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THE RELATIONSHIP BETWEEN KNOWLEDGE AND ATTITUDES TOWARDS BREAST SELF-EXAMINATION (BSE) AND BSE BEHAVIORS AMONG TEACHERS OF MUHAMMADIYAH ELEMENTARY SCHOOLS IN SAMARINDA

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ABSTRACT
Breast cancer is a malignancy in breast tissue, originating from the ductal or lobular epithelium. Although the exact cause is not yet known, factors such as age over 50 years, female gender, genetic history, previous history of breast disease can increase the risk. Breast Self-Examination (BSE) is an early detection of breast cancer that is easy, cheap and can be done by yourself. BSE behavior can be influenced by various factors such as knowledge and attitudes. This research aims to determine the relationship between knowledge and attitudes regarding BSE with BSE behavior among teachers in all Muhammadiyah Elementary Schools in Samarinda. This research is a cross sectional study, which was conducted at SD Muhammadiyah Samarinda with a population of all female teachers who met the inclusion and exclusion criteria. The research results obtained 125 samples. Chi-Square analysis of the relationship between knowledge and BSE behavior and Fisher Exact Test analysis of the relationship between attitudes and BSE behavior respectively have p values: 0.000 and 0.312. It can be concluded that there is a relationship between knowledge and BSE behavior and there is no relationship between attitude and BSE behavior.
Keywords : knowledge., attitudes, behavior, BSE

INTRODUCTION

Breast cancer is the most common type of cancer in the world. In early 2020, the incidence of breast cancer reached 2.3 million cases with deaths of around 684,996 people worldwide1. Breast cancer ranks as the most common type of cancer in Indonesia with 68,858 new cases (16.6%) of the total 396,914 cancer cases, with deaths reaching more than 22 thousand people2. According to the East Kalimantan Provincial Health Office, the number of breast cancer cases in 2021, reached 43 cases and increased in 2022 to 95 cases. This indicates a significant increase in breast cancer cases from year to year3.

Breast cancer is a malignancy that occurs in breast tissue, originating from the epithelium of the ducts or lobules4. The cause of cancer is not known for certain, but it is suspected that there are various factors that can increase the occurrence of breast cancer such as, age over 50 years, female gender,genetic history (carriers of BRCA1, BRCA2, ATM or TP53 gene mutations), previous history of breast disease, hormonal, alcohol consumption, and so on5.Currently, breast cancer management has progressed significantly, but the incidence and mortality rates of breast cancer are still high. This is related to the delay in seeking health care. It is found that about 70% of breast cancer cases are diagnosed at an advanced stage, which makes the survival rate of patients decrease. Therefore, efforts are needed so that signs and symptoms of breast cancer can be detected as early as possible, one of which is by conducting Breast Self-Examination (BSE)4,6.

BSE is an easy, inexpensive and self-directed early detection of breast cancer6. BSE behavior is the simplest way to detect and reduce breast cancer cases both in the world and in Indonesia. However, various factors are needed to be able to perform BSE such as prediposing factors which include age,occupation, education, knowledge and attitude, then there are enabling factors which can be in the form of distance to health facilities and reinforcing factors which are manifested in family support and family leaders7.Knowledge and attitude is one of the important factors that can determine a person's behavior. A person's ability to perform BSE correctly and regularly requires knowledge about the benefits and risks of early detection of breast cancer, because this will have a positive influence on their beliefs

about health, attitudes and behavior8. In addition, a positive attitude towards BSE is needed, so that this will support a person to do BSE9.

A teacher is someone who has a role in educating, passing on and developing life values. In addition, society places teachers in a more honorable place in their environment because it is expected that from teachers, one can gain knowledge10. Referring to this, it is expected that teachers can inform the community about knowledge about BSE correctly and regularly. Based on the description above, the researcher is interested in conducting research on the relationship between knowledge and attitudes about Breast Self-Examination (BSE) with BSE behavior in teachers throughout Muhammadiyah Samarinda Elementary School.

