

Evaluation of Vocational Health High School Students' Information Situation about Breast Cancer

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Abstract

Background/Objectives: Breast cancer is the most common seen malign tumor among women in the world and remains second place in the cause of deaths (1). Study was planned in order to evaluate the information levels of midwives and nurses, which have an important place in the health caring team, about breast cancer.

Methods/Statistical analysis: Study which was implemented on public university vocational health high school students, designed as to be definitive and analytic. Data was gathered with Information Form which contains demographic features, and "Comprehensive Breast Cancer Information Test" (BCIT). Study universe was formed by 344 students. Research data was analyzed by using percentage, average, standard deviation, factor analysis, t-test and ANOVA, in the computer environment.

Findings: Age average of students is 21.06 ± 1.46 (min:19-max:32), 84.9 % of the students are nursing, and the left 15.1% are midwife students, 85.8% are women and 14.2% are men and 43,9 % of them was third year students. Most of the students (87.5%) who was included the study, stated that they have middle level income. BCIT alpha value was calculated as 0,70 and it was seen as a trustworthy measurement tool. Total point of BCIT was found $64,06 \pm 1,27$ and medium level of information about breast cancer was seen in the students. According to study years of students, no significant difference was found between their BCIT total points. It was seen that third year students have higher BCIT points than second and fourth year students but this difference was not meaningful. BCIT point averages of the students who have breast cancer medical history in their family, was found meaningfully high ($p < 0.05$). BCIT points of students who have information about BSE, was higher than the others who do not have information ($P < 0.05$), meanwhile no difference was seen according to income level ($p > 0.05$).

Keywords: breast cancer, information level, student

I. Introduction and Purpose

Breast cancer is the most common malign tumor in the world among women and remains in the second place at causes of death. According to the Turkey Cancer Statistics data, it is guessed that one in every 4 women who was diagnosed with cancer, has breast cancer and this percentage will increase day by day. 45% of women who diagnosed with breast cancer are between 50-69 ages and 40% are between 25-49 ages therefore it seen that it affects the young generation. (1,2,3,4). Etiology of breast cancer is not known, and risk factors that increases carcinogenesis can be counted as genetics, reproductive, hormonal, life style and environmental factors (5,6). It has been known that early diagnosis in breast cancer saves life, eases cancer treatment and increases the life time of the patient. Because of this reason, training programs in order to increase awareness about early diagnosis and treatment of breast cancer are conducted for the early diagnosis and control of breast cancer in Turkey and many countries by cooperation and singular efforts of government, universities and specific associations related to breast cancer.

Because of the reason that breast cancer frequency tend to increase after menopause, in the direction of American Cancer Union suggestions, diagnosis methods frequency according to age groups in the early diagnosis of breast cancer was indicated (4,5). Diagnosis methods can be summed as; mammography, clinical breast examination and breast self-examination (BSE) (3,4,7,8). In the literature, it was stated that in the societies where women do BSE, breast cancer stage will decrease and the course of live will be affected positively (2,6,9). Despite of this and easy application of BSE, it cannot applied in a correct way and wanted frequ, ency. In the study of Gangane and friends (2015), they stated that 4.5% of women practiced breast BSE and only 3.45% of them knows how to practice it correctly. Because of this reason, big responsibilities fall on the nurses who exist in health team and have continuous communication with patients.

Because of the trainer, supporter and care giver roles of nurses, they carry the responsibility to ensure healthy life for firstly themselves, patient/patients' family and health individuals. For early diagnosis, women nurses must practice BSE every month regularly and they must train women who is 20 years old and older on BSE and increase their motivation (9,10). Study which was planned in this direction, was conducted in order to determine breast cancer information levels and implementation situations of nurses and midwives who have an important place in the health care team.

II. Materials and Methods

Study, which was implemented by using "Comprehensive Breast Cancer Information Test" (BCIT) on students who study in a public university Health Sciences Faculty, was designed as to be definitive and analytical.

In the study, answers for the following questions were searched;

- ✓ How is the socio-demographic characteristics of the nursing and midwifery students who were included the study?
- ✓ Do nursing and midwifery students practice BSE?
- ✓ What are the BCIT point averages of nursing and midwifery students?
- ✓ Does any meaningful difference exist between BCIT point averages and nursing and midwifery students' study years?

2.1. Study Environment and Sample

Study universe formed by students who study in a university's nursing and midwifery department in Sakarya province center and sample was formed by total 344 students who volunteered for the study and informed verbally.

