RESEARCH ARTICLE

General Breast Cancer Awareness among Women in Riyadh City

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Abstract

Breast cancer is the most common cancer among women globally as well as in Saudi Arabia. Early diagnosis can improve prognosis and breast self-examination (BSE) may be a cost effective way to achieve this. In Saudi Arabia, only a few studies have been conducted to address breast cancer awareness. Most showed a suboptimal level of understanding. During the last few years, Saudi Arabia has established many national campaigns to increase awareness of the disease and facilitate learning about different diagnostic procedures. This cross-sectional survey study was conducted in accordance to assess the current knowledge and practices of women regarding breast self-examination and mammography screening in Riyadh, Saudi Arabia. The sample comprised of 137 females aged 18 and older. Data were collected using face-to-face interviews with a modified Arabic version of a validated questionnaire and analyzed using SPSS. Similar to previous studies', the results were suboptimal. Out of the 137, about 54% claimed they are aware of breast cancer and BSE, however, only 62% of them knew how to conduct self-examination. Far fewer were aware of mammography screening (38%). When asked about the source of breast cancer information, most of the women answered awareness campaigns (39%) while school/university and TV (22% each) were the sources for others. This highlights the importance and urgent need for continued awareness campaigns. Moreover, special awareness sessions need to be conducted in institutions like colleges, universities, and hospitals where the proportion of females is higher.

Keywords: Breast cancer- awareness- breast self-examination- mammography- Riyadh- Saudi Arabia

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Introduction

Breast cancer is the most common cancer among women globally (Cancer Research UK, 2013). It is the leading cause of death among non-communicable diseases (Shibuya et al., 2002; Althuis et al., 2005; Hortobagyi et at. 2005). It is also the most common cancer among women in Saudi Arabia as evidenced in earlier studies (Sebai, 1989; Koreich, 1995). It is important that all women have basic knowledge about breast cancer and practice breast self-examination (BSE) for early diagnosis and treatment (Brestcancer, 2016). Breast self-examination is a simple and easy to learn and it can help greatly in early detection. However, the efficacy of BSE depends on the women appropriate application of the self-examination (Stefanek, 1992). Breast cancer is distinguished from other types of cancers by the fact that it occurs in a visible organ and be detected and treated at early stages (Tasci and Usra, 2010). The 5-year survival rate can reach up to 85% with early detection, whereas late detection may decrease the survival rate to 56% (Hallal, 1982). The low survival rates in less developed countries can be attributed to the lack of early detection as well as inadequate diagnosis and treatment facilities. Early detection and the immediate start of treatment can improve the prognosis of breast cancer. It has been observed that women delay reporting their symptoms, mostly due to lack of awareness.

Earlier studies conducted in different Saudi regions yield similar results (Koreich, 1995). a study in Buraidah reported insufficient knowledge about breast cancer and its early detection measure, which negatively influenced the practice of BSE among the participants (Danash and Al-Mohaimeed, 2007). The female level of breast cancer awareness and BSE was not adequate as reported by another study conducted in Al-Qassim region (Jahan and Abdelgadir, 2006). Also, in Riyadh, an early study reported moderate knowledge about breast cancer and the BSE knowledge and practice varied depending on marital and education status (Alam, 2006). A more recent study conducted to assess the level of breast cancer awareness among females in Jeddah, as well as to correlate the levels of breast cancer awareness with different demographic variables. The study findings indicated that the awareness level of breast cancer, the disease warning signs, risk factors and BSE were very inadequate and varied significantly by marital status, education and job factors (Radi, 2013).

This study aimed to assess the breast cancer knowledge

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and practices of breast self-examination among women living in Riyadh city.

Materials and Methods

This is a cross-sectional survey study. a simple random sampling was done to collect the data. The participants were informed about the nature of the study and that their participation is voluntary. A written informed consent was obtained from each participant and the information obtained was coded and kept in a locked file with access to the researchers only. The study was approved by the College of Medicine of Almaarefa Colleges. The data was collected from Dental Centers; East Riyadh Dental Center and Aeryja Dental Center and Panorama Mall. A validated structured questionnaire was used to collect the data from female residents of Riyadh, aged 18 years and above. The survey was administered by female instructors. A total of 137 women were included in the study. The Data was collected using Arabic version of the questionnaire and was analyzed using version 21 of SPSS program. The Mean and standard deviation were calculated for basic demographics. Results regarding awareness were disaggregated by age groups, occupational status, marital status and literacy level. A T-test was applied to identify the significance of the difference between the groups.

