

Research Article

The effect of health promotion about breast self-examination for student's knowledge at the first senior high school of Enam Lingkungan Padang Pariaman

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Received: 09 August 2015

Accepted: 07 September 2015

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ABSTRACT

Background: Breast self-examination (BSE) is one of the interventions to detect the breast cancer earlier. Nowadays, BSE didn't known by the many adolescent and young women, so that it is needed to do promotive effort to increase their knowledge about BSE. The objective of this study was to determine the effect of health promotion about breast self-examination for Student's knowledge at the first senior high school of Enam Lingkungan Padang Pariaman.

Methods: The research design was pre experimental with one-group pre-posttest design approach and was conducted on July 2014. The samples were students in tenth and eleventh class, which was taken by simple random sampling technique and the number of samples, were 75 people.

Results: The survey results revealed an average score of knowledge before the intervention was (59.33) with a standard deviation (12.284), and average knowledge score after the intervention was (88.40) with standard deviation (7.220). The difference of the average scores of knowledge before and after the intervention was (29.067). The statistic test indicated that there was a difference of average score of knowledge before and after intervention with p value was (0.000).

Conclusions: It can be expected for health professional to increase prevention efforts of breast cancer through health promotion about BSE in the school and community.

Keywords: Health Promotion, Adolescent, Breast self-examination

INTRODUCTION

Breast cancer is one of the health problems in Indonesia and the World.¹ In the latest few years, there is an increasing in the incidence of breast cancer and is the leading cause of death among women in developing countries.²⁻⁵ The incidence of breast cancer reached 17 million people (11.9%) of the total population.⁴

The data from Indonesian health survey showed that breast cancer is still the cause of high morbidity and mortality in women on 2012. Meanwhile, the data from hospital information system (SIRS) 2012, Breast cancer is the most common cancer type in all hospitals in Indonesia (16.85%), followed by cervical cancer (11.78%). In West Sumatra, incidence rate of breast cancer is about 1.7% higher than the national average (1.4%).

Breast cancer causes not yet known with certainty, several factors such as age, genetics, estrogen, unhealthy lifestyle, cosmetic use, and the recent use of oral contraceptive can increase the risk of breast cancer.⁶⁻⁹ Adverse health lifestyle and environmental factors are considerable factor that contributing to the incidence of breast cancer.¹

Breast cancer is often difficult to detect, because in general, people come to health services at a more advanced stage cancer screening.¹⁰ Based on the recording, from 20 thousands new cases per year, it's found 50% of cases with advanced stage.¹¹ Early detection of breast cancer would be potentially useful for preventing the disease.¹² The most effective way to detect breast cancer is through the technique of breast self-examination (BSE) and mammography which is a secondary preventive methods used for screening in early detection of breast cancer.¹³ The American Cancer Society advocates for monthly BSE among women 20 years and older.¹⁴ BSE is easy, simple, cheap, noninvasive, can be done by anyone without any special equipment.^{15,16}

Prevention can be done as early as possible in adolescence. Teens are encouraged to perform BSE immediately when girls begin to experience breast growth as a symptom of puberty.¹⁷ Research shows that women who perform BSE can routinely detect breast lumps in the early stages.^{15,18}

The individual behavior in health action depends on knowledge.¹⁹ Previous study has shown that majority of women had heard about BSE, and more than a half perform BSE.^{13,20} Other research identified that women who perform BSE have significant knowledge about BSE, clinical breast examination and mammography, but the practicing of BSE by the women is still not appropriate.²³ The common result of studies in West Sumatra shows that the rate of young women having adequate knowledge on BSE and doing BSE regularly is extremely low.^{21,22}

Educating young women (girls) about early diagnostic method of breast cancer is essential to increase their breast cancer awareness. Acquiring the behavior and practice of BSE at an early age will also increase the probability of continuing it later routinely.^{24,25} Teaching BSE seems like a good idea, it sounds inexpensive, simple, and potentially applicable to people without access to mammography.¹⁶

The description of knowledge scores shows that 72.5% of students had average knowledge on BSE in pretest and 85% of students had good knowledge score in post-test. The paired 't' test computed to test the effectiveness of planned teaching program on BSE (t=12.46) It shows the awareness program on BSE was very effective.²⁶ Students' BSE knowledge increased significantly after the training. Students those instructed in groups showed a

much higher degree of BSE knowledge when compared with the BSE knowledge of those taught individually.¹⁶

The current literature shows that studies which examine the effect of health promotion on BSE knowledge are still very limited and most of them are only descriptive. Therefore, this study aimed to determine the effect of health promotion on BSE to the knowledge of students of SMAN 1 Padang Pariaman of Enam Lingkung.

METHODS

The research design used in this study is pre-experiment with one group approach pre-posttest design. The study was conducted at SMAN 1 Padang Pariaman of Enam Lingkung on July 14, 2014. The sample was 75 female students of Senior High School at the first and second class, which is chosen by simple random sampling technique. Data collection tool used is a questionnaire containing 20 questions of knowledge about breast cancer and breast self-examination (BSE). Knowledge of students measured before and after the intervention (health promotion). Intervention is given by a lecture method for the student about the breast cancer, BSE and how to perform BSE. Dependent t test is used for statistical analysis of the data.