2.2. Data Gathering Tools

Data was collected with Information Form that contains socio-demographic characteristics and develop by Stager in 1993 (alpha value 0,71) and "Comprehensive Breast Cancer Information Test" which Turkish validity and reliability study was done by Başak in 2015, by using face to face meeting technique (11).

Information Form; it was developed by the researches and contains information related to determine the age, gender, family structure and class of participants.

"Comprehensive Breast Cancer Information Test" (BCIT); in the information test 20 information question (8 true and 12 wrong statement" exists. It has two dimensions as to be general information and curability. Questions from 1 to 12 contain information about general information related to breast cancer, 13 to 20; contain information about curability of breast cancer. Correct answers that remain in the information form were multiplied with 5 and the highest and lowest points that one can take from the test was calculated as 100 and 0 respectively. As point increases, information level was interpreted as good. In the reliability work, cornbach alpha coefficient, alpha value of general information dimension was found as 0,60; curability sub dimension alpha value 0,62 and scale total 0,71 and in our study, cronbach alpha coefficient 0,70 was found trustworthy for our sample (11).

2.3. Evaluation of Data

Data of the research was evaluated with SPSS 21 package program. In the computer environment, data analysis was conducted by using percentage, average, standard deviation, factor analysis, t-test, and ANOVA.

2.4. Ethical Subjects

Before starting the research, written permission was taken from Faculty Board of Directors. By explaining the purpose of the study and what is wanted from students, in the light of volunteerism, informed written permission was taken from the students who form the research sample. In addition, in order to use scale in the research, permission was taken from authors.

2.5. Limitation of the research

Sample of the research was formed by the students who study nursing and midwifery in a university in Sakarya Province center. Because of this reason, study results cannot be generalized.

III. Results

Age average of students is 21.06 ± 1.46 (min:19-max:32), 84.9% of them nursing and 15.1% are midwifery student, 85.8% was women and 14.2% was men and 43,9% of volunteered students were third year students. Most of the students, who were included to study, stated that they have medium level of income (**Table 1**). Only 7.8% of the students have a medical family history about breast cancer. It was determined that a big majority (92.2%) have information about breast cancer, 60.8% do BSE and only 25.9% of the students do BSE once a month and others rarely or never do BSE. (**Table 1**).

88.7% of the students stated that they received training related to breast self-examination, and majority of these students (88,9%) of them stated that they received the education in license classes. When the answers which were given by students on the questions related breast cancer are examined; correct answer giving rates to signs and symptoms (palpable mass, swelling, bloody transparent flix, inward withdrawal, peeling, scabbing etc.) were found between 68,3% and 98.5% (**Table 2**). When we sorted correct answers in terms of breast cancer risk factors; 84.9% were stated existence of two genes (BRCAI, II) which are responsible for breast cancer and depended on heredity, 67.7% stated a relationship between breast cancer and birth control pills, 56.1% of the students stated an increasing risk because of menarj before age of 12-menopause after 50. According to the answers given in the subject of risks that increase breast cancer; 81.7% stated biopsies do not increase the risk of breast cancer, 58.7% stated there is a relationship between breast cancer risk and hair dye. In

our study, BCIT alpha value was calculated as 0,70 and it was seen trustworthy. Total point of BCIT was found $64,06 \pm 12.7$ (**Table 3**) and it was seen that students have medium level of information about breast cancer. According to study years, any meaningful difference could not be found between BCIT points. It was seen that BCIT points of third year students have higher points than second and fourth year students however no meaningful relationship was found. BCIT point averages of students who have breast cancer medical history in their families, were found meaningfully high ($p < 0.05$). BCIT points of students who have information about BSE, was higher than the ones who do not have information ($p < 0.05$), and in terms of income level, no meaningful difference was seen ($p > 0.05$).

Table 1: Definitive Data of Nursing and Midwifery Students (N=344)

		%
Ya \bar{X} Ort/sd =21.06 ± 1,46 (min=19 max=32)		
Department		
Nursing		292
84.9		
Midwifery	52	15.1
Gender		
Female	295	85.8
Male	49	14.2
Which year		
2. year	127	36.9
3. year	151	43.9
4. year	66	19.2
Income situation		
Income lower than expense	29	8.4
Income equals to expense	301	87.5
Income higher than expense	14	4.1
Smoking Situation		
Yes	38	11.0
No	306	89.0
Breast cancer history in Family		
Yes	27	7.8
No	317	92.2
BSE Knowledge		
yes	317	92.2
No	27	7.8
BSE Application Situation		
Yes	209	60.8
No	135	39.2
BSE frequency		
Once a month	89	25.9
Whenever comes to mind	108	31.4
Rarely	14	4.1
Never	73	21.2

