

# **THE INFLUENCE OF HEALTH PROMOTION ON THE KNOWLEDGE OF WOMEN OF FERTILIZING AGE (WUS) IN THE PREVENTION OF CERVICAL CANCER IN THE WORKING AREA OF THE PUSKESMAS PURWODADI II 2017**

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## **Abstract**

Cervical cancer is a health problem that affects countries in the world, especially developing countries. In Indonesia, cervical cancer ranks second after breast cancer. Of the 33 provinces in Indonesia, the highest number of cervical cancer sufferers is in East Java, namely 21,313 cases with a mortality rate of 10.3%. Efforts to prevent cervical cancer are carried out by early detection of cervical cancer, but this is not widely known to the wider public. One method for disseminating information about preventing cervical cancer is through health promotion. This research was conducted to determine the effect of health promotion on WUS knowledge in preventing cervical cancer. This research took the form of a quasi-experiment with a non-randomized- pretest-posttest control group design. The population in this study was 823 WUS in the working area of the Purwodadi II Community Health Center, a sample of 40 respondents was taken. The sample was separated into two groups, namely the group that was given health promotion and the group that was not given health promotion. The instrument used to measure knowledge before and after health promotion was a questionnaire. Data were analyzed using the t-test. Based on the results of data analysis, the following were obtained: (1) there was a significant difference in the knowledge of WUS before and after being given health promotion ( $p= 0.000$ ). (2) there is a significant difference in WUS knowledge between the experimental group and the control group ( $p= 0.000$ ). Health promotion can increase knowledge in preventing cervical cancer. This health promotion can be applied in everyday life.

**Keywords:** Health Promotion, Knowledge, Cervical Cancer

## **Introduction**

Based on data from the World Health Organization (WHO), more than 270,000 women die from cervical cancer every year, and more than 85% occur in developing countries (WHO, 2013)

In developed countries, the incidence of cervical cancer is around 4% of all cancer incidence in women, while in developing countries it reaches above 15%. In the United States and Western Europe, the incidence of cervical cancer has decreased. This is due to the allocation of sufficient health funds, good health promotion, as well as supportive prevention and treatment facilities (Emilia, 2010).

In Indonesia, cervical cancer ranks second after breast cancer. There were around 20,928 new cases of cervical cancer and deaths due to cervical cancer with a percentage of 10.3% (WHO, 2014). Based on data from Dharmais Hospital patients during 2010 – 2015, the number of new cases and the number of deaths due to cancer continues to increase. Of the 33 provinces in Indonesia, the highest incidence of cervical cancer is in East Java, namely 21,313 cases, and second place is in Central Java with 19,734 cases (Riskesdas, 2013). Of the 18,954 WUS carried out by Visual Acetate Inspection (IVA), 1,868 WUS were found positive (IVA) or 9.86%, this figure is higher than that set by the Ministry of Health, namely 3%. Grobogan Regency is ranked fifteenth with a cervical cancer incidence rate of 7.86% (Central Java Health Profile 2015).

Cervical cancer is the growth of abnormal cells in the cervical tissue (cervix) which is located between the uterus and vagina (Diananda, 2009). According to the World Health Organization (WHO) theory in Notoatmodjo (2007), one form of health

object can be described by knowledge obtained from one's own experience. What is meant by Women of Childbearing Age (WUS) are women whose reproductive organs are functioning well between the ages of 20-45 years.

Health promotion is an effort by health workers to improve community capabilities through learning so that people can help themselves, as well as developing activities that are community resourced according to local social culture and supported by public policies that are health-oriented (Fitriani, 2011).

The lack of knowledge and awareness of women in Indonesia to prevent cervical cancer regularly is still low. It can be seen from the data that early detection coverage in Indonesia is less than 5%, which can lead to a lack of interest in carrying out early examinations in preventing cervical cancer. Many cases of cervical cancer are found at an advanced stage which often causes death (Ministry of Health, 2015).

Based on previous research, it was found that many factors can influence the occurrence of cervical cancer, such as age at first sexual intercourse, more than one sexual partner, education, consumption of illegal drinks and drugs, employment, economic status, age at marriage, parity, lack of maintaining genital hygiene, unhealthy lifestyle, knowledge, information sources and social culture (Pertiwi et al., 2015).

From several previous studies, many studies have discussed the factors that influence the occurrence of cervical cancer, but research has rarely discussed interventions in preventing cervical cancer. Therefore, there needs to be an effort to increase women's motivation to play a more active role in preventing cervical cancer. One way is to provide health information to women of childbearing age

(WUS) in preventing cervical cancer. Based on the thoughts and background of the problem above, the author is interested in conducting research on the Effect of Promotion.

