

Knowledge, attitudes, and practice of breast self-examination among female health workers in Isfahan, Iran

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ABSTRACT

Background: Breast cancer as a most common organ cancer in women is the first cause of death among women with 40-45 years old. The only way to control this disease is early detection, that it can be treated in about 90% of women with breast cancer. The best way for early detection of breast cancer is screening, and the best accessible way is breast self-examination (BSE). Considering this fact that female health workers are responsible for improvement of public health, in addition to self-care, they can encourage the clients and help to improve healthy goals. Therefore, this study investigates the knowledge, attitudes, and practice (KAP) of BSE among female health workers. **Materials and Methods:** This descriptive cross-sectional study was done among 119 female health workers in Isfahan, working in healthcare centers. The method of sampling was clustering. KAP of these participants were assessed with KAP questionnaire. The collected data were analyzed using descriptive and inferential statistics methods. **Findings:** The mean age of participants was $38/3 \pm 7/27$. The knowledge about breast cancer and doing BSE was good (79/8%) in most participants and (72/45%) of them have positive attitudes, but only (39/5%) of the samples performed BSE regularly every month. A significant relationship was found between the attitudes and the university degree of the health workers and also between age, university degree, and the times of taking part in education classes with performing BSE in the best time for BSE ($P < 0.005$). A total of 12/6% of them did not have a good performance. **Conclusion:** Considering that health workers can play an important role in encouraging the clients to perform healthy and preventive behaviors, their weak behavior is not acceptable in these groups. This result also shows that additional studies are needed to identify the factors that make women using screening services and encourage them for using these methods.

Key words: Attitudes, breast self-examination, health workers, knowledge, practice

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INTRODUCTION

Nowadays, the cancer is the second cause of death throughout the world.^[1] The breast cancer is the most organ cancer among the women and the first cause of death among the women in the age of 40-45. The breast cancer includes 35% of all cancer cases and totally is the cause of death, if 19% of women suffering cancer.^[2] In the recent studies, the breast cancer is assumed to be the most common type of malignant cancer among American women. The rate of breast cancer in the U.S. is one people out of 8 and is expected to be the second factor of the women's death.^[3] The possibility of

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occurrence of breast cancer in England is supposed to be one among 12 women, in the Australia one among 13 women, and this rate is lower in the Asian countries.^[4] However, the detection of breast cancer in the developing cancer is low in comparison to the developed countries,^[5] but 50% of the aforesaid cancers in such countries are detected.^[6,7] The cases of breast cancer has been increasing about 2% since the year 1980. However its increase, the rate of the death caused by breast cancer was decreased in the past 40 years. This may be because of early detection and the existing treatments.^[4]

This cancer is also common in Iran. According to the statistics based on the referenced patients in Iranian Cancer Institute, the breast cancer is the second common cancer in the country.^[8]

The outbreak of breast cancer is more common in women in comparison to the men. Such outbreak is commonly around the age of 40 and after menopause period. Genetic factors, pregnancy in old ages, menopause after the age of 55, and the experience of other cancers like urometer and ovary are among the risk factors in the breast cancer.^[9]

However, the recent developments in the field of molecular biology are trying to clear the reasons of breast cancer,^[10] but there is no substantial way to treat this cancer. Now, early detection of this cancer is the only way to take action against it.^[11] If the breast cancer is detected in early stages, it can be treated in more than 90% of patients.^[12]

One of the best ways to early detection of this cancer is screening.^[9] The best acceptable ways of screening for the breast cancer which is advised by the American Cancer Society are breast self-examination (BSE), clinical examination by the physicians or healthcare providers (Clinical Breast Examination), mammography and magnetic resonance imaging.^[13] BSE from economical and human viewpoints has many benefits in comparison to two other methods, because it can be performed without any cost and is available everywhere.^[14] Surveys show that performing continuous BSE causes a decrease rate of 3.1% in breast cancer cases with interfacing axillary lymph.^[15]

It is expected that healthcare providers who undertook to maintain and develop the society's health, should have a higher level of knowledge, attitudes, and practice (KAP) in the field of healthy behaviors. Current study was planned with the aim of assessing the KAP of Isfahan's women healthcare providers about BSE. And, its applicable aim was conducting the accurate educational needs in the subjects in order to develop KAP of this group in the field of BSE.

MATERIALS AND METHODS

The current cross-sectional descriptive study was conducted on 121 women healthcare providers of health centers of Isfahan University of Medical Science. This number of subject selected according to this formula: $n = \frac{N \cdot z^2 \cdot s^2}{N \cdot d^2 + z^2 \cdot s^2}$. In this

formula, $N = 420$ (total female healthcare providers of Isfahan working in healthcare centers at the time of our study).

Among the health and treatment centers affiliated by health network nos. 2 and 3 in Isfahan, 22 centers were elected on random sampling basis.

