

**EFFECT OF HEALTH EXTENSION ON IMPROVING KNOWLEDGE ABOUT BREAST CANCER IN WOMEN OF REPRODUCTIVE AGE AT KARANGLO HAMLET, ARGOMULYO VILLAGE, CANGKRINGAN SUBDISTRICT, SLEMAN REGENCY, YOGYAKARTA**

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**Abstract**

Breast cancer is a cancer which is often found in Indonesia and ranks second after Cervical Cancer. The biggest problem in cancer prevention is that a lot of information is not accountable so that it is too late to deal with it. In reality, a large number of death occur due late examination to a health facility or because patients came at an advanced stage. This study to identify the effect of health extension on improving knowledge about breast cancer. This research employed a cross sectional design and an instrument using questionnaires. The population in was women of reproductive age at Karanglo Hamlet, Argomulyo Village, Cangkringan Subdistrict, Sleman Regency, Yogyakarta. 46 respondents were involved and taken using total sampling technique. Data were analyzed using Wilcoxon test. In the pretest, 16 respondents (34.8%) had sufficient knowledge about breast cancer, 30 (65.2%) had poor knowledge. In the post test, 28 respondents (60.9%) had good knowledge, 15 (32. 6%) had sufficient knowledge and 3 (6.5%) had poor knowledge. The results of Wilcoxon statistical test indicated p value or sig value of 0.000, z count of 5.607 and z table of 3085, meaning that there was effect of health extension on improving knowledge about breast cancer in women of reproductive age. There is effect of health extension on improving knowledge about breast cancer in women of reproductive age in at Karanglo Hamlet, Argomulyo Village, Cangkringan Subdistrict, Sleman Regency, Yogyakarta.

**Keywords:** health extension, knowledge, breast cancer

**1. INTRODUCTION**

Breast cancer is a type of cancer most commonly seen in Indonesian community and is in the second highest rank after Cervical Cancer. In its reality, a large number of deaths is caused by late examination to health facility or patients' awareness in continuous stage [1].

Based on the world data, *International Agency for Research on Cancer* (IARC), it is known that in 2012 there were 14.067.894 new cancer cases and 8.201.575 deaths caused by cancer worldwide. Breast cancer, prostate cancer, and lung cancer are the highest types of cancer with the highest percentage of new cases (after being controlled by age), namely 43.3%, 30.7% and 23.1%, [2].

Nationally, the prevalence of cancer in all ages in Indonesia in 2013 was 1.4% or an estimated 347,792 people. In Yogyakarta, the highest prevalence for cancer is 4.1%. Based on the estimated number of cancer patients in Central and East Java with the highest estimate of cancer patients, which is around 68,638 people, the types of cancer commonly faced by women in Indonesia are breast cancer and cervical cancer. Whereas for men, there are lung cancer and colorectal cancer [3].

The Yogyakarta Special Region Health Office analyzed that the temporary integrated surveillance data for non-communicable diseases at the health centers in 2014 showed an increase in each year, 7343 cases of hypertension, 2891 cases of diabetes mellitus, 102 cases of heart disease, 425 cases of stroke, 155 cases of breast cancer, 104 cases of cervical cancer [4].

By Sleman Regency Office in 2017, the incidence of cervical cancer and breast cancer cases in Sleman Regency based on data from 25 health centers, there were 238 cervical cancer cases while there were 453 breast cancer cases [5].

The biggest problem in cancer prevention currently is that there are a lot of lack accountable information distributed to the community so that patients do not treat properly and only come to health facilities due to late handling [6].

Based on the results of preliminary study in Karanglo Hamlet using a questionnaire on February 2, 2018, the results of 10 respondents showed that there are 85% of the respondents with understanding of breast cancer, 40% of the respondents with understanding on correct breast cancer signs and symptoms, 83,75% of the respondents with understanding on correct breast cancer treatment, 20% of the respondents with understanding on correct causes of breast cancer, 66.67% of the respondents with understanding on correct stages of breast cancer, and 80% of the respondents with understanding on correct prevention of breast cancer.