## **Method**

The type of research carried out was a quasi-experimental design. This type of research is used to look for cause and effect by giving health promotion treatment at a certain time to those who are not given treatment, then studying the effects of the treatment (Murti, 2008). The approach taken was a non-randomized pretest-posttest with control group design, namely knowing the comparison of the knowledge of the group that was given treatment with the group that was not given treatment (Setiawan & Saryono, 2011). The population in this study were all women of childbearing age (WUS) in the work area of Purwodadi II Health Center from the period January 2017 to October 2017, totaling 823 people.

The type of research and sample for experimental research is 30 per group, although 15 per group can be maintained if control is tight. The sample in this study was 40 people divided into 20 per experimental group and 20 per control group. The sampling technique used in this research is purposive sampling.

In sampling, inclusion and exclusion criteria are needed to reduce the risk of bias. Inclusion criteria are criteria or standards that are established before research or research is carried out. Meanwhile, exclusion criteria are criteria where research subjects cannot represent the sample because they do not meet the requirements as a sample.

The data collection tool used to measure the level of knowledge of women of childbearing age (WUS) in this study was primary data in the form of a questionnaire given to mothers. The questionnaire in this research consists of 25 questions which have

been tested for validity. Secondary data was obtained from population statistics data for Grobogan Regency and Purwodadi II Health Center.

## Results

### General Data

This research was conducted from 04 December 2017 to 09 December 2017 in the work area of the Purwodadi II Community Health Center, with 40 respondents being women of childbearing age (WUS). There were 20 women of childbearing age (WUS) in the control group and 20 women of childbearing age (WUS) in the experimental group. In general, the description of respondents' personal data consists of age, occupation and education.

The frequency distribution of respondents' ages is presented in the following table form:

**Table 1 Frequency Distribution of Respondents' Age**

Age	Frequency	Percentage
< 20 Years	0	0
20 – 30 Years	23	57,5
31 – 40 Years	17	42,5
> 40 Years	0	0
Total	40	100

Source: Primary Data Processing 2017

Based on table 1, it is known that the majority of respondents were aged 20 - 30 years, namely 23 respondents (57.5%).

The frequency distribution of respondents' education is presented in the following table form:

**Table 2 Frequency Distribution of Respondents' Education**

Education	Frequency	Percentage
SD	0	0
SMP	29	72,5
SMA	10	25
D3	1	2,5
Total	40	100

Source: Primary Data Processing 2017

Based on table 2, it is known that the majority of respondents had junior high school education, namely 29 respondents (72.5%).

The frequency distribution of respondents' work is presented in the following table:

**Table 3 Frequency Distribution of Respondents' Occupations**

Age	Frequency	Percentage
Housewife	30	75
SelfEmployee	3	7,5
Farmer	7	17,5
Others	0	0
Total	40	100

Source: Primary Data Processing 2017

Based on table 4.3, it is known that the majority of respondents work as housewives, namely 30 respondents (75%).

**Research Data Control group and Experiment group**

Respondents' knowledge was grouped into three, namely good, sufficient and poor knowledge. Respondents' knowledge was measured twice, namely before (pretest) and after (posttest) the counseling. Respondents' knowledge was said to be good (76-100%), respondents' knowledge was said to be sufficient (56-75%) and respondents' knowledge was said to be poor (<56% %).

**Table 4 Frequency Distribution of Knowledge of Control Group Respondents**

Knowledge	PreTest		Post Test	
	Frequency	Percentage	Frequency	Percentage
Good	0	0	0	0
Enough	0	0	0	0
Not enough	20	100	20	100
Total	20	100	20	100

Source: Primary Data Processing 2017

**Table 5 Frequency Distribution of Knowledge of Experiment Group Respondents**

Knowledge	PreTest		Post Test	
	Frequency	Percentage	Frequency	Percentage
Good	0	0	8	40
Enough	4	20	12	60
Not enough	16	80	0	100
Total	20	100	20	

Source: Primary Data Processing 2017

**Comparison of Pre Test and Post Test Knowledge in the Experimental Group**

**Table 6 Wilcoxon Test Pre Test and Post Test in the Experimental Group**

PreTest-PostTest	Mean Ranks		Z	P
	Negative Ranks	Positive Ranks		
Knowledge	0,00	10,50	-3,926 <sup>b</sup>	0,00

Source: Primary Data Processing 2017

Table 6 shows that the knowledge test has a p-value  $<0.05$  so that  $H_{a1}$  is accepted and the Z value is -3.926. Thus it can be concluded that there is a difference in knowledge before and after health promotion. The mean ranks for positive rankings are greater than negative rankings, indicating that the differences are positive. In other words, health promotion causes increased knowledge among Women of Childbearing Age (WUS).

**Comparison of Pre Test and Post Test Knowledge in the Control Group**

**Table 7 Wilcoxon Test Pre Test and Post Test in the Control Group**

PreTest-PostTest	Mean Ranks		Z	P
	Negative Ranks	Positive Ranks		
Knowledge	0,00	0,00	0,000 <sup>b</sup>	1,000

Source: Primary Data Processing 2017

Table 7 shows that the knowledge test has a p-value  $> 0.05$  so  $H_{o1}$  is accepted. Thus it can be concluded that there is no difference in knowledge because the control group was not given health promotion.