MATERIALS AND METHODS

This study was an observational analytic study with a cross sectional approach conducted in all Muhammadiyah Samarinda elementary schools from October to December 2023. The target population of the study was female teachers at Muhammadiyah Samarinda Elementary School who met the inclusion and exclusion criteria. The inclusion criteria in this study were female teachers who were willing to become respondents, while the exclusion criteria were female teachers who had been diagnosed with breast cancer by a doctor.The research sampling technique used Purposive Sampling method, with the sample size calculated using the minimum sample formula needed for cross sectional research, and obtained a minimum sample size of 97 teachers. However, until the end of data collection, the number of respondents who met the specified criteria was 125 respondents. Data were collected through questionnaires distributed directly to respondents at SD Muhammadiyah Samarinda. The data that had been collected was then processed and analyzed

using univariate and bivariate analysis to determine the frequency and percentage of each variable studied and to determine the relationship between variables. The software used in the analysis of this research is IBM SPSS Version 26 with the Chi- Square test and Fisher's Exact Test.

RESULTS

Based on the results of the study, it can be seen that the number of respondents who filled out the questionnaire was 125 with the most consecutive ages being 27-31 years old (23.2%), 32-36 years old(18.4%), 37-41 years old (16.8%), 22-26 years old(13.6%), 42-46 years old (11.2%), 52-56 years old(9.6%), 47-51 years old (5.6%) and 57-61 years old(1.6%).

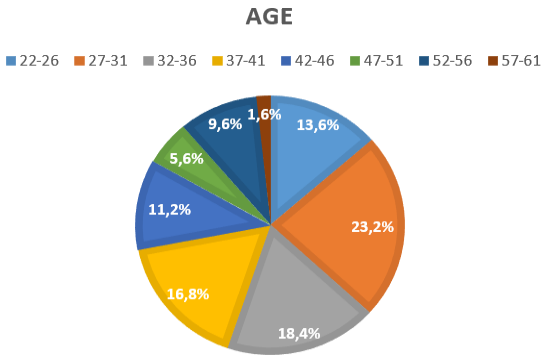

Figure 1. Age distribution of respondents

In the frequency distribution, the domicile of respondents came from the subdistricts of Sungai Kunjang (23.2%), North Samarinda (19.2%),Samarinda Ulu (16.0%), Sungai Pinang (12.8%), Samarinda Seberang (11.2%), Loa Janan Ilir (7.2%), Samarinda City (4.0%), Sambutan (3.2%),Samarinda Ilir (2.4%) and Palaran (0.8%).

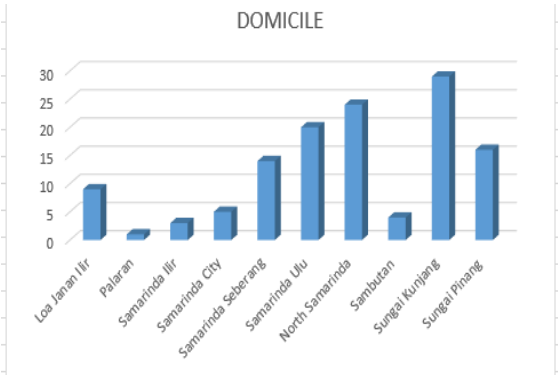

Figure 2. Distribution of Respondents' Domicile

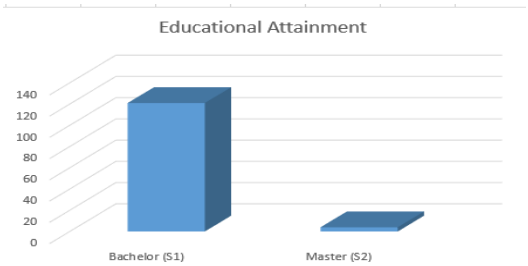

Figure 3. Distribution of Respondents' Educational Attainment

In the educational attainment distribution, it was known that the educational attainment of the respondents was Bachelor (S1) (96.8%) and Master (S2) (3.2%).

