PUBLICATION MANUSCRIPT

**DESCRIPTION OF KNOWLEDGE LEVEL ABOUT BREAST
SELF-EXAMINATION (BSE) IN BANTUL**

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**DIPLOMA THREE MIDWIFERY PROGRAM
MIDWIFERY DEPARTMENT
POLYTECHNIC OF HEALTH MINISTRY OF HEALTH YOGYAKARTA
2024**

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Submitted as one of the requirements to obtain a Diploma in Midwifery

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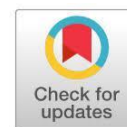Pada Tanggal : 08 Juli 2024

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1

Description of knowledge level about Breast Self-Examination (BSE) In Bantul

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ARTICLE INFO

ABSTRACT

The rate of breast cancer in Bantul Regency has increased from year to year, in Bambanglipuro alone there were 208 cases in 2023. Breast cancer can be detected early using a BSE examination. Awareness of doing BSE is influenced by the lack of education from reliable sources of information about breast cancer and the benefits of doing BSE. The purpose of this study was to determine the level of knowledge about BSE. This study uses a descriptive method with a cross-sectional design that describes the level of expertise about BSE. This research was conducted in April 2024 with 80 respondents. The research instrument used a questionnaire with a total of 26 questions. The results of this study showed that almost half of the respondents got information from social media (43.75%). Most respondents rarely do BSE examinations (58.7%). Nearly all respondents did not have family members who had a history of cancer (92.5%). Most of the respondents' first menarche age was > 12 years (75%). Almost all respondents had an adequate level of knowledge (78.8%).This study concludeds that almost all respondents had an adequate level of knowledge about BSE.

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INTRODUCTION

Cancer is the second leading cause of death in the world, causing 9.6 million deaths every year, which is almost equal to the population of Jakarta. It is estimated that 70% of cancer deaths occur in developing countries, including Indonesia (1). Based on data from Globocan 2020, new cases of cancer in Indonesia were 396,314 cases with 234,511 deaths. The cancer incidence rate in Indonesia (136.2/100,000 population) ranks 8th in Southeast Asia, while in Asia, the cancer incidence rate ranks 23rd. (2)

WHO noted that in Indonesia, every year there are around 19,730 women who die from breast cancer. Breast cancer also occupies 21.4% of all causes of death in women Research states that the highest prevalence of breast cancer is in Yogyakarta province with 4.86 cases per 1000 population, followed by West Sumatra province 2.47, and Gorontalo as much as 2.44. The number of mortality rates caused by this cancer reaches an average of 17 people per 100 thousand population (3).

According to the Yogyakarta Health Office in 2022, seen from the STP of Hospital Inpatient in 2022, breast cancer ranks first in new cases of neoplasms as many as 1304 cases and those who died from breast cancer were 206 people (4). Based on the Yogyakarta Health Office in 2021, the highest number of breast cancer cases in Bantul Regency was 1424 cases, then Kulon Progo Regency was 1023 cases, Yogyakarta City was 457 cases, Gunung Kidul Regency was 34 cases and Sleman Regency was 1 case. (5)

The results of the preliminary study at the Bantul Regency Office found that the highest breast tumor/cancer cases in 2022 were in Bambanglipuro with 208 cases, followed by Banguntapan 1 with 175 cases and Srandakan with 174 cases. In 2021, Bambanglipuro sub-district also had the highest number of breast tumor/cancer cases with 145 cases. The youngest age indicated by breast tumor/cancer cases in Bambanglipuro Subdistrict is in the age range of 15-19 years with 1 case. Based on interviews with Counseling Guidance teachers and 5 students, it was found that there was no exposure to information or counseling on Breast Self Examination (BSE) from the school or puskesmas.

Primary care transformation is the first pillar in Indonesia's health transformation, in its implementation there is a main focus that can be translated into 4 things, one of which is secondary prevention, namely by screening the 14 diseases that cause the highest mortality at each target age, screening, stunting, & increasing ANC for maternal and infant health (6). Breast cancer is included in the 14 diseases that cause the highest mortality in Indonesia so that this research is expected to be able to help improve the quality of health services and help the community to detect breast cancer early so that mortality or morbidity caused by breast cancer can be minimized. Based on the background of the problem, the author is interested in the title "Description of the level of knowledge about Breast Self-Examination (BSE) In Bantul".

The purpose of this study was to determine the level of knowledge about breast self-examination and related factors such as sources of information, experience in conducting examinations, family history and age of menarche of respondents. The benefits of this study theoretically can add empirical data regarding the level of knowledge of adolescents about BSE examination. For female students, this research can provide knowledge about BSE examination in adolescents. For school principals, the results of this study can be an input for school principals to provide information about reproductive health, especially BSE examination. For further researchers, the results of this study can provide input and additional literature and can be used as a preliminary study for further research.