## 2. METHODS

The type of research used is *Quasi Experiment*, namely the research design yet or has no characteristics of an actual experimental design, since the variables that should be controlled or manipulated cannot or are difficult to do [7], using cross sectional design by pre and post test without control. This research was conducted in Karanglo village on April 29, 2018. Selection of respondents used total sampling with there are respondents namely women of childbearing age in Karanglo Village, Argomulyo Cangkringan Sleman DIY.

Variables are characteristics that vary in the population in a study [8]. In this study, the independent variable is effect of health education, while the dependent variable is improved knowledge of women of childbearing age. The research data were obtained using pre and post questionnaires given to by the researchers to the respondents, after which the questionnaire data were tested using Wilcoxon statistical test.

## 3. RESULTS AND DISCUSSION

### 3.1 Respondents' Demography Data

Table 1 illustrates that the characteristics of the late adult age group namely 36 - 45 years reaches (43.5%). Based on the occupation characteristic, majority of respondents is housewives (IRT) namely 33 respondents (717%), and based on the education group, the majority of respondents has secondary education background, namely 25 respondents (54.3%).

### 3.2 Level of Knowledge by Women of childbearing Age Before and After Health Counseling

Based on table 2, the level of knowledge by women of childbearing age on breast cancer from the pre- test results showed that there was no (0%) respondents having good knowledge, there were 16 (34.8%) respondents with enough knowledge and there were 30 (65.2%) respondents with lack knowledge. The post test results showed that there were 28 (60.9%) respondents with good knowledge, 15 (32.6%) respondents with enough knowledge and 3 (6.5%) respondents with lack knowledge.

### 3.3 Data Normality Test

The results of the data normality test found that the value of  $p = 0,000$  means that the normality test for data is not normal, because it is smaller than  $\alpha$  (0.05), so the statistical test used for bivariate analysis is *Wilcoxon*.

### 3.4 Bivariate Analysis

Based on table 4, the effect of health counseling on improved knowledge by women of childbearing age from the *Wilcoxon* test results obtained significant data values by 0,000 ( $p < 0,005$ ) with  $z$  arithmetic by 5,607 and  $z$  table by 3085, meaning “There are significant effects of knowledge before and after counseling health about breast cancer”.

Table 1. Respondents' Characteristics of Health Counseling in Karanglo Village

Characteristics	Categories	Total	%
Age			
12-16	Early teens	0	0
17-25	Late teens	5	10,9
26-35	Early adults	14	30,4
36-45	Late adults	20	43,5
46-55	Early elderly	7	15,2
Occupations			
	Teacher	1	2,2
	Housewives	33	71,7
	Student	1	2,2
	Farmers	2	4,3
	Civil servants	2	4,3
	Private worker	7	15,2
Education			
Primary	SD, SMP	8	17,4
Secondary	SLTA/SMA/SMU/SMK	25	54,3
Higher education	University	13	28,3
Total		46	100

Table 2. Level of Knowledge by Women of childbearing Age Before and After Health Counseling Concerning Breast Cancer.

Knowledge on Breast Cancer	Level of Knowledge							
	Good		Enough		Lack		Total	
	N	%	N	%	N	%	N	%
<i>Pre-test</i>	0	0	16	34,8	30	65,2	46	100
<i>Post-test</i>	28	60,9	15	32,6	3	6,5	46	100

Table 3. Data Normality Test Before and After Health Counseling

		Shapiro-Wilk		
Post		Statistic	Df	Sig.
Pre	Good	0,631	28	0,000
	Enough	0,499	25	0,000
	Lack	0,750	3	0,000

Table 4. Effects of Health Counseling on Improved Knowledge by Women of childbearing Age concerning Breast Cancer in Karanglo Village Argomulyo Cangkringan Sleman DIY

	Median (Minimum-Maximum)	Sd	P value
Knowledge before Counseling	3(2-3)	0,482	0,000
Knowledge after Counseling	1(1-3)	0,622	

Most of respondents have education background as secondary education namely 25 respondents (54,3%). According [7], one with higher education leads to easier obtaining information since education level will influence on human behavior. So, lower one education will lead to more risk to face pain by lack of knowledge. One with higher level of education will lead to easier obtaining information. By high level of education, one will tend to obtain good information from others or mass media.

