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EXPOSURE RELATIONSHIP INFORMATION WITH THE LEVEL OF KNOWLEDGE AND BEHAVIOUR BSE IN WOMEN

Intan Mutiara Putri[1], Evi Nurhidayati[1] dan Djaswadi Dasuki[2]

[1]*Faculty of Health, Aisyiyah University of Yogyakarta, Yogyakarta, Indonesia*
[2]*Faculty of Medicine, Gadjah Mada University, Yogyakarta, Indonesia*

*email: intanmutiaraputri@unisayogya.ac.id

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Abstract

The incidence of breast cancer by 40 per 100,000 women and will increase if there are one or more risk factors for breast cancer. Breast self-examination (BSE) is the early detection of breast cancer is the most widely recommended for every woman. The American Cancer Society recommends young women after the age of 20 to be screened with BSE every month. Nowadays there is a tendency of breast cancer experienced by women with age (15-20an). The purpose of this study to determine the relationship of information exposure to the level of knowledge of women about breast cancer and BSE behavior. Descriptive analytic research with cross sectional study sampled women aged 20-65 years living in the of Tegalrejo Yogyakarta total of 100 respondents. The sampling technique using a multistage random sampling. Bivariate data analysis using Chi - Square with significance level ρ <0.05 and CI 95% . The results of chi-square analysis of a significant relationship between exposure information with the level of knowledge about breast cancer and BSE with a p-value (0.021) and the OR value of 4.015. The results of chi-square analysis of a significant relationship between exposure information with BSE practice with a p-value (0.002) and the OR value of 3,3. In conclusion, hhere is a relationship between the exposure of information to the level of knowledge and breast self examanation behavior.

Keywords: exposure information, knowledge, breast cancer, BSE

Introduction

Breast cancer is the most prevalent cause of cancer morbidity and mortality among women in most parts of the world [1]. The incidence of breast cancer by 40 per 100,000 women and will increase if there are one or more risk factors for breast cancer. Breast self examanation have a positive effect on the early detection of breast cancer [2]. In addition the American Cancer Society recommends it for early detection of breast cancer as it assists women in two main ways; first by becoming familiar with both the appearance and the sense of their breasts and second by helping them to detect any changes in their breasts as soon as possible [3]. The current recommendations by [4], that all women should perform monthly breast self-exams (BSE), and also should be informed about the potential benefits and limitations associated with BSE.

Unfortunately, despite the relative benefits of regular BSE, few women actually examine themselves; in fact, a majority does not even know how to do a BSE [5]. In yet another research study although 67% of the participants reported that they had heard about BSE, only 26% of them indicated they themselves practiced BSE in the previous 12 months, and only 7% stated that they performed BSE on a regular monthly basis. Others reported performing BSE every 2–3 months (9%), once every 6 months (5%) and once a year (6%). A total of 73% of the participants indicated that they had never performed a BSE. When asked about their intention to practice BSE in the coming year, 67% of them said that they would consider examining themselves regularly. A majority of the sample (82%) reported that they had heard or read about breast tumors. Television and/or radio programs were identified as the main source of information on breast tumors and BSE by 62% and 42% of the participants, respectively. Printed materials were also a major source of information about breast tumors (47%) and about BSE (37%). Health professionals (doctors/nurses) were mentioned as a

source of information on breast tumors and BSE, 11% and 12%, respectively [6].

Breast cancer prevention interventions may reach audiences such as women through targeted information sources. Mass media channels as source selections for women may include the Internet, magazines, and television [7]. Interpersonal source selections may include cancer prevention communication from family, providers, and friends. With increasing mobile technology use and Internet access, women have readily available online breast cancer prevention information. Although previous studies focused on Internet use for cancer survivorship information sources, it is unclear as to Internet use among women as a breast cancer prevention information source. Thus, understanding cancer information sources among women provides a foundation how to reach and advance ways to educate women (8). This study will be an important contribution to the health education literature so providers and health educators may address the needed breast cancer prevention education targeting age women. Recent studies only focused on young adolescent women and breast cancer prevention education. McGuire's Input–Output Persuasion Model guided this study. The inputs are interpersonal information sources such as providers or friends who send the message. The inputs are media sources or channels as the way the message is sent such as the Internet, radio, magazines,or television.The outputs are the ways of acting on the message or awareness of the message [8].

