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The Relationship Of Knowledge Level About Breast Cancer With Breast Self-Examination Behavior As An Early Detection Of Breast Cancer On Students Of The Faculty Of Medical Al- Azhar Islamic University

Dalilah Femilia [1], Fachrudi Hanafi[2], Made Agus Suanjaya[3], Shinta Wulandhari[4]
[1)]Student of Medical Education Study Program, Faculty of Medicine, Al-Azhar Islamic University
[2,3,4)]Lecturer of the Faculty of Medicine, Al-Azhar Islamic University

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Email : dalilah.femilia1011@gmail.com

ABSTRACT

Breast cancer is when breast cells grow uncontrollably due to abnormal changes in genes in cell division. In Indonesia, the number of cases of breast cancer in 2020 even reached 68.858 (16.6%). One prevention of breast cancer is a case detection through breast self-examination (BSE). This study was aimed to determine the relationship between the level of knowledge about breast cancer and the act of early breast self-examination (BSE) as an early detection of breast cancer in FK UNIZAR students. This research employed a cross-sectional study, conducted at the Medical Faculty of Al-Azhar Islamic University on December 1-7 2022. A total of 132 respondents were included as the research sample. The data obtained were analyzed using SPSS with statistical tests using the Spearman Rank method. The results of the study found that 20 people (71. 4%) had good knowledge with adequate behavior and 97 people (93.3%) had poor behavior. There were 7 people (25.0%) who had sufficient knowledge with adequate behavior and 7 people (6.7%) with less behavior. And the sample that had less knowledge with sufficient behavior was 1 person (3.6%). According to the results of analysis from the Spearman's rank correlation test, it obtained a p-value of 0.001 (p-value <0.05) and a correlation coefficient of 0.284 with a negative value. There is a relationship between knowledge of breast cancer and breast self-examination behavior on FK UNIZAR students of 2019, 2020, and 2021.

1. INTRODUCTION

Breast cancer, also known as Carcinoma Mammae, is a malignancy of breast tissue that can develop from the lobules or ductal epithelium. In 2018, breast cancer is the most frequently diagnosed cancer in women where there are 2.1 million cases globally which cause up to 627,000 deaths. Breast cancer in women has now surpassed lung cancer as the main cause of cancer worldwide where in 2020 there are an estimated 2.3 million new cases or 11.7% of all cancer cases diagnosed with breast cancer with 685,000 deaths worldwide. As of the end of 2020, there were 7.8 million living women diagnosed with breast cancer in the last 5 years. Compared to other types of cancer,(Sung et al., 2021).

Breast cancer in 2018 in Asia was 674,693 cases (25.5%) and caused death in 310,577 cases (13.8%). And experienced a very significant increase in 2020 of 1,026,171 new cases (10.8%) and has caused the death of 346,009 cases (6.0%). In Southeast Asia, the latest cases of breast cancer rank first compared to other cancers, while the death rate for breast cancer in Southeast Asia ranks third after liver cancer.(International Agency for Research on Cancer, 2020)

Breast cancer also ranks first in Indonesia as a cancer that often occurs in women and is one of the main causes of death from cancer. According to The Global Cancer Observatory (Globocan), the number of new cases of breast cancer in 2020 reached 68,858 (16.6%) of the 396,914 new cases in Indonesia. Nationally, as many as 8.3% of women aged 30-50 years have undergone early detection of breast cancer. The province with the highest early detection coverage was West Sulawesi, followed by the Bangka Belitung Islands at 37.6%, and South Sumatra at 32.1%. Meanwhile, the provinces with the lowest early detection coverage were Papua at 0.6%, North Maluku at 1.2%, and Southeast Sulawesi at 1.7%. with the results of early detection of breast cancer found 26,550 lumps and 4,685 suspected breast cancer(Minister of Health Republic of Indonesia, 2020; Pangribowo, 2019).