RESULTS

The survey results revealed an average score of knowledge before intervention was 59.33 with a standard deviation of 12.28, the lowest score 30 and the highest score of 80 (Table 1).

Table 1: Student's knowledge before intervention.

Variable	Pretest		
	mean	SD	min - max
Knowledge	59.33	12.28	30 – 80

Table 2: Student's knowledge after intervention.

Variable	Post Test		
	mean	SD	Min - max
Knowledge	88.40	12.27	65 – 100

Table 3: The difference of student's knowledge before and after intervention.

Knowledge	Mean	SD	d	t	p
Pretest	59.33	12.28	29.067	22.11	0.000
Posttest	88.40	12.27			

While the average score of knowledge after intervention was 88.40 with a standard deviation of 12.27, the lowest score 65 and the highest score of 100 (Table 2).

Mean different from the average score of knowledge before and after the intervention was 29.067. Statistical

test results obtained value of t 22.11 and p value 0.000 which shows the significant differences in knowledge before and after the intervention (Table 3).

DISCUSSION

The research result shows that the average score of students' knowledge before intervention is low. It is also similar to studies conducted by Yunus²² and Putri,²¹ there is inadequate knowledge about breast cancer and BSE among female student. The results of the same study also look at students in the city of Riyadh. The results of the study indicated that none of the secondary school students had an excellent knowledge regarding breast cancer.²⁷ Other studies indicate that the women had a fair level of knowledge about breast cancer and BSE.²⁷⁻³³

Knowledge is the result of to know of something and this happens after someone did sensing to a particular object. Knowledge occurs through the human senses of sight, taste and touch sensing. Things that can affect a person's level of knowledge among which to obtain information, experience, level of education, beliefs and facilities. Counseling or health education is one way to deliver information.¹⁹

The source of information is the one medium that can increase knowledge. Research conducted by Dundar et al,¹³ obtained the data that 76.6% of women who have ever heard or read about breast cancer, there are only 56.1% had knowledge about breast cancer. Mass media is the common sources of information about cancer and BSE,^{13,22,27} professionals, relatives/neighbors, teachers and books.³⁰

The level of education has a role in knowledge about breast cancer and BSE.^{13,31} The Study of Kimani and Muthumbi²⁰ at the health student in Kenyan University obtained the data that the majority of the students heard about BSE, 69.9% having ever practiced it. Less than 20% students performed BSE regularly. Education of nursing and midwifery provide a positive effect on knowledge, attitude, and behavior towards BSE.³⁴ In addition, there were differences in health belief about BSE and its practice between nursing and their mothers.³⁵ While other studies show that the female university students have mild knowledge of breast cancer symptoms and management. They did not know about the causes and risk factors of breast cancer. Clinical breast examination is rarely performed by students.²⁹

Several other factors were significantly associated with BSE knowledge and it practice are age and family history of breast cancer.²⁷ Research carried by Lakshmi et al³¹ in Omani women found a significant association between family history of breast self-examination knowledge and practice. The awareness and practice of BSE was more frequent in the age group of 21-20 years.³² In addition, Monthly performance of breast self-examination was

more common among women who have recently graduated from high school and university.³⁵

In this study, the knowledge of students after the intervention had increased and become better. Results of this study was supported by research conducted by Shalini and Malathi,²⁶ where 72.5% of students had average knowledge about BSE in pretest (before education) and 85% students had good knowledge score in the posttest (after education). Results of other studies have also found that education provides a positive effect in increasing the level of knowledge about breast cancer and BSE.^{16,37-39}

Awareness about breast cancer and early detection through regular breast screening is to reduce the morbidity and mortality of the diseases.³¹ Efforts to improve women's education should be encouraged to increase women knowledge about breast cancer and BSE.²⁸ A person who has knowledge of something will influence them in practice it. The results showed that the Education affects knowledge and practice of BSE.^{16, 38,39} Peer educations is the most effective method in educating female student about BSE.^{16,37-39}

BSE plays an important role in early detection and prevention or prompt treatment of breast cancer.²⁶ Education from daughter to mother can be used as a BSE training approach to increase women's knowledge about BSE.³⁶ Moreover, by providing information to young girls, they can teach their mother and siblings so that the incidence of breast cancer can be decreased.²⁶ It is essential task for each and every woman to perform BSE and protect themselves and their families so as to avoid the risk of breast cancer.²⁶

CONCLUSION

Students' knowledge about BSE increased after intervention (health promotion). It is expected to health care professionals, especially nurses to take preventive measures through health promotion efforts on BSE that are starting from adolescence either in schools or community.

ACKNOWLEDGEMENTS

We would like to acknowledge all the respondents who took time to complete the questionnaires and participate in this study.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

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Cite this article as: Herman H, Novriani H, Putri YE. The effect of health promotion about breast self-examination for student's knowledge at the first senior high school of Enam Lingkungan Padang Pariaman. *Int J Res Med Sci* 2015;3:2589-93.