Knowledge, attitude, and practice of a sample of young female on breast self examination

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Abstract

Background: Breast cancer is the commonest malignant tumor in females and it's a leading cause of cancer death in females in both developed and developing countries secondly to lung cancer. A sharp increase in the incidence of breast cancer was found in younger age groups; still the highest number of cases was between 40 and 50years of age The most frequent method of discovery of breast cancer was mammogram followed by breast self examination.

Methodology: A cross sectional study carried out on 1st year college female students with an average age (18-20) years in four colleges in Baghdad city. The data collected through self administered questionnaire constructed for this purpose through the period extended from 3rd April 2004 until 30th November 2004. A convenient sample of 1260 students was included in the study.

Results: Students who have higher knowledge level about BSE were very low constituting (8.5%) while those with low knowledge level were (91.5%). High percentage of students (70.1%) wanted to learn BSE and (49.7%) reported that they want to practice it.

Recommendations: A wide scale national study about knowledge, attitude and practice of young females about BSE is recommended to provide feedback information on the role of National Iraqi Program on BSE and adopt it accordingly towards achievement of its objective. Since mass media was the main source of gaining knowledge about BSE, its' role should be emphasized on.

Keywords: Knowledge, attitude, practice, breast self examination

Introduction:

Breast cancer is the commonest malignant tumor in females and it's a leading cause of cancer death in females in both developed and developing countries secondly to lung cancer [1]. The incidence rate varies from (60-90/100000) in high risk area such as North American and European population and lower rates in some Asian population [2]. In Arab countries the incidence rate ranged from 6.3% in Oman to (34.5%) in Sudan [3]. In Iraq according to the report of MOH the incidence was (6.39%). A sharp increase in the incidence was found in younger age groups but still the highest number of cases was between 40 and 50 years of age [4].

The most common presentation of breast cancer is a lump which is usually painless. Malignant lesion is usually firm, irregular, and often produce visible signs of asymmetry [5], or cystic characterized by its persistence throughout menstrual cycle [6] still (80%) of all breast lump are non-cancerous [7]. Nipple discharge is a common symptom but an uncommon presentation of patient with carcinoma, it is only found in (2-10%) of cases [8]. Again breast pain is rarely a sign of carcinoma [2]. Skin changes: Pseudorange (due to cutaneous lymphatic oedema) and Paget's disease (Eczema-like condition of the nipple) are presentation of breast cancer [1].

Normal structures that might be mistaken for a breast mass include prominent rib or costocondral junction, normal glandularity of the menopausal breast, and the inflammatory ridge of previous biopsy site [6].That is why distinguishing between early breast cancer and benign conditions could be difficult [4].

Many breast tumors are found by women themselves even in highly screened population [9, 10]. Breast self examination (BSE) is a self practice that is easy, private, safe, involving no cost, and requiring no specific equipment [11]. Programs to support and encourage monthly breast self examination were first established in Europe, Australasia, and North America in the 1950s and implemented until recently. Surveys in many Western countries in the 1990s showed, however, that despite a high level of awareness about breast self examination only a small minority of women ever examined their breasts regularly [12]. It was found that BSE performance- regardless of regularity or quality of practice-was three times more likely to have their tumors diagnosed at an earlier stage [13].

American cancer society recommends BSE monthly at age of 20 years and over (12). In Iraq the MOH had adopted a national program on BSE since 2001 yet no data are available about the level of awareness of young females on this important women health issue.

The aim of this study:

To identify the knowledge level of young female student about breast self examination and to explore their attitude and practice.

Methodology:

A cross sectional study carried out on 1ˢᵗ year female students with an average age (18-20) years selected from different colleges in Baghdad.

The data collected through the period extended from 3ʳᵈ April 2004 until 30ᵗʰ November 2004. Each college was visited twice weekly in order to obtain the required sample size which was selected on a convenient base. A total of 1260 female students were recruited on voluntary base to participate in the study after explaining the aim of the study to them to achieve their verbal consent to ensure their maximum cooperation.

Data were collected through self administered questionnaire constructed for this purpose which includes questions about the demographic information in addition to questions on BSE. Both close and open ended questions were used. One (1) score is given to the correct answer and zero (0) score for incorrect one. Students who had total score equal or more than the median score were considered to have high knowledge level, while those with a score below the median were considered to have a low knowledge level.

Statistical analyses of data were conducted by computer with the help of the software package for statistical sciences (SPSS). Chi-square test was used to find the significance of association between different variables with the level of knowledge. P value of 0.05 or less was considered as significant.

Results:

Students who have higher knowledge level about BSE were very low in number constituting only 107(8.5%) while those with low knowledge level were 1153(91.5%) (Table-1).

Students who reported having heard about BSE were 1038(82.4%) while the remainder 222(17.6%) reported having no idea about BSE. Very low percentage of students (2.65%) knew the proper time to practice BSE in menopause and (12.8%) knew it in pