

RESEARCH ARTICLE

Poor Knowledge and Practice Towards Breast Cancer among Women in Baghdad City, Iraq

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Abstract

Background: Breast cancer is one of the most common cancers among females worldwide. The aim of this study was to assess the knowledge and practice about breast cancer and its related factors among women in Baghdad city, Iraq. **Materials and Methods:** A cross-sectional study was conducted among 508 women aged 18 to 55 years from four non-governmental organizations (NGO) in Baghdad city, Iraq. A self-administered questionnaire on breast cancer knowledge and practice was distributed to participants during weekly activity of the NGO. **Results:** A total of 61.2% of the respondents had poor knowledge, only 30.3% performed breast self-examination (BSE) and 41.8% said that they did not know the technique to perform BSE. Associations between knowledge and marital status and age were significant. For practice, working status, education, age and family income were significant. After controlling for cofounders, the most important contributing factors for poor knowledge among respondents were marital status and not performing BSE, with adjusted odds ratio of 1.6 and 1.8 respectively. **Conclusions:** Breast cancer knowledge and practice of BSE are poor among women in Baghdad city, Iraq. More promotion regarding breast cancer signs and symptoms and also how to perform BSE should be conducted using media such as television and internet as these constituted the main sources of information for most women in our study.

Keywords: Breast cancer - knowledge - practice - BSE - Baghdad city - Iraq

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Introduction

Breast cancer is the most common cancer among women all over the world, nearly about 23% of 1.1 million women cancer diagnosed newly each year (Parkin et al., 2005; Parkin et al., 2006). In Iraq breast cancer being the most common malignancy in which about one-third of the registered female cancers found to be breast cancer according to latest Iraqi Cancer Registry also the disease shows to affect young age group (Iraqi Cancer Board, 2010). A recent study showed that 23,792 breast cancer cases were registered among females in Iraq aged 15 years old and above. This number represented 33.8% of the total cancer cases among females from 2000-2009 registered in Iraq (Al-Hashimi and wang, 2014).

One of the studies that had been done in East Mediterranean Region showed different results regarding breast cancer knowledge and the practice of self-examination in which only a few respondents have correct information about BSE, it's timing and frequency (Alwan et al., 2012). In low and middle-income countries, the disease is diagnosed in late stages and since the resources are very limited, so the most important is early diagnosis. There is some evidence that early detection help making

the disease more amenable to curative treatment (Yip et al., 2008). Until now, the breast cancer screening and early detection still improving the breast cancer outcome (WHO, 2010).

In Iraq, most of breast cancer cases presented with advanced stages as in a study done in 2009 in Baghdad city, 65.7% of the respondents presented with advanced breast cancer and only 7.6% presented with stage I; another study in 2010 showed that 47% of patients presented with advanced stages III and IV. Few studies done previously in Iraq to assess the knowledge of women about breast cancer and majority of these studies done among highly educated women (Akram, 2009; Alwan, 2010; Alwan et al., 2012).

The objective of this study was to determine the level of knowledge and practice about breast cancer among women residing in Baghdad city, Iraq.

Materials and Methods

A cross-sectional study was conducted among 508 women selected from four non-governmental organizations (NGOs) in Baghdad city, Iraq. List of all registered NGO in Baghdad city was obtained from the

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NGO directorate. Baghdad is divided into 2 sides by Tigris River, there are 16 NGOs in Bagdad specialized in women and children health in which two NGO was selected from each side for better representation. The selection of 4 NGO from the list was carried out using simple random sampling method. Subsequently, a complete list of registered women in each selected NGO was obtained. A total of 127 women from each NGO were selected by simple random sampling. Self-administered Questionnaires on knowledge and practice regarding breast cancer was distributed to participants during the weekly activity of the organization.

The questionnaires consisted of three parts which are, socio-demographic characteristics of the respondents, breast cancer knowledge and the last part about BSE practices. The knowledge part consisted of 18 questions to assess knowledge regarding risk factors, protective factors

and signs, the total score is 18, any score more than 9 was considered as good knowledge. Regarding practice, the performance of BSE during the last year was considered as good practice.

Statistical analysis

Data analysis was done using Statistical Package for Social Sciences (SPSS) Version 22.0. Mann-Whitney test was used for continuous variables (age and family income) as the data was not normally distributed. While, chi square test was used for categorical variables (educational level marital and working status) also, multivariable analysis done using binary logistic regression.

Results

A total of 550 women were randomly selected to

Table 1. Relationship between Knowledge and Socio-Demographic Variables of the Respondents

	Knowledge				POR	95% CI	p value
	Poor N (%)		Good N (%)				
Marital Status							
Married	212 (65.2)		113 (34.8)		1.59	1.10-2.30	<0.01 ^a
Not married	99 (54.1)		84 (45.9)				
Working status							
Not working	146 (63.2)		82 (36.8)		1.24	0.86-1.77	0.24 ^a
Working	165 (58.9)		11 (41.1)				
Education							
Low education	143 (61.9)		88 (38.1)		1.05	0.73-1.50	0.77 ^a
High education	168 (60.6)		109 (39.4)				
	Median	IQR	Median	IQR			
Age (years)	37	23	42	23			0.02 ^b
Family Income (IQD)	700,000.00	400,000.00	650,000.00	500,000.00			0.42 ^b

^aChi Square test was performed, ^bMann Whitney U test was performed, level of significant is at $p < 0.05$, POR= prevalence odds ratio, CI=confidence interval, IQR=Inter Quartile Range, IQD= Iraqi Dinar