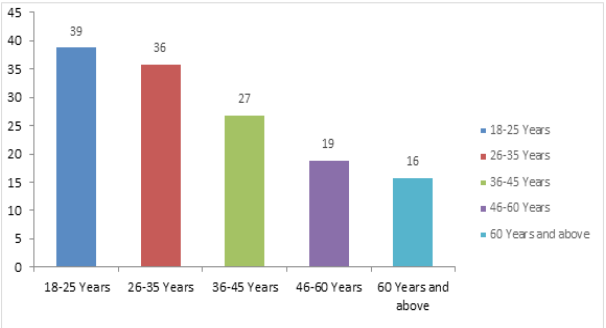

Figure 1. The Distribution of Participants by Age Icipants by Age

Table 1. Awareness about Breast Cancer by Various Demographic Characteristics

Indicator		Awareness about breast cancer	P Value
Age	18-25 years	22	0.271
	26-35 years	24	
	36 - 45 years	14	
	46 - 60 Years	13	
	>60	6	
Education	Uneducated	5	0.03
	General education	26	
	University education	45	
	Other	3	
Occupation status	Un-employed	51	0.009
	Employee	28	
Maritial Status	Married	48	0.143
	Separate	15	
	Single	10	
	Widowed	6	

Results

Out of the 137 women included in the survey, 91% of the participants are Saudis while the remaining 9% were formed other nationalities. The distribution of respondents by age is given in figure 1. The marital status of the participants was as follow: 58% are married, 18% are single, 15% are separated, and 9% are widowed. The majority of the women (90%) were literate with 47% having university education while 39% with general education. most of the study participants are unemployed. Out of the 137, about 54% claimed they are aware of breast cancer and BSE, however, only 62% of them knew how to

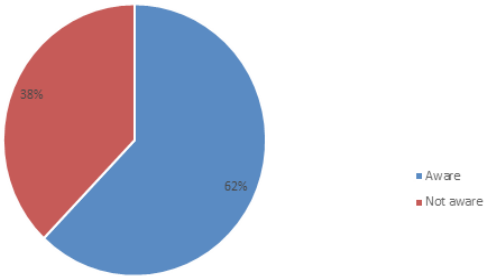

Figure 2. Participants' Knowledge about Breast Self-Examination (BSE)

Table 2. Knowledge about Self-Examination

Indicator		Knowledge about self-exam	P Value
Age	18-25 years	22	0.023
	26-35 years	19	
	36 - 45 years	16	
	46 - 60 Years	14	
	>60	3	
Education	Uneducated	3	0.017
	General education	30	
	University education	40	
	Other	1	
Occupation status	Un-employed	50	0.121
	Employee	24	
Marital status	Married	46	0.049
	Separate	13	
	Single	13	
	Widowed	2	

Table 3. Frequency of Self-Examination

Indicator		Frequency of self-examination	P Value
Age	18-25 years	10	0.987
	26-35 years	7	
	36 - 45 years	6	
	46 - 60 Years	5	
	>60	1	
Education	Uneducated	1	0.471
	General education	10	
	University education	18	
	Other	0	
Occupation status	Un-employed	19	0.623
	Employee	10	
Marital Status	Married	19	0.641
	Separate	5	
	Single	5	
	Widowed	0	

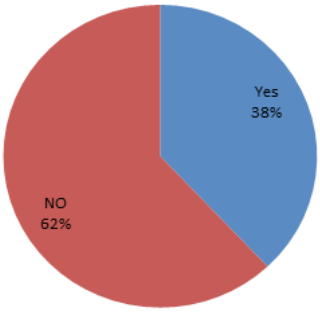

Figure 3. Participants' Awareness about Mammography

conduct the self-examination. The source of information for a lot of the women was awareness campaigns (39%) followed by school/university and TV (22% each). Awareness about mammography as a screening tool was low, 38% of the women were aware of it.

