

Breast Cancer: Knowledge ,Attitudes and Practices of Female Secondary Schoolteachers and Students in Samarra City

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Abstract:

This is a cross-sectional, questionnaire-based study evaluated the knowledge, attitude and practice towards breast cancer and breast self-examination (BSE) among 225 females (125 schoolteachers & 100 students) in female secondary schools in Samarra City, from November 2013 to March 2014.

The result of the study indicated that majority of female had better knowledge level about breast cancer and (BSE) but with bad practice. Television was most reported source of information on breast cancer and (BSE) mentioned by the respondents. The knowledge of the respondents about breast cancer was assessed and scored. The most reported correct answer about breast cancer symptoms was painless lump for schoolteachers 84.8% and change in breast shape for students 88%. Radiation was the most known risk factor in all 100% of teachers, while the most known one in students was smoking 99%.

In spite of about 73.3% of participants had heard about BSE, only 27.6% of them practiced it even at irregular intervals. 67.7% of them are of high knowledge level and 32.3% are of moderate level. This study demonstrated that majority of respondents were aware of breast cancer as a disease entity, but their practice toward breast self examination was poor. Accordingly, relevant educational programs to improve the practices of females regarding (BSE) are needed and qualitative researches to recognize the factors effective in the improvement knowledge and practices of breast cancer screening methods among these females are necessary.

Keywords: Breast Cancer Knowledge, Female Secondary Schools

Introduction:

Globally, breast cancer is the most common cancer among women, comprising 23% of the female cancers. It is also the leading cause of cancer-related deaths in low-resource countries [1,2]. In Iraq, breast cancer ranks the first among the commonest malignancies among all the population and accounts for approximately one-third of the registered female cancers according to the latest Iraqi Cancer Registry which shows a trend for the disease to affect younger women [3]. Breast cancer has a lot of effect on female health. The incidence of breast cancer shows differences between countries, and its minimum in Asia whereas it is at its maximum in the USA and South America. In Asian countries, the incidence is increasing because of the increasing Western life style [2]. The high incidence of breast can-

cer necessitates the need for early detection since it aids early initiation of treatment thereby reducing mortality. Dolinsky [4] stated that the important thing any woman can do to decrease her risk of dying from breast cancer is to learn how to perform breast self examination, have a regular physical examination by their physician and have regular mammogram screening.

In industrial countries breast cancer mortality is declining where screening mammography is the standard for care [5]. The poor knowledge and wrong beliefs about cancer breast prevention among women are responsible for a negative perception of the curability of a cancer detected early and of the efficacy of the screening tests [6]. Since teachers play an effective role in communication and motivation of young students, assessment of their knowledge, attitudes and behaviors is essential to reduce the risk of breast cancer among future young generations. Women's perceived breast carcinoma risk and their knowledge about the benefits and importance of screening mammography have been shown to affect screening practices [7-10]. Anxiety and worry about breast carcinoma risk has been associated with

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lower rates of screening as well as with delay in seeking medical attention for cancer symptoms[11,12]. 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].

In order to increase BC awareness among women, it is imperative to target school teachers to be a source of campaign on knowledge of cancer symptoms, risk factors, attitude towards BSE, mammography and

common misconceptions. About (376) teachers working in girl schools in Buraida were investigated to assess their knowledge about breast cancer risk factors, their attitudes and factors associated with the practice of BSE. The results of the study showed more than half of the women to have limited knowledge level. Among the respondents the most frequently reported risk factors were non-breast feeding and the use of female sex hormones as the possible etiological factors[14]. While the effect of school health education program on the knowledge of BC and BSE was investigated in 7663 secondary school students in Jeddah. The outcome of the program was found successful in raising the awareness of secondary school girls and in helping them to practice BSE more effectively [15].

In Iraq, in a more recent survey [16] that evaluated the knowledge, attitude and practice towards breast cancer and breast self-examination (BSE) among a sample of educated Iraqis affiliated with two major universities, it was documented that almost half of the participants had a low knowledge score (< 50%). Although 90.9% had heard of BSE, only 48.3% practiced the technique[16]. So little is known about the knowledge level and awareness of breast cancer of female secondary school teachers and students in our country. Thus, the main aim of this study is:

To determine the knowledge, attitudes and practices of female secondary school teachers and students about breast cancer in Samarra city.

Subjects and Methods

A cross-sectional descriptive analytical study was conducted to determine knowledge and practices of 225 female secondary school teachers (125) & students (100) in Samarra city from November 2013 to March 2014. The questionnaire filled with information that obtained by direct interviewing between the researcher and the participants. The questionnaire contained items on the socio-demographic characteristics of participants (age, marital status, socioeconomic status & family history of breast diseases), knowledge of breast cancer symptoms diagnostic methods, risk factors, BSE, and source of their knowledge and practices of these BSE; it was permissible to give more than one source.

