

Wish and care method: empowering women for breast cancer screening

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ABSTRACT

Breast cancer ranks as the most prevalent type of cancer and the fifth leading cause of death globally. Conducting early detection through breast self-examination (BSE) is a crucial preventive measure. The rate of early detection of breast cancer remains low due to insufficient knowledge and information, so health education is needed to increase BSE knowledge and information. There is a need for health education initiatives to enhance awareness, attitudes, and behavior related to BSE. One effective method of health education is the "wish and care" approach. This study aims to assess the impact of the wish and care method on knowledge, attitudes, and behavior. The study employed a quasi-experimental design with a pre-test-post-test two-group design. Data collection took place in 2023. The sample consisted of 60 women aged 30-50 years, who were divided into an experimental group receiving the wish and care method and a control group receiving conventional lectures. The results indicate an increase in knowledge, attitudes, and behavior both before and after the intervention in both the experimental and control groups. The wish and care method has more influence on BSE behavior. This study concludes that the wish and care method influence BSE knowledge, attitudes, and behavior.

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1. INTRODUCTION

Breast cancer is the most prevalent malignancy among the female population [1]. Based on the 2020 Globocan/International Agency for Research on Cancer (IARC) stated that breast cancer is the highest type of cancer in the world with a total of 2,261,419 cases and a mortality rate of 684,996 people, making it the fifth highest cancer death in the world. It is estimated that in 2040 there will be an increase of 47% from 19.3 million cases [2]. Breast cancer in Indonesia is the highest cancer, the incidence of breast cancer is 16.7% and mortality is 11%. Breast cancer cases in 2018 were 58,256 and are estimated future trends to increase in 2024 to 89,512 [3]. Breast cancer is the most common type of cancer among women in Indonesia, comprising 30.1% of all female cancer cases in 2022 and causing 20.4% of female cancer-related deaths in the same year [4]. Based on an Indonesian National Health Survey in Indonesia, the province of Yogyakarta has increased steadily thought the twelve years (AAPC=14.7-95%; CI=8.9-20.9%; $p < .05$). The average age of patients with breast cancer was 51 years with a range of 15.3-70.4 years, less than 10% of cases were diagnosed at ages (less than 30 years old). The majority of cases were diagnosed at a late stage [5].

The need for early detection has manifested several screening initiatives intent on curtailing morbidity and mortality associated with the disses [1]. One of the things that is being done to achieve the target is breast self-examination (BSE). BSE was an intuitive, inexpensive, non-invasive, and universally accessible means of

promptly identifying early-stage breast neoplasms [6]. BSE coverage in Indonesia is still very low [7]. The prevalence of BSE in Indonesia was 43.14%, and BSE practice in Java Island was higher compared to non-Java Island (44.58% vs 41.62%) [8]. This examination will help women become familiar with their breasts using appearance, contour, and consistency and reach out to the health facility if they find something abnormal, either on inspection or palpation. Most of the women may not be aware of this examination, and even if they are aware, they are neither unsure of the benefits nor the procedure of this examination. Apart from these, there can also be some challenges or difficulties in performing a self-breast examination [9]. Some studies suggested that Indonesian women lack basic knowledge about breast cancer and its symptoms, and BSE performance [10]. Educational programs on breast cancer and BSE have been effective in improving knowledge and BSE practice levels of women [11]. Based on previous research there is an influence of health education on BSE behavior. The results of this study were that before health education was carried out there were 33 out of 55 respondents who did not perform BSE, then after being given health education, 44 respondents did BSE. Therefore, it can be concluded that health education influences BSE behavior. Regular BSE is the most cost-effective method for early detection of breast cancer, especially in resource-limited countries [12].

Improving health literacy and implementing health promotion campaigns will improve early symptom recognition, risk factor knowledge, and attendance for screening [13]. Health education that can be carried out is wish and care. Health education using the wish and care method had a three times greater chance of experiencing a behavior change compared to respondents who received conventional lecture method education [14]. Effective information, education, and communication strategies are required to improve the level of awareness of women on screening cancer [15].

