

Investigation of the relation between doing breast self- examination (BSE) of the students and perception of health

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ABSTRACT

Aim: This study was conducted to investigate the relation between breast self-examination of the students and perception of health. **Material &Method:** The study was conducted with 869 girl students as descriptive. Informative Questionnaire Form and Perception of Health Scale were used for collecting data. For study, ethical institute consent, institute consent and verbal consent from participants were obtained. For analysis, descriptive statistics (mean, standard deviation, percentage) and Many Whitney U test were used. **Results:** Of the students; 26% were student at department of economy, 35.6% were at the first class and average age was 20.81±1.7. The students stated that early diagnosis was important in breast cancer (84.7%), they knew BSE (60.5%), and they did this examination (33.3%) when they remembered (64.7%). Also, of the students; 80.8% stated breast cancer history was a risk factor, 67.4% told pain in breast and 60.1% told axillary nodule as symptoms for breast cancer. Again, they stated that breast cancer could be diagnosed by doctor examination (33.7%), mammography (30.8%) and BSE (20.3%). Also, of the students; 33.7% stated that they didn't know BSE and 12.3% didn't do BSE because of they thought they were young. In the study, perception of health was higher in students who perform breast self-examination than others. **Conclusion:** In the study, it is seen that more than half of the students knew BSE but they performed it as a low rate and rate of performing regular examination was low. Again, it is determined that perception of health was higher in students who perform breast self-examination than others.

Key Words: Breast cancer, perception of health, breast self-examination, student

Introduction

Breast cancer is the most common seen cancer type in women both in developed and developing countries. In the world almost 1.67 billion new cases are diagnosed every year and 522 thousands women die because of breast cancer. Although prevalence of breast cancer is different according to regions, these rates are 92 in 100.000 in North America, 27 in 100.000 in the Middle Africa and East Asian, 45.9 in 100.000 in Turkey [1,2].

These changes in international incidence are thought to originate from differences in early diagnosis and risk factors [3]. Although a lot of risk factors for breast cancer are defined in literature, it is not possible to diagnose a specific risk factor in the most of the women with breast cancer [4]. Thus, early diagnosis is very important in mortality and morbidity in breast cancer [5].

For early diagnosis breast cancer; breast self-examination (BSE), mammography and clinic breast examination (CBE) are accepted as screening methods [5]. Among these methods, breast self-examination (BSE) that could be learned and performed easily, harmless, economic, supply women to know her own breast tissue and recognize the changes earlier when it is performed every month regularly, protect privacy of

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women comes to the forefront [6] The most important characteristic of BES is that its raising awareness of women about breast cancer [7]. Many women could miss early diagnosis and treatment opportunity because of they don't know cancer screening applications as well as their knowledge and awareness deficiencies about breast cancer [8].

Knowledge deficiencies, sensitivity and insufficiency of benefit perception, sociocultural factors associated with women attitude and demographic characteristics are important factors that BSE performing [9, 10]. Especially, lack of conviction about regular BSE cause the application as negative. Health belief model is a basic conceptual frame that considers health problems related to behaviours [10]. According to this model perception of health affects health behaviors and health responsibility. Thus, perception of health is associated with health promotion process which is aimed to gain and maintain healthy life behaviours, directly [11]. For example, it is possible that women who perceive breast cancer is a serious problem or she tends to be in risk for breast cancer could follow BSE application or screening programs [10]. Perception of health is as important as the role of health professional in getting risk factors for breast cancer which is one of important health problems under control and health promotion. This study was conducted to investigate the relation between doing self breast exam and perception of health of the students.

Material and Method

The study was conducted to investigate the relation between doing Breast Cancer and Breast Self - Exam with perception of health of girl students attending to a university in 2014-2015 education sessions, as descriptive. Total 4679 girl students were attending to school during the study constituted of the universe and also, 869 students constituted of the sample with 3% deviation and 95% reliability level. Participant girl students from schools were determined by stratified sampling method and participants were chosen by simple randomized method. The girl students who accepted to participate to the study were recruited to the study. Before the study, ethical committee consent of one University, institute consent from schools and verbal consents of participants were obtained. Data was collected with Informative Questionnaire Form consisted from 25 questions related to sociodemographic characteristics, knowledge, attitude and behaviors about Breast Cancer and Breast Self Examination of girl students and Perception of Health Scale (PHS). Data collection forms were filled in

almost 10 minutes by face-to face technique by the researcher.