METHOD

This type of research uses descriptive research methods. The design used in this study is cross sectional, which is the measurement of variables or observations made at a certain time where the subject is only observed once at the time of the study and no follow-up to the measurements made. This study describes the Description Of The Level of Knowledge About Breast Self-Examination (BSE) In Class XI Students at SMAN 1 Bambanglipuro. This research was conducted in April 2024 with 80 respondents. The type of data used in this study is primary data or data obtained directly through questionnaires filled out by respondents. The instrument in this study used an adoption questionnaire that had been tested for validity and reliability (7). The research procedure was carried out in several stages, namely research preparation, research implementation, data processing and data analysis. The data processing stage consists of editing, coding, scoring, data entry, cleaning, tabulating.

RESULTS

Characteristics Of Respondents

Table 1. Frequency Distribution of Respondent Characteristics

Variable	Frequency	Percentage (%)
Information Source		
Electronic Media	4	5,0
Social Media	35	43,8
Print Media	6	7,5
Health Workers	22	27,5
Non-Health Workers	13	16,3
Total	80	100
Experience		
Routine	8	10,0
Rarely	47	58,8
Never	25	31,3
Total	80	100
Family History of Cancer		
Available	6	7,5
None	74	92,5
Total	80	100
Age of First Menarche		
<12 years	20	25,0
>12 years	60	75,0
Total	80	100

Table 1 shows that almost half of the respondents (43.8%) obtained information sources about BSE through social media. Based on the respondents' experience in performing BSE, it was found that most of the respondents (58.8%) rarely performed BSE. Almost all respondents' family members did not have a history of cancer (92.5%). Most of the respondents at the age of first menarche were at the age of $\geq$ 12 years as much as (75%).

Level of Knowledge

Table 2. Frequency Distribution of Respondents Based on Knowledge

Level of Knowledge	Frequency	Percentage (%)
Good	17	21,3
Enough	63	78,8
Total	80	100

Table 2 shows that almost all respondents had enough knowledge (78.8%). In measuring knowledge, the normality test is used with the results of the sign value <0.05 so that it uses the median to determine the criteria, the median value is 88.

Percentage of Correct Answers to the Questions about BSE

Table 3. Frequency Distribution of Respondents Based on Correct Answers about BSE

Breast Self Examination (BSE) Knowledge Questions Based on Correct Answers			
No	**Question**	**n**	**%**
1	BSE is the first step to detecting breast cancer	80	100
2	BSE does not detect breast cancer early enough.	74	93
3	BSE is a simple way to find tumors that can reduce the incidence of breast cancer	78	98
4	Abnormal lumps in the breast can be found through breast self-examination.	78	98
5	The purpose of BSE is to recognize one's own breasts	78	98
6	BSE is a breast self-examination that is done to see the shape of the breast	69	86
7	BSE is important for women	79	99
8	Breast lumps can only be identified by laboratory examination.	66	83
9	BSE is done to find out breast abnormalities and reduce the mortality rate of women due to breast cancer	74	93
10	BSE aims to find lumps as early as possible in the breast	79	99
11	Doing BSE takes a long time	10	13
12	The best time to do BSE is 7-10 days after menstruation	78	98
13	BSE should be done regularly	76	95
14	BSE is best done once every 3 months and cannot be done while bathing	55	69
15	After marriage is the best time to do BSE	68	85
16	BSE does not need to be done as early as possible or during adolescence	76	95
17	BSE is done 1 week after menstruation	74	93
18	Women with irregular menstruation do not need to do BSE	75	94
19	Observe carefully any changes in the left breast only.	64	80
20	Observing the breast is done to see the beauty of the breasts	74	93
21	Breast self-examination can be done by standing in front of a mirror and observing changes that occur in the breast	78	98
22	Seeing changes in breast skin is not one of the steps to perform	21	26
23	Breast observation is not necessary when performing BSE	60	75
24	Pressing the nipple for normal or abnormal discharge is one of the normal or abnormal discharge is one of the BSE.	79	99
25	When performing BSE, it is necessary to pay attention to the shape of the breast	78	98
26	Gently touching the breast to feel for any abnormal lumps in the breast is a step to performing BSE	80	100

Table 3 shows that the smallest percentage of correct answers is in question number 11, only 10 respondents answered correctly (13%), number 22 only 21 respondents answered correctly (26%) and number 14 only 55 respondents answered correctly (69%).

Cross Tabulation of Level of Knowledge about Breast Self-Examination (BSE)

Table 4. Cross tabulation of knowledge level about BSE

| Variabel | Level Knowledge | | | | | |
| | Good | | Enough | | Total | |
	n	%	n	%	n	%
Information Source						
Electronic Media	0	0	4	5,0	4	100
Social Media	9	25,7	26	74,3	35	100
Print Media	3	50,0	3	50,0	6	100
Health Workers	2	9,1	20	90,9	22	100
Non-Health Workers	3	23,1	10	76,9	13	100
Total	17	21,3	63	78,8	80	100
Experience						
Routine	2	25,0	6	75,0	8	100
Rarely	10	21,3	37	78,7	47	100
Never	5	20,0	20	80,0	25	100
Total	17	21,3	63	78,8	80	100
Family History of Cancer						
Available	3	50,0	3	50,0	6	100
None	14	18,9	60	81,1	74	100
Total	17	21,3	63	78,8	80	100
Age of First Menarche						
< 12 years	7	35,0	13	65,0	20	100
$\geq$ 12 years	10	16,7	50	79,4	60	100
Total	17	21,3	63	78,8	80	100