**Comparison of Knowledge in the Control Group and the Experimental Group**

**Table 8 Mann Whitney Post Test on the Experimental Group and Control Group**

PreTest	Mean Ranks		Z	P
	Control	Experiment		
Knowledge	10,50	30,50	-5,434	0,00

Source: Primary Data Processing 2017

Table 8 shows that this test has a p-value  $<0.05$  so that  $H_{a2}$  is accepted with a Z value of -5.434. Thus it was concluded that there was a difference in knowledge between the control group and the experimental group. The mean ranks of the experimental group are greater than those of the control group. This shows that providing health promotion is able to increase knowledge (WUS) about preventing cervical cancer.

**Discussion**

**General data regarding age, education and employment**

Based on the results of research that has been conducted, the majority of mothers are 20–30 years old (57.5%) out of 40 women of childbearing age (WUS). According to the World Health Organization (WHO), every woman should be screened at least once at the age of 35–40 years. Previous research from sister Kasiati Bajduri stated that more than half of the reproductive age group had low knowledge in carrying out early detection of cervical cancer. So age has a role in determining choices in making decisions.

Based on the results of research conducted, most of the education of women of

childbearing age is at junior high school level (72.5%). Education can influence a person, including behavior and lifestyle, especially in motivating attitudes towards participating in development. In general, the higher a person's education, the easier it is to receive information (Nursalam, 2008).

In this study, the majority of respondents in the experimental group and control group were housewives (75%). According to Thomas in Nursalam (2008) work is done to support family life and life. Working will also have an influence on the family's ability to meet nutritional, educational and other needs. In sister Lia Karisma Saraswati's research, she found that women who were given free screening cards underwent more screening than women who were not given free screening cards.

### **Research data**

Based on the Wilcoxon results obtained in the experimental group, it shows that the knowledge test has a P-Value  $< 0.05$  so that  $H_{a1}$  is accepted. In other words, it was concluded that there was a difference in knowledge before and after being given health promotion about preventing cervical cancer. Mean Rank obtained by Negative Rank = 0.00 and Positive Rank = 10.50. So the positive ranking is greater than the negative ranking, indicating that the difference is positive. In other words, health promotion regarding cervical cancer prevention increases knowledge of women of childbearing age. Meanwhile, the control group showed that the knowledge test had a P-Value  $> 0.05$  so that  $H_{01}$  was accepted. The mean rank obtained is negative rank = 0.00 and positive rank = 0.00. In other words, it can be concluded that there is no difference in knowledge because the control group was not given health promotion about preventing cervical cancer. In the Mann Whitney post test the experimental group and control group showed that the P-Value was  $< 0.05$  so  $H_{a2}$  was accepted. Mean control rank = 10.50 and mean experiment = 30.50. In other words, it can be concluded that the mean rank of the experimental group is greater than the mean rank of the control group. This shows that providing health promotion about preventing cervical cancer can increase knowledge of women of childbearing age.

Health promotion is any form of combination of health education and interventions related to economics, politics and organizations designed to facilitate behavior and



an environment that is conducive to health in Green in Notoatmodjo (2010). Health promotion in this study is the prevention of cervical cancer in women of childbearing age. Health promotion is provided with the aim of increasing knowledge of women of childbearing age about preventing cervical cancer. The knowledge provided is in the form of understanding cervical cancer, causes of cervical cancer, risk factors for cervical cancer, signs and symptoms of cervical cancer, prevention of cervical cancer and treatment of cervical cancer. The hope to be achieved is that women of childbearing age can apply the knowledge that has been given in their daily lives, including by carrying out early detection examinations for cervical cancer, and can avoid the causes and risk factors for cervical cancer. Health promotion is provided using leaflet media. According to Laras (2009), leaflet media is a form of conveying information or health messages through folded sheets. The information content can be in the form of sentences or images or a combination. Health promotion with leaflets is also accompanied by questions and answers where participants have the opportunity to ask questions about material they do not understand. This will enable respondents to better understand the material that has been given. In previous research by Brother Dwi, it was said that high motivation for early detection of cervical cancer was due to high levels of knowledge. And Damindro also found a significant relationship between respondents' knowledge and attitudes towards Pap smears. The results of this research are in accordance with Linda Karisma Saraswati's research which shows that carrying out intervention will increase a person's level of knowledge regarding a particular object, namely cervical cancer and preventing cervical cancer. Knowledge will not increase and develop if there is no addition of health promotion.

### **Conclusion**

From the research results, it can be concluded that there is an influence of health promotion on the knowledge of women of childbearing age (WUS) about preventing cervical cancer before and after being given health promotion in the experimental group. There was no effect of health promotion on knowledge of women of childbearing age (WUS) about preventing cervical cancer in the control group. There is a comparison of

knowledge of women of childbearing age (WUS) about preventing cervical cancer in the control group and the experimental group.

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