Table 2: Answers that Nursing and Midwifery Students Gave to the Signs and Symptoms of Breast Cancer

	n	%
Palpable mass, stiffness or swelling in breast		
True	339	98.5
False	5	1.5
Bloody or transparent colorent fluid discharge from nipple		
True	300	87.2
False	44	12.8
Breast early withdrawal inward, collapse or deformity		
True	302	87.8
False	42	12.2
Changes in the nipple skin, scaling, crusting		
True	251	73
False	93	27
Sore or rash on the nipple skin		
True	235	68.3
False	109	31.7
Skin edema, swelling and shrinkage inward in the breast		
True	282	82
False	62	18
Breast growth, deformity or asymmetry or change in color (redness etc.).		
True	313	91
False	31	9

Tablo 3: Point averages of Comprehensive Cancer Information Test (N=344)

Scale dimensions	Ort± SD (min -max)	Scale limits
General information	35.91±8.62 (15-60)	0-60
Curability	28.13±9.13 (5-40)	0-40
Total	64.06±12.7 (30-100)	0-100

Tablo 4: Point averages of Comprehensive Breast Cancer Information Test According to Study Years (N=344)

	TOTAL (n:301)	2.year (n:127)	3.year (n:151)	4.year (n:66)	p value
Total	64.06±12.7 (30-100)	62.67±13.15 (30-90)	65.16±11.90 (30-100)	64.16±13.49 (30-90)	0.345
General Information	35.91±8.62 (15-60)	35.86±7.89 (15-55)	35.00±9.46 (15-60)	38.10±7.58 (25-55)	0.152
Curability	28.13±9.13 (5-40)	26.81±9.33 (5-40)	30.16±8.23 (5-40)	26.06±9.86 (5-40)	0.823

IV. Discussion and Conclusion

Breast self-examination is the most important positive health life behavior for the early diagnosis of breast cancer. This study was done with young generation in university and age averages of students was found as 21.06±1.46 (min:19-max:32). Therefore similar results found with the studies that conducted with students (12,13). In the study of Gündoğan and friends (2012), 37.1% of students was found to have medium level income and in this study, in a higher rate of students (87.5%) was seen that they have medium level of income (13).When smoking situations of students were examined, smokers rate was found as 11% and it was determined that it was parallel with other studies (11.5 %-16.6 %-19.4%) (12,13,14).It was determined that rate of the students who have information related to breast self-examination is high (92.2%), and 60.8% of them do BSE. When the studies similar to these results was examined, researches were determined the rates of BSE as follows; Aygin and friends (2004) 53.9%, Özer and friends (2009) 46.7%, Vicdan and friends (2010) 30.7%, and Sevindik and friends (2011) 55.5%). (12,14,15,16). In the study of Gölbaşı and friends (2010) which they were examining information and behavior of women who study in university about breast cancer and breast self-examination, they found BSE frequency as 79.7% among students who study in departments related to health (17). In this study, despite of students having information about BSE, their motivation can be said deficient on doing BSE.

BCIT point of students who have information about BSE was found meaningfully higher than the ones who do not have information (p<0.05), and no difference was seen in terms of income (p>0.05). According to BCIT (64,06±12.7), it was determined that students have medium level of information. In terms of study years, no meaningful difference was found. Third year students' points was found a bit higher. Because until this year, students receive information about breast cancer in different classes therefore their awareness is higher. BCIT average point of students who have breast cancer medical history in their family, was found meaningfully high (p<0.05). It is been thought that ones who have breast cancer in their family, pay more importance and have high awareness. When two study, which support these results, are examined; in the study of Kılıç and friends which they examined the factors that affect the awareness of university students, it was stated that sensitivity perception of students who have breast cancer in their family, was found higher than the others who does not have (18). In the study of İlhan and friends which they examined the behaviors related the early diagnosis of breast cancer of students who study in health related departments, it was determined that students who have breast cancer in their family, do more BSE than the ones who do not have (19).

As a result; it was determined that students have medium level of information about breast cancer risk factors and treatment. By increasing information levels of BSE which is an early diagnosis method, more qualified application of BSE must be ensured. Giving extensive place in the existing class programs, development of trainer role of nurses and midwives when their effective roles considered in protection and improvement of health and to become good example individuals, increase in information level carries a big importance. Furthermore, after graduation, organization of continuous awareness trainings and creation of public service ads and conduction of more extensive researchers are needed.

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