The findings of the different studies show that the rate of breast cancer knowledge and practice of BSE was significantly related to frequency of BSE and the ability to do so. In developing countries, the researchers examined that effective intervention programs to increase knowledge, attitude and practice of BSE. Knowledge about BSE after the intervention education program showed significant results ($p < 0.001$) [9]. Therefore we need to know the information media utilized by women in obtaining information.

The source of information is a source of knowledge where knowledge depends whether or not each individual knowledge to understand and accept the information received [10]. Women consider doctors as a source of health information can influence 2.54 times the possibility to do a mammogram. The source of information consists of health care workers, family members, friends, print media such as newspapers, magazines and electronic media such as radio, television and the internet. Sources of health information could be the reason for someone to act, including cues for action [11]. The present study aimed to determine the exposure of information improve knowledge of women about breast cancer and BSE pratice. The research hypothesis was the exposure of information improve knowledge of women about breast cancer and BSE practice.

Breast cancer screening is a check or attempts to find abnormalities that lead to breast cancer in a person or group of people who do not have any complaints. Screening for breast cancer is secondary prevention. The goal of screening is to reduce breast cancer morbidity and mortality [12]. Treatment of cancer faces many obstacles that cause nearly 70% of patients were found in the already advanced stage. Early detection and treatment of breast cancer increases have contributed to a 3.3 percent reduction in mortality rate since 1990 in women aged less than 50 years. Check Breast Self-examination (BSE) is a breast check done by women themselves [13]. The best time to do that is approximately one week after the final menstrual period when breasts are not tight or swollen. Women who have regular menstrual periods should do BSE on the same day each month. This makes it possible to check your own breasts, a woman tends to see any changes that occur [12].

The advantage of doing breast self-exam is, free to do their own check, cheap, available, and relatively simple. The majority of breast lumps are detected by women themselves, a small tumor or lump can be detected and is recommended for all ages 20 and up. Relatively easily accepted and effective than other methods. Disadvantages of BSE is the effectiveness is controversial among some researchers about the developed world where the two methods (mammography and clinical breast check) available [14].

Experiment

Research Design and Subject. A cross-sectional, descriptive, correlational design was used with a precoded self-administered questionnaire. The sampling method using a multistage random sampling that the sampling process through two stages. Sampling units selected in the first stage are called primary sampling unit while the unit is sampled at a second stage called secondary sampling units [12] Based on the Data of

Population DIY 2016 women aged 20-65 years in Tegalrejo many as 11,700 inhabitants [13]. Of the study population sampled in this study were women who met the inclusion criteria is that women who live in Tegalrejo and willing to become respondents. The exclusion criteria of the study sample are women who had been diagnosed with breast cancer. Tegalrejo as the primary sampling unit has four villages namely Karangwaru, Tegalejo, kricak and Bener. The fourth village had 188 RT 46 RW, then as secondary sampling units randomly selected 10 RT. Furthermore, the calculated proportions to meet the 100 samples of each RT were selected randomly again with computerization, based on a projected population of each RT. The total population of 10 RT as many as 637 people. How sampling of 100 of the 637 randomized to computerization. Furthermore, Researchers questionnaires distributed in a way to visit Reviews their homes with the help of volunteers or the mother of the RT. During the study, if there are respondents who refused Immediately then replaced with another. This study using univariate data analysis to show the distribution of variable frequency and bivariate analysis using chi-square test with significance level $\rho < 0.05$ and CI 95% to determine the relationship between variables.

Research Instrument. The first part questionaire consisted of sociodemographic variabels including characteristics respondens age, current marital status, level of education, employement status, family history of breast cancer. The second part contain quistions sources information. Exposure questionnaire contains information about whether respondents had been exposed to information about breast cancer and breast self-examination or not. Respondents who answered "yes" then were given the code "1", while the answer "never" was coded "0". The source of information is divided into three options are: 1); health workers consisting of (a) doctors, (b) midwife and (c) the nurse; 2); family consisting of (a) the mother, (b) brother/sister and (c) another family; 3; Other media consisting of (a) television, (b) radio, (c) newspaper, (d) magazine, (e) seminars, (f) cadres activities, (g) religious activities and (h) the internet. The third part, questions to assess women knowledge, it contain 11 items about breast cancer and BSE. Respondents were asked eight objective questions related to breast cancer epidemiology and curability. Each of these questions was asked in a ‘‘yes or no’’ format with one correct answer possible. For each of the questions, responses were recoded so that 0 = cited an incorrect response, and 1 = cited a correct answer. Knowledge is low if the amount is less than the median item scores high knowledge 82. If the total score for the same item with a median 82. Last questionnaires practice BSE with a choice of "yes" or "no".