Female healthcare providers of these centers, who hold medical academic certificates in the fields of medicine, nursery, midwifery, and health, were examined with a questionnaire in four sections. Among 121 completed questionnaires, two of them were voided due to incompleteness and 119 of them which had required criteria were analyzed.

The applied questionnaire of this study included 42 questions with the following subclasses: Six question to determine demographic particulars, seven question to assess the awareness of BSE correct performing, 10 questions to assess the applicants' attitude about BSE, and six questions to assess the performance of BSE on the examining people.

In order to assess the awareness of the population, the awareness assessment questions were graded as 1, 0, 0 for true, false, and I do not know answers, respectively. For each person, the grade of awareness section was calculated from different sections (symptoms, risk factors, and correct type of performance). In addition to this grade, the three-sectional awareness questions were calculated for different groups in respect of demographic particulars and then were compared with each other.

The five-choice questions of Attitude section was graded based on Likert scale, which were graded as 4 for "I am completely agree", 3 for "I'm agree", 2 for "No idea", 1 for "I'm disagree", and 0 for "I'm completely disagree", and after summation of points, they were classified in two groups under the titles of Positive Attitude and Negative Attitude. People whose answers were "agree" or "completely agree" were classified as positive attitude and people with "disagree" or "completely disagree" answers as negative attitude.

In performance assessment section, the answers were as "I do" and "I don't do", which were graded as 1 and 0 points, respectively.

Validity of the questionnaire proved by the qualified masters and its reliability was assessed by Cronbach's alpha test. Its point in the awareness section was as 88%, in the attitude section as 71%, and in the performance section as 83%. After collecting the information and grading the questionnaires, the data were analyzed by IBM SPSS version 16 software using descriptive and inferential statistical methods.

RESULTS

This investigation was conducted on 119 healthcare providers of Isfahan Healthcare Centers. The average age of the population was 38.2 ± 7.27 years. A total of 79.7% of the participants were married, and 12.6% of them had

a family experience of cancer. And, 37% of the population was graduated with midwifery certificate, 37% health, 59% nursing, and 18.50% medical. Also, 41.2% of the subjects were employed 5-15 years ago and 55.56% of them were attended in refresher courses of BSE for 1 to 5 times.

The results of this study showed that the average grade of the participants in awareness of breast cancer symptoms (71.57%), its risk factors (77.15%), and how to do BSE (87.64%), in attitude section (72.45%), in performance section (72.33%). totally the awareness of healthcare providers was 77.83%. Results show that the majority of applicants according to their own saying have a complete knowledge about breast cancer as the following percentage: About symptoms of breast cancer (71.57%), about its risk factor (77.15%), about BSE doing (87.64%), in a way that the number of 79.8% had an acceptable good knowledge in this regard. According to the results of this investigation, there is no any significant relationship between the awareness of healthcare providers and their demographic particulars.

For evaluation of attitude of the healthcare providers, 10 five-choice questions were planned with the answers as: "Completely agree, agree, no idea, disagree, and completely disagree". The majority of the applicants had a positive attitude to BSE in way it was 72.45% among them. The answers of the interviewee's show that 96.9% of them were completely agree with "every woman is at risk of breast cancer". A total of 94.2% of them were completely agree and agree with "the given person will have a standard life providing early detection of the breast cancer". And 96.7% of them were completely agreed or agree with "we prefer to be visited by a women doctor in order to perform breast exam".

While 66.4% of the population was completely agree and agree with "most of the women are not aware of the appropriate way of their breast exam". This issue can emerge the momentous role of this health care providers as a counselor for help seekers in order to apply healthcares and preventives.

The comparison between the academic certificate and positive attitude was significant ($P < 0.05$), in a way that the physicians had more positive attitude in comparison with the others.

The results show that the average grade of performance of BSE in the subjects was 72.33%. A total of 66.4% of the population perform BSE on the appropriate time and after menstrual period. The results showed that there is a significant statistical relationship between the age, academic certificate, number of participations in refresher courses of BSE on appropriate time ($P < 0.05$), in a way that the participants over the age of 45 years old, with the participation experience of 1 to 5 times in the refresher courses in this field and the participants with academic certificate of midwifery perform BSE on appropriate time and after menstrual period more than the others.

And 39.50% of the participants perform the BSE on regular monthly times, 9.2% between 7 to 11 times in a year, 34.50%

between 1 to 6 time in a year, and 12.6% do not perform BSE ever.

DISCUSSION

In this investigation, KAP performance of BSE of women healthcare providers in Isfahan Healthcare Centers was studied. These female healthcare providers, as a consuler for clients (i.e., other women who seek health services) and at the same time for self-care as a woman, can play an important role in developing health and preventive aims like BSE in the society.

This issue is important because the well-training of BSE is possible if the healthcare providers have a high knowledge and a positive attitude and appropriate performance in this regard.