Table 4 shows that respondents who have sufficient knowledge mostly get information about BSE through social media (74.3%) and there are no respondents who have good knowledge who get information about BSE from electronic media. Almost all respondents who had sufficient knowledge rarely performed BSE (78.7%). However, there were very few respondents who had good knowledge and often performed BSE, namely (25.0%) while respondents who had good knowledge and never performed BSE were (20.0%). Almost all respondents who have sufficient knowledge and in their families do not have a history of cancer, namely as many as (81.1%) While half of the respondents who have good knowledge in their families have a history of cancer as much as (50.0%). Almost all respondents whose age at first menarche $\geq$ 12 years had sufficient knowledge as many as (79.4%). While there are a small number of respondents who have good knowledge of the age of first menarche < 12 years as many as (35.0%).

DISCUSSION

Based on the research conducted, it was found that almost half of the respondents received information about BSE examination through social media, namely (43.8%). This result is in accordance with Lula's 2018 research which shows that 64 respondents (28.2%) get information about BSE through social media. Information can be obtained from formal and non-formal education. (8) Sources of information can be in the form of print and electronic media, such as television, radio, computers, newspapers, books, and magazines. Someone who has easy access to information will gain knowledge faster. The advancement

of technology can affect people's knowledge about new innovations that can have an influence resulting in changes or increases in knowledge. (9)

The results of this study indicate that most respondents rarely do BSE as much as (58.8%), almost half of the respondents never do BSE (31.3%) and very few respondents routinely do BSE as much as (10%). These results differ from Wardhani's 2017 study which showed that 21 respondents (40.38%) rarely performed BSE and 31 respondents (59.62%) often performed BSE. (10) The lack of Indonesian women, especially teenagers in doing BSE is also motivated by the fact that many Indonesian teenagers are still not sensitive to their own breast care, they are more sensitive to acne that appears on their faces than the symptoms of breast cancer, and also motivated by the lack of information and willingness to dig up accurate information about breast cancer prevention. (11) According to Lawrence Green's theory, factors that influence specific behavior are predisposing factors, enabling factors and reinforcing factors. (12) In this study, respondents rarely performed BSE due to lack of support and fear of the results obtained when examining BSE as well as the lack of information at school or reliable sources of information. Some of the factors that cause women not to routinely or not to do breast cancer early detection checks are laziness, fear, thinking that they are not at risk, embarrassment, not knowing how to take the steps, feeling no need after menapouse, forgetting and considering it a taboo. (13)

Based on family history of breast cancer in this study, most respondents did not have a history of cancer as much as (92.5%) and there were very few respondents with family members who had a history of cancer as much as (7.5%). This study is in accordance with research from Juwita 2018 which shows 122 respondents (91%) have no family history of cancer and 12 respondents (9%) have a history of family members suffering from cancer. (14) Women with a family history of breast cancer are more at risk of developing breast cancer than women with no family history of breast cancer.   If genetic testing of blood is done and the results show positive, it can increase the chances of developing breast cancer in offspring 2 to 3 times higher. (15)

Based on the age of first menarche of respondents in this study, it was found that the majority of respondents first menarche at the age of $\geq$ 12 years, namely 60 respondents (75%) and 20 respondents (25%) first menarche at the age of < 12 years. This research is in accordance with Siregar's research 2022 which shows the age of first menstruation $\geq$ 12 years as many as 97 respondents (65%) and the age of first menstruation < 12 years as many as 53 respondents (35%). (16) The age of menstruation <12 years significantly increases the risk of breast cancer, because the age of early menstruation and late menopause is related to the length of exposure to the hormones estrogen and progesterone in women which affect the process of tissue proliferation including breast tissue. (17)

In table 4, it was found that there were almost all respondents who had sufficient knowledge in their families who did not have cancer, namely as many as (81.1%), while half of the respondents who had good knowledge in their families had cancer as many as (50%). Family members, especially parents, influence the source of knowledge, beliefs, attitudes, and life values for children. Parents have the power to guide the development of children towards BSE behavior. (16) In this case, the influence of the experience of families who have had breast cancer affects the knowledge of respondents so that respondents can change their behavior to do BSE.

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have had breast cancer affects the knowledge of respondents so that respondents can change their behavior to do BSE.

CONCLUSION

From the results of the research conducted, the authors concluded that almost all respondents had sufficient knowledge about BSE. Almost all respondents who have sufficient knowledge about BSE get their source of information from social media. Almost all respondents who have sufficient knowledge rarely do BSE checks. Almost all respondents who have sufficient knowledge in their family do not have a history of cancer. Almost all respondents who have sufficient knowledge, the first age of menarche is $\geq$ 12 years old.

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