

ORIGINAL ARTICLE

The Knowledge and Practice of Breast Cancer Screening Among Women in Kerman, Iran

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Abstract: *Introduction:* Breast cancer is the most common cancer in women, and if diagnosed on time, the chance of treatment will increase. There is limited information about the knowledge and practice of Iranian women about early detection of breast cancer and in this study we aimed to investigate it in Kerman. *Methods:* This was a cross-sectional study done on 120 women; from 6 randomly selected maternal and childcare centers spread around Kerman, women were questioned about the primary signs of breast cancer and the screening methods. *Results:* The results show that 70% of women thought that with on time detection, breast cancer can be successfully treated, but 47% had no idea about any screening method. The most common breast cancer sign mentioned by women was a painless lump. Breast self examination as the easiest and cheapest screening method was never done in 51% of women. The most common reason for not performing screening tests in the participants, was not knowing anything about it. *Conclusion:* Although breast cancer when diagnosed on time is treatable, the knowledge and attitude of Iranian women about breast cancer screening and the signs of breast cancer are very low. Educational programs to increase women's knowledge about breast cancer should be foreseen and performed.

Keywords: Breast Cancer Screening, Knowledge, Practice, Kerman

Introduction

In the world today, cancer is one of the main human dilemmas and one of the main causes of mortality. In Iran, cancer is the third cause of death. Breast cancer is known as the first most common cancer among women worldwide and is one of the main causes of death from cancer in women [1]. Women in any age range are at risk of breast cancer and the risk increases with age. Breast cancer incidence is increasing in the world and increased rates have been also reported in Iran [2]. Despite the development of advanced technology in detecting and treating breast cancer, the mortality rate is still high and still breast cancer is the main cause of cancer mortality in women 40 to 44 years old. Its incidence in the third world countries is about 50% of its incidence in the world. One reason is early detection through screening programs in developed countries [3]. Various Epidemiologic studies have shown that increased women's knowledge about early diagnosis and screening of breast cancer can remove the obstacles for early diagnosis and treatment of breast cancer and can change people's screening seeking behavior [1,3]. Although breast cancer incidence is high and it can be aggressive, it has been proven that diagnosis in the right time frame and appropriate treatment will increase the chance of recovery and life expectancy of more than 90% of the breast cancer patients [2].

The screening methods for breast cancer are among the best and most effective methods for decreasing cancer mortality. These methods increase recovery rates and promote positive treatment consequences [4]. There are different ways for early diagnosis of breast cancer which are breast self examination, physical examination by a physician and mammography. Unfortunately, although all of these methods are available and accessible, many breast cancer cases are discovered when there is no hope of treatment, especially in developing countries. On the other hand studies have shown that women who know about breast cancer and its screening methods, perform them more correctly and regularly and have a better chance of early detection [2]. In this study we aimed to survey the knowledge, attitude and practice of breast cancer screening methods. This is the first study done about this topic in Kerman, Iran. It was necessary to conduct this study to estimate the knowledge, attitude and practice of breast cancer screening in these women, in order to be able to organize educational or informational programs for women's health promotion.

Material and Methods

A cross sectional study was conducted in autumn 2010 in Kerman, Iran. Six different health centers were randomly chosen from different parts of the city and permission was sought from the center managers in advance. On a predetermined day two researchers went to the health center, and as people came they would introduce themselves and explain the study and ask people to participate, then after consent they would fill a questionnaire for the visiting women. If the woman did not agree to participate the next visiting woman would be asked to participate. Personal identifiable information was not recorded. The questionnaire included demographic information, questions about breast cancer signs and questions about breast cancer screening methods. The validity of the questionnaire was confirmed by expert opinion and its reliability was confirmed in a pilot done in advance. One hundred and twenty women participated in the study. The data was analyzed using SPSS software.

Results

Table-1: The demographics of the population		
		Percent
Age	15 to 20	9.2
	21 to 40	58.1
	Over 40	32.7
Marital Status	Married	85.7
	Single	13.4
	Divorced	0.9
Education	Illiterate or primary education	40.6
	Guidance School	22.6
	High school	27.6
	University	9.2
Employment	Housewives	79.7
	Employees	10.1
	Unemployed	1.8
	Students	8.3

The participants of this study were women seeking health services visiting health centers in Kerman. The majority of women participating in our study (58.1 %) were in the 20 to 40 year age group, 32.7 % in the above 40 year group and the rest were in the 15 to 20 age group, 85.7 of these women were married, 13.4% were single and the rest were divorcees. In regard to education level, 40.6 % of them were illiterate or had only primary education, and 9.2% had tertiary education. About 79% of the women were housewives and about 10 % were working. The demographic characteristics of the population have been summarized in table 1.

In this study only 61.8% of the women thought that a positive family history is a risk factor for breast cancer, 35.5% thought it was not related and 2.8% did not know. 70% of the women thought that on-time diagnosis of breast cancer can effect treatment, 2.4% said it does not have an effect and the rest did not know.