The results of this investigation show that 79.8% of the population had a good and acceptable knowledge of BSE and its performance method; 20.2% of them had an average level of knowledge. These results were similar with the results of Carelli *et al.*,^[15] investigation and showed that 86.1% of the women had a very high level of knowledge about BSE, its prevention methods, and necessity of its performance. Hacıhasanoğlu and Gözümlü^[16] reported the level of women's knowledge about BSE as 68.1%.

In the investigation conducted by Naghibi *et al.*,^[17] in Makoo Township, 50.6% of the population had a good knowledge and 49.2% of them had a moderate level of knowledge. But contrary to these results, in the investigations of Mojahed *et al.*,^[18] conducted on nursing and midwifery personnel of Yazd Hospital with the subject of BSE, only 13.21% of the population had a good level of knowledge, most of them had a moderate and low level of knowledge in this field.

Results showed that the age, marital status, family experience, academic certificate, work experience, and the number of refresher courses he/she participates do not affect the level of knowledge of the population. But contrary to our investigation, in the investigation of Dadkhah and Mohammadi^[10] in Ardebil, there is a significant relationship between the level of knowledge and age and marital status. In the investigation of Mojahed *et al.*,^[18] there was also a significant, statistical relationship between the level of knowledge of the participants and academic certificate and the experience of participating in the refresher courses.

The results of the current study showed that 72.45% of the personnel had a positive attitude about BSE. A large percentage of the women were completely agree and agree with "the majority of women are not aware of a correct method of BSE", and these results show the momentous role of this group in developing the health and preventive aims. Also, there is a positive significant relationship between performing BSE and academic certificate.

In the investigation of Alai *et al.*,^[19] conducted in Shahroud, 78% of the population had a positive attitude about BSE. In the investigation of Danesh *et al.*,^[2] in Shahrekord, 75.88% of the population had a moderate attitude about BSE. Investigation of Ceber *et al.*,^[20] in Turkey showed that the attitude and performance of the population was lower than the expectancy level.

The results of investigation of Khashabi *et al.*,^[21] showed that the majority of the women assumed the BSE as a concern. However, different studies show that the development of level of knowledge and the society's attitude about BSE can play a positive role on screening performances of the society's women.^[22,23]

The study conducted on performance of women in this population showed that 66.4% of the population perform the BSE correctly and on appropriate time after menstrual period but did not discontinued. A total of 12.6% of healthcare providers do not perform BSE, and only 39.5% of the population performs the BSE regularly every month.

Because most of the population had a good level of knowledge in this field, it can be concluded that having a good level of knowledge can help to perform the BSE correctly, but it does not play any role in performing the BSE regularly. The investigation of Dadkhah and Mohammadi^[10] in Ardebil showed that 17.3% of the population had never done the BSE, and only 10.7% of the population performs the BSE regularly every month. Tastan *et al.*,^[24] found that 47.2% of our nurses performed BSE regularly every month. Studies on female healthcare staff have reported regular BSE performance rates of 6%-83%.^[25-29]

In the investigation conducted in U.S., 98% of the population was aware of correct method of performing BSE and 58% of them performed the BSE.^[30]

In the current study, there is a significant statistical relationship between the age, academic certificate, and the number of participation in refresher courses with performing the screening on its appropriate time. Regarding that the participants who take part more in refresher courses, perform the BSE on its appropriate time, and this emerges the necessity of education which is in line with the results of investigation of Alai *et al.*^[19]

Karayurt^[29] also found in their investigation that the cultural and educational factors are effective on performing BSE. There was no significant statistical relationship between the level of knowledge and attitude of the healthcare providers. With developing the level of knowledge and make their attitude more positive, their performance did not developed.

It seems that the study limitations include the limited number of the population, its place (i.e., just in Isfahan), and also self-reported data collecting.

Totally and according to the results of this investigation, it can be concluded that Isfahan Healthcare providers have a good knowledge and attitude but their performance (i.e., BSE) was not so acceptable. These people are trainers, developers, and pioneers of the society's health. This unacceptable result may be due to various social, economic, and cultural factors, or other factors like, fear of detection of abnormal cases, lack of understanding of the topic, beliefs, and cultural barriers.

Considering that the majority of healthcare providers were interested in taking part in training programs through receiving handouts and training manual movie, or continuous training programs held by existing educational, health and treatment systems, so it appears necessary to implement this training plan for the healthcare providers in all levels.

What is needless to say is that, the accurate programs of evaluation, developing the level of KAP and performance of healthcare providers and other health personnel must be followed seriously, so that their performance will be developed just like as the investigations of Fry and Prentice-Dunn^[30] conducted in U.S. in the year 2006 resulted in their healthcare providers' development. The results of this investigation can be used by education system's managers and planners as a documentation of the existing manpower's quality in the health section.

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