

Knowledge, Attitude and Practice of Iranian Women towards Breast Cancer Screening Methods

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ABSTRACT

Female breast cancer is the second leading cause of death due to cancer and the second leading cause of cancer deaths in women after lung cancer. This study aimed to investigate the knowledge, attitude and practice of women about breast cancer's screening methods in order to offer more appropriate training programs if necessary. A cross-sectional study was carried out with a population comprised of women who had referred to public health centers in Sanandaj in 2008. The results of this study do provide some understanding on the topic and suggest that although the majority of Iranian women seem to be quite knowledgeable about breast cancer and screening methods. They need more education on breast cancer, SBE and other methods of early detection. We recommend the establishment of an institutional framework and policy guidelines that will enhance adequate and urgent information dissemination about breast cancer and screening methods to all women in Iran. Since women's beliefs and behaviors may impact young women, designing training courses for this group seems to be essential.

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1. INTRODUCTION

Breast cancer is the second leading cause of cancer deaths in American women [1],[2]. It approximately represents one third of all cancers in women and is the second leading cause of cancer deaths in women after lung cancer. Currently, one out of every 7 women will develop breast cancer in her lifetime [3],[4]. The incidence of Breast cancer is increasing in Iran and of every 100,000 women in Iran, 20 suffer breast cancer. In fact, each year 6000 new cases of breast cancer is found in our country and since the disease is mostly diagnosed at advanced stages, patients often die in a short period after diagnosis [5],[6]. Risk factors for breast cancer include: increasing age, genetic factors, positive family history, early menarche and delayed menopause, first pregnancy over 30 years, high dietary fat, alcohol consumption, using hormone therapy, exposure to X-rays before age 30, treatment and radiotherapy of the chest (e.g. for treatment of Hodgkin's disease) and risk of developing other malignancies [3],[4],[7]. The time for masses to double their size varies from several weeks in rapid growing masses and from several months or years in slow-growing ones. While the tumor is still not clinically clear, cancer cells may spread in the body. The incidence of distant metastasis considerably fits the tumor size. If the patient has no metastatic disease, complete recovery is achievable only by surgery and lesion removal. If diagnosis is made at advanced stages, mortality will be very high. Therefore, early diagnosis, before the spread of cancer cells, is the base of a successful treatment and this won't be possible without proper screening methods [8]-[13]. The recognized screening methods include: breast self-examination (SBE), clinical breast examination, ultrasound and mammography. Standard methods of screening are mammography and clinical breast examination.

It seems that in Iran, women's knowledge, attitude and performance of early diagnosis of breast cancer has a poor outcome. As in a research conducted in Tehran among school teachers, only 6% of teachers did SBE regularly. Although 34% were familiar with breast self-examination, they considered it to be non-essential and 36% believed that clinical examination is not necessary. 67% believed that they were at risk for breast cancer and 59% considered positive family history of breast cancer as an important risk factor for development of the disease. 80% of these teachers claimed if the importance of SBE examination has been set, they would have practiced that [6]. Another research conducted in Tehran on 70 women, showed that most respondents had no knowledge about screening behavior and they were not aware of the diagnostic methods except SBE. They thought mammography is done after the incidence of breast cancer to examine the status of the disease. They also didn't know that early detection can be effective for proper treatment and didn't take that for granted [14].

According to what has been reported, providing appropriate information and knowledge helps women have a better attitude towards cancers with high chance of occurring while more appropriate attitude and practice may reduce their morbidity and mortality. If training is not appropriate and makes no change in women's attitude and performance, costs and time spent will be in vain.

2. MATERIAL AND METHODS

This cross-sectional study has been performed on all women referring to public health centers in Sanandaj in 2008. A sample size of 384 individuals with 95% confidence interval, frequency of 50% and accuracy of 0.05 was determined. 10 clinics in Sanandaj were randomly selected and in each center around 40 women within the inclusion criteria (women aged over 15 years) were randomly chosen using a random allocation of numbers. Finally, after reviewing the completed questionnaires, 70 were excluded due to incomplete information and 307 questionnaires were statistically analyzed.

