Background: Breast cancer is the most common cancer in women. Improving knowledge and practice level regarding breast cancer screening will reduce the mortality rate of breast cancer. This study assessed female staff knowledge, attitude and practice (KAP) about breast cancer screening to determine educational preference.

Methods: This descriptive-analytical study was conducted in Vaseie hospital of Sabzevar, among female staff who were twenty years old or older. A sample size of 82 from a population of 115 produced a 95% confidence interval. Data was collected with a questionnaire, and were analyzed by spearman’s correlation coefficient and one way ANOVA.

Results: The mean knowledge score was 42.68±5.19. A very positive attitude to BSE was seen in 77.5%, to physical exam in 44.6%, positive attitude to BSE was seen in 77.5%, to physical exam in 44.6%, breast cancer was the most common cancer in women, 63.8% of the people had already done BSE, 11% of the people had done mammography, 2/62% had done mammography and had better practice (P=0.019). No correlation between KAP score and breast cancer risk factors except positive family history.

Keywords: Attitude; Breast Cancer; Knowledge; Practice; Mammography

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INTRODUCTION

Cancer is the second most common cause of mortality in developed countries and the third cause of mortality in Iran and other developing countries. Breast cancer is the most common cancer in women(1). Persian women suffering from breast cancer are at least one decade younger than women in developed countries (2). In the U.S. approximately one out of every 8 women suffers from breast cancer (3). Early diagnosis of this disease is very effective in its treatment. Screening methods are the best way to detect the disease (3-5). Screening methods for breast cancer include: 1) doing Breast Self Exam (BSE) monthly from the age twenty .2) clinical examination by a physician (Clinical Breast Exam = CBE) every three years between 20-40 years old and then every year. 3) Mammography at 40 and then every 2-3 years (5- 8). A study on 30239 patients has shown that breast cancer screening will reduce mortality up to 30%.( 6)

Therefore, breast cancer screening education has an effective role in reducing the mortality of this common cancer. Before planning each education, the need for education should be assessed (9) therefore KAP (knowledge, attitude and practice) study should be done. Such studies not only help in recognizing the need for health education but also are necessary for the next evaluation of health education by understanding the behavior change of knowledge, attitude and practice. Awareness is data collection in brain in order to use them or recording this information. Attitude reflects physical and psychological tendency towards surrounding issues and usually comes after knowledge. Behavior is the way the individual acts. Although the KAP study has limitations, it is necessary for planning education of individuals, groups, or society (9). KAP study about breast cancer screening methods in urban cities such as Boroujen, Ilam, Sari, Gorgan, Kashan have shown that knowledge was poor, attitude was average, and practice was poor (10-15). While the knowledge and practice of Iranians is less than developed countries (18-16), such a study has not been done in Sabzevar.

Therefore, knowledge, attitude, and practice study regarding breast cancer screening in Vassie hospital is important for several reasons (6). First, breast cancer is easily detectable with screening methods and screening of breast cancer decreases mortality rate by 30% (6). Secondly, breast cancer is the third cause of mortality in Iran (1) and special attention should be paid to it. Third, although many studies have examined the knowledge, attitude, and practice toward breast cancer screening methods in different countries, for educational planning in every country data of that country is needed. Although the Khorasan province of Iran, is one of the places with the highest incidence of breast cancer(1) such a study has not been done so far in Sabzevar. Forth, hospital staff all communicate with patients and their awareness in this field will be useful not only for themselves but also for their patients. On the other hand, most studies in Iran have assessed non-medical educated people or people with little education. Hence we assessed knowledge, attitude, and of the hospital staff in Sabzevar and factors which may affect them.