Participants were awarded one point for each correct response and zero points for each wrong or 'do not know' response on items related to knowledge. The maximum score was 30, the

studied women were divided according to their answers into three levels, limited level (0-9 point), moderate level (10-19 points) and high level (20+ points). Moderate and high levels were coded as the better level [14].

The Statistical Package for Social Sciences (SPSS, version 18) was used for data entry and analysis. Chi (χ^2) square test of association was used to compare proportions of different factors among cases with the same proportions among study groups. P value of ≤ 0.05 was regarded as statistically significant.

Results:

Table (1) demonstrate the socio-demographic characteristics of study sample, it revealed that mean age for teachers was 39.02 ± 8.7 and that for students was 13.7 ± 1.4 . About 42.2% of participants were married

Table(1): socio-demographic characteristics of sample

		Teachers	Student	Total	P value
Age		39.02±8.7	17.1±1.4		4.98, 223, <0.05 sig
Age of Menarche		13.7±1.4	13.12±1.2		3.39, 223, <0.05 sig
Marital status	Married	94	1	95	X ² =142.8, df=2, P value= <0.05 Sig
		75.20%	1.00%	42.20%	
	Single	24	99	123	
		19.20%	99.00%	54.70%	
	Separated	7	0	7	
		5.60%	0.00%	3.10%	
Socioeconomic status	High	45	52	97	X ² =12.3, df=2, P value= <0.05 Sig
		36.00%	52.00%	43.10%	
	Middle	80	44	124	
		64.00%	44.00%	55.10%	
	Low	0	4	4	
		0.00%	4.00%	1.80%	
Family history	no	83	78	161	X ² =3.6, df=1, P value= <0.05 Sig
		66.40%	78.00%	71.60%	
	yes	42	22	64	
		33.60%	22.00%	28.40%	
surgical procedures	Yes	8	0	8	X ² =6.64, df=1, P value= <0.05 Sig
		6.40%	0.00%	3.60%	
	No	117	100	217	
		93.60%	100.00%	96.40%	
Symptoms of BD	Yes	23	7	30	X ² =6.24, df=1, P value= <0.05 Sig
		18.40%	7.00%	13.30%	
	No	102	93	195	
		81.60%	93.00%	86.70%	
Total		125	100	225	
		100.00%	100.00%	100.00%	

whereas 55.1% were of middle socioeconomic status, 43.1% and 1.8% were of high and low status respectively. The study shown that 28.4% of them have family history of breast diseases

and while 13.3% have breast disease symptoms, only 3.6% have surgical procedures for the breast.

Table (2): percentages of participants having correct knowledge about symptoms of BC

	Teachers	Student	Total	X2,df, P value
painless lump	106	54	160	, 30.11,2,<0.05 S
	84.80%	54.00%	71.10%	
lump under armpit	103	80	183	, 1.65,2,>0.05 NS
	82.40%	80.00%	81.33%	
nipple discharge	62	58	120	,9.23,2,<0.05 S
	49.60%	58.00%	53.30%	
change in B shape	97	88	185	,7.4,2,<0.05 S
	77.60%	88.00%	82.20%	
pain in B region	80	87	167	,15.4,2,<0.05 S
	64.00%	87.00%	74.20%	
dimpling of B skin	73	51	124	,11.7,2,<0.05 S
	58.40%	51.00%	55.10%	
nipple retraction	57	24	81	,12.6,2,<0.05 S
	45.60%	24.00%	36.00%	

, whereas 55.1% were of middle socioeconomic status, 43.1% and 1.8% were of high and low status respectively. The study shown that 28.4% of them have family history of breast diseases

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Table (3): percentages of participants having correct knowledge about risk factors of BC

Risk factor	Teachers	Student	Total	X2,df, P value
FH of BC	70	36	106	15.97,2,<0.05 S
	56.00%	36.00%	47.10%	
Fatty food	76	60	136	3.33,2,>0.05 NS
	60.80%	60.00%	60.40%	
1st child after 30Y or nulliparous	81	66	147	0.6,2,>0.05 NS
	64.80%	66.00%	65.30%	
late menopause	48	31	79	18.25,2,<0.05 S
	38.40%	31.00%	35.10%	
Early menarche	19	12	31	0.57,2,>0.05 NS
	15.20%	12.00%	13.80%	
use of OCCP	106	82	188	2.507,2,>0.05 NS
	84.80%	82.00%	83.60%	
no B feeding	117	84	201	6.09,2,>0.05 NS
	93.60%	84.00%	89.30%	
large breast	31	20	51	2.98,2,>0.05 NS
	24.80%	20.00%	22.70%	
post-menopausal obesity	74	47	121	3.42, 2,>0.05 NS
	59.20%	47.00%	53.80%	
Radiation	125	91	216	11.71,2,<0.05 S
	100.00%	91.00%	96.00%	
Smoking	118	99	217	4.27, 2,>0.05 NS
	94.40%	99.00%	96.40%	
Having B lump	70	47	117	13.8,2,<0.05 S
	56.00%	47.00%	52.00%	
Oophorectomy	45	37	82	2.96, 2,>0.05 NS
	36.00%	37.00%	36.40%	

The most reported risk factor of breast cancer ,table(3);was radiation by 100%of teachers and smoking by 99% of students. The second most reported risk factor of breast cancer was non-breast feeding 117(93.6%) for teachers and radiation 91(91%)for students. On the other hand ,oophorectomy as a protective factor was known by 45(36%) of schoolteachers and by 37(37%) of students.