The questionnaire designed by the researcher was examined by three faculty members of Midwifery Department at Sanandaj Islamic Azad University of Medical Sciences and its content validity was determined. A test re-test self administered questionnaire was used as a tool to determine the questionnaire's reliability (Cronbach's alpha 0.8). Also for classified questions (questions concerning the knowledge of screening methods, attitudes and the practice including seven, six and two questions, respectively) rating and scoring was done after completion, based on questions' scores (low - medium - good). Questionnaires were filled in by interviewers. Then after completion of coded questionnaires, contained information was entered in SPSS program for further statistical analysis.

Prior to interviews, study objectives were explained to all the participants and those interested in the research were interviewed. To maintain the anonymity, questionnaires were completed with no name registration and profile samples and the information was completely confidential. Necessary coordination was performed and permissions from the selected clinics were obtained.

3. RESULTS AND DISCUSSION

A total of 307 women, with the mean age of 72.29 in the range of 17 to 69 years old participated in the study. Forty one (13.4%) were single and 266 (86.6%) were married. 73.3% were housewives and 26.7% were employed. 71.4% had a high school diploma or lower degrees. 296 (96.4%) stated that breast cancer is one of the most dreaded conditions in women and only 13 (4.2%) mentioned that it is not a top condition to be feared most. The awareness of participants about methods of early detection and treatment of breast cancer considered as knowledge is shown in Table 1. Most women (67.1%) were aware of the importance of breast cancer screening examinations by a physician or midwife for its prevention. 84.4% of women believed the time of diagnosis would affect the outcomes of treatment. participants' views and attitudes towards screening procedures and its impact on their lives and health are given in Table 2. Monthly self breast examination and annual mammography had been intended as a proper action in the questionnaire. Only 47.4% of women had practiced self breast examination but not as a monthly routine. Table 3 describes the frequency distribution practice of breast cancer by participants.

Table 1. Frequency Distribution of Women's Awareness about Breast Cancer and Detection Methods

Detection Methods	Not Familiar		Familiar	
	Percent	Number	Percent	Number
Self-Examinations	36.8	113	63.2	194
Examination by a physician or midwife	32.9	101	67.1	206
Ultrasound	68.2	208	31.8	97
Mammography	59.7	182	40.3	123
The onset of breast examinations by a physician	69.7	214	30.3	93
The onset of breast self examination	65.5	201	34.5	106
The onset of mammography	76.2	234	23.8	73

Table 2. Frequency Distribution of Women's Attitude toward Breast Cancer and Detection Methods

Themes	Do Not Know		No		Yes	
	Percent	Number	Percent	Number	Percent	Number
You are at risk for breast cancer	27	83	38.4	118	34.5	106
Diet need to prevent breast cancer	1	3	72.3	222	26.7	82
Methods for early diagnosis of breast cancer is difficult	16.9	52	25.1	77	58	178
Necessity of monthly breast self-examination	27	83	26.7	82	46.3	142
Diagnosis time of breast cancer affects treatment	10.1	31	5.5	17	84.4	259
Timely treatment results in complete recovery	11.4	35	11.4	35	77.2	237
Annual mammography is harmful	36.5	112	50.2	154	13.4	41

Table 3. The Frequency Distribution Practice of Breast Cancer by Participants

Themes	No		Yes	
	Percent	Number	Percent	Number
self breast examination (SBE)	52.6	161	47.4	145
mammography	95.5	273	4.5	13

*the frequency of rating-related knowledge, women's attitude and performance based on related scores showed that only 15.6% had good knowledge, 13% and 0.7% had fair and good attitude and performance, respectively.

Table 4 shows the information regarding Knowledge, attitude and performance of women towards early breast cancer detection methods (screening). Table 5 provides the data regarding sources of information about breast cancer symptoms, factors and screening methods.

