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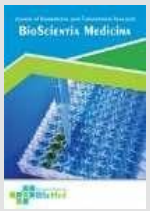

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The Relationship between Sociodemography and the Level of Knowledge, Attitudes, and Behavior of Breast Cancer Patients at the Surgical Oncology Polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia

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A B S T R A C T

Background: Breast carcinoma is the most frequently diagnosed carcinoma in the world. A person's behavior in responding to a health problem is influenced by three factors, namely predisposing factors, supporting factors, and needs factors. The predisposing factor explaining social demographics is one of the things that influence individuals to overcome health problems. This study aimed to assess the level of knowledge, attitudes, and behavior toward breast cancer in advanced breast cancer patients who seek treatment at the surgical oncology polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia. **Methods**: This study was an analytic observational study of 329 research subjects. The research subjects were patients at the surgical oncology polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia. Observation of knowledge, attitudes, and behavior was carried out using a questionnaire adapted from the breast cancer awareness scale (BCAS-I). Data analysis was performed univariate, bivariate, and multivariate using SPSS software. **Results:** Occupation (p-value 0.000 OR 3.664) has a significant relationship with the knowledge of breast cancer patients. Education and occupation have a significant relationship with the attitude of breast cancer patients. Age 35-59 years and working as a housewife have a significant relationship to the behavior of breast cancer patients. **Conclusion:** There is a sociodemographic relationship with knowledge, attitudes, and behavior in breast cancer patients at the surgical oncology polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

1. Introduction

Breast carcinoma is the most frequently diagnosed carcinoma in the world. Breast cancer in Indonesia also shows the same thing at the world level, which is in first place with the number of new cases of 65,858 (30.8%) of all carcinomas in Indonesian women. Early diagnosis of this disease can provide a good prognosis and a high survival rate. Current prevention methods include screening programs, chemoprevention, and biological prevention. Breast screening can be done in a number of ways, including breast self-examination (BSE), clinical breast examination, and screening mammography. BSE is a self-examination method by means of monthly palpation that is regular and repeated by women at the same time every month.[1-4]

Education in the community about cancer symptoms and early detection can provide an opportunity for sufferers to get early treatment and obtain a better prognosis. It is important for all women to have an awareness of the symptoms of breast cancer so that all women can have the knowledge, skills, and confidence to get clinical help if they detect changes in their own breasts. A person's behavior in responding to a health problem is influenced by three factors, namely predisposing factors, supporting factors, and needs factors. The predisposing factor explaining social demographics is one of the things that influence individuals to overcome health problems.[5-8] This study aimed to assess the level of knowledge, attitudes, and behavior toward breast cancer in advanced breast cancer patients who seek treatment at the Surgical Oncology Polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

2. Methods

This study was an analytic observational study with a cross-sectional approach and used primary data obtained from patients at the surgical oncology polyclinic at Dr. Hasan Sadikin General Hospital Bandung, Indonesia. A total of 329 subject studies participated in this study, where the research subjects met the inclusion criteria. The inclusion criteria in this study were patients with a diagnosis of stage III and IV breast cancer who were willing to participate in this study which was marked by signing an informed consent sheet. This study was approved by the medical and research ethics committee at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia (No.LB.02.01/X.6.5/405/2022).

This study made observations on sociodemographic data, data on knowledge, attitudes, and behavior subject study. This study used a questionnaire adapted from the validated breast cancer awareness scale (BCAS-I) consisting of four questionnaires, namely the respondent demographic questionnaire, knowledge questionnaire, attitude questionnaire, and behavior questionnaire. Data analysis was carried out using SPSS software version 25. Univariate analysis was performed to present the frequency distribution of each test variable, and bivariate and multivariate analysis was performed to determine the relationship between variable tests with $p < 0.05$.

3. Results

Table 1 shows the characteristics of the research subjects. The majority of research subjects were aged 35-59 years. The majority of research subjects have primary-secondary education. The majority of research subjects have married status. The majority of research subjects had less knowledge, positive attitudes, and behaviors that were less related to breast cancer.

Table 2 shows that after multivariate analysis, it was found that occupation (p-value 0.000 OR 3.664) had a significant relationship to the knowledge of breast cancer patients. The factors of age, education, and marital status had no significant relationship to the knowledge of breast cancer patients (p-value 0.157), (p-value 0.449), and (p-value 0.137), respectively.

Table 3 shows that based on multivariate analysis, it was found that education and work had a significant relationship with the attitudes of breast cancer patients. Age and marital status did not have a significant relationship with breast cancer patients' attitudes (p-value 0.929) and (p-value 0.691), respectively.

Table 4 shows that based on multivariate analysis, it was found that age 35-59 years and work as a housewife have a significant relationship to the behavior of breast cancer patients. Educational factors and marital status had no significant relationship to the behavior of breast cancer patients (p-value 0.964) and (p-value 0.910), respectively.

Table 1. Characteristics of research subjects.