Regarding the relation of occupation with knowledge of risk factors the table (3)shown that the P value of all factors were > 0.05 which indicating non significant relation ,except

the factors of family history ,late menopause ,radiation ,and having breast lump in which the P value were <0.05 indicating significant correlation. The most reported diagnostic method for breast cancer, as seen in figure (1) by the study sample was clinical breast examination CBE,112(89.6%) of schoolteachers and 94(94%)of students had correct answer. Mammography was the least identified diagnostic method, it was reported by 99(79.2%) of schoolteachers and by 83(83%) of students

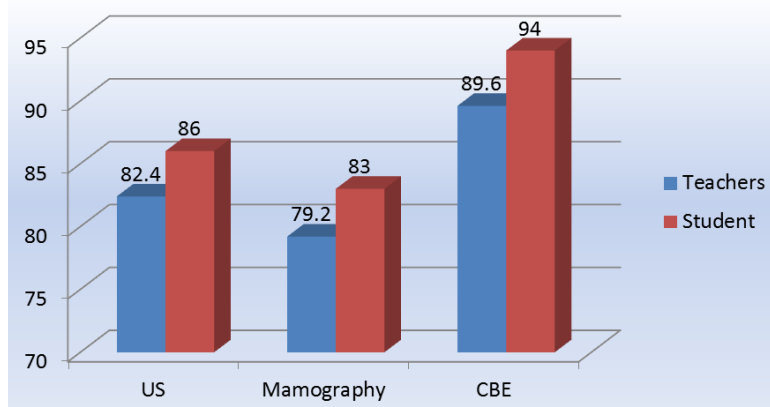


Figure (1) The knowledge level of diagnostic method

Regarding the source of knowledge about breast cancer, the most commonly reported source of information was television by 96(76.8%) of schoolteachers and 74(74%) of students. This followed by community (including relatives and friends) 44(35.2%) for schoolteachers and by study programs (including books and magazines) 48(48%) of students.

The study revealed that 58.2% were of high knowledge level ,40.4% were of moderate level and 1.4% were of lim-

ited level, higher levels are seen among teachers, unmarried and those of middle socioeconomic status participants. Those who are ≤ 40years also had higher knowledge levels.

Regarding the knowledge about BSE the study shown that 73.3%of study groups had heard about BSE but only 27.6% of them practiced it even irregularly as shown in table (4),which also revealed that teachers had more knowledge and practice of BSE.

Table (4): The knowledge practice of BSE among both study groups

		Case definition		Total
		Teachers	Student	
Are you heard about BSE	No	14 11.20%	46 46.00%	60 26.7%
	yes	111 88.80%	54 54.00%	165 73.3%
Are you practice BSE	No	74 59.2%	89 89.0%	163 72.4%
	yes	51 40.8%	11 11.0%	62 27.6%
Total		125 100.0%	100 100.0%	225 100.0%

X²=24.714, df=1, P value= <0.005 significant

Discussion:

In Iraq, in addition to being the most important cancer, there are other features that justify increasing efforts for breast cancer control including the tendency for this disease to affect younger women, the obvious rise in incidence rates and the prevalence of advanced stages at presentation associated with more aggressive tumor behavior resulting in greater fatality rates[17].

In this study the teachers who answered correctly that breast lump is a symptom of breast cancer were 84.8% , this similar to study carried out among Kuwaiti female school teachers in which 88.8% answered correctly that breast mass is the commonest symptom[18], while in a similar study carried out among female school teachers in Lagos, only 53.3% knew correctly that a mass was the commonest recognized symptom of breast cancer[19]. It also shown that 54% of students had correct answers about painless lump ,this level can be regarded better than that seen in Saudi female secondary school students in which 39.7% had correct answers about breast mass[20].