Table 4. Knowledge, Attitude and Performance of Women towards Early Breast Cancer Detection Methods (Screening)

Themes	Good		Medium		Poor	
	Percent	Number	Percent	Number	Percent	Number
Awareness of breast cancer screening	15.6	48	39.4	121	45	138
Attitudes towards breast cancer screening methods	13	40	31.9	98	55	169
Practice of breast cancer screening methods	0.7	2	45.9	141	53.4	164

There was a statistically significant relation between women's awareness of breast cancer detection methods and their job, positive family history of breast cancer, and their level of education ($p = .0001$ $\chi^2 = 41.1$ and $\chi^2 = 7.9$ $p = .019$ and $\chi^2 = 44.1$ $p = .000$) and also a statistically significant relation was observed between women's practice of breast cancer screening methods and their marital status ($\chi^2 = 10.1$ $p = .006$). A significant relationship was found between women's general Knowledge* and their marital status, job, positive family history of breast cancer and level of education.

*General Knowledge: The overall awareness of women about symptoms, detection methods and risk factors for breast cancer.

There was a weak positive correlation between the number of pregnancies and awareness of cancer symptoms ($r = .14$), a positive correlation between the number of pregnancies and awareness of risk factors for breast cancer ($r = .23$) and the number of pregnancies positively correlated with general knowledge ($r =$

.17) ($p < 0.05$). No statistically significant relation was observed between knowledge, attitude and practice of women with other demographic information.

*The major source from which most participants received their information about screening methods was reported to be Health Care System's Staff and Physicians with 53.5% and the minor one was the media with 21% (Table 3).

Table 5. The Frequency Distribution of Sources of Information about Breast Cancer Symptoms, Factors and Screening Methods

Information Source	Percent	Number
Physician	19.5	59
Health care staff	34	103
Media	21	63
Others (without training)	25.5	77
Total†	100	302

† 5 women did not answer this question

The majority of participants were young married housewives. Breast cancer is one of the major cancers in women whose mortality rate is directly related to the diagnosis time. Based on our findings, most women (296 –94.3%) believed that breast cancer is the most important cancer in women. Also, in another study conducted in Nigeria, 67% of women admitted it as a top condition [2]. Although all the women acknowledged the importance of breast cancer, this degree of importance had failed to establish the need for getting more information about that. Eventually, in our study it was found that women's knowledge about breast cancer (Symptoms, Risk factors, diagnostic methods) was poor in this region. In fact, they did not feel threatened or found themselves at risk, as expressed. So their attitude towards screening methods was poor and as a result improper practice was observed in such a way that more than half of them (54.6%) never practiced SBE and the rest did not practice regular monthly examinations at the right time. They did it occasionally or at least once in a month.

Our results were consistent with a similar study conducted in Tehran by Jarvandy et al. (57% of women never practiced self examination). In Jarvandy et al study it was also found that 80% of women, who were aware of the importance of screening methods, would certainly practiced self examination [6]. Also, among working nurses in a hospital in Karachi, Pakistan, only 35% had a good level of knowledge, 40% had fair knowledge and 25% had poor knowledge [15].

Another interesting point of this study was the relation between women's demographic data and their level of knowledge, attitudes and practice. As it was expected women's level of education and employment that causes them to be more present in the society had a direct relationship with their level of knowledge and attitudes about screening methods. But another interesting point in this study was that married women with more number of children and older ones had a higher level of knowledge. In fact, it seems that older married women have better knowledge, since after marriage and increasing age, they usually have more tendencies for help seeking – behavior for themselves or their children, and this tendency and more contacts with health care providers affects their knowledge and awareness. But because this level of information is not offered to them on the base of an appropriate educational program, it stops them at the same level of knowledge and will not bring about changes in their attitude and practice. Although older women had a better knowledge, their performance remained weak and as same as other women. In some other research that less presentation for clinical examination and screening was observed among older women, researchers described it as women's inability to refer to medical centers due to aging or forgetfulness [16]-[19].

Regarding our country's young population and lower knowledge and attitudes of young women in this area and lower age of developing breast cancer in Iran (the risk is a decade lower than the universal age) more appropriate education for young women should be considered and is better that training starts from high school age. Another issue in this study was the very small role of public media to increase knowledge and awareness of women. Women described health care system staff as the major source of information since the mass media did not provide them with enough information and the common Kurdish dialect in this area made it difficult for them to receive information through the national media.