Table 2. Relationship between Practice and Socio-Demographic Variables of the Respondents

	Perform BSE				POR	95% CI	p value
	No N (%)		Yes N (%)				
Marital Status							
Not married	128 (69.9)		55 (30.1)		1.01	0.68-1.51	0.92 ^a
Married	226 (69.5)		99 (30.5)				
Working status							
Working	172 (61.4)		108 (38.6)		2.48	1.66-3.71	<0.01 ^a
Not working	182 (79.8)		46 (20.2)				
Education							
High education	175 (63.2)		102 (36.8)		2.00	1.35-2.97	<0.01 ^a
Low education	179 (77.5)		52 (22.5)				
	Median	IQR	Median	IQR			
Age (years)	38	23	44	18			<0.01 ^b
Family Income (IQD)	450,000.00	750,000.00	670,000.00	500,000.00			<0.01 ^b

^aChi Square test was performed, ^bMann Whitney U test was performed, level of significant is at $p < 0.05$, POR= prevalence odds ratio, CI=confidence interval, IQR=Inter Quartile Range, IQD= Iraqi Dinar

Table 3. Multiple Logistic Regression of Factors Associated with Poor Knowledge

	B	Wald	p Value	Adj. OR	95% CI	
					Lower	Upper
Low education	0.07	0.11	0.73	1.07	0.69	1.66
Married	0.52	6.89	<0.01*	1.68	1.14	2.48
Not working	-0.13	0.32	0.56	0.87	0.55	1.38
Age	0.01	1.76	0.18	1.01	0.99	1.03
Monthly Income	0	0.57	0.73	1.07	0.69	1.66
Not performing BSE	0.6	8.69	<0.01*	1.82	1.22	2.72

*Binary Logistic Regression was performed, level of significant is at $p < 0.05$, Adj. OR = Adjusted odds ratio, CI=confidence interval

participate in this study. However, only 508 women aged 18 to 55 years fulfilling our inclusion criteria giving the response rate of 92.4%. The respondents were mainly of 39 years of age. Most women had 2 children and their median monthly income were 660,000 Iraqi Dinars (532 USD). Most of the respondents are married (64%), about 54% of them have university degree. Married women were 2 times more likely to have poor knowledge compared to non-married one as shown in Table 1.

Table 2 showing the association between socio-demographic factors and the practice of BSE. Not working and low educated women were 2 times more likely not to perform BSE compared to opposite group.

In multivariable analysis, factors associated with poor knowledge were married and not performing BSE. The most important contributing factor was not performing BSE with adjusted odds ratio of 1.82 as shown in Table 3.

Discussion

In this study, we explored the knowledge and practice among general population in Baghdad city, Iraq. The main findings were that level of knowledge among women is still low with 61% having low knowledge, also only 30.3% perform BSE.

About 61.2% have poor knowledge and this result is slightly higher compared to a study done before in Iraq among highly educated women as they found that nearly half of them (51.2%) scored less than 50% of correct answers (Alwan et al., 2012) and also similar to a study done in Saudi Arabia, where more than half of the women in the study identified changes occurring in case of breast cancer and identified risk factors (Mahfouz et al., 2013). About two thirds of the respondents (66.9%) knew that good nutrition and physical activity may reduce the risk which is similar to a study done in Iran where most of the participants said that the life style and whether they follow healthy diet or no in addition to being active affect the possibility to have the disease which is consider good since women knows that the change in life style is good for them. (Khzaee-Pool, 2014).

The relation between educational level and knowledge was not significant which is unlike to other studies such as in Riyadh, Saudi Arabia (Alam, 2006), Nigeria (Okobia et al., 2006) and Iran (Yavari et al., 2007) which found that women with higher educational level had significantly more knowledge about breast cancer.

More than two thirds of the respondents did not perform BSE within last year. Our results was lower than a study done in Iraq (Alwan et al., 2012) where 48.3% perform BSE, the common reasons were not knowing the technique and do not trust their examination, in Saudi Arabia (Jahan et al., 2006) 19.7% perform BSE, while study in UAE only 13% perform BSE regularly (Bener et al., 2001). Other Arabic studies found that being afraid from finding breast cancer was the commonest cause for not performing BSE (Seif and Aziz, 2000; Qattan et al., 2008; Bener et al., 2009; Cam and Gvmvs, 2009; Ahmed, 2010). Another study found that 55.8% of the respondents although about 60.6% of them did it irregularly and the most common cause for not doing it was being afraid from finding the disease (Erbil and Bolukbas, 2012).

In our study the relationship between practice and age was significant, in which younger age group has poor practice compared to older age group which is similar to Other studies that found association (Parsa and Kandiah, 2005; Montazeri et al., 2008) while different from studies done in UAE, they found no association between age and performing BSE (Dundar et al., 2006; Alsharbatti et al., 2013).

Information bias especially when asking about performing BSE, and frequency of performing can be considered as one of the study limitations.

The knowledge of women in Baghdad city, Iraq about breast cancer was poor. Knowledge about signs, risk and protective factors is important so women can recognize any symptoms as early as possible. In addition, the BSE practice was very low and more efforts are needed to promote BSE and teach women the right technique to perform it by using media such as TV and internet as these constitutes the main sources of information for most women in our study.

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The Research and Ethics Committee of Universiti Kebangsaan Malaysia Medical Centre approved this study, Code Number FF-2014-312. In addition, approval from each NGO was obtained to conduct the research inside the organization. Consent form from the women was taken.

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