2. METHOD

This study used a quasi-experimental design with a two-group pre-test-post-test design. This research instrument has been tested for validity and reliability. Data collection used a pre-test questionnaire and observation sheet which was carried out before the intervention then after the intervention the post-test questionnaire and observation sheet were given the same as the pre-test questionnaire. The experimental group was given health education using the wish and care method while the control group was given conventional health education lectures. This research was conducted in Wonokromo Village. The total population is 382 women and a sample of 60 respondents is obtained which is divided into the experimental and control groups. Sampling used the Lameshow formula with inclusion criteria namely domiciled in Wonokromo Village, willing to be respondents and aged 30-50 years, and exclusion criteria namely not participating in health education until completion [16].

This research was conducted in 2023. The process carried out was a pre-test before being given an intervention, then providing health education to the experimental and control groups, and then at the third meeting a follow-up was given after the intervention was given. The experimental group was followed up on how to realize, allowing respondents to share their experiences and ask questions, and in the second meeting, the discussion was more active. The control group was followed up to deliver follow-up as it had been delivered during the first intervention. The last meeting was held after the follow-up, which was given a post-test. The data analysis used in this study is Wilcoxon and Man Whitney. Research has obtained ethically sound explanations No DP.04.03/E-kepk.1/092/2023 from the Ethics Committee (*Komite Etik*) of Poltekkes Kemenkes Yogyakarta.

3. RESULTS AND DISCUSSION

Respondents in this study amounted to 60 which were divided into experimental and control groups. Table 1 shows that the age of the respondents in the experimental group was more than 30-40 years old, while in the control group more were aged 41-50 years but the results of the analysis obtained a $P - value > 0.05$. It is shown that the ages in the experimental and control groups are homogeneous or comparable. The last education of the respondents in the experimental group was balanced or the same between elementary/junior high school and high school/college. Meanwhile, in the control group, more respondents had elementary/junior high school education compared to respondents who had high school/university education. History of breast cancer in both respondents almost all did not have a history of breast cancer. There were only 2 histories of breast cancer in the experimental group and only 3 in the control group. More exposure to information in the experimental group had never been exposed to information, which was the same as the control group.

The majority of participants had no history of breast cancer. Breast cancer is one of the major cancers in women whose mortality rate is directly related to the diagnosis time. Although all women acknowledge the importance of breast cancer, this degree of importance has failed to establish the need for getting information about that [17].

Table 1. Frequency distribution of characteristics and homogeneity of respondents in the experimental and control groups

Characteristics respondents		Group				P-value
		Experiment		Control		
		N	(%)	N	(%)	
Age	30-40 years old	17	56.7	14	46.7	0.629
	41-50 years old	13	43.3	16	53.3	
Education	Basic education	15	50	16	53.3	0.720
	Higher education	15	50	14	46.7	
History of breast cancer	Yes	2	6.7	3	10	0.358
	No	28	93.3	27	90	
Information exposure	Never	26	86.7	26	86.7	0.158
	Sosial media	4	13.3	4	13.3	
Total		30	100	30	100	

3.1. Differences in average knowledge, attitudes, and behavior about breast self-examination before and after being given wish and care health education and conventional lectures

The variables studied in this study were knowledge, attitude, and behavior. After intervention in the experimental group and control group, the following results were obtained. The results of the analysis in Table 2 show that the average difference in knowledge before and after being given health education in the experimental group is 4.03 with a P-value of 0.000 and in the control group is 2.37 with a P-value of 0.000. The average difference between attitudes before and after being given education in the experimental group was 2.7 with a P-value of 0.000 and 1.03 in the control group with a P-value of 0.001. The average difference in practice before and after being given health education in the experimental group was 8.6 with a P-value of 0.000 and the control group was 3.87 with a P-value of 0.000. The results of the two groups' different tests paired with the Wilcoxon test in both groups had a $P - value < 0.05$. This shows that the experimental and control groups experienced an increase in knowledge, attitudes, and behavior after being given health education. It can be seen in Table 2 that after the intervention the average knowledge, attitude, and behavior increased.

