



CORRELATION BETWEEN FEMALE JUNIOR HIGH SCHOOL STUDENTS KNOWLEDGE AND BREAST SELF EXAMINATION BEHAVIOR

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Abstract

Background : Breast cancer is a painless lump, can develop and invade surrounding breast tissue then spread to nearby lymph nodes or to other organs in the body. The high mortality rate of breast cancer is due to a lack of knowledge about breast cancer and early detection so that it comes to health services at late stage. As recommended by the government, the most effective screening method is Breast Self Examination which is very easy but many teenagers do not know this method. The aim of this study is to know correlation between students knowledge and Breast Self Examination Behavior. **Method** : Descriptive quantitative research through a cross sectional approach. Population in this study were 218 female students at Ananda Junior High School Bekasi City West Java in 2022 with 141 students for sample using simple random sampling technique. Research instruments using questionnaires about knowledge of pathophysiology and breast cancer prevention as independent variable and Breast Self Examination behavior as a dependent variable using the chi square statistical test. **Results** : Majority as many 91.5% of Ananda Junior High School students had never done Breast Self Examination, had poor knowledge about the pathophysiology of breast cancer (93.6%) and breast cancer prevention (83.7%). Then obtained a p value of 0.000 ($p < 0.05$) which means that there is a significant correlation between knowledge about the pathophysiology and breast cancer prevention with Breast Self Examination behavior. **Conclusion** : The proportion of Breast Self Examination behaviour of Ananda Bekasi junior high school students is very low (8.5%). Most respondents had less knowledge about the pathophysiology of breast cancer (93.6%) and breast cancer prevention (83.7%). **Suggestions**: Conduct ongoing research to see any changes in respondent behavior in the future.

Keyword : Breast Cancer, Knowledge, Student, BSE

INTRODUCTION

Breast cancer is a painless lump or thickening in the breast that appears in the lining (epithelial) cells of the ducts (85% of cases) or lobules (15% of cases) in the glandular tissue of the breast. Over time, it can develop and invade surrounding breast tissue (invasive breast cancer) and then spread to nearby lymph nodes (regional metastasis) or to other organs in the body (WHO, 2022).

Risk factors for breast cancer are family history, menstrual history, pregnancy, and benign breast disease. Other possible factors can be estrogen, oral



contraceptives, obesity, high fat diet, alcohol consumption, and smoking (Hero, 2021). According to the Collaborative Group on Hormonal Factor in Breast Cancer, 2012 in Susi Purwati, et al. (2021) risk factors for breast cancer in women include age of menarche, age of menopause, age of pregnancy, length of breastfeeding, hormonal contraception, physical activity, smoking history, stress levels, obesity, and diet.

Based on Globocan data in 2020, Indonesia placed the 3rd rank in Asia with an incidence rate of 8 cases, and a mortality rate of 3 cases of breast cancer at the age of 14 years. One of the factors that cause the high rate of breast cancer is the lack of knowledge of adolescents in detecting and preventing breast cancer on early stage. Breast Self Examination is an effective screening method but many teenagers didn't know this method. According on the background above, the aim of this study is to research about correlation between female student knowledge and Breast Self Examination behaviour in Ananda Junior High School Bekasi City.

METHOD

This research was a descriptive quantitative study with a cross sectional approach. The population for this study were 218 female Ananda Bekasi Junior High School students with 141 sample size students in 2022. The inclusion criteria for the research sample were female Junior High School students, can communicate well and writing, willing to participate in the research by filling out the Informed Consent and present at the time of the research. The exclusion criteria were female students inactive and unable to attend the research, experiencing illness during the research, not giving complete answers when filling out the questionnaire, not ready to fill out the questionnaire when the research was conducted. Ethical clearance of this research is respect for persons, beneficence, and justice (Kemenkes RI, 2021).

The data collection process starts from the preparation stage, applying for a research permit and then conducting a preliminary survey. At the implementation stage, the author introduced herself to the respondents, then asked for informed consent and continued with the distribution of questionnaires to respondents. Researchers explained how to fill out the questionnaire so that respondents understood. The research instrument used is a questionnaire containing questions



to obtain accurate and objective data on the problems studied. In this study using a questionnaire that has been standardized by previous researchers about the independent variable, knowledge of breast cancer pathophysiology and breast cancer prevention. The questionnaire has been valid and reliable and has been researched by Nurul Amaliah at SMA Negeri 8 Takalar South Sulawesi. For the knowledge variable using the Guttman scale, by making multiple choices. (Masturoh, Imas. 2018). Knowledge is also divided into three categories: good, sufficient and insufficient. (Rachmawati, Windi Chusniah. 2019).

The data processing process in this study used the Statistical Package for Social Science (SPSS) 25 program and manually with the following stages of analysis: editing, coding, data entry, data tabulation, processing, and cleaning data. Data were analyzed univariately to see the description of the dependent variable, Sadari behavior and the independent variable, knowledge of pathophysiology and prevention of breast cancer. Analysis of the results of statistical tests using chi-square to conclude that the relationship between two variables is meaningful or not meaningful (Notoatmodjo, 2018).

RESULT AND DISCUSSION

The population in this study were all students at Ananda Bekasi Junior High School in 2022, total 218 student. The sample in this study were 141 female students.

