

Female Students' Knowledge and Behavior in Relation to Breast Examination

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ABSTRACT

Further research will be conducted on the factors that influence the realization examination. Breast cancer is a major global health problem and the highest cause of death among women because many women who suffer from breast cancer are found in the final stage, making it difficult to cure. Breast self-examination is a preventive measure that is done independently to detect early changes in the breast, but even though it can be done by yourself, many women rarely do it. Based on an initial survey of 20 female students, 11 did not know the meaning of breast self-examination, 15 did not know how to do breast self-examination, and 3 had a family history of breast cancer. The purpose of this study was to determine the relationship between knowledge and behavior of female students regarding breast self-examination at the Faculty of Economics and Business at one of the universities in Banten. Purposive sampling is the sampling strategy utilized in this study, which employs cross-sectional sampling with a sample of 88 female students. The Chi-Square test results for the data analysis revealed a p-value of 0.272 ($p < 0.05$). In summary, there is no correlation between knowledge and the behavior of female students in breast self-examination. Further research will be conducted to determine the factors that influence breast self-examination.

Keywords: behavior, breast self-examination, female, knowledge, students

INTRODUCTION

Breast cancer is a major global health problem and is the largest contributor to death among women (World Health Organization, 2021). The number of cancer patients is increasing rapidly in Indonesia, where breast cancer has the highest mortality rate (Sari et al., 2020). Globally, breast cancer has the highest incidence among other cancer types, with 2.26 million cases reported in 2021 (WHO, 2021). In Indonesia, it accounts for 16.6% of all new cancer cases (Kementerian Kesehatan Republik Indonesia, 2022). Since breast cancer is the primary cause of morbidity and death for women, it is important to practice breast self-examination (BSE) in order to avoid cases of breast cancer (Mihret et al., 2021).

In the United States, one in eight women, or 12.4% of all women, has a lifetime risk of developing breast cancer. Globally, the incidence of breast cancer varies; in North America, rates range from 92 per 100,000 to 27 per 100,000 in Central Africa and East Asia. Over 24% of all cases of breast cancer occur in Asia Pacific, with China, Japan, and Indonesia having the greatest rates. Breast

cancer is the main cause of mortality in this region, with 70% of patients being diagnosed at an advanced stage (Momenimovahed & Salehiniya, 2019).

In Indonesia, there are three provinces that have the highest prevalence of breast cancer, namely Yogyakarta special region with 4,325 cases, East Kalimantan with 1,879 cases, and West Sumatra with 2,285 cases (KEMENPPPA, 2022), and the main factors causing breast cancer are genetic factors, environmental factors, and lifestyle (Momenimovahed & Salehiniya, 2019). In Banten Province, 4,289 cases of breast cancer were reported in 2019, with a significant number diagnosed at an advanced stage. This is due to low public awareness and a lack of early detection by performing breast self-examination (Panjaitan et al., 2018). Therefore, interventions for the early detection of breast cancer are needed, one of which is breast self-examinations (Putra, 2015).

The Breast Self-Examination (BSE) technique is a cost-effective and easy-to-perform screening method (Asmare et al., 2022) for early detection of breast cancer (Hutomo et al., 2022), which can significantly reduce mortality rates about 25–30% (Efni & Fatmawati, 2021). Despite its benefits, awareness and practice of SADARI are still low among women, especially adolescents (Rahmadini et al., 2022).

An initial survey of 20 female students at a state university in Banten showed that 60% did not know about BSE, 75% did not know how to do it, and 15% had a family history of breast cancer. . Based on the above background, the authors are interested in further research on the relationship between the level of knowledge and the behavior of female students regarding breast self-examination at one of the state universities in Banten.

METHODS

This study uses a quantitative research method with a correlational type and a cross-sectional design that aims to see the relationship between schoolgirl knowledge (an independent variable) and breast self-examination behavior (a dependent variable).

The population in this study were female students in the class of 2021 who were enrolled in the faculty of economics and business at one of the state universities in Banten. Sample collection in this study used purposive sampling technique, where sampling is in accordance with the criteria determined by the researcher. The number of samples in this study was 88, which were calculated using the Slovin formula, and the inclusion criteria who were willing to become respondents and the exclusion criteria were female students with a diagnosis of breast cancer who did not complete the questionnaire.