In the current study the most known risk factor for teachers was radiation 100% and smoking for students 99%, this followed by non breast feeding 93.6% for teachers and radiation 91% for students . The relatively high percentage of participants able to correctly identify these risk factors of breast cancer could be explained by the fact that those risk factors are general ones related to cancers in general. It is similar to studies done at Al /Mansur Medical Institute in Baghdad and among Nigerian nurses[21,22]. Lack of breast feeding is important risk factors for breast cancer in Pakistani females [23]. In a study from Karachi (50%) of females knew that breast cancer runs in families [24]. Conversely, a study in KSA showed that women had deficits regarding knowledge of breast cancer risk factors [25]. Some of breast cancer risk factors can be changed with health education. So health care professionals can play an important role in educating students, enhance their awareness in breast cancer risk factors and influence their behaviour[26].

In this study the most reported diagnostic method for breast cancer by the study sample was clinical breast examination CBE,(89.6%) of schoolteachers and (94%)of students had correct answer. Mammography was the least identified diagnostic method it was reported by(79.2%) of schoolteachers and by(83%) of students. This agreed with a study done

among women attending primary health care centers in Doha in which around 90% of the participating women had identified that BSE, mammography or clinical breast examination are early methods of detecting breast cancer[27], the knowledge of the use of mammography as a screening tool for early detection of breast cancer was found to be poor among Kuwaiti female school teachers only 14.3% of the respondents have heard about screening mammography[18].

Regarding the source of this knowledge ,the most reported source was television 75.55 % of participants ,this agreed with studies carried out among a sample of the educated population in Iraq[16], and among women in Qassim region in KSA [28], this reflect lack of participation of health care workers in health education of patients and emphasizing the potential effectiveness of the visual media in modifying health behaviour and promoting education among the general population.

Breast self examination is seen as an option for women in their 20's and for young adolescents girls especially in the developing world, the benefits and limitations of BSE should be made known and the earlier the better[29]. Our study shown that 73.3% of study sample had heard about BSE. This rate is lower than that recorded recently in a similar survey involving Baghdad and Najaf provinces in Iraq (91.5%)[16]. The difference might be attributed to the fact that Samarra city has experienced longstanding conflicts, civil war and strife since March 2003. It has been documented that conflicts and stress could affect the knowledge, attitude and practice of the exposed population as well as their priorities[30].

The study shown that only 27.6% of respondents practiced BSE even at irregular basis, about 82.3% of them were teachers. This agreed with a study done among Saudi female teachers of Buraidah BSE was familiar as a screening method and ever practiced by about one third of the participants[14], and a study done women attending primary health care centers in Doha the percentage of women actually practicing BSE was relatively low, 35%[28]. However, it is much lower compared to western countries, which approach 80 % [31]. BSE is appearing as a non invasive procedure that allows women to become comfortable with their own bodies ,so relevant educational programs to improve the practices of females regarding (BSE) are needed and qualitative researches to recognize the factors effective in the improvement knowledge and practices of breast cancer screening methods among these females are necessary.

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سرطان الثدي: المعارف والمواقف والممارسات لدى مدرسات وطالبات المدارس الثانوية في مدينة سامراء

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الخلاصة:

هذه الدراسة المقطعية، أساسها استبيني، قيمت المعارف والمواقف والممارسات تجاه سرطان الثدي والفحص الذاتي للثدي أجريت لدى 225 أنثى (125 معلمة و100 طالبة) في كل المدارس الثانوية للبنات في مدينة سامراء من تشرين الثاني 2013 لغاية آذار 2014. إن نتائج الدراسة أشارت إلى أن أغلبية الإناث لديهن مستوى معرفة أفضل حول سرطان الثدي والفحص الذاتي للثدي لكن مع ممارسة سيئة. التلفزيون كان المصدر الأكثر تسجيلاً للمعلومات عن سرطان الثدي والفحص الذاتي للثدي ذكر من قبل المستجيبات. معرفة المستجيبات حول سرطان الثدي تم تقييمها وتصنيفها. الجواب الصحيح الأكثر ذكراً حول أعراض سرطان الثدي كان كتلة غير مؤلمة للمدرسات 84,8% وتغيير شكل الثدي للطالبات 88%. الإشعاع كان عامل خطورة الأكثر معروفاً في كل 100% المدرسات، بينما الأكثر معروفاً في الطالبات كان التدخين 99%.

بالرغم من أن نحو 73,3% من المشاركات قد سمعن عن الفحص الذاتي للثدي، فقط 27,6% منهن يمارسنه حتى في فترات غير منتظمة. نحو 67,7% منهن لديهن مستوى معرفة عالي و 32,3% من مستوى معرفة متوسط. هذه الدراسة أظهرت أن أغلبية المشاركات كن مدركات لسرطان الثدي كوحدة مرض، لكن ممارساتهم تجاه الفحص الذاتي للثدي كانت ضعيفة. وفقاً لذلك، برامج تربية ذات العلاقة لتطوير ممارسات الإناث حول الفحص الذاتي للثدي مطلوبة وبحوث نوعية لتميز العوامل الفعالة في تطوير معرفة وممارسات طرق فحص سرطان الثدي لدى هذه الإناث يعتبر ضروري.