

**Research Article****Knowledge, attitude and practice of female students about breast self-examination in Yasuj University of Medical Sciences in 2016****Mohammad Pirouze<sup>1</sup>, Shekufe Farhadpor<sup>2</sup>, Tahereh Moshkelgosha Ardekani<sup>3</sup>,****SeyedSaadat Gholami<sup>4</sup> and Mehrabi Saadat<sup>5\*</sup>**<sup>1,2,3</sup>BSc Student, Students Research Committee,  
Yasuj University of Medical Science, Yasuj, Iran<sup>4</sup>Medical Student, Student Research Committee,  
Yasuj University of Medical sciences, Yasuj, Iran<sup>5</sup>Assistant Professor of Thoracic Surgery,  
Department of General Surgery, Clinical Research Development Unit,  
Yasuj University of Medical Sciences, Yasuj, Iran**Corresponding Author:** Mehrabi Saadat E- mail: [dr.s.meh544@gmail.com](mailto:dr.s.meh544@gmail.com)**ABSTRACT:**

**Background and Objectives:** Breast cancer is the most common type of cancer among women, which can be controlled by early diagnosis of breast self-examination and prevented from its consequences. Considering the fact that medical students in their future work are custodians of teaching and promoting self-care behaviours, we aimed to study the knowledge, attitude and practice of female students about breast self-examination in the University of Medical Sciences in 2016.

**Methods:** This cross-sectional study was carried out on 280 female students of Yasuj University of Medical Sciences who were selected randomly. Data were collected by questionnaires and analyzed using SPSS19 software, descriptive statistics and  $\chi^2$  tests.

**Results:** The mean age of the subjects was 21.7 and the standard deviation was 1.62.27.1% of the students studied were knowledgeable, 32.1% had moderate knowledge and 40.7% had poor knowledge about breast self-examination. 58.9% of the students had a positive attitude and 41.1% had a negative attitude toward breast self-examination. Of the students, 34.6% had breast self-examination, of which 14.4% had a good performance and 38.1% had a moderate performance, and 16.4% had poor performance in their breast self-examination. There was no significant relationship between knowledge of students with age group ( $p = / 077$ ) and field of study ( $p > 05$ ), but there was a significant relationship between the history of breast maturation in relatives and knowledge about breast self-examination ( $p = 0.001$ ).

**Conclusion:** Considering the low level of knowledge of attitude and practice, it is suggested to develop educational programs for the education and empowerment of medical students who are the main proponents of health literacy and public health promotion.

**Keywords:** breast, self-examination, female students

**INTRODUCTION:**

Breast cancer is the most common cancer in women, with 25.5% of all women's cancers associated with breast cancer (1). Breast cancer is caused by the growth and distribution of uncontrolled abnormal cells, and consequently, the disease can not be controlled and can lead to death (2). This cancer is one of the major issues in global health due to its high mortality (3). According to the World Health Organization, annual breast cancer causes 519,000 deaths

worldwide. The incidence rate in Iranian women compared with advanced countries is less than 10 years old and more than 30% of patients are under the age of 30 years (4). According to the latest statistics from the Cancer Research Centre in Iran, about 8500 new cases of breast cancer are reported annually and 1,400 people die of breast cancer (5). According to recent figures from the country's national cancer registry report in 2008 in Kohgiluyeh and Boyerahmad

province, breast cancer has been the most common cancer among women in the province since the skin cancer (6). Despite the possibility of access to various methods such as breast self-examination, examination by a doctor or midwife and performing mammograms for early diagnosis, this cancer is still not diagnosed in most cases in the early stages (that is, where most of them are treatable). But in Western countries, because of the majority of women's use of diagnostic methods, the mortality rate of this disease has been greatly reduced (7). In young women due to dense breast tissue, mammography has a low sensitivity and clinical examinations may also not be carried out regularly, so breast self-examination is the only early diagnosis and early stage control that even in European legislation has been nominated for Breast Cancer (8). Based on the American Cancer Society, finding and reporting breast changes through breast self-examination is a good opportunity to reduce breast cancer deaths (9).

Breast self-examination is one of the early detection methods for breast cancer that can easily be done, does not require financial costs for the individual, and does not require the equipment and the presence of trained personnel. This is a simple, effective, and inexpensive method for early diagnosis of breast cancer that can be done for most women. This procedure takes only 10 to 20 minutes every month, from the age of 20, every woman should check their breasts at the end of her menstrual period. By learning the correct procedure, small cubes of 1 cm can be detected by the patient (4, 10). The American Cancer Society recommends monthly and continuous breast self-examination for women over the age of 20 and especially for those older than 35 years of age (11). In the first monthly examinations, which is done correctly, it is possible for women to become familiar with their natural breast properties, and by performing an examination in the following months, or recognizing their natural state of breast, in the event of any change, They will notice it (7). In general, improving the awareness of women in society about breast cancer can have a significant effect on their overall performance.

