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EFFECTIVENESS OF GIVING IT-BASED IECS ON KNOWLEDGE AND MOTIVATION OF WUS IN EARLY DETECTING CERVICAL CANCER

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ABSTRACT

Cervical cancer is the fourth most common cancer in women, with a mortality rate of 6.8% (WHO, 2015; Globocan, 2012). The incidence of cervical cancer ranks second after breast cancer in Southeast Asia and Indonesia. The research objective was to determine the effectiveness of providing information and technology-based communication, information, and education (IEC) on the level of knowledge and motivation of female prostitutes in early detection of cervical cancer. This type of research is quasi-experimental with a control group pretest-posttest design. The study was conducted in May-December 2020 in the Padang City Health Center Work Area, with a population of all women of childbearing age who were in the working area of Padang City Health Center and a sample of 20 people per research group. The research instrument used was a questionnaire. The intervention group provided the questionnaire in google form media. Data were analyzed by univariate and bivariate analysis using paired t-test statistical tests. There is a difference in the mean between the level of knowledge and motivation in the experimental and control groups. IEC's provision with IT-based audiovisual media increased the level of knowledge and motivation of WUS towards early detection of cervical cancer compared to using leaflet media. It is recommended that health workers in charge of providing health education/ promotion use various health promotion media to increase public knowledge and understanding.
Keywords : *IEC's provision*, level of knowledge, motivation.

INTRODUCTION

Cancer is a disease that arises due to abnormal, uncontrolled cell growth, continues to grow and cannot die [1]. Based on data from the World Health Organization (WHO), cancer is the second leading cause of death in the world, one in six deaths is caused by cancer [2]. The number of cancer deaths increased from 8.2 million deaths in 2012 to 8.8 million deaths in 2015, about 70% of cancer deaths occur in low and middle income countries [3].

One type of cancer that is often found in women in the world is cervical cancer. Cervical cancer is the fourth most common cancer in women and there were 14% of new cases in 2012 with a mortality percentage of 6.8% [2,3]. Cervical cancer is the cause of death for 90% of women in developing countries [4].

The incidence of cervical cancer ranks second after breast cancer in Southeast Asia and Indonesia. Every hour a woman in Indonesia dies from cervical cancer [5]. Based on data from the Ministry of Health of the Republic of Indonesia in 2015, cervical cancer is the cancer with the highest prevalence, which is 0.8 per 1000 population [6]. Cervical cancer is a malignant tumor that attacks the cervix due to infection with the Human Papilloma Virus (HPV) which has a fairly high prevalence as a cause of cervical cancer, namely 99.7%. HPV types 16 and 18 are the cause of cervical cancer [2].

The high prevalence of cancer in Indonesia requires preventive measures and early detection by health care providers. Cancer cases found early will provide healing and a longer life expectancy [6]. The World Health Organization recommends vaccination and screening for HPV, through acetic

acid visual inspection (IVA) programs, pap smear tests, or HPV tests as a preventive measure for cervical cancer in low-income countries [2].

Early detection of cervical cancer is preferred by VIA examination because it is considered more effective, efficient in terms of time, method and cost. In addition, the VIA examination has met the basic criteria for early detection (safe, practical, affordable, available) and can be used in areas with less facilities and the results of the examination can be known immediately [7].

Acetic acid visual inspection is a series of procedures to detect the presence of precancerous lesions by observing changes in the cervix that are smeared with acetic acid [8]. The cervical cancer early detection program in Indonesia was developed by the Ministry of Health in collaboration with related programs, local governments, NGOs, professional organizations, FCP, SIKIB, and OASE-KK. The target of this program is 50% women aged 30-50 years [6].

Women of childbearing age are women aged 15-49 years, both married and unmarried or widowed [9]. Women of childbearing age who are recommended for early detection of cervical cancer are women aged 30-50 years at least every 5 years, if possible it can be done every 3 years [10]. Data from the Ministry of Health of the Republic of Indonesia shows the low participation of women in Indonesia in early detection of cervical cancer, as evidenced from 2007-2016 only 5.15% of women in Indonesia carry out VIA examinations [6].

The IVA examination in West Sumatra Province in its implementation exceeded Indonesia's achievement of 7.16% [6]. Even though Padang City is one of the cities that experienced an increase in the scope of VIA examinations from 2014 by 1.16%, 2015 by 1.85%, and 2016 by 2.1%, it has not reached the desired target 11, 12, 13] .