METHODS

This study is a descriptive - analytical study. Research community was Vasseie hospital staff in Sabzevar in 2009. 82 samples, who accepted to participate in the study, were evaluated. Verbal consent for enrollment was obtained using a standardized script. A sample size of 82 from a population of 115 produced a 95% confidence interval(19). The exclusion criterion was age less than twenty. In this study we assessed knowledge, attitude, and practice related to breast cancer screening methods. In addition to factors which may affect them such as age, marital status, education level, parity, duration of breastfeeding, use of estrogen and progesterone hormones, the history of benign breast disease, family history of breast cancer, and economic status. Information was collected by a physician through a questionnaire that included demographic characteristics, knowledge, and attitude function questions. To prepare the questionnaire we set the tree from root to shoot. We designed some questions for branches using items from previous research. Questions were about the age of screening methods, their frequency, and the best time to do them, attitude, and performance on screening methods. The questionnaire was validated by several professors of Gynecology and Obstetrics of faculty members of Sabzevar university of Medical Sciences. Reliability of the questionnaire was 0.82 confirmed by Cronbach's Alpha test. Data was analyzed thorough the Statistical Package for the Social Sciences (SPSS, version15) by spearman’s correlation coefficient and one-way ANOVA.

RESULTS

The results showed that the mean age of subjects was 30.3±6.16 years old. 72% were married, 26.8% were single and 1.2% were widowed or divorced. The average number of pregnancies was 1.04±0.87. 52.4 percent of the people had not breastfed. History of hormone use on 73.2 percent was negative. 20.7 percent had used hormones less than 10 years and 2.4 percent had used hormones for more than 10 years. None had a history of breast malignant disease, but 1.2% of patients had a history of benign breast disease. A history of breast cancer in 9.8% of relatives was positive. In 3.7% the history of breast cancer was positive in first degree, second, and third degree relatives. 47.6% had learned BSE thorough their University books and 15.9 percent through personal knowledge and 12.2 percent thorough pamphlets. 24.4% had not learned the correct way of BSE. The average monthly salaries were 358.37±117±98 Rs. The overall mean knowledge score was 42.68±19.0. The most information about the screening procedures was related to BSE (mean knowledge score = 54.11±29.13). The general attitudes towards BSE in 18.8% of individuals were positive and 77.5 percent were confident about it. 70.7% of the people were quite willing for BSE and only 8.5% were not willing for breast self-examination. 37.8 percent have never done BSE and those who had ever done BSE were only 7.7 percent who had done it regularly and 23.1 percent had done it irregularly and 69.2 percent had seldom done it. The most common cause of not doing BSE was having no
problems. The average knowledge score regarding CBE was 27.01±26.02. 48.01% of the people knew when they should go for examination by a physician and 25.3% were informed about the frequency of CBE. 13.8% percent of those had positive attitude towards CBE. And 83.8% percent of the staff were sure of CBE usefulness. 89% had never been examined by a doctor and in 11 percent who had referred to a physician the most cause for referring was feeling a lump. 25 percent of individuals have been examined by a doctor just for screening. The average knowledge score regarding mammography was 27.01±26.02. 46% of people knew that mammography should be started from which age and 16.7% knew that it must be repeated every 3-2 years. 36.8% believed that mammography is requested only if there is a suspicious mass. Attitudes towards mammography were positive in 23.8% of individuals and 63.8% were sure about the usefulness of mammography. 36.6% of people were willing to do, but only 2.4% had mammography at that time and the reason was feeling a lump in BSE. Although 8.5 percent of people were over 40 nobody had mammography as screening. Finally 85.2% of the people had confidence in the usefulness of screening methods, and 13.6% had a positive attitude. Using the Spearman correlation coefficient, showed that the performance is significantly correlated with knowledge (correlation coefficient = 0.218). In other words, the more knowledge the better performance. People with different levels of education did not have significantly different knowledge and attitude, but the educated ones had better performance (p=0.056). Function of individuals regarding the marital status was not significantly different. Better attitude was seen in unmarried women (p=0.019). Using ANOVA tests represented that knowledge, attitude, and performance is not correlated with the history of breastfeeding and economy status. Knowledge and attitude in individuals with a history of breast cancer in relatives was not different, but those who had breast cancer in relatives had better performance (p=0.002). Among older ages, knowledge, attitude, and performance were lower, but not statistically significant.