Results and Discussions

Characteristics of respondents by age mostly in the age range 31-50 years. This characteristic is seen as a test site located in urban areas. From the description of these characteristics, then these results also apply to women with the same characteristics of the image, but can not be equated with other areas eg areas with the proportion of older people are the lower middle class or lower formal education. Previous research that studied women aged 30-49 found that 67% of respondents never perform BSE. This could occur because women at that age are starting to feel their vigilance against themselves. In addition, women of childbearing age 30-50, which specifically target breast cancer screening at the City Health Office Yogyakarta. This policy is to target all women of childbearing age who were married as the target of government programs related to breast cancer screening. According to the American Cancer Society recommended BSE since the age of 20 years. Based on marital status, it can be seen that the respondents who have had BSE are respondent/ have been married. This is consistent with other research that women who are married and have children, who use oral contraceptive pills and have a history of medical examination in the last five years, tend to practice BSE regularly. married women have more reason to access to health care workers [15]. Most respondents educated. Women who have a higher education level are basically more learned and received little formal education and would be getting the chance to learn to cope with life's problems. Results of other studies indicate that the higher education level was positively correlated with more than one frequency behavior BSE. The results showed that 66% of women who have had BSE regularly have a higher education level [16]. Education is a learning process that directs individuals are more mature and more mature thinking. someone higher education, the better their knowledge. This is influenced by experience and insight than those

who have less education. higher education levels will get more information either from others or from the media. Research in developing countries, the researchers examined that effective intervention programs to improve the knowledge, attitude, and practice of BSE. Knowledge of BSE after educational intervention program showed significant results ($p < 0.001$) [9].

Table 1 shows the distribution of the presentation of all variables used in this study. Respondent age range 31-40 years (35%). Respondents who have higher education level as much as 75%. Respondents have largely been stabbed (83%) and status as a housewife or not working (55%). Respondents who have a family history of breast cancer was recorded at 12%. Respondents were exposed to information about breast cancer as much as 86%. the level of knowledge about breast cancer most of the high (57%).

Table 1 Characteristics of collage women

Characteristics	**Total**	
	n	**%**
Age		
20-30	18	18
31-40	35	35
41-50	32	32
51-65	15	15
Marital status		
Married	83	83
Single	17	17
Level of Education		
High	75	75
Low	25	25
Employment status		
Employed	55	55
Non employed	45	45
Family history of breast cancer		
Present	12	12
Absent	88	88
Improve information		
Yes	86	86
No	14	14
Breast cancer knowledge level		
High	57	57
Low	43	43
BSE practice		
Yes	80	80
No	20	20

Table. 2 Distribution of respondents knowledge of breast cancer and BSE

Statement	**Respondents who answered correctly**	
	n	**%**
Breast cancer decreased to family	33	33
Lumps of breast cancer usually does not hurt	56	56
Advanced breast cancer can be prevented	45	45
Breast cancer should be operated	87	87
Breast cancer screening can improve the recovery	91	91
One of the breast cancer screening is BSE	97	97
Early-stage breast cancer can be cured	97	97
BSE can only be done by a doctor	77	77

Breast cancer is caused by witchcraft	96	96
Breast self-fingered taboo to do	99	99
The smaller the lump will be more easily cured	89	89