Various studies have shown that the rate of breast self-examination in Iran is low and the main reason for this is the lack of knowledge about breast self-examination. Studies have shown that women who are more aware of breast self-examination are more likely to do this test correctly (4).

Because having knowledge can affect the performance of women, and given that the educated people, especially medical students, with regard to the profession they have in the future, can educate and promote self-care behaviors for early diagnosis during illness, we decided to carry out a study aimed at investigating the knowledge, attitude and practice of female students about breast self-examination in the University of Medical Sciences in 2016.

#### **METHOD:**

This is a descriptive cross-sectional study. We selected 280 female students of Yasuj University of Medical Sciences by simple random sampling. The data collecting tool was a questionnaire containing demographic questions and questions about knowledge and attitude and practice about breast self-examination. This questionnaire consisted of 4 parts (demographic questions, performance, attitude and knowledge) including: 11 demographic questions, 10 questions of practice, 10 questions of attitude and 10 questions for measuring awareness. For ranking, 10 points were given in terms of level of knowledge, Individuals were classified into 3 weak knowledge categories (score less than 4), moderate (4 to 7 points), and good (score more than 7) according to the score obtained (each correct answer 1 point and any wrong answer zero score). In examining the attitude of the samples, 10 questions related to the opinions of the individuals in relation to the breast self-examination and its importance in early diagnosis of breast cancer were used and students were asked to comment on a 5-point Likert scale (I totally agree, agree, I have no opinion, I disagree with it and I totally disagree) and after concluding the scores were placed in the two groups, there was a negative attitude (score of 10-30) and positive attitude (score more than 30). The participants' performance

was assessed in 10 questions in a questionnaire. Samples were asked to answer the questions in this section if they performed self-examination of the breast and people were given a score (each correct answer One point and every wrong answer zero points), to poor performance (score less than 4), moderate (points 4 to 7) and good performance (score more than 7). The data were analysed using SPSS19 and descriptive statistics and  $\chi^2$ .

**RESULTS:** According to the findings, the mean age of the subjects was  $1.62 \pm 21.7$  years. 245 Characteristics of the population studied

(87.5%) students were single and 34 (12.1%) were married. 27 (9.6%) of the subjects had a history of breast cancer among their relatives and 253 (90.4%) of the subjects had no history of breast cancer in their relatives. The most information obtained from the sources was as follows the staff of health centers (47.5%), group media (23.9%), books (12.5%), friends (6.7%), academic courses (5.7%) and families (3.5%) of students' information.

Variable		percentage	abundance
age categories	Less than 20 years	12.1	34
	20 to 24 years	63.9	193
	More than 24 years	18.9	53
Marital status	Single	87.5	245
	Married	12.5	35
Field of Study	general Hygiene	22.5	63
	Environmental Health	16.1	45
	Radiology	7.9	22
	Surgical technology	5.4	15
	Midwifery	5.4	15
	Nursing	12.1	34
	General Medicine	8.6	24
	Nutrition	7.1	20
	Dental	7.1	20
	Laboratory science	5.7	16
	anesthesiology	4.3	12
	Anesthetics	9.6	27
	Family history	With family history	90.4
No family history		47.5	133
Source Of information	Personnel of health centers	23.9	67
	Group media	12.5	35
	Book	6.7	19
	Friends	5.7	16
	University courses	3.5	10

The results showed that 76 people (27.1%) of subjects had good knowledge, 90 (32.1%) had moderate awareness and 114 (40.7%) had poor knowledge about breast self-examination. Twenty-five people with a history of breast disease in their relatives had a good knowledge of breast self-examination. Students in radiology (68.1% of them had good knowledge) had the highest knowledge and dental students (15% of them had good knowledge) had the least knowledge about breast self-examination. There was no significant relationship between age group and knowledge of students about breast self-examination ( $p = 0.077$ ). There was no significant relationship between field of study with knowledge of students about breast self-examination ( $p > 0.05$ ) but there was a significant relationship between the history of breast maturation in relatives and knowledge about breast self-examination ( $p = 0.001$ ).

awareness	abundance	percentage
Good	<b>76</b>	27.1
Average	<b>90</b>	32.1
Weak	<b>114</b>	40.7

165 of the students (58.9%) had a positive attitude and 115 of them (41.1%) had a negative attitude toward breast self-examination. Students had a significant relationship with their attitude ( $p < 0.05$ ).