The questionnaire used in this study was adapted from Sirait (2021). This questionnaire includes sections on knowledge and behavior related to breast self-examination, with validity ($r = 0.413$) and reliability values of knowledge (0.841) and behavior (0.846), which show high reliability. Ethical approval for this study was obtained from the Ethics Commission of the Faculty of Nursing, Pelita Harapan University, with approval number 007/KEPFON/I/2023. The data in this study were analyzed univariate and bivariate. This univariate analysis aims to describe the characteristics of each variable, while bivariate analysis uses statistical tests to test the hypothesis of the relationship between knowledge and behavior regarding breast self-examination.

RESULTS

The research results can be seen in the table below:

Tabel 1. Data Distribution of Respondent Characteristics

Category	Frequency (f)	Percentage (%)
Age		
18 years	2	2.3
19 years	37	42.0
20 years	40	45.5
21 years	9	10.2
Family history of breast cancer		
Yes	6	6.8
No	82	93.2
Sources of information on BSE		
Never heard of it	31	35.2
Parents/family	1	1.1
School/University	6	6.5
Internet/social media	49	55.7
Friends	1	1.1
Do BSE		
Never	46	52.3
Ever	42	47.7
Reasons for never practicing BSE		
Not knowing how to do it	22	25.0
No breast abnormalities	13	14.8
No family history of breast cancer	7	8.0
Feeling strange and embarrassed to observe breasts	4	4.5

Based on Table 1, the majority of respondents (45.5%) were 20 years old, and 93.2% had no family history of breast cancer. Most respondents (55.7%) got information about breast self-examination from the internet or social media, while 35.2% never got the information. Among the respondents, 52.3% did not perform BSE. The reasons included not knowing how to perform BSE (25.0%),

feeling that there were no abnormalities in the breast (14.8%), no family history of breast cancer (8.0%), and feeling strange or embarrassed during the examination (4.5%).

Tabel 2. Data Distribution of Student's Knowledge about BSE

Category	Frequency (f)	Percentage (%)
Good	31	35.2
Moderate	50	56.8
Poor	7	8.0

Based on Table 2, shows that most respondents (56.8%) had moderate knowledge about BSE.

Tabel 3. Data Distribution of Student Behavior about BSE

Category	Frequency (f)	Percentage (%)
Good	40	45.5
Poor	48	54.5

Based on Table 3, it shows that most respondents (54.5%) have poor breast self-examination behavior.

Tabel 4. Relationship between Knowledge Level and Behavior of Female College Students Regarding BSE

Knowledge	Behavior of Breast Self-Examination						P-Value
	Poor		Good		Total		
	f	%	f	%	f	%	
Good	14	15.9	17	19.3	31	35.2	0.272*
Fair	31	35.2	19	21.6	50	56.8	
Poor	3	3.4	4	4.5	7	7.0	

Based on Table 4, the analysis data using the Chi-Square test shows that the P-value is 0.272 ($p < 0.05$), which means H_1 is not accepted. From these results, it can be interpreted that there is no relationship between female students knowledge and the behavior of breast-self examinations. 35.2% of respondents had moderate knowledge and poor behavior, and only 21.6% had good behavior regarding BSE.

DISCUSSION

The majority of respondents (45.5%) are in the age range of 18–21 years, which is a period of transition to young adulthood. Girls will prepare themselves for adulthood, which, in the process of growth and development, will mature the breasts, and with increasing age, they are required to know things that are not normal in their breasts (Immawati & Utami, 2017).

The majority of respondents (93.2%) did not have a history of breast cancer. This research is supported by Surury et al. (2020) finding that not having a family history of breast cancer does not encourage female students to find out information about BSE because they feel they do not

have a risk of developing breast cancer and are not vulnerable to breast cancer, but those who have a history of breast cancer will have a doubled risk of developing breast cancer (Siregar, 2022).

The most of female students (55.7%) got information from the internet and social media. This is supported by research by Rahman et al. (2019) who found that 74.7% of respondents get information through the internet or social media and 90.09% get information about BSE from television (Abdullah et al., 2013). Suryani (2019) stated that the internet makes all information spread quickly and is more accessible. The results of this study showed that 52.3% of respondents who had never done BSE. The results of this study are in line with research conducted by Maharani and Fransisca (2016), which showed 86.6% of respondents did not do BSE because they did not know how to do it. Afriani (2018) which says that ignorance of how to perform BSE will affect BSE behavior. This ignorance is usually caused by a lack of information and a lack of awareness about the importance of performing BSE actions (Tuelah et al., 2020).

Knowledge about Breast Self-Examination

Based on the results of the study, 50 (56.8%) of respondents had moderate knowledge about BSE. This study is in line with research conducted by Lubis (2017) where 36 (51.4%) respondents had fair knowledge due to a lack of information and Wantini and Indrayani (2017) research found that 40 (64.5%) respondents have moderate knowledge because respondents only get a little information about BSE. Information is one of the factors that can affect a person's knowledge. The more people dig up information from both print and electronic media, the more knowledge they will have and increase, so that the next process directly implements what they see and know, where the higher a person's level of education, the higher a person's knowledge about BSE (Abdullah et al., 2013).