Table 1
Frequency Distribution of Breast Self Examination Behavior (BSE) of Female Students at Ananda Junior High School Bekasi in 2022

BSE Behaviour	Frequency	Percentage (%)
Never	129	91.5
Ever	12	8.5
Total	141	100

Based on the table above, the majority of respondents (91,5 %) have never done Breast Self Examination. Respondents who had done Breast Self Examination were 8,5 % (12 respondents)

Different results were obtained in a study conducted by Mariyati, et al (2021) entitled "Relationship between Adolescent Knowledge and Breast Self-Examination Behavior". The results obtained from 40 respondents, 21 respondents

(52.5%) had done BSE and 19 respondents (47.5%) did not do BSE. Respondents who do BSE have followed counseling from schools and posyandu.

According to the researcher, this shows that many adolescents have a risk of developing breast cancer but do not have the awareness to do Breast Self Examination. One of the contributing factors is that they have not received any health information about Breast Self Examination. Even most students are hearing the term of Breast Self Examination for the first time. For 12 respondents who have had an examination, it is necessary to do further research whether the examination is carried out according to the procedure or not.

Table 2
Frequency Distribution of Students' Knowledge about Pathophysiology and Prevention of Breast Cancer at Ananda Junior High School Bekasi in 2022

Knowledge	Bad	%	Good	%	Total
Pathophysiology	132	93.6	9	6.3	141
Prevention	118	83.7	23	16.3	141

Based on the table above, it shows that the majority of respondents have bad knowledge about the pathophysiology of breast cancer as many as 132 respondents (93.6%) and breast cancer prevention as many as 118 respondents (83.7%). Respondents who had good knowledge about the pathophysiology of breast cancer were 9 respondents (6.3%) and breast cancer prevention was 23 respondents (16.3%).

Different results were obtained in a study conducted by Rini Deska, et al (2019) entitled "The Relationship of Knowledge About Breast Cancer with Sadari Behaviour." The results obtained from 57 Midwifery student respondents, most of the respondents were in the good knowledge category, namely 25 respondents (43.8%).

According to researchers, the low level of knowledge of female students about the pathophysiology and prevention of breast cancer can be caused by the lack of information they get either through the school curriculum, social media, or family environment. The level of knowledge of junior high school students is certainly very different from Midwifery Academy students who have been exposed to information about breast cancer.

Further research is needed whether respondents with good knowledge really understand about pathophysiology and breast cancer prevention or just happen to fill out the questionnaire with the correct answer. Therefore, it is necessary to understand about prevention efforts and early diagnosis so that breast cancer can be diagnosed as early as possible so that it is treated immediately and does not lead to death

Table 3
Relationship between Knowledge about Pathophysiology and Breast Cancer Prevention With Breast Self Examination Behavior

	Breast Self Examination						95% OR	P Value
	Never Do BSE		Ever Do BSE		Total			
Knowledge	f(n)	%	f(n)	%	f(n)	%	107.25	0.000
Bad	117	99.2	1	0.8	118	100	12.72 -	
Good	12	52.2	11	47.8	23	100	903.92	
Total	129		12		141			

Based on the table above, it shows that respondents who have bad knowledge and never do BSE are 117 respondents (99.2%). Respondents who had good knowledge and ever do BSE were 1 respondent (0.8%). Respondents who had good knowledge and never do BSE were 12 respondents (52.2%). Respondents who had good knowledge and ever do BSE were 11 respondents (47.8%).

Respondent with bad knowledge (99,2%) never do Breast Self Examination because of lack information and knowledge. Respondent with bad knowledge but ever do Breast Self Examination (0,8%) it is necessary to do further research whether the examination is carried out according to the procedure or not. Then for the 11 respondents who had good knowledge but had never done Breast Self Examination can be caused they didn't have a breast cancer family history or did not understand how to do Breast Self Examination in the right time. The decision to do Breast Self Examination or not is the result of a rational process that is directed at a specific goal and follows a sequence of thinking.

Next, data testing was conducted to examine the relationship between the level of knowledge about the pathophysiology and breast cancer prevention with Breast Self Examination behavior using the Chi Square test. From the test results, the p value is 0.000 (p value <0.05), with an Odd Ratio of 107.25, so Ho is rejected.

This means that there is a correlation between knowledge and the Breast Self Examination behaviour of female students at Ananda Junior High School Bekasi City in 2022.

According to Lawrance Green, one of the predisposing factors that influence behavior is the level of knowledge (Rahmawati, Windi Chusniah. 2019). From the results of research at Ananda Junior High School Bekasi City in 2022, data were obtained that the majority of female students had low knowledge about the pathophysiology and prevention of breast cancer. Thus affecting the low Breast Self Examination behavior .

Same result with previous research by Sarina (2020) entitled "Factors Associated with SADARI Behavior as Early Detection of Breast Cancer in FKM Students at Hasanudin University". The results of the analysis in this study that the level of knowledge of respondents obtained a p value = 0.000 (p value <0.05) which proves that there is a positive relationship between the level of knowledge and SADARI behavior. Another study conducted by Selvita, et al (2019) entitled "The Relationship between Knowledge and Attitudes of Adolescents with Breast Self Examination Behavior (SADARI) in Class X Adolescent Girls at RK Delimurni Bandar Baru High School in 2019", also states that there is a relationship between the knowledge of adolescent girls and SADARI behavior

CONCLUSION AND SUGGESTION

The proportion of Breast Self Examination behavior of female students at Ananda Junior High School Bekasi is very low. The majority of respondents had bad knowledge about breast cancer pathophysiology and breast cancer prevention. The conclusion is there is correlation between knowledge about the pathophysiology and prevention of breast cancer with BSE behavior. In future research, it is recommended to conducting ongoing research in order to see any chance in respondent behaviour in the future.

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