Perception of Health Scale (PHS); It is developed by Diamond and colleagues in 2007. Turkish variability and reliability study was conducted by Kadioğlu and Yıldız in 2012. PHS is a likert type scale that included in 15 items and four different sub-factors. The positive attitudes are 1th, 5th, 9th, 10th, 11th and 14th items; the negative attitudes are 2nd, 3th, 4th, 6th, 7th, 8th, 12th, 13th and 15th items. Positive statements are scored as “strongly agree= 5”, “agree= 4”, “undecided= 3”, “disagree= 2”, “strongly disagree= 1”. However negative statements are scored as opposite. Scores of scale are 15 at least, 75 at most. There are 4 subgroups of scale. Items of control center subgroup are 2nd,3th,4th,12th, and 13, of self awareness subgroup are 5th,10th, and 14th, of certainty subgroup are 6th,7th,8th,15th and of importance of health subgroup are 1th,9th and 11th. According to subgroups Cronbach Alpha values: Control center 0.90; Self-awareness 0.91; Certainty 0.91; Importance of health 0,82[12]. In our study, cronbach alpha values: Control center 0.66; Self-awareness 0.41; Certainty 0.63; Importance of health 0.53.

Statistical analysis

Data were analyzed by using SPSS/Windows/15.0 (Statistical Package for the Social Sciences) package program. They were evaluated by using descriptive statistics (mean, standard deviation, percentage) and Many Whitney U test.

Results

In Table 1, there are socio demographic features of the students. It is found that of the students; 26% were in faculty of economics and administrative sciences, 35.6% were at the first class, average of age was 20.81 ± 1.7 , average of length was 163.10 ± 5.60 , average of weight was 57.06 ± 8.37 , average of BMI was 21.46 ± 2.87 . Also 12.5% of the students smoked, of them smoked 1-10 cigarettes per day, 5.9% used alcohol, of them used alcohol sometimes and average of menarche age was 13.41 ± 1.29 . Again 11,3% of the students stated that there was a breast cancer history in their kindred relative.

There are knowledge of the students about breast cancer in Table 2. It is determined that 80.8% of them stated as breast cancer history in family was a risk factor, 67.4% told breast pain was a symptom of breast cancer.

In Table 3, their applications about BES were seen. While more than half of the students (60. 5%) stated that they knew BSE, only one in three of them (33.3%) told they did this examination. Also, 33.7% of the

students who defined they didn't do BSE told they didn't know how it was done. However, 64.7% of them who did BSE told that they did it when they remembered.

Perception of health and doing BSE are compared in Table 4. There was a significant relation between

perception of health and doing BSE ($p=0.000$). For subgroups, in every subgroups except control center, the relation between doing BSE was found significant ($p < 0.001$).

Table 1: Sociodemographic Features of the Students

Features	(X ±SD)	
Age	20.81±1.75	
Length	163.10± 5.60	
Weight	57.06±8.37	
BMI	21.46±2.87	
Age of menarche	13.41±1.29	
Department	Sayı	%
Faculty of Eco.and Administrative Sciences	226	26.0
Faculty of Science and Letters	204	23.5
Vocational School	116	13.3
Health Services Vocational School	90	10.4
Faculty of Education	70	8.1
Tourism Faculty	56	6.4
College of Health	54	6.2
Faculty of Engineering and Architecture	31	3.6
Faculty of Theology	22	2.5
Class		
1th class	309	35.6
2 nd class	296	34.1
3th class	153	17.6
4 th class	111	12.8
Status of smoking		
Smoker	109	12.5
Nonsmoker	760	87.5
Amount of smoking(n=109)		
1-10 pieces	79	72.5
11-20 pieces	23	21.1
1 package and more	7	6.5
Status of using alcohol		
Abuser	51	5.9
Non abuser	818	94.1
Amount of using alcohol (n=51)		
In special days	16	31.5
Every day	9	17.6
Sometimes	26	50.9
Breast cancer history in a kindred person		
No	771	88.7
Yes	98	11.3