There was no significant relationship between the attitude of the subjects and their knowledge ( $p = / 023$ ). Of the subjects, 183 (65.3%) patients did not have breast self-examination, and only 97 (34.6%) had breast self-examination, of which 14 people(14.4%) had good functioning , 37 people (38.1%) had moderate performance and 46 people (16.4%) had poor performance in breast self-examination. Of the students who performed breast self-examination, 63people (64.9%) know the right time to begin breast self-examination.

Awareness attitude	well		moderate		poor		total	
	number	percentage	number	percentage	number	percentage	number	percentage
Positive	45	16.07	57	20.3	63	22.5	165	58.9
negative	31	11.07	33	11.7	51	18.2	115	41.1
total	76	27.1	90	32.1	114	40.7	280	100

**DISCUSSION AND CONCLUSION:**

This study showed the level of knowledge, attitude and practice of female students of Yasuj University of Medical Sciences about breast self-examination. Majority of the studied students (40.7%) had poor knowledge, which was different from the results of the study by Fayyazi et al., Which was performed on 237 female students of Ahvaz University of medical sciences and 43.9% of them had good knowledge (4). Results of this study was similar to the results of various studies in developing countries, including Rosmawati in Malaysia and Doshi et al., In India, which indicates an inadequate knowledge of breast self-examination (12, 13). The study by Carelli et al. In Sao Paulo, Brazil, suggests that most women are aware of breast self-examination (14). In the study of Tu and colleagues in the United States, 75% of the subjects have full knowledge of breast self-examination (15).

The present study showed no significant difference between the age of the subjects and their knowledge, but the results of Fazel et al. Study on women over the age of 20 years in Sabzevar indicate that there is a relationship between age and awareness, and with increasing age, knowledge about breast self-examination decreases (16). The reason for this difference is that the difference in the age of the students studied in the current study was much lower than that of Fazel et al., and they all had a roughly one age range.

In this study, 58.9% of the students had a positive attitude about breast self-examination. In the study of Ghorbani and colleagues, Gorgan's women had a moderate upward view about breast self-examination (17). Also, in the

Aalae study, 78% of Shahroud health volunteers had positive attitude about breast self-examination (18). In Naghibi and colleague study, 76.4% of female health care provider had a positive attitude about breast self-examination (19). Bech et al. Studied a study in 1258 women in Turkey in 2005 that showed that the majority of subjects had a positive awareness of breast self-examination (20). Of the students, only 97 (34.6%) of them had self-examination of the breast, of which 14 (14.4%) had good function, 37 (38.1%) had moderate and 46 (16/4%) had poor performance in breast self-examination. The results of many studies in other parts of the country, such as the present study, have described poor performance in breast self-examination. These include the following:

In the study of Khani et al., despite the knowledge and attitude about breast self-examination and clinical examination, which are effective methods for the prevention and early diagnosis of breast cancer, in practice, the results were not favorable and only 26.2% of the companies each month they were doing it regularly (11). Of the women referred to Zabul health centers, in the study of Mahmoudi et al, only 16 (6/5%) were regular and 24 had irregular and occasional breast self-examination, which showed poor performance in the field of breast self-examination (21).The study by Yavary et al. showed that the performance of the subjects is low in breast self-examination (22). Nde et al.'s study, which was conducted on 166 female students at the University of Buea in Cameroon in 2014, showed that the subjects had poor performance in their breast self-examination (23).

The poor performance of breast self-examination in the current study and the above studies can be due to lack of necessary measures to promote the development of early diagnosis and screening for breast cancer. According to this study, the most reliable source for information on breast self-examination is health centers, which is similar to Rostad et al.'s study on Fasa's women and the source of information that was the first way to obtain information on breast self-examination is similar, which these results in the effect of The level of knowledge, attitude and practice of female students about self-examination and breast cancer is very important for health care workers (7). Considering the low score of knowledge and performance of students in this study about breast self-examination and the increasing in breast cancer in this province and other parts of the country and the second place of the cancer in terms of prevalence in women in the country and that it can be done with using such methods as self Breast testing ,has taken good measures to prevent breast cancer and diagnose it early. It is suggested that by providing appropriate and cost-effective strategies to increase awareness and attitude, and thus the performance of women in the community, and in particular medical students, who in the future will be a source for promoting health literacy and promoting the health of the community.