The number of cancer sufferers based on the results of the West Nusa Tenggara Provincial Health Office's records was 0.85% of cases (NTB Prov. Health Office, 2019). Then based on the health profile

data of the city of Mataram, in 2017 the results obtained were 0.14% of cases with tumors/lumps, this was obtained from clinical examinations using the IVA and Clinical Breast Exam (CBE) methods, followed by 2019 which experienced an increase of up to 0.63%. cases, then in 2021 it was also recorded that 0.28% of cases, where this has experienced a slight decrease due to COVID-19 so that no one is carrying out examinations. These results were obtained from early examinations carried out by various puskesmas in the city of Mataram (Mataram City Health Office, 2021).

The magnitude of the breast cancer problem and the resulting impact requires public health action/intervention in the form of a National Prevention Plan based on Minister of Health Regulation No. 20 Decision No. 34 of 2015 concerning Prevention of Breast and Cervical Cancer (Ministry of Health 2015). One way to prevent breast cancer is case detection through clinical breast examination (CBE) and breast self-examination (BSE) for early detection, which women can easily do (Ayu, 2016).

In the research conducted by Annisa and Putu Anda (2020) the level of knowledge regarding breast self-examination (BSE) in Udayana Faculty of Medicine students is good, because someone with a higher education will more easily receive information so that they have broader knowledge. However, this research is not in line with research conducted by Galih Indra (2020) where there was no significant relationship between the level of knowledge about breast cancer and BSE behavior, because there are still many people who, although they have good knowledge, are lacking in implementing their knowledge.

Based on the description above, the researcher is interested in conducting research on female students of the Al-Azhar Islamic University Medical Faculty because breast cancer can now attack women from their teenage years, and this is also useful for increasing awareness of medical students so they are more sensitive about how to detect early breast cancer with BSE because Doctors will become care providers in the future.

2. METHODS

The research method used is an analytic observational research method with a cross-sectional study design. This type of cross-sectional design aims to determine the relationship between certain factors and disease or health problems.When the research was conducted in November 2022.The population in this study were all female students of the Faculty of Medicine, Al-Azhar Islamic University Class of 2019, 2020 and 2021, namely 172 people.

The population in this study were all 2019-2021 UNIZAR Faculty of Medicine students, namely 172 people.So basedthe sample used the slovin formula, the result was 120, which we then added 10% to get a sample of 132 FK UNIZAR female students from the Class of 2019, 2020 and 2021.

The sample in this study were 132 FK UNIZAR students from Classes of 2019, 2020 and 2021. The sampling technique used was Simple Random Sampling. Simple Random Sampling is a type of probability sampling in which everyone in the entire population has an equal chance of being selected. Determining the number of samples was obtained using the Slovin formula, after calculating the sample using the Slovin formula, the result was 120, which we then added 10% to obtain a sample size of 132 people.

3. RESULTS AND DISCUSSION

Univariate Analysis

Table 1 Characteristics of Respondents

No.	Characteristics of Respondents	Frequency	Percentage (%)
1	**Age**		
	≤ 20 Years	72	54.5
	> 20 Years	60	45.5
2	**Force**		
	2019	52	39.4
	2020	45	34.1
	2021	35	26.5

Based on the table above, the most age-based characteristics of the respondents were obtained, namely 72 respondents aged ≤ 20 years (54.5%), and based on the table above, for the most characteristics of the Batch there were 52 respondents from the 2019 class (39.4%).

Table.2 Univariate Analysis based on Knowledge Level of Breast Cancer

Knowledge	Frequency	
	Amount (n)	Percentage (%)
Not enough	1	0.8
Enough	14	10.6
Good	117	88.6
Total	132	100

Based on the data obtained from 132 respondents, it was found that 117 respondents (88.6%) had good knowledge about breast cancer.

Table 3 Univariate Analysis based on BSE Behavior

Behavior	Frequency	
	Amount (n)	Percentage (%)
Not enough	104	78.8%
Enough	28	21.2%
Good	0	0%
Total	132	100 %

Based on data obtained from 132 respondents, there were 104 respondents (78.8%) who had the most BSE behavior and had less BSE behavior.