In 2017, the lower coverage of VIA examinations compared to other Puskesmas in Padang City was found at Rawang Barat Health Center (1.88%), Kuranji Health Center (1.61%), Lubuk Begalung Health Center (1.51%), Pegambiran Health Center (1.45%), Water Children Health Center (1.34%), and Cold Water Health Center (1.24%) [14].

According to Ningrum (2012), there are several factors that influence WUS to carry out an IVA examination, namely knowledge, education level, and economic status. Another study by Pakkan (2017), which influenced WUS's actions to carry out an IVA examination was knowledge, occupation, and socioeconomic. Meanwhile, in Kurniawati's research (2015), there is an influence of husband's knowledge, motivation, and support in the behavior of the VIA examination. Based on Syafa'ah's research (2011), the lack of interest in WUS conducting VIA examinations is caused by the fact that many WUS do not have the awareness to check themselves, are embarrassed, or feel that there is no problem with themselves. Therefore, WUS needs motivation to want to carry out an IVA examination.

Based on the background of the problem above, the study aims to determine "The Effectiveness of IT-Based IEC on the Knowledge Level and Motivation of WUS in Performing Early Detection of Cervical Cancer".

MATERIAL AND METHODS

The type of research used is a quasi-experimental with a control group pretest-posttest design. In this research design, the experimental group received IT-based IEC (with audio-visual media), while the tatist group was given conventional-based education (with leaflet media). Prior to the intervention, both groups were pretested, then continued with the provision of IEC with each experimental group. The study was conducted from May to December 2020 in the Padang City Health Center Work Area. The population in this study were all women of childbearing age who were in the working area of the Padang City Health Center, with a sample of 20 people per research group. The research instrument used was a questionnaire conducted by questionnaire, in the intervention group it was provided in the form of google form media. The data were then analyzed by univariate and bivariate analysis using paired t-test statistical tests.

RESULT

Based on the results of research that has been carried out, the following results are obtained:

Table 1. Characteristics of Respondents in the Research Group

Characteristics		Group			
		Experiment n = 20		Control n = 20	
1.	Age (year)	33,54±5,67		33,29±5,21	
	Mean±SD				
2.	Paritas	2,61±1,26		3,18±1,77	
	Mean±SD				
3.	Education	f	%	f	%
	< SMA	5	25	6	30
	≥ SMA	15	75	14	70
4.	Job Status				
	Work	7	35	9	45
	Doen't Work	13	65	11	55
5.	Ca Cerviks family profil				
	There is history	1	5	2	10
	There isn't history	19	95	18	90
6.	History of early detection of cervical Ca				
	Never	18	90	17	85
	Ever been	2	10	3	15

Based on the results of the normality test conducted with the Shapiro Wilk test, the results showed that both variables were normally distributed. The effectiveness of providing IT-based IEC on the level of knowledge of WUS in early detection of cervical cancer can be seen from the following table:

Table 2. WUS Frequency Distribution by Knowledge Level

Knowledge Level	Experiment Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
Mean (SD)	49,34 (15,32)	78,99 (9,43)	54,01 (12,69)	72,01 (9,5)
Deviation (SD)	29,66 (12,19)		18 (9,76)	
IK95%	35,36 – 23,95		22,57 – 13,43	
p value	0,01		0,19	
p value	0,01			

Based on table 2. it can be seen that in the experimental group, the mean value of knowledge for the pretest was 49.34, after giving KIE using audio-visual media, the average value of knowledge in the post-test showed an increase of 78.99. After the statistical test was carried out, the p value = 0.01 (p <0.05), so Ha was accepted, meaning that statistically there was a difference in the average knowledge before and after giving IEC using audio-visual media, so it can be concluded that there is a relationship between knowledge before and after the provision of IEC using audio-visual media.

In the control group, the mean value of knowledge for the pretest was 54.01, after giving KIE using leaflet media, the mean value of the post-test was 72.01. After the statistical test was carried out, the p value = 0.19 (p>0.05), so Ha was rejected, meaning that statistically there was no difference in the average knowledge before and after giving IEC using leaflets, so it can be concluded that there is no relationship between

knowledge before and after after giving KIE using leaflet media.

The difference in the value of the statistical test in the experimental group and the control group showed that the value of p = 0.01 (p <0.05), so Ha was accepted, meaning that statistically there was a difference in the mean of knowledge in the experimental group and the control group, so it can be concluded that there are the relationship between knowledge in the experimental group and the control group, namely the provision of IEC using audio-visual media and using leaflet media.