#### REFERENCES:

1. RuhParvarzade N, Ghaderi M. Parsa A, Prevalence of breast cancer risk factors in women aged 20-69 in Isfahan, Journal of Breast Disorders in Iran, 2014; 7 (1): 52-61.
2. American cancer society. Cancer fact& figures 2010. Atlanta: American cancer society; 2010.
3. Doshi D, Reddy BS, Kulkarni S, Karunakar P. Breast self-examination: knowledge, attitude, and practice among female dental students in Hyderabad City, India. Indian journal of palliative care. 2012;18(1):68.
4. Fayyazi S., Aarabi M., Bagheri M, A survey on the knowledge, attitude and practice of breast self-examination in female students of Ahwaz University of Medical Sciences, Bimonthly Journal of Scientific Research by jentashapyer. 2013; 4 (1): 73-79.
5. Taher Govabi Z, Moedi M, Mesbahzadeh M., Breast Cancer, A Preventive disease, Journal of the Birjand University of Medical Sciences. 2014; 21 (2): 126-141.
6. National Report on Cancer Registry in 2008, Center for Disease Control, Non-Communicable Diseases Unit, Cancer Department.
7. Rastad H, Shokouhi L, Dehghani L, Knowledge and Practice of Fasa Women in Breast Cancer in 2011, Journal of the Fasa University of Medical Sciences. 2013; 3 (1): 75.8.
8. Akbarzadeh M , ZangiAbadi M , Moatari M, Comparison of the effect of breast self-examination by peers and health personnel on knowledge and attitude of students, Iranian Journal of Medical Education, 2008; 8 (2): 195-203.
9. Bintisuit N, knowledge and practice of breast self-examination among female undergraduate students in Malaysia Sarawak University. Faculty of Medicine and University of Malaysia Sarawak 2010.
10. Anvari K, MousaviH, Kavoosi F, Knowledge, attitude and practice of female students of Mashhad University of Medical Sciences regarding risk factors, early diagnosis and breast cancer prevention methods. Journal of Breast Diseases of Iran, Fifth Year, Number Two and Third, 2012; 5 (2 and 3): 30-41.
11. Khani H, Moslemizadeh N, Montazeri A, Knowledge, Attitude and Practice of Health Workers to Breast Cancer Prevention Programs in the South Caspian Sea, Iranian Journal of Breast Diseases. 2008; 1 (2): 28-37.
12. Rosmawati NN. Knowledge, Attitude and Practice of Breast Self-examination Among Women in a Suburban Area in Terengganu, Malaysia. Asian Pacific J Cancer Prev, 2010; 11: 1503-1508.
13. Doshi D, Reddy BS, Kulkarni S, Karunakar P. Breast Self-examination: Knowledge, Attitude, and Practice among Female Dental Students in Hyderabad City, India. Indian J Palliat Care. 2012; 18 (1): 68-73.

14. Carelli I, Pompei LM, Mattos CS, Ferreira HG, Pescuma R, Fernandes CE, Peixoto S. Knowledge, attitude and practice of breast self-examination in a female population in Sao Paulo. *Breast* 2008; 17 (3): 270-274.
15. Tu SP, Reisch LM, Taplin SH, Kreuter W, Elmore JG. Breast self-examination: Self-reported frequency, quality, and associated outcomes. *J Cancer Educ* 2006; 21 (3): 175-81.
16. Fazel N, Akbarnejad R, Ostaji Z, Akaberi A. Evaluation of awareness and practice of women over 20 years of age on breast self-examination. *Journal of Breast Disorders in Iran*. 2010; 3 (1 and 2): 49-54.
17. Ghorbani M, Abdollahi A, Royani S, Azizi R. Comparison of Knowledge, Attitude and Practice of Women in Different Occupations of Gorgan City toward Breast Self-Examination 2009. *Journal of Iranian Breast Cancer*. 2009; 2 (3 and 4): 36-42.
18. AlaeiNezhad F, Abbasian M, DelourianZadeh M. Evaluation of knowledge, attitude and skill of health volunteers in Shahroud city about breast self-examination. *Journal Of Knowledge and Health*. 2007; 2 (2).
19. Neghibi S A, Negaresh, VahidShahi K, YazdaniG, Noshnayi F. Knowledge, Attitude and Practice of Female Health Care Provider in Maku Region about Breast Self-Examination. 2011; 2 (2): 61-68.
20. Bech M, Sørensen J, Lauridsen J. Eliciting women's preferences for a training program in breast self-examination: A conjoint ranking experiment. *Value in health*. 2005; 8 (4): 479-87.
21. Mahmoudi A, Ramezani A. Knowledge, attitude and practice of women referring to health centers of Zabol about Breast self-examination based on Health Belief Model (2009). *Journal of Nursing and Midwifery Faculty, Birjand University of Medical Sciences*. 2011; 8 (2): 65-72.
22. Yavari P, Mehrabi Y, Pourhosseingholi M. Knowledge and practice about breast self-examination. 2005; 5 (4): 371-377.
23. Nde FP, Assob JC, Kwenti TE, Njunda AL, Tainenbe TR. Knowledge, attitude and practice of breast self-examination among female undergraduate students at Buea University. *BMC research notes*. 2015 15; 8 (1): 4.