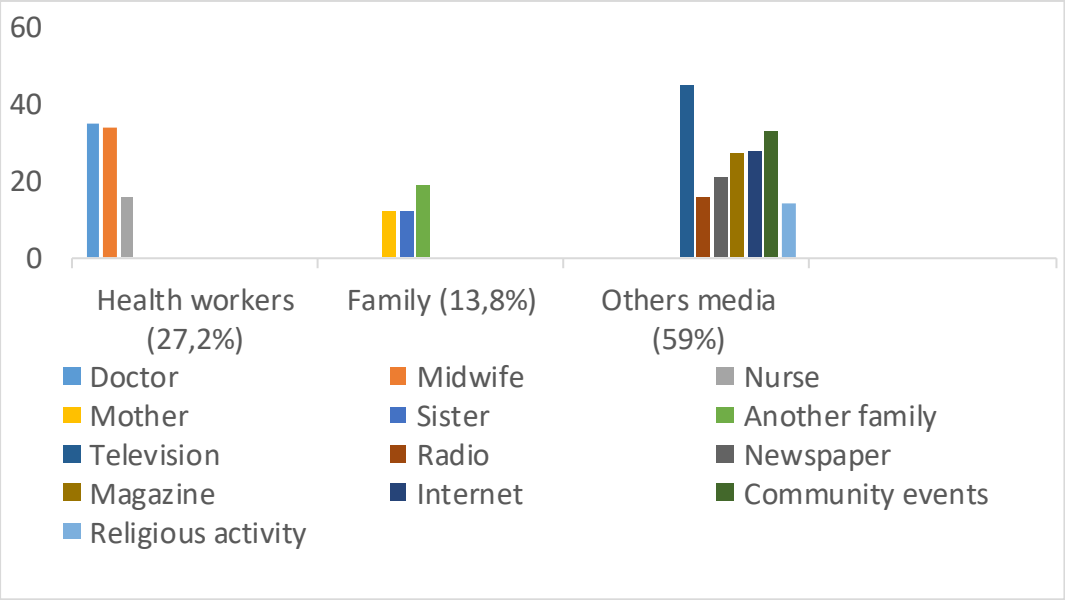

Figure 1 Sources of information of respondents

Figure 1 shows that respondents are exposed to information about breast cancer and BSE as much as 86% and 14% have never been exposed to such information. Resources obtained most respondents came from other media as much as 59%, while the originating source of 27.2% of health workers and the source of the family is only 12.8%. The media are used as a primary source of information most respondents is television as much as 45 respondents (14%), community activities 33 respondents (11%), internet 28 respondents (9%), magazines 27 respondents (9%), radio 16 respondents (5%) and religious activities of 14 respondents (4%). Respondents who obtain information from health professionals doctor 35 respondents (11%), midwife 34 respondents (11%) and perawat16 respondents (5%). Sources of information obtained from family the respondent of his mother as much as 12 respondents (4%), the sister of 12 respondents (4%) and other relatives 19 respondents (6%).

Most respondents have a high level of knowledge about breast cancer and BSE as much as 57%. Table 2 explains the respondents about their knowledge of breast cancer and BSE. Regarding the statement of breast cancer decreased in the family only 33% of respondents who answered correctly. Most respondents answered correctly that lump of breast cancer usually does not hurt as much as 56%. Type a question about breast cancer prevention is not answered correctly by most respondents. There is still a misperception that advanced breast cancer can not be prevented (55%). Most of the respondents answered correctly 87% that breast cancer does not have to be operated on. The next statement on early detection can improve the outcome of breast cancer, one of the ways of early detection is with BSE, and early-stage breast cancer can be cured. Consecutive results obtained from this study was 91%; 97%; and 97%. Statement on the myths of trust in the community about breast cancer, only 1% of respondents still said that breast cancer is caused by witchcraft, while only 4% believe that breast holding taboo to do. Some of the respondents answered that BSE can only be done by doctors (33%). The majority of respondents answered correctly that the smaller the lump will be more easily cured (89%). The results showed that respondents who practice BSE as much as 80% and the rest never do.

Respondents were exposed to information has a high knowledge about breast cancer and BSE as much as 61.7%. There is a significant relationship between exposure to the level of knowledge seen information from the p-value 0.021 (<0.05) with CI

(1.164-13.851) (Table 3). Prevalence Rate (PR) value obtained 4,1 which means that respondents who are exposed to information would be four times more likely to have a high level of knowledge about breast cancer and BSE compared to respondents who were not exposed to the information. Respondents were exposed to information about breast cancer and breast self-exam and practice as much as 61.7%. There is a significant relationship between exposure to BSE practice information with views of the p-value of 0.002 (<0.05) with CI (1,602-6,828) (Table 4). Prevalence Rate (PR) value obtained is 3.3, which means that respondents who are exposed will get three times more likely to perform BSE compared with respondents who are not exposed to the information.