Variable	Frequency	Percentage (%)
Age		
18-34 years	18	5,5
35-59 years	281	85,4
> 60 years	30	9,1
Education		
Primary – Secondary	298	90,6
College	31	9,4
Marital status		
Single	9	2,7
Married	301	91,5
Divorced	19	5,8
Occupation		
Employee	84	25,5
Housewife	245	74,5
Knowledge		
Good	163	49,5
Less	166	50,5
Attitude		
Positive	185	56,2
Negative	144	43,8
Behavior		
Good	160	48,6
Poor	169	51,4

Table 2. Sociodemographic relationship with the knowledge of breast cancer patients at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

	P-value	OR
Age (35-59 years)	.270	1.568
Age (18-34 years)	.055	3.765
Education (Primary-Secondary)	.449	1.444
Marriage (Married)	.062	2.815
Marriage (Single)	.137	3.993
Occupation (Housewife)	.000	3.664

Table 3. Sociodemographic relationship with attitudes of breast cancer patients at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

	P-value	OR
Age (35-59 years)	.987	.994
Age (18-34 years)	.743	.811
Education (Primary-Secondary)	.038	2.536
Marriage (Married)	.800	.885
Marriage (Single)	.565	1.672
Occupation (Housewife)	.005	.433

Table 4. Sociodemographic relationship with breast cancer patient behavior at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

	P-value	OR
Age (35-59 years)	.010	.296
Age (18-34 years)	.209	.413
Education (Primary-Secondary)	.964	.980
Marriage (Married)	.910	1.057
Marriage (Single)	.095	.131
Occupation (Housewife)	.000	3.015

4. Discussion

The results of our research show that the majority of respondents have a low level of knowledge, namely as many as 166 (50.5%). Respondents who had good knowledge were 163 (49.5%). This is in line with other research, which states that the majority of respondents have a low level of knowledge. In contrast to what was found in the previous study, which found that 40.8% of respondents with a good level of knowledge. This is probably because Dr. Hasan Sadikin General Hospital's visitors come from different demographics, so they have different backgrounds. The results of our research are in line with research in Ethiopia, which involved 799 women aged 18 years and over who found that overall knowledge about risk factors for breast cancer in women was low. Lack of knowledge leads to a lack of awareness of breast cancer, which is the most formidable barrier to access and care. This contributes to the high morbidity and mortality rates of breast cancer in Ethiopia. Other research states that there is a statistically significant relationship between knowledge of the steps for implementing BSE and routine practice. Training programs should be implemented to increase the level of awareness about breast cancer and practicing BSE. Another study of 357 women aged 15-49 years in two tertiary care hospitals in the city of Chattogram, Bangladesh, proved that even though most of the participants had heard of breast cancer, they did not have sufficient knowledge about risk factors, symptoms, and how to prevent breast cancer. So the knowledge possessed is not enough to initiate behavior change, such as avoiding risk factors and performing breast self-examination.[9-12]

The results of the study stated that most patients had a positive attitude of 185 (56.2%). In contrast to other studies that submit, in addition to overall knowledge about the risk factors for breast cancer in women is relatively low, most women are also found to have a negative attitude towards breast cancer (67.4%) and cervical cancer (70.6%). Negative attitudes were described among two-thirds of women who had heard of breast cancer. Only one-fifth of this group and 13.4% of the total sample population knew the concept of screening. This means that even in the female population who know about cancer, they are not aware that cancer is inevitable in their lifetime and detection at an advanced stage is avoidable. Only 1.4% of eligible women with knowledge of breast cancer (1% of total eligible women) had ever been screened. Not surprising, given the large number of late-stage patients presenting, the disability, and increased mortality seen in similar populations. Fear of a breast cancer diagnosis itself can be a barrier to treatment, but fear of treatment has also been shown to contribute, often to an increasing degree, as has a fear of transportation and financial barriers. This difference in results is due to differences between the questionnaires between this study and our study, which were used to investigate attitudes related to breast cancer. For the purpose of this study, the questions for determining attitudes were adapted from the breast cancer awareness scale (BCAS-I) questionnaire.[13-15]

Having a high level of awareness about breast cancer screening is important for successful prevention and intervention. Other studies explain that increasing awareness about breast cancer screening methods is one of the factors that is significantly related to breast cancer screening. Women who are aware of breast cancer screening methods are three times more likely to be involved in any of the breast cancer screening practices compared to those who are not aware of breast cancer screening methods. The results of this study stated that the majority of patients who were respondents had bad behavior, as much as 169 (51.4%). In line with these results, other studies stated that research participants had poor knowledge about breast cancer. The practice of breast self-examination (BSE) is low; only 432 participants (43.2%) admitted to having had the procedure in the past year. It is recommended that older women be targeted for education on breast screening and that breast screening centers should welcome older women. There is also a need for intensive campaigns and awareness programs to

encourage all women, regardless of their educational background, to participate in breast cancer screening.[16-18]

Nonetheless, these results should be interpreted with caution, and a number of limitations should be noted. There are several deficiencies in this study, such as the existence of external bias factors that cannot be controlled. For example, our research does not separate patients who have had surgery or chemotherapy obtained from health facilities so that patients who have had these actions are more exposed to information about breast cancer, which can cause bias in the research results.

5. Conclusion

There is a sociodemographic relationship with knowledge, attitudes, and behavior in breast cancer patients at the surgical oncology polyclinic at Dr. Hasan Sadikin General Hospital, Bandung, Indonesia.

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