Table 2. Distribution of respondents based on knowledge, attitude and behavior

Characteristics	Frequency	Percentage(%)
Knowledge		
Less	21	16,8
Simply	42	33,6
Good	62	49,6
Attitude		
Negative	1	0,8
Positive	124	99,2
Behavior		
Not in favor	39	31,2
Support	86	68,8
Total	125	100

In the frequency distribution of knowledge (Table 2), it can be seen that respondents have good knowledge (49.6%), sufficient (33.6%), and less (16.8%) about BSE. From the results of this study, it was found that almost all respondents had a positive attitude (99.2%), and a negative attitude (0.8%). In addition, in the frequency distribution of behavior, it was found that respondents' behavior was in the supportive category (68.8%), and unsupportive behavior (31.2%).

Table 3. Analysis of the Relationship between Knowledge and Attitude with BSE Behavior
BSE Behavior

Not in favor		Support			
Know- ledge	N	%	N	%	P
Less	15	71,4	6	28,6	
Simply	14	33,3	28	66,7	0,000
Good	10	16,1	52	83,9	
Sikap					
Negative	1	100	0	0	0,312
Positive	38	30,6	86	69,4	

Table 3 shows the relationship between knowledge and attitude with BSE behavior. The results of the chi-square statistical test for the relationship between knowledge and BSE behavior, obtained a value of 0.000, which proves that there is a relationship between knowledge about BSE and BSE behavior in teachers in all Muhammadiyah Samarinda elementary schools. In addition, the Fisher's Exact Test, regarding the relationship between BSE attitudes and BSE behavior, showed a value of 0.312, which means that there is no relationship between attitudes about BSE and BSE behavior among teachers at Muhammadiyah primary schools in Samarinda. However, it can be seen in Table 3, that one of the cells is 0, so this affects the results of statistical tests.

DISCUSSION

This study shows that the highest age of respondents is 27-31 years (23.2%). This is in line with research conducted by Charisma et al11 which shows the distribution of respondents' age distribution is 20-30 years old (51.90%). Age is one of the predisposing factors that can influence a person's behavior because along with age, more information is encountered and many things are done so as to increase knowledge, besides that the responsiveness and mindset of a person also develops12 .

It was also found that most respondents came from Sungai Kunjang sub-district (23.2%). In this case, the living environment is one of the external factors that can influence a person's knowledge. Through the environment, a person can learn good and bad things depending on the nature of the group and will also affect their thinking patterns. This is in line with what was stated by several respondents through interviews conducted by researchers, who stated that from the environment where they live or in their family circle, such as older brothers or younger sisters, they do BSE every month, which makes respondents interested in doing BSE12,13.

In the frequency distribution of education, the educational attainment of respondents was Bachelor (S1) (96.8%). This is in line with research conducted by Khotimah14, on women of childbearing age at the Caringin health center which shows that the majority of respondents are highly educated (57.1%). According to Melsi et al15, the level of education can affect a person's knowledge, the higher a person's level of education, the better a person's knowledge through education a person can increase the ability to prevent disease and the ability to maintain their health.

In this study, it can be seen that respondents have good knowledge (49.6%) about BSE. The results of this study are in line with research conducted by Hanifah et al16 on women of childbearing age in the Nusukan health center area of Surakarta city, where the majority of respondents had good knowledge about BSE (53.7%). In this study, good knowledge about BSE can be caused by the respondent's educational background, which affects the ability to receive and understand information. The higher a person's level of education, the easier and faster a person is to receive and understand information so that the knowledge they have is also broader17. There were also respondents who had less knowledge. This condition can be caused by various factors such as experience, interest and lack of information received about BSE, both from health workers and from online media18 .

In the frequency distribution of attitudes, respondents had a positive attitude (99.2%) regarding BSE. This is in line with research conducted by Sakan et al19 on women of childbearing age in Soba village, Kupang district that most respondents had a positive attitude (85%). In general, attitude can be said to be a person's tendency to respond positively or negatively to certain objects people or situations20. In this study, almost all teachers had a positive attitude about BSE. This condition can be influenced by various things such as

personal experience, mass media, and the influence of other people who are considered important. People around us, have an important role in shaping attitudes towards something, who are considered important as someone who is expected to approve of our every move, behavior, and opinion21. In this study, respondents were also found to have a negative attitude about BSE. This can be due to the respondent's thinking that they feel that they are fine so there is no need to do BSE22,23.