Bivariate Analysis

Table 4 Bivariate Analysis of the Relationship between Breast Cancer Knowledge Level and BSE Behavior

Breast Cancer Knowledge	BSE behavior						Total	*p-values*	r
	Good		Enough		Not enough				
	n	%	n	%	n	%			
Good	0	0%	20	71.4%	97	93.3%	117		
Enough	0	0%	7	25.0%	7	6.7%	14	0.001	-0.284
Not enough	0	0%	1	3.6%	0	0%	1		
Total	0	0%	28	100%	104	100%	132		

Based on the results of the bivariate analysis above, it was found that the number of samples who had good knowledge with adequate behavior was 20 people (71.4%) and 97 people (93.3%) had poor behavior. There were 7 people (25.0%) who had sufficient knowledge with adequate behavior and 7 people (6.7%) with less behavior. And the sample that has less knowledge with sufficient behavior is 1 person (3.6%).

Based on the results of the analysis using the Spearman rank correlation test, it obtained a p-value of 0.001 (p-value <0.05) and a correlation coefficient of -0.284 with a negative value. This shows that there is a correlation between the two variables tested but with a weak correlation strength (0.21-0.39). The results of this analysis also show that H0 is rejected, which means that there is a significant relationship (p-value <0.05) between knowledge about breast cancer and BSE behavior in FK UNIZAR students class of 2019, 2020 and 2021.

DISCUSSION

Characteristics of Respondents

All respondents were students of the Faculty of Medicine, Al-Azhar Islamic University, most of whom had a good level of knowledge about breast cancer. This is consistent with the theory which states that the level of education attained by individuals is one of the factors that will support their

ability to receive information in which respondents have received material about breast cancer during lectures, as written by Ayu (2016) that the higher the level of education someone, the higher the knowledge they have.

The majority of female students who were respondents in this study were in their 20s. As recommended by the American Cancer Society (ACS) which recommends that women should perform BSE immediately when they begin to experience breast growth as a symptom of puberty. One group that has reached that age is female students.

Knowledge of Breast Cancer

Breast cancer, also known as mammae carcinoma, is a malignancy in breast tissue caused by uncontrolled growth of breast cells due to abnormal changes in genes that play a role in cell division.(Sari et al., 2020). Breast cancer is most often experienced by women of reproductive age. Women are advised to check their breasts every month or every three months so that abnormalities can be detected early and appropriate treatment can be given immediately (Setiati, 2009).

Based on the description of the results of the research that has been explained previously, it is known that the majority of respondents who were sampled in this study had good knowledge, namely 117 respondents (88.6%), while respondents who had sufficient knowledge in this study were as many as 14 respondents (10, 6%) and only 1 (0.8%) lacked knowledge. So it can be concluded that the dominating results are respondents with good knowledge. The high number of respondents who have good knowledge is due to the educational background of the respondents, namely medical students who have received information or knowledge about breast cancer. This is in line with the opinion expressed by Angesti (2010) that the respondent's educational background influences the knowledge possessed. In this study there were respondents who had less knowledge about breast cancer. This can be caused by various factors, including factors that can affect one's knowledge and depend on one's memory.

BSE behavior

In detecting breast cancer, BSE can be carried out which is one of the steps for early detection in preventing breast cancer and is more effective if done since a woman reaches reproductive age. BSE is recommended to be done independently once a month after menstruation (Suryaningsih, 2009).

According to Hidrah (2008), BSE examination is very important as the first step to find out whether a person has breast cancer. Information about breast cancer and BSE motivates women to increase their knowledge about the breast area. This is the main basis for increasing knowledge about BSE examination. Increased knowledge of BSE will affect women's awareness of the importance of BSE to prevent the risk of breast cancer.

Along with this, based on the research results described in the previous table. It is known that the results of data analysis showed that the majority of respondents in this study had less BSE behavior as many as 104 respondents (78.8%), also had sufficient behavior as many as 28 respondents (21.2%), and none of the respondents in this study had good BSE behavior (0%). That is, most respondents are still lacking in implementing BSE behavior to detect breast cancer. The high mortality rate from breast cancer is due to the fact that most patients are at an advanced stage. This is caused by various factors including ignorance or ignorance of breast cancer patients, lack of attention to breasts, fear of surgery,