Table 2: Knowledge Status of the Students about Breast Cancer

Knowledge about breast cancer	Number	%
Knowing risk factors*		
Being breast cancer history in family	702	80.8
Using cigarette and alcohol	488	56.2
Feeding with rich from oil	249	28.7
Being treated with radiotherapy in childhood	237	27.2
Using oral contraceptive	168	19.3
Not doing sport	133	15.3
Starting menstrual period in early age	91	10.5
Knowing symptoms*		
Breast pain	586	67.4
Axillar nodule	522	60.1
Swelling at breast	482	55.5
Nipple bloody discharge	280	32.2
Orange peel appearance in breast	227	26.1
Ulcer on breast	216	24.8
Nipple collapse	194	22.3
Nipple rise	81	9.3
The importance of early diagnosis		
Important	736	84.7
Have't got any idea	123	14.1
Not important	10	1.2
Knowing diagnosis methods		
Doctor examination	293	33.7
Mammography	268	30.8
BSE	176	20.3
Unknown	132	15.2

BSE: Breast Self- Examination *More than one answer was given.

Table 3: Applications of the Students about BSE

	Number	%
Knowing BSE		
Yes	526	60.5
No	343	39.5
Information source fir BSE* (n=526)		
Health professional	269	35.37
Media-mass tools	307	40.03
Friend or relative	125	16.42
Doing BSE		
Yes	289	33.3
No	580	66.7
Reason of not doing BSE (n=580)		
Not knowing how it is done	293	33.7
Thinking herself as young	107	12.3
Thinking it is not necessary	66	7.6
Having got any time to do	64	7.4
No reason	50	5.8
Starting time to do BSE (n=289)		
Since 20 years old	140	48.4
Before 20 years old	114	39.4
I don't remember	35	12.2
Time of doing BSE (n=289)		
When she remembers	187	64.8
5-7 days after menstruation	75	25.9
Before menstruation	20	6.9
During menstruation	7	2.4
Frequency of doing BSE (n=289)		
Once per month	181	62.7
Once per year	40	13.8
If she remembers	41	14.2
Once per week	27	9.3

BSE: Breast Self- Examination *More than one answer was given.

Table 4: Comparison of perception of health and doing BSE

BSE	PHS	Control center subgroup	Certainty subgroup	Importance of health subgroup	Self awareness subgroup
Did	52.01±6.56	16.82±3.92	12.20±3.30	11.88±2.20	11.10±2.16
Didn't do	49.69±6.22	16.44±3.69	11.20±2.98	11.36±2.23	10.67±2.11
U	65626.500	78007.000	68797.000	71462.500	72799.000
P	0.000	.095	.000	.000	.001

BSE: Breast Self- Examination *PHS*: Perception of Health Scale *U*: ManyWhitney U test

Discussion and Conclusion

It is estimated that 90% of the lump in breast were determined by women and 20-25% of these were malignancy. Therefore, learning BSE and performing it regularly by the women over 20 years old could supply early diagnosis and treatment of any possible breast cancer [13]. More than four in five of the students stated that early diagnosis is important in breast cancer; more than half of them told that they know doing BSE and one in three of them did this examination. In a study in United Arab Emirates with university students, it is found that 22.7% of the students did BSE but only 3% of them did it every month [14]. In a study of Wardle and colleagues (1995) 16,486 students from 20 different European countries were investigated and it is determined more than half of them didn't do BSE, only 8% did it monthly [15]. In a study of Pengpid and Peltzer (2014), 10,810 students in 24 middle and low income countries were asked and it is found more than half of them didn't do BSE at last 12 months [16]. In Korea, 27% of 2186 university students did BSE [17], in Egypt 1.3% of them did BSE every month and 47.7% didn't know how to do BSE [18]. In Turkey, the studies about BSE on students were conducted with the students at health related departments, mostly. In the studies, knowing BSE in nursing and midwifery students change between 81%-82% [19,20], doing BSE rate were between 26% and 86.3% [19-24]. Again, doing BSE regular change between 13%-53.3% in health department students [19,20, 23, 24]. However, in a study of Aydın İ, (2004) on university students; it is found that more than half of the students didn't know breast self examination, 22.2% of the students did BSE as regular [25]. Again, in a study of Beydağ and Karaoğlan (2007) on university students, it is determined that of the students; 58% had not got any information, 69.5% didn't do BSE and 7.5% did it regular [26]. It is seen that more than half of the students knew BSE but rate of doing it were low, rate of doing it every month was very low both in this study and the other related studies. It could be said that this result could be associated with perception of health. In the study, perception of health was higher in the