Most of the respondents as a housewife. Work experience is one of the main factors that can affect the level of knowledge and behavior of BSE. Although the majority of respondents as a housewife who does not work, but the experience they get from social activities, meeting health workers and religious activities. There are respondents who have a family history of breast cancer Breast cancer incidence in western countries as much as 10% genetically influenced. Women who have a family history of breast cancer risk is 2-3 times greater, while if affected not you women, the risk becomes six times higher. Women who develop benign breast tumors as benign types ductus atypic and lobelus have eight times greater risk of developing breast cancer compared with women who have never experienced [17].

The results showed that most of the respondents have a high level of knowledge about breast cancer and BSE as much as 57%. The myths that occur in the community which includes knowledge about breast cancer is caused by witchcraft and the perception that holds the breast is taboo to do are the kinds of questions asked of respondents. It turns out this research to get the results that only 4% have replied that breast cancer is caused by witchcraft, while only 1% thought that holds the breast taboo to do. As many as 22% of respondents knew that BSE can only be done by a doctor. This can occur because of faith, culture, and knowledge can affect a person's perception. Research in Turkey found that 76.6% of women who had never heard of breast cancer. This happens because at least the information that is disseminated to the public about breast cancer. Type a question about breast cancer prevention is not answered correctly by most respondents. There is still a misperception that advanced breast cancer can not be prevented (55%). But it is inversely proportional to the item next question regarding early detection can improve the outcome of breast cancer, one of the ways of early detection is with BSE, and early-stage breast cancer can be treated. Sources of health information could be the reason for someone to act, including cues for action [11]. The headline of the respondents from the mass media, namely television, radio, newspapers and magazines. It is quite encouraging, because the segment of the market to the mass media is quite extensive, so it can be concluded that many women are also given access to information about breast cancer and BSE.

Sources of information obtained from public clinics (doctor/midwife / nurse) are still lacking. This should be a concern because the main focus should be prevention activities of advanced breast cancer is through a department of health services such as health centers, doctors, and hospitals. The results are consistent with research where women get more information from television and other media from the health worker (18). The source of information is a source of knowledge where knowledge depends whether or not each individual knowledge to understand and accept the information received (10). Women consider doctors as a source of health information can influence 2.54 times the possibility to do a mammogram. The source of information consists of health care workers, family members, friends, print media such as newspapers, magazines and electronic media such as radio, television and the internet. Sources of health information could be the reason for someone to act, including cues for action [11].

Table 3. The results of chi-square analyzes exposure variable information with the level of knowledge

Variabel	**Knowledge level**					**PR**	**(CI 95%)**	***p-value***
	Low		High		Total			
	n	%	n	%				
Exposure information								
unexposed	10	71,4	4	28,6	14	4,1	1,164-13,851	0,021

exposed	33	38,4	53	61,7	86

Table 4. The results of chi-square analyzes exposure variable information with the BSE practice

Variabel	BSE practice				Total	PR	(CI 95%)	*p-value*
	No		Yes					
	n	%	n	%				
Exposure information								
unexposed	7	50	7	50	14	3,3	1,602-6,828	0,002
exposed	13	15,1	73	84,9	86			

Exposure information has a significant connection with BSE behavior. Women who are exposed to information about breast cancer and BSE are three times more likely to perform BSE compared to unexposed information. The source of information is a source of knowledge where knowledge depends whether or not each individual knowledge to understand and accept the information received [19]. A provider BSE recommendation was a strong predictor of conducting BSE. The results suggest providers are an important and trusted resource for health information and screening adherence. The findings are not surprising since provider recommendations were strong predictors of screening adherence in other studies for HPV or mammography use. Results of previous studies found women who regard the doctor as a source of health information can influence 2.54 times the possibility to do a mammogram [20].

Conclusion

There is a significant relationship between exposure to information with the level of knowledge and practice of BSE. Women exposed to information will increase four times higher knowledge and likely three times more likely to undergo BSE than women who were not exposed to the information. We hope this study can be used as additional information that the importance of exposure information for women to increase their knowledge so that they do BSE. Health workers should be able to increase its role in public communication about breast cancer and BSE campaign through various media such as television, radio, newspapers, magazines as well as religious and community activities to optimize the role of cadres.

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