Relationship between Breast Cancer Knowledge and BSE Behavior

In the Univariate Breast Cancer Knowledge analysis table, respondents with good knowledge dominated 117 respondents (88.6%) and in BSE behavior, respondents with poor behavior dominated 104 respondents (78.8%). Based on the Bivariate analysis table, namely by using a statistical test using Spearman's rank, the results obtained a significance of 0.001 ($p < 0.05$) and a correlation coefficient of $r = 0.284$ with a negative value. This indicates that there is a correlation between the two variables tested but with a weak correlation strength. The results of this analysis also show that H0 is rejected, which means that there is a relationship (p-value <0.05) between knowledge about breast cancer and BSE behavior in FK UNIZAR students class of 2019, 2020 and 2021.

This is in line with research conducted by Yuzar (2017) concerning the Relationship between the Level of Knowledge of Health Cadres about Breast Cancer and BSE Behavior in Medan Tembung District in 2017 using the Spearman's rank test with a correlation test value for the level of knowledge of breast cancer and BSE behavior, namely $p<0.006$, which indicates that there is a significant relationship with moderate correlation strength ($r = 0.533$).

Likewise, in the research conducted by Sandepa & Langelo (2018) concerning the Relationship between Mother's Knowledge Level and Early Detection of Breast Cancer and Conscious Behavior in Tumpaan Baru Village, South Minahasa with the Chi-square test, it was found that the level of knowledge has a significant relationship to breast examination behavior. itself because the p value is smaller than the alpha value, namely the p value (0.047).

The relationship between the level of knowledge of breast cancer and the early detection behavior of the BSE approach is different from theory. According to the theory of knowledge-based behavior will be more durable than non-knowledge-based behavior (Notoatmodjo, 2007). However, in research conducted by WHO and health education experts in the Putri health journal (2011), it was revealed that people's knowledge about health is already high, but their practice is still low. This means that changes or increases in public knowledge about health are not matched by their behavior.

This research is in line with the research of Anggraeni (2012), based on the results of statistical tests there are respondents who have sufficient knowledge and have less BSE behavior, this is due to the motivational factors and experience of the respondents who are lacking in BSE so that respondents do not have the will and attitude to do BSE regularly although the respondent has a good level of knowledge, apart from that the respondent is indisciplined in performing BSE in everyday life so that the respondent performs BSE behavior only when the respondent remembers it.

Likewise in the results of this study conducted above, that FK UNIZAR female students' knowledge about breast cancer is good but female students are still lacking in implementing the knowledge they have. So it can be concluded that good knowledge does not guarantee good behavior either. Because BSE behavior can arise when a person has self-awareness about the importance of early detection of breast cancer to reduce the higher incidence of breast cancer. In addition there are also several factors that influence behavior such as family support, motivation, support from health workers and others.

However, there are differences from research conducted by Rahmah Thaha (2018) on women aged 20-45 years in Sidera Village, Sigi Biromaru District, which shows that there is a positive and significant relationship between the level of knowledge about breast cancer and breast self-examination behavior (BSE) in women aged 20 -45 years in Sidera Village, Sigi Biromaru District which is also supported by Benjamin Bloom's theory (1908) in Notoatmodjo (2014) that knowledge, attitudes and actions/practices will shape a person's behavior.

In addition, the research conducted by Ronilda (2017) is also inversely proportional to the research conducted above. After statistical tests, it was proven that there was a positive correlation between the level of BSE knowledge and BSE behavior. From the results above it can be seen that the higher the level of BSE knowledge, the better BSE behavior, and the lower the BSE knowledge level, the worse BSE behavior.

4. CONCLUSION

Based on the results of research on the relationship between the level of knowledge about breast cancer and breast self-examination (BSE) as an early detection of breast cancer in female students of the medical faculty of the Islamic University of Al-Azhar, it can be concluded: The majority of FK UNIZAR students in 2019, 2020 and 2021 know about breast cancer in the good category. BSE behavior in FK UNIZAR preclinical students class of 2019, 2020 and 2021, the majority belong to the less category level. Based on the results of the analysis, it was concluded that there was a relationship between knowledge about breast cancer and BSE behavior with weak strength and opposite directions, in FK UNIZAR students.

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