4. CONCLUSION

The results of this study do provide some understanding on the topic and suggest that although the majority of Iranian women seem to be quite knowledgeable about breast cancer and screening methods. They need more education on breast cancer, SBE and other methods of early detection. At the end, it is

recommended that more appropriate educational programs for practice of breast cancer screening behaviors especially at young ages and high school should be considered. One of the best times for training is the breastfeeding period when they refer to health care centers more. Also due to the downplaying role of media it seems that local media should try to do their best to pass information in local dialect to increase the level of awareness.

REFERENCES

- [1] Smith R. A., *et al.*, "Screening and early detection," in Babiera G. V., *et al.*, "Advanced therapy of breast disease," 3rd ed. Shelton, Conn, People's Medical Publishing House, 2010.
- [2] Duffy S. W., *et al.*, "Absolute numbers of lives saved and overdiagnosis in breast cancer screening, from a randomized trial and from the Breast Screening Programme in England," *J Med Screen*, vol/issue: 17(1), pp. 25–30, 2010.
- [3] Ferlay J., *et al.*, "International Agency for Research on Cancer," 2010.
- [4] Saudi Cancer Registry, "Cancer incidence report, Saudi Arabia – 2006," Kingdom of Saudi Arabia, Ministry of Health, 2010.
- [5] Mabiso A., *et al.*, "Longitudinal analysis of domain-level breast cancer literacy among African-American women," *Health Educ Res.*, vol/issue: 25(1), pp. 151–161, 2010.
- [6] A. Noroozi, *et al.*, "Determinants of Breast Self-Examination Performance among Iranian Women," *An Application of the Health Belief Model*, 2010.
- [7] M. Vahabi, "Iranian Women's Perception and Beliefs about Breast Cancer," *Health Care for Women International*, vol/issue: 31(9), 2010.
- [8] R. Borehman, *et al.*, "UK & USA Breast cancer deaths down 25% in year 2000 at age 20-69 years," *Lancet*, vol/issue: 355(9217), pp. 1822, 2000.
- [9] Soulos P. R., *et al.*, "Assessing the impact of a cooperative group trial on breast cancer care in the Medicare population," *J Clin Oncol*, vol. 30, pp. 1601-1607, 2012.
- [10] A. Brazda, *et al.*, "Delays in Time to Treatment and Survival Impact in Breast Cancer," *Annals of Surgical Oncology*, vol/issue: 17(3), pp. 291-296, 2010.
- [11] M. N. Okobia, "Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross – sectional study," *World Journal of Surgical Oncology*, vol. 4, pp. 11, 2006.
- [12] I. A. Avci, "Comparison of two different education methods on teachers knowledge beliefs and behaviors regarding breast cancer screening," *European Journal of oncology Nursing*, vol/issue: 13(2), pp. 94–101, 2009.
- [13] R. A. Al-Naggar, *et al.*, "Practice and Barriers toward Breast Self-Examination Among Young Malaysian Women," *Asian Pacific Journal of Cancer Prevention*, vol. 12, 2011.
- [14] S. Hajian, *et al.*, "Effects of Education Based on the Health Belief Model on Screening Behavior in High Risk Women for Breast Cancer, Tehran, Iran," *Asian Pacific Journal of Cancer Prevention*, vol. 12, 2011.
- [15] S. Ghanem, *et al.*, "Knowledge of risk factors, beliefs and practices of female healthcare professionals towards breast cancer," Morocco | Department of Medical Oncology, National Institute of Oncology of Rabat, Morocco.
- [16] Abahssain H., *et al.*, "Breast cancer in Moroccan young women: a retrospective study," *BMC Res Notes*, vol. 3, pp. 286, 2010.
- [17] Yankaskas B. C., *et al.*, "Performance of first mammography examination in women younger than 40 years," *J Natl Cancer Inst.*, vol. 102, pp. 692, 2010.
- [18] Nelson H. D., *et al.*, "Screening for breast cancer: an update for the US Preventive Services Task Force," *Ann Intern Med.*, vol. 151, pp. 727, 2009.
- [19] Keen J. D., "Promoting screening mammography: insight or uptake?" *J Am Board Fam Med*, vol/issue: 23(6), pp. 775–782, 2010.