior is social support. According to the theory, an individual needs legitimacy from those around him to be able to behave in health [4] If a person's actions do not get approval or support from the people around him, he will tend to feel less and uncomfortable that this can then cause a person not to have certain behaviors. Support is multidimensional: emotional support (appreciation, influence, trust, caring, and listening), assessment support (affirmation, feedback, and social comparison), information support (advice, advice, direction, and information), and instrumental support (assistance in the form of goods, money, labor, time, and environment). Social family support can facilitate coping skills and enhance active coping strategies to help individuals adjust to life changes [12]

Based on family support it is known that some of the respondents did not receive family support for conducting VIA. In families, husbands have an important role to play in encouraging wives to prevent disease [13]. The lack of health promotion on the prevention of cervical cancer to the family causes the low level of community knowledge making it difficult to change the unhealthy into healthy behavior in the community [14]. Most participants mentioned their responsibility toward their family as the main reason for taking care of their own health. At the same time, the family's

companionship and encouragement were introduced as important factors in encouraging the participants to have the test. Nevertheless, some women tended to avoid the test despite being supported by their families. Conversely, the findings of a study in the United States showed that most Hmong women (younger and older) made decisions about screening independently without counseling their family members, clans, or anyone else [15]

Knowledge is an important factor, but inadequate factor in changing health behavior. A person's knowledge of health may be important before health behavior occurs, but the expected health action may not occur unless someone has the motivation to act on the basis of the knowledge he has [11]. Respondents who have high knowledge about cervical cancer and VIA examination will tend to have a greater awareness to improve their health status so that they are more likely to conduct an VIA examination [16]. The knowledge of respondents in this study in the category was quite influenced by the education of respondents only with high school education, amounting to 34 people (42.0%), the higher a person's education, the easier it was for someone to receive information so that the more knowledge they had. Knowledge is a factor that can influence individual health behavior. Individual interest and motivation in making decisions to prevent illness are factors that cause changes in healthy behavior. Thus, it can be concluded that attitude and healthy behavior will not work successfully if not accompanied by other supporting factors [17].

Knowledge of respondents in this study in the category was quite influenced by the education of respondents only with high school education, amounting to 34 people (42.0%), the higher a person's education, the easier it was for someone to receive information so that the more knowledge he had. Knowledge is a factor that can influence individual health behavior. Individual interest and motivation in making decisions to prevent an illness are factors that cause changes in healthy behavior. Thus, it can be concluded that attitude and healthy behavior will not successfully work if not accompanied by other supporting factors [17] Someone who has a high level of education will have a mindset that develops and is more logical. The level of education is also very influential on mothers' knowledge in shaping one's behavior [18]. So it affects the interest of women of childbearing age to carry out visual inspection of acetic acid (VIA). The level of knowledge will not always cause behavior change, but will show a positive relationship between the two variables so that if knowledge is high then the behavior tends to be good [19]. This is consistent with the Health Belief Model theory where someone who knows the benefits of a preventive measure will be more tend to follow precautions in the form of early detection when compared with those who do not know [9] Most respondents do not know who should take early detection and when to do early detection. This shows that increased knowledge about cervical cancer must be done immediately to increase the number of women who participate in early detection and reduce the incidence of cervical cancer [20]

V.   CONCLUSION

Family support and knowledge are related to the intention women of childbearing age in cervical cancer prevention behavior by visual inspection of acetic acid (VIA) as well as demographic factors such as age, education level and also distance of residence to health services. The actions of someone who does not get approval or support from the people around him will tend to feel less. Recommendation for next study is to improve health education about cervical cancer prevention and cross-sectoral collaboration involving families in efforts to increase awareness of women of childbearing age to conduct VIA examinations.

CONFLICT OF INTEREST

This study has no potential to cause a conflict of interest. It did not cause physical damage to respondents. All participants gave written consent before participating, and confidentially of identity was protected.

ACKNOWLEDGMENT

REFERENCES

[1] A. CI and M. NE, "Cervical Cancer: A Health Limiting Condition," *Gynecol. Obstet.*, vol. 06, no. 05, 2016.

[2] Depkes, *Profil Kesehatan Indonesia Tahun 2014*. Jakarta: DEPKES RI, 2014.