students who did BSE (Table 4). Beliefs, attitudes and perceptions could affect the health behaviors of people [12]. Health prevention and promotion, taking health responsibility, development and taking shape of health behaviours are dependent on perception of health. According to Health Belief Model; health statue perception affects health behaviours and health responsibility [11]. In a study when age and healthy life styles of the students were investigated; it is found that self-realisation and taking health responsibility of the students 20-25 aged were higher than the others 17-21 aged [27]. Mid- twenties is an important age group in terms of starting to do BSE and having this habit, taking responsibility in protection of health. Knowing the breast tissue and recognizing the changes of the women could be supplied by doing BSE regularly [28]. Planned education about BSE for this age group and repeated education as regular intervals are important in understanding the importance of BSE and transfer to practice. In the study, the students showed the reason for not doing BSE as they didn't know how to do it (33.7%), they thought it wasn't necessary (7.6%) and they were young (12.3%) (Table 4). In literature it is possible to see similar reasons in other studies [19,21, 24, 25]. Lack of knowledge is the first line as reason for not doing BSE in both this study and the other studies conducted with the students in health related or not-related departments. Thus, it is important to give education to all girl students attending to university in terms of not missing education opportunity that is easy to reach and for considering education programs. There are some risk factors in breast cancer as; gender, age, using oral contraceptive, family history, number of birth, age of first birth, nulliparity, early menarche, late menopause, high level radiation, obesity and using alcohol consistently [29,30]. In the study, of the students; 80.8% stated breast cancer history in family, more than half stated using alcohol and cigarette were risk factors. Symptoms of breast cancer are nodules in breast and axillar region, pain, nipple collapse, discharge, ulcer on skin, edema, erythema and itching, orange peel appearance in breast [29]. Of the students; 67.4% told pain in breast, 60.1% told swelling in

axillar, 55.5% told swelling in breast as breast cancer symptoms. Again, in a study of Arslan and colleagues on nursing students, it is found that students stated that the most common symptoms of breast cancer were as nodule in breast (54.6%), pain (24.1%), and nipple collapse (% 12.8) [24].

According to Advices of National Cancer Screening Program, breast cancer screening protocol is as BSE every month, clinical breast examination every year for 20-40 aged group,; BSE every month, clinical breast examination every year and mammography in every two year for 40-69 aged group [30]. The students stated that breast cancer is diagnosed with doctor examination (33.7%), mammography (30.8%), and BSE (20.3%). It could be said that knowledge about breast cancer of the students is not enough. It is necessary to do BES rightly and effectively in order to diagnose breast cancer in early stage [31]. BSE should be done every month, regularly. Examination should be preferred to do 5-7 days after menstruation that breasts aren't strained and sensitive [29]. Again, 64.7 % of the students who told they did BSE stated that they did it when they remembered. As similar, in a study of İlhan ve ark., it is found that 29.8% of the students did BSE when they remembered [22]. It is important to do BSE at right time as well as regular in order to recognize changes in breast. In the study, it is seen that knowledge about time of doing BSE of the students is insufficient and also they were unaware of the importance of BSE that is done advised time in early diagnosis. After 20 years old, breast examination and doctor examination are needed for early diagnosis of breast cancer [30]. In the study, of the students; 48.4% did BSE since 20 years old, 39.4% started to do it before 20 years old. Abolfotouh and colleagues suggested that 74.7% of the women stated they must start to do this examination after 20 years old [8]. This result of our study shows that knowledge of the students about time of doing BSE was lack.

It is important to be given education by health education in order to do BSE as right and regular and show examination technique with supplying the students to try this. Of the students; 35.3% learned BSE from health professional, 40.0% learned from mass media. There are similar studies in literature [22,24]. This result is important in terms of showing that health professionals were insufficient in reaching the students for educations related to BSE

It is seen that more than half of the students knew BSE but rate of doing this was low and also rate of doing this examination every month as regularly was very low. Also, it is found that perception of health score in students who did examination were higher. Improving

perception of health is important in both recognizing the importance of BSE and transforming this examination to activity as well as health protection behaviors. Perceptions of people could be improved by adding health prevention and promotion courses in education programs, public service announcements through mass media tools as radio and television, activities raising awareness at health institutes.

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Ethical approval

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