The effectiveness of providing IT-based IEC on WUS motivation in early detection of cervical cancer can be seen from the following table:

Table 3. WUS frequency distribution based on motivation

Motivation	Experiment Group		Control Group	
	Pretest	Posttest	Pretest	Posttest
Mean (SD)	59,72 (12,58	78,46 (7,71)	60,69 (12,64)	74,40 (7,28)
Deviation (SD)	18,74 (12,00)		13,44 (7,38)	
IK95%	24,35 – 13,12		16,89-9,98	
p value	0,02		0,10	
p value	0,00			

Based on table 3. it can be seen that in the experimental group, the average value of motivation for the pretest was 59.72, after giving KIE using audio-visual media, the average value of motivation in the post-test showed an increase of 78.46. After the statistical test was carried out, the value of p = 0.02 (p <0.05), so Ha was accepted, meaning that statistically there was a difference in the average motivation before and after giving IEC using audio-visual media, so it can be concluded that there is a relationship between motivation before and after the provision of IEC using audio-visual media.

In the control group, the mean value of motivation for the pretest was 60.69, after giving KIE using leaflet media, the mean value of the post-test was 74.4. After the statistical test was carried out, the value of p = 0.10 (p>0.05), so Ha was rejected, meaning that statistically there was no difference in the average motivation before and after giving KIE using leaflets, so it can be concluded that there is no relationship between motivation before and after giving KIE. after giving KIE using leaflet media.

The difference in the value of the statistical test in the experimental group and the control group showed that the value of p = 0.00 (p <0.05), so Ha was accepted, meaning that statistically there was a difference in the average motivation of the experimental group and the control group, so it can be concluded that there are the relationship between motivation in the experimental group and the control group, namely the provision of IEC using audio-visual media and using leaflet media.

DISCUSSION

Based on the results of statistical tests conducted to determine the effectiveness of providing IT-based IEC on the level of WUS knowledge in early detection of cervical cancer, it shows that the provision of IEC with audio-visual media based on information and technology (IT) is able to produce an increase in WUS knowledge towards early detection of cervical cancer compared to by giving KIE by using leaflet media.

This is in line with the research conducted by Lubis (2015) who obtained the results of research that there was a change in the average value of knowledge before being given film screening media with after being given film screening media with a p value <0.05, so it was concluded that there

was an influence given the media. screening of films on knowledge about cervical cancer.

This is in accordance with what Putri (2009) stated that all participants who were given health education with the film method could learn from films, both those who were smart and those who were less intelligent. This is because the content of the message in the film can have a significant effect on feelings, emotions, levels of acceptance or rejection of the information provided (Nurseto, 2011).

This study provides health education by playing audio-visual, where the video that is played contains information about cervical cancer early detection materials. This is assumed to increase respondents' knowledge about their level of knowledge regarding early detection of cervical cancer. The provision of IEC with audio-visual media can stimulate participants to imitate or inhibit behavior that is not in accordance with the behavior in the media. This media can be used to convey health education messages well because it makes it easier to receive health messages for the community or clients.

Based on the results of statistical tests conducted to determine the effectiveness of providing IT-based IEC on WUS motivation in conducting early detection of cervical cancer, it shows that the provision of IEC with audio-visual media based on information and technology (IT) is able to increase WUS motivation towards early detection of cervical cancer compared to giving IEC by using leaflet media.

This is in line with research conducted by Silalahi (2018) which obtained research results that health education using booklet media was considered effective in improving the behavior of respondents in conducting VIA screening [15]. Similar to the research results obtained by Love and Tanjasiri, learning media using brochures is effective in increasing women's attitudes about cervical cancer and cervical cancer screening with the Pap Smear method [16]. The selection of the right method in providing information will stimulate a positive health attitude in an effort to improve health.

CONCLUSIONS

The provision of IEC with audio-visual media based on information and technology (IT) is able to increase the level of WUS knowledge on early detection of cervical cancer compared to the provision of IEC using leaflet media. The provision of IEC with IT-based audio-visual media is able to increase WUS motivation towards early detection of cervical cancer compared to the provision of IEC using leaflet media.

Based on the results of the research conducted, it is recommended that all health workers in charge of providing health education/promotion to the community can use various health promotion media in order to achieve the goal of providing health education to the community, namely increasing knowledge and understanding.

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