This study is not in line with research conducted by Mawikere et al. (2021) found that 29 (61.7%) respondents had good knowledge, which was supported by the background of respondents who were medical students who had received information and knowledge about BSE. The level of education affects knowledge, and the higher a person's level of education, the higher their knowledge about BSE (Abdullah et al., 2013).

Behavior of Breast Self-Examination

Most respondents (54.5%) had poor behavior regarding BSE. This is in line with research conducted by Shiekh et al. (2021), where as many as 96.5% of female students know about

BSE, but only 31.4% routinely practice BSE on the grounds that students feel they have no problems with their breasts, students do not know how to do BSE, and do not do BSE because they are busy.

This study is not in line with research conducted by Heriyanti et al. (2015), which found that 41 (70.7%) respondents have good behavior because respondents have received information about BSE and research conducted by Tambunan (2017) showed that 47.3% of respondents had good behavior regarding BSE. This was influenced by the background of the respondents, who were health students who had received information about the implementation of BSE. This is in line with research conducted by Khairunnissa & Wahyuningsih (2018), where educational background affects knowledge of behavior. In health, students in the learning system are required to seek a lot of information about the science of disease prevention outside of existing lectures, so the increasing knowledge of respondents about breast cancer will stimulate them to do breast self-examination.

Relationship between Knowledge and the Behavior of Breast-self examinations

The study found that 31 (35.2%) respondents had moderate knowledge and poor behavior regarding BSE, from the results of the chi-square test obtained (p -value = 0.272), this proves that there is no significant relationship between the knowledge and behavior of female students regarding BSE. The results of this study are in line with research conducted by Gerungan (2017) who found that there are 42 (87.5%) female students who have fair knowledge and 25 (54.2%) who have adequate BSE behavior, which is influenced by self-confidence, fear of knowing any abnormalities in the breast, and not having time to do BSE. This study is in line with research conducted by Wantini & Indrayani (2017), where respondents with sufficient knowledge and not doing BSE were 85%, and the results of the chi-square test had a p -value of 0.458, so there is no relationship between knowledge and BSE behavior.

This study is in line with research conducted by Patandianan et al. (2018) that found no relationship between knowledge and BSE actions with a p -value of 0.438, which is influenced by the lack of awareness and willingness of respondents to do BSE so that when doing BSE, respondents only do it with ordinary touching and not in accordance with the correct technique. This is also in accordance with research conducted by Setianingrum & Rachmasari (2018) which found that there is no significant relationship between knowledge and BSE behavior with a p -value of 0.198. This shows that respondents are already at the stage of knowing, but their behavior regarding BSE is not too deep (Thaha et al, 2019)

In contrast to this study, research conducted by Azizah (2018), found that there is a significant relationship between the level of knowledge and BSE behavior. Her research showed that 62 (70.5%) respondents had a good level of knowledge and 49 (55.5%) respondents had positive behavior regarding BSE, which was influenced by respondents who had received a lot of information about breast health so as to increase knowledge and encourage respondents to do BSE. This study is in accordance with research conducted by Mariyati et al. (2022) that 45% of respondents have poor knowledge, with 30% not doing breast self-examination, with a p-value of 0.035, which means that there is a significant relationship between knowledge and BSE behavior. This is influenced by a lack of information because there has been no counseling in the local environment regarding breast self-examination.

Application is the cognitive domain of knowledge after a person has an understanding of an object, which means the ability to use information that has been learned in a condition so that people who have good knowledge can influence behavior to be in the good category, as well as poor knowledge affects behavior to be bad (Abdullah et al., 2013). The real of knowledge has a crucial role in shaping an individual's actions. Knowledge-based behavior will outlive ignorance-based behavior in terms of durability (Rachmawati, 2019).

CONCLUSION

The chi-square test results (p -value = 0.272) supported the research findings, which indicated that there is no correlation between female students' knowledge and their behavior during breast self-examinations. Good knowledge will, of course, result in good behavior, and a lack of information will affect one's knowledge and how one behaves. In this study, it is important to provide information through seminars, workshops, and videos regarding the proper steps in performing breast self-examination. For future research, it is necessary to conduct research on factors that influence breast self-examination.

LIMITATION

Limitations in this study are the busy lectures of the respondents and the distance of the campus from distributing questionnaires directly.

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