Table 2. Differences in mean pretest and posttest in the experimental and control groups

	Group	Median	Mean	Quarell	Std. deviation	P-value	CI (95%) lower-upper
Knowledge	Experiment						
	<i>Pre-test</i>	22.00	22.40	4.03	1.221	0.000	21.94-22.86
	<i>Post-test</i>	26.00	26.43		1.073		26.03-26.83
	Control						
<i>Pre-test</i>	22.40	22.90	2.37	1.86	0.000	22.20-23.60	
<i>Post-test</i>	25.50	25.27		1.25		24.80-25.74	
Attitude	Experiment					0.000	
	<i>Pre-test</i>	18.00	18.60	2.7	1.793		17.93-19.27
	<i>Post-test</i>	21.00	21.30		1.643	20.91-21.91	
	Control					0.001	
<i>Pre-test</i>	18.10	18.20	1.03	2.670	17.20-19.20		
<i>Post-test</i>	19.00	19.23		2.269	18.39-20.08		
Practice	Experiment					0.000	
	<i>Pre-test</i>	13.00	12.30	8.6	1.236		11.85-12.76
	<i>Post-test</i>	21.00	20.90		0.885	20.57-21.53	
	Control					0.000	
<i>Pre-test</i>	12.00	12.10	3.87	1.185	11.66-12.54		
<i>Post-test</i>	16.00	15.97		1.921	15.25-16.68		

This shows that the provision of health education using the wish and care method and conventional lectures can increase the knowledge, attitudes, and behavior of respondents. Population had inadequate awareness and knowledge at baseline which was improved significantly after educational intervention. Educational programs on BSE have been effective in the improvement of knowledge and BSE practice level of women [11]. This is due to the information received and will increase one's knowledge. Furthermore, the knowledge gained will create a perception of something and will make someone practice to change one's behavior. In addition, if there is a change in attitude that is good then it will experience a behavior change. This is in line with previous research which stated that women with good attitudes have the potential to carry out good behavior [18].

Research in Malta shows that knowledge of risk factors and symptoms was found to be significantly higher in women with a higher level of education [13]. Knowledge is a factor that facilitates the realization of a certain behavior so often referred to as the predisposition factor in the concept of behavior. Knowledge is a

very important domain for the formation of behavior. Positive behavior can last a long time if based on sufficient knowledge. This is because behavior occurs due to coercion or rules that can be learned and required to do [19]. A study showed that health promotion on the importance of BSE will have a significant and sustainable impact on increasing knowledge about BSE [20].

There were many things that the respondents did not know about BSE before they were given information, then after conventional health education, lectures, and wish and care, the respondents became aware of many things about BSE. After the knowledge increased, the respondent experienced a positive attitude change and also changed the behavior of someone who could not do BSE to be able to do BSE.

3.2. Differences in the average knowledge, attitudes, and behavior of respondents in the experiment and control groups

To determine the effectiveness of the wish and care method, the mean difference test of the two intervention groups was conducted. The results of the difference test are presented in Table 3. The results of the analysis in Table 3 show that the mean difference after being given health education between the two groups is 1.66 with a P-value of 0.001. The attitude variable shows a difference of 1.67 with a P-value of 0.000. The practice variable shows a difference of 4.73 with a P-value of 0.000. The meaning of the results of the data analysis is that there is a significant difference between the experimental group and the control group. The results of the analysis used the Man-Whitney test to find out which health education was the most influential, namely the P-value of knowledge, attitudes, and behavior <0.05 so it could be concluded that was accepted, meaning that there were differences in knowledge, attitudes, practices after being given wish and care health education and conventional lecture. So, there is an influence of wish and care health education on knowledge, attitudes, and behavior BSE.

Table 3. The mean difference between experimental and control groups

Group	Quarell mean	Z	P-value	Ci (95%) lower-upper
Knowledge				
Experiment	4.03	-3.339	0.001	26.03-26.83
Control	2.37			24.80-25.74
Attitude				
Experiment	2.7	-3.810	0.000	20.91-21.91
Control	1.03			18.39-20.08
Practice				
Experiment	8.6	-6.289	0.000	20.57-21.53
Control	3.87			15.25-16.68

Health education using the wish and care method is carried out in several stages so that it further influences the knowledge, attitudes, and BSE behavior of the respondents. The first stage is two-way counseling so that respondents actively participate in counseling. Respondents don't just listen. Based on the results of previous research health education that involves an audience will have more influence on a person's behavior or will easily understand what has been conveyed [21]. In addition, this research is also in line with previous research which stated that health education carried out using joint discussions will further influence BSE knowledge, attitudes, and behavior [22]. Having an audience actively participate in joint research and discussions will result in more information being obtained, increasing a deeper understanding, so this will change attitudes and behavior.