Sign	Percent answered correctly
Painless lump in the breast	56.7
Bloody secretions from the nipples	33.2
Arm edema	8.8
Pitting in the areola area	23.5
Lump in armpit	25.8
All of the above	17.1
None	14.7

Our results also showed that the most known sign for breast cancer is a painless lump in the breast. This sign was mentioned by 56.7% of our population. The next most known danger sign was bloody secretions from the nipples (33.2%). The results have been summarized in Table 2. 14.7% of the population did not know any danger sign for breast cancer early

diagnosis. Breast self examination, which is the easiest and cheapest method for early diagnosis was not done at all in 51% of the women. Only a low percent of the women (about 20%) knew the appropriate time for doing breast self examination in women and the majority did not know.

Only 18% of the participating women visited a physician or a midwife for breast physical examination in the last 2 years and the majority (68.7 %) believed that physical exam cannot detect early breast cancer. The majority of women in our population (83.9 %) had never done mammography and interestingly a high percentage (52.1%) did not believe in mammography as an early diagnosis tool.

Reason for not performing	Breast Self Examination	Physical Exam	Mammography
Not knowing about it	55.8 %	55.8 %	66.8 %
Not believing it is necessary	5.1 %	7.4 %	9.2 %
Lack of time	3.7 %	8.3 %	8.3 %
Forgetting	10.6 %	0	0
Fear of finding something malignant	9.7 %	12.9 %	0.9 %
Other	34.1 %	30.9 %	22.1 %

Our results also showed that 47% of our population did not know anything about any breast cancer screening method and the main reason for not performing breast cancer screening in our population, was not knowing anything about these methods. The methods and the reason for not performing have been summarized in table 3.

Discussion

Breast cancer is a main worldwide health problem and its early diagnosis has the most important role in reducing mortality from this disease. Currently there are three methods for early diagnosis which are breast self examination, physical examination and mammography. Our study showed that most of our participants knew that a positive family history can be a risk factor for breast cancer and most of them thought that on time diagnosis can help breast cancer treatment, but many participants (47%) did not know anything about the appropriate methods for early diagnosis of breast cancer. Self breast examination was never done in about half of the population and only 18% of the women had visited a doctor or a midwife for a breast physical examination in the last 2 years. About the appropriate time for doing breast examination, most of the women answered that they do not know and could not answer any of the related questions. In a study done in Tabriz, Iran from the women visiting health centers only 18.8 % had done breast self examination and 19.1% had visited a professional for breast examination [4]. In the study done in Broojen only 37,8% of the participants knew about breast self examination and only 7.8% knew about clinical exam as a screening tool . In this study in 84.7% of the participants clinical exam for breast cancer screening had not been performed before [5]. In a study done on teachers in Tehran 71.5 percent had never had a clinical breast examination done [6] and in a study from Sari 82.6% of the women 20 years or above had not visited a doctor for breast physical examination [3].

There is a clear difference between the rates from our study and similar studies in comparison to developed countries. A study from Austria reports that 31% of the women performed breast self examination correctly and routinely [7] and a study from the US reports that 75% of the women had enough knowledge about breast self examination [8]. In our study about half of the women did not know about mammography and in only a low percent mammography was done before. In another Iranian study done in Broojen only 6% of women knew about mammography as a screening tool and only 12.5% of the women above 40 years had done mammography once [5]. In Shiraz only 9.1% of the women above 35 years had done at least one mammography before [9]. In the Tabriz study only 3.3% had done a mammography before [4] and in the Tehran teachers study 60% of the women above 40 had never done a mammography [6]. In the study done in Shiraz the knowledge of women visiting health centers about breast cancer screening methods was only 45% [9]. A study from Zahedan showed that 67% of the participating women did not have enough knowledge about breast cancer screening methods [10]. A study done in Tehran about health care workers showed that the knowledge and behaviors of even female health care workers concerning breast cancer is relatively poor and it needs to be improved [11].

In our study, the most prevalently known breast cancer sign was a painless lump in the breast and 14.7 % did not refer to any sign of breast cancer. This shows that in Iran the knowledge about breast cancer signs is much less than developed countries, for example a study in England showed that 70% of the women mentioned a painless lump as a alert sign and were able to find it by breast self examination [12]. A study from Tehran showed that knowledge about breast cancer signs is not enough and 46% of the women had no idea that a painless lump can be a sign of breast malignancy and knowledge about other signs of breast cancer was even less than this [13]. The main reason for not performing screening methods was lack of knowledge in our study. Similar to us, in the Tabriz study the main reasons were lack of knowledge, not feeling a problem and not believing it is necessary [4]. In the Broojen study the main reasons were not knowing and not having a problem [5].

A general look at breast cancer early diagnosis studies and similar studies shows that the best way for alleviating the risk of breast cancer is increasing people's knowledge about this disease, the screening methods and the early signs of breast cancer [13]. A study from the US has encouraged promotion and further education of breast self examination [14]. Another study from the US has also showed that after receiving training the nurses detected masses at acceptably high rates [15].

In this study we found out that the majority of women in Kerman lack the proper knowledge about breast cancer and the necessity for public education in this regard is obviously felt. According to the results of this study, despite the efficacy of these methods in early diagnosis and increasing life expectancy, Kermanian women and other Iranian women [3-6,9,16] lack enough knowledge about breast cancer screening methods and the appropriate time and interval of doing it. We suggest that health authorities should schedule appropriate educational programs and educational material in order to increase knowledge, change the attitude and persuade women to perform self examination and visit screening clinics or physician offices as advised.

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