Comparison of groups revealed that the difference in awareness was significant for education level (P=0.03) and occupational status (P=0.009). Knowledge regarding self-examination varied significantly depending on age (P=0.023), education (P=0.017) and marital status (P=0.049) respectively. As far as frequency of self-examination and awareness about mammography, no significant difference was observed within various groups. However, a significant difference was observed between women who have done mammography screening according to age (P=0.004) and occupation status (P=0.009). The results of comparisons are given in table 1-5.

Discussion

With the rising incidence rate of breast cancer, and the many recent national attempts to increase the breast cancer awareness through huge campaigns in many different Saudi cities, it is important to assess the current knowledge and practice of BSE in various groups. Awareness of breast cancer andBSE is suboptimal among Saudi women in general, as proven by earlier studies (Sebai, 1989; Koreich, 1995; Rashad and Abdubari , 1996). In agreement with previous findings, this study shows similar results. BSE is an easy and cost effective way for early detection of breast

Table 4. Awareness about Mammogram

Indicator		Heard about mammogram	P value
Age	18-25 years	13	0.301
	26-35 years	15	
	36 - 45 years	8	
	46 - 60 Years	11	
	>60	5	
Education	Uneducated	5	0.549
	General education	18	
	University education	28	
	Other	1	
Total		52	
Occupation status	Un-employed	36	0.438
	Employee	16	
Marital Status	Married	31	0.1
	Separate	12	
	Single	6	
	Widowed	3	

Table 5. Mammogram Done

Indicator		Had mammogram done	P Value
Age	18-25 years	2	0.004
	26-35 years	9	
	36 - 45 years	6	
	46 - 60 Years	9	
	>60	1	
Education	Uneducated	3	0.283
	General education	6	
	University education	17	
	Other	1	
Occupation status	Un-employed	14	0.009
	Employee	13	
Marital Status	Married	20	0.229
	Separate	4	
	Single	2	
	Widowed	1	

cancer (Feldman et al, 1981; Greenwald et al, 1978). Some studies in the West reported the majority of the women (more than 80%) are capable of detecting breast cancer through self-examination, thus resulting in having a better prognosis (Bennet et al, 1990). While developing countries like India and Iran have a low prevalence of BSE (Dolar et al, 2012; Haji-Mahoodi et al, 2002).

Even though BSE is a simple, quick, and cost-free procedure, the practice of BSE is low and varies in different countries; in England, a study by Philip et al. reported that only 54% of the study population practiced BSE. Furthermore, in Nigeria, the practice of BSE ranged from 19% to 43.2% (Okobia et al, 2006; Gwarzo et al, 2009) and in India, it varied from 0 to 52% (Gupta, 2009). Several reasons like lack of time, lack of self-confidence in their ability to perform the technique correctly, fear of possible discovery of a lump, and embarrassment associated with manipulation of the breast have been cited as reasons for not practicing BSE (Lierman et al, 1994; Stillman, 1977). In this study, women revealed that lack of education and awareness were among the commonest reasons for not practicing BSE, which is a screening aid for early detection of breast cancer. Shyness was also reported by some women. It was astounding to note that only 38% of the women said that they were aware of the importance of self-examination in contributing towards early detection and hence treatment. Regarding mammography, some of the women said that it was an annoying test while many said that it is expensive. This highlights the importance of creating awareness about BSE as being a cost effective screening test prior to mammography.

This study revealed that almost half of the women were not aware of breast cancer, BSE or mammography. This confirms that Saudi Arabia still needs many awareness campaigns through mass media i.e. television, the internet, radio, etc. and through social media. Moreover, special awareness sessions need to be conducted in institutions like colleges, universities, and hospital where a high proportion of women can be easily reached. Women should be encouraged to discuss the self-examination technique among each other at home to increase peer to peer awareness and counseling for BSE as well as for getting mammography done at appropriate intervals.

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The study findings suggest that the knowledge and practice of females regarding breast cancer is relatively poor and needs to be improved on priority basis. Those who are already aware, as well as the health workforce, can play their role in disseminating health related practices to the general public through various communication channels.

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