**DISCUSSION**

In this study, the overall mean knowledge score of personnel screening methods was 42.68±19.0. While in a study conducted in Boroujen 52.5% of people were aware of one of screening methods (11). In our study most score was obtained in knowledge about BSE (mean knowledge score = 54.11±29.13). While in a study conducted in Boroujen 37.8% knew about BSE as a screening method. In a study in Saudi Arabia 39.6% of women, had heard of BSE (20). This rate was 80% in Alur batu and Kuantan (16). The better information in our study group in comparison to other cities in Iran is related to their education as a nurse or other related medical sciences. Hamoniously in a study of the hospital staff in Isfahan the knowledge score was like our study (51.5%). Unfortunately the awareness of our population is less than the American society. This indicates that the role of mass media, health care units in developed countries which constantly remind women to take a bearing on self-examination while such propaganda in a country like Iran would be less. In this study, there was a positive attitude to BSE in 77.5%, to physical examination in 83.8%, and to mammography in 63.8%. While in the study of women in Shahrekord and Brujen 13.53% and 16.7% had a positive attitude towards screening methods respectively (10). Thus, the attitude in our study is significantly better than other studies. Because attitude is less affected over time. And this issue shows how education can be effective in the case of attitude. In this study, 77.5% of people had confidence in the usefulness of self-examination while in Boroujen 43.7% were confident about the usefulness of self-examination (11). In a study conducted in Tehran, 40% (21) and in another study, 32.7% women did not believe in BSE (22). In our study, 70.7% of individuals tended to perform BSE. While in a study in Saudi Arabia and another study in Boroujen 82% tended to do BSE (11, 20). Although 83.8% believed in the usefulness of examination by a physician, and 63.8% believed in mammography, only 43.9% were willing to be examined by a physician and 36.6% tended to have mammography that could be related to the unpleasant nature of this issue as well as fear of radiation hazards.

In this study, 62.2% of people had done BSE, but only in 4.8% it was regular, which was like other studies (11, 16, 21, 23, 24). In other studies, this low level of performance and attitude is justified by low level of knowledge but our study shows that knowledge cannot always affect attitude. In a study on Korean nurses 39.5% had done self-examination during the past year which is much more than our study. In our study 11% of individuals were examined by a doctor while in 25% it was a screening visit. This rate in a study in Zabul on nurses was also 21.7% and in Boroujen 62.2% (11, 25). In this study, only 2.4%, had mammography but in Shiraz 9.1% and in Brujen 12.5% had mammography. This may be due to hospital staff awareness of the hazards of radiation. In other studies, the low number of mammograms has been attributed not only due to the cost of mammography but also to the low attitude of women. Because mammography is free for hospital personnel this issue cannot be only because mammography is expensive.

In foreign studies having mammography is more than 50% (18, 26, 27) therefore frequent recommendation among women can be effective. As in other studies the major cause of having mammography had been doctor recommendation (28-27).

Performance was significantly correlated with knowledge. So we should improve knowledge as far as we can. Attitudes of single people were better than married people (p=0.019) which is similar to other studies (29-30).

There was a history of breast cancer in their family in who had a better performance because of higher risk in these individuals and also more fear among them. The result has shown that none of the risk factors of breast disease except family history were significantly related to knowledge and practice. And the most important thing is educating people and reminder of the importance of screening method to them.

This study surely had its own limitations. The sample size was small and the simple sampling of staff assigned from one hospital can limit its generalizability.

Although knowledge and attitude about BSE in this study is more in comparison to other studies the performance is not
KAP Study of Breast Cancer Screening

better. Therefore the most important thing is not only educating people but also reminding the importance of screening method to them. Especially reminding Mammography as a useful method in adults through the mass media, health centers should be pointed for reducing the incidence of mortality from this common cancer.

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