[3] Menteri Kesehatan Republik Indonesia, "Keputusan Menteri Kesehatan Republik Indonesia Nomor 796/Menkes/SK/VII/2010 tentang Pedoman Teknis Pengendalian Kanker Payudara dan Kanker Leher Rahim." pp. 1–69, 2010.

[4] Notoadmodjo, *Promosi Kesehatan Teori dan Aplikas*. Jakarta: PT Rineka Cipta, 2010.

[5] E. Henri *et al.*, "The Use of Visual Tests in the Screening Strategy of Cervical Dysplasies and Cervical Cancer at the Laquintinie Hospital Douala, Cameroon: A Cross-Sectional Study," *Open J. Obstet. Gynecol.*, vol. 09, no. 07, pp. 1058–1072, 2019.

[6] Y. Kumar, G. Mishra, S. Gupta, and S. Shastri, "Cancer screening for women living in urban slums - acceptance and satisfaction," *Asian Pacific J. Cancer Prev.*, vol. 12, no. 7, pp. 1681–1685, 2011.

[7] Kemenkes, "Pekan Deteksi Kanker Indonesia., Perempuan di Medan," Jakarta, 2017.

[8] Dinkes Kota Surabaya, "Profil kesehatan Dinkes Kota Surabaya," p. 194, 2016.

[9] Kementrian Kesehatan RI, "Situasi Penyakit Kanker," *J. Chem. Inf. Model.*, vol. 53, no. 9, pp. 1689–1699, 2013.

[10] F. S. Lyimo and T. N. Beran, "Demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women in a rural district of Tanzania: Three public policy implications," *BMC Public Health*, vol. 12, no. 1, p. 22, 2012.

[11] Notoadmodjo S, *Metodologi Penelitian Kesehatan*. Jakarta: Rineka Cipta, 2012.

[12] L.-R. Li *et al.*, "Effects of Intrinsic and Extrinsic Factors on the Level of Hope and Psychological Health Status of Patients with Cervical Cancer During Radiotherapy," *Med. Sci. Monit.*, vol. 23, pp. 3508–3517, 2017.

[13] De. A. Yerramilli P, Dugge O, Enkhtuya P, Knaul F, "Exploring Knowledge, Attitudes, and Practices Related to Breast and Cervical Cencer in Mongolia: A National Population-Based Survey," *Oncologist*, vol. 20, pp. 1266–1273, 2015.

[14] G. Ronco *et al.*, "Efficacy of human papillomavirus testing for the detection of invasive cervical cancers and cervical intraepithelial neoplasia: a randomised controlled trial," *Lancet Oncol.*, vol. 11, no. 3, pp. 249–257, 2010.

[15] V. H. Rasul, M. A. Cheraghi, and Z. Behboodi Moqadam, "Influencing factors on cervical cancer screening from the Kurdish women's perspective: A qualitative study.," *J. Med. Life*, vol. 8, no. Spec Iss 2, pp. 47–54, 2015.

[16] A. Septianingrum, "Hubungan pengetahuan wanita usia subur tentang kanker serviks terhadap prilaku pemeriksaan inspeksi visual asam asetat (IVA) dipuskesmas pisangan ciputat tanggerang selatan," UIN Syarif Hidayatullah, 2017.

[17] E. Pukkala, N. Malila, and M. Hakama, "Socioeconomic differences in incidence of cervical cancer in Finland by cell type," *Acta Oncol. (Madr).*, vol. 49, no. 2, pp. 180–184, 2010.

[18] Deasy Mirayashi; Widi Raharjo; Arif Wicaksono, "HUBUNGAN ANTARA TINGKAT PENGETAHUAN TENTANG KANKER SERVIKS DAN KEIKUTSERTAAN MELAKUKAN PEMERIKSAAN INSPEKSI VISUAL ASETAT DI PUSKESMAS ALIANYANG PONTIANAK," 2014.

[19] Yuliwati, "Faktor-faktor yang Berhubungan dengan Perilaku WUS dalam Deteksi Dini Kanker Leher Rahim Metode IVA di Wilayah Puskesmas Prembun Kabupaten Kebumen," Universitas Indonesia, 2012.

[20] N. Reis, H. Bebis, S. Kose, A. Sis, R. Engin, and T. Yavan, "Knowledge, behavior and beliefs related to

cervical cancer and screening among Turkish women," *Asian Pacific J. Cancer Prev.*, vol. 13, no. 4, pp. 1463–1470, 2012.