Most of respondents have occupations as housewives namely 33 respondents (71,7%). Occupation according to [9], is an activity conducted by a person to obtain income in order to meet this daily needs. One with occupation will often interact with others so will also have better knowledge. By development of era, one with no occupation will also have good knowledge through information from social media.

Most of research respondents enter the age of late adult namely 36-45 years old. Such age still include as women of childbearing age since according to [10], women of childbearing age are women in reproductive age namely women in the age of 15-49 years old with status of not married, married or widow.

Age is a person's time span starting from the day he was born to his birthday. If someone has enough age, they will have a mature mindset and experience. Age will greatly influence on the capture power so that there will be gained better knowledge [9].

Based on the results of research conducted on women of childbearing age, it can be seen that from 46 respondents, there are 6 respondents having enough knowledge before counseling (34.8%), there are 30 respondents (65.2%) with lack knowledge. And after the counseling, there are 28 respondents (60.9%) having good knowledge, there are 15 respondents (32.6%) with enough knowledge and there are 3 respondents (6.5%) with lack knowledge.

In the questionnaires, in questions number 3 and 4 with indicators of signs and symptoms of breast cancer, there are still many respondents having no correct answers. In question number 3, there is totally 54.34% of the respondents with incorrect answers and for number 4, there is 56.53% of the respondents also with incorrect answers.

In this study, before the counseling (pre test), there are 30 respondents namely women of childbearing age (65.2%) with lack of knowledge, this is influenced by several factors, as stated by [11], there are factors giving effects on one knowledge namely internal factors including education, occupation and age, while there are also external factors including environment and socio-culture.

Lack of information obtained or experience about breast cancer causes many respondents to have incorrect answers before the counseling. According to [7], knowledge is a dominant factor that influences on one behavior and skills. Someone will do skills according to the abilities and knowledge they have. One with higher level of knowledge will have better behavior.

From the results of the bivariate analysis that has been done, the results show there is an effect of health education on improved knowledge by women of childbearing age; from the Wilcoxon test results, it is obtained significance value 0,000 ( $p < 0.005$ ) with z arithmetic by 5.607

and z Table by 3085 meaning “there are significant effects of health education on improved knowledge by women of childbearing age about breast cancer with a p value of 0,000.

The success of the Counseling agents is inseparable from several factors that influence it, the factors that can influence on the success of health counseling, consisting of Counseling agents and targets. The counseling agent factors can be seen from their careful preparation, mastery of material, convincing appearance, understandable language use by the targets, clear sound of explanation. Target factors are about education, social level, beliefs and embedded habits and environmental conditions [12].

#### 4. CONCLUSION

Based on the research results on the effects of health Counseling on improved knowledge by women of childbearing age concerning breast cancer in Karanglo Village Argomulyo Cangkringan Sleman DIY, it can be concluded as follow:

- a. Most of the respondents have characteristics namely in the group of late adult namely 36 – 45 years old (43, 5 %). Most of the respondents have occupation as housewives (IRT) namely 33 respondents (717%), and most of the respondents have education background in secondary level namely 25 respondents (54, 3 %).
- b. Concerning knowledge of women of childbearing age about breast cancer before the counselling, most of the respondents namely 30 respondents (65, 2 %) having lack knowledge.
- c. Knowledge of women of childbearing age about breast cancer after the Counseling shows that there are 28 respondents (60, 9 %) having good knowledge.
- d. There are effects of health counseling on improved knowledge by women of childbearing age about breast cancer with value of z arithmetic 5.607 and z Table 3085.

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