In the frequency distribution of behavior, it was found that most respondents' behavior had a supportive category (68.8%). This is in line with research conducted by Pradnyandari et al24 that respondents had BSE behavior in the good category (86.7%). Supportive behavior can be influenced by various factors such as knowledge and attitudes, where the higher a person's knowledge about BSE and a positive attitude towards BSE, a supportive behavior will be formed. In this study, there were also respondents who had unsupportive behavior towards BSE, this could be due to a lack of support from family, friends or health workers to routinely perform BSE23,25.

In this study, the results of the chi-square statistical test for the relationship between knowledge and BSE behavior were obtained, with a p value of 0.000, indicating that there is a relationship between knowledge about BSE and BSE behavior in teachers throughout Muhammadiyah Samarinda Elementary School. The results of this study are in line with research conducted by Herdiani & Rosiana26, which concluded that there is a relationship between knowledge and BSE with a value of 0.000. The results of the univariate test showed that the majority of respondents had good knowledge (49.6%) and behavior that supported BSE (68.8%). This shows the suitability that good knowledge will lead to good behavior as well.

Knowledge is what is known by humans or the result of human labor to know. Knowledge becomes a person's benchmark in making considerations and ensuring action on cases experienced27,28. Behavior is the result of all kinds of human experiences and interactions with the environment. The higher a person's level of knowledge about BSE, the higher the BSE behavior.

This is in accordance with Lawrence's theory, which states that knowledge is one of the predisposing factors for the occurrence of a behavior25. Based on the results of research and brief interviews conducted by researchers on respondents, there are respondents who have good and sufficient knowledge about BSE but have behaviors that do not support BSE, this happens because knowledge is not the only factor that can influence a person's behavior but there are variousother factors such as lack of support from family, friends or health workers to routinely do BSE. In addition, respondents felt that they had no complaints related to their breasts, causing them to feel lazy to do BSE.

The results of the Fisher's Exact Test analysis, regarding the relationship between BSE attitudes and BSE behavior showed a value of p = 0.312, there was no relationship between attitudes about BSE and BSE behavior in teachers at Muhammadiyah Elementary School in Samarinda. The results of this study are in line with research conducted by Patandianan et al29 on women of childbearing age in Nunu village, Tatanga sub- district, Palu city, Central Sulawesi with a p value = 0.139. The results of the univariate test showed that 99.2% of respondents had a positive attitude about BSE. However, in this case there was no relationship between attitude and BSE behavior, this condition shows that attitude is not always related to behavior. The attitude that exists in a person is not always reflected in his behavior, this can be caused by obstacles to carry out these behaviors such as lack of support from family, friends or health workers to do BSE. In addition, the absence of respondents' personal experiences such as finding lumps in their breasts or interacting with someone who has a history of breast cancer or tumors, makes respondents reluctant to do BSE29,30. In the results of the study it was found that one of the cells had a value of 0 so that this would affect the results of the statistical tests carried out.

This is in accordance with what was explained by some respondents through interviews conducted by researchers, that some respondents had a positive attitude about BSE but did not support BSE behavior because they often forgot to do BSE and felt that they were fine and the lack of information about the characteristics and dangers of breast cancer made someone feel that they did not need to do BSE. It was also found that only one respondent had a negative attitude, this was because the respondent had never been exposed to information about BSE.

The results of this study are inversely proportional to the research conducted by Hanifah et al16 which shows that there is a relationship between attitude and BSE behavior in women of childbearing age in the Nusukan Surakata health center work area. Attitude is a person's readiness to react to an object. In doing

BSE, various factors are needed to cause behavior, such as increasing age, the wider the knowledge gained, a positive attitude, extensive knowledge and work that can lead a

person to continue learning and health behavior. In addition, it is also necessary to encourage family, friends, or health workers to do BSE31.

CONCLUSIONS AND RECOMMENDATIONS

There is a relationship between knowledge about BSE and BSE behavior and there is no relationship between BSE attitude and BSE behavior among teachers at SD Muhammadiyah Samarinda.

Suggestions for further research can conduct research using other variables that factor into BSE behavior such as age, occupation, facilities or means of obtaining information and support from family, friends or health workers.

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