The next stage is giving examples and direct practice of what has been given. So that the knowledge gained is not only imagined but can be practiced. The understanding received by respondents when they see direct examples will be better. In addition, respondents more easily accept what has been conveyed. Based on previous research health education with training or direct practice will increase better knowledge so that someone can practice easily in the future [23]. Previous research stated that the provision of health education accompanied by seeing and practicing how to perform BSE proved to be effective, increasing the knowledge and self-confidence of the respondents and making it possible to perform BSE [24]. The increase in knowledge provided by health education accompanied by practice on how to perform BSE directly will be higher because respondents receive something new from hearing and seeing.

The third step is to follow up on the respondents. Therefore, the meeting was held not only once, but twice for health education. A new thing is learned in one day, 70% of it will be forgotten [25]. So, it takes repeated efforts so that the new things learned can be embedded in one's mind and will add to one's interest in doing BSE behavior [20]. Repeated efforts will not only increase a person's interest in doing BSE, but will also make the audience susceptible to breast cancer, improve the skills that have been practiced, and make the audience more open.

Higher education, knowledge of breast cancer, and attitude towards BSE influenced participation in BSE practice [8]. Based on previous research, the effort to do this does not only provide information or material about breast cancer or BSE but several things can be done. Conduct discussions about BSE experiences that have been carried out after the first health education, then how to do BSE correctly, and also provide opportunities for respondents to express. Before repeating the research, the things that were done were providing information, two-way communication or what could be called a discussion with the respondents, and also giving examples and doing BSE together. This is stated to be effective in changing a person's behavior [26]. Proficient BSE can reduce the risk of death from breast cancer [27].

The results of this study are in line with previous research which stated that respondents who received health education using the wish and care method would have 3x the opportunity to experience changes in knowledge, attitudes, and practices compared to respondents who received conventional lecture methods [14]. This is because the wish and care method are carried out in several stages, namely with two-way lectures, giving examples of practice and joint practice, and follow-up will be carried out. With this in mind, health education will add to knowledge, facilitate understanding, and increase one's motivation. Furthermore, there will be a sense of caring for oneself so that changes in behavior arise. Similar intervention studies in India also found notable improvement in breast cancer knowledge even among illiterate women after health education intervention [28].

The results of the Iranian study showed that although most women had sufficient knowledge about breast cancer and screening methods, need more education about breast cancer, BSE, and other early detection methods [17]. Increasing knowledge of breast cancer risk factors is needed as an effort to reduce the number of breast cancer cases, especially in low-middle-income countries such as Indonesia [29]. The health educational intervention program was grounded in the behavioral change model and the process of teaching based on communication and ideologies of adult learning methods, which significantly intensified the perceived barriers to BSE among the studied participants [30]. The wish and care method are one of the methods in health education. Providing health education includes how to communicate. Communication strategies are needed to effectively convey warnings about risks, increase individuals; self-efficacy to make behavioral changes, and inform about symptoms and medical treatments. The multiple and rapid societal and environmental changes in the context of globalization and digitization require also adaptations and responses in how we teach and learn in the field of health education and promotion [31].

4. CONCLUSION

This study concludes that the characteristics of the experimental group and the control group are mostly 30-40 years old, have no history of breast cancer, and have never been exposed to prior information. In addition, the last education of the respondents in the two groups was balanced between those with elementary/junior high school and high school/university education. There was an increase in BSE behavior (knowledge, attitudes, and practices) in women aged 30-50 years, both groups using the wish and care method and the conventional lecture group. Health education with the wish and care method has a greater influence on improving BSE knowledge, attitudes, and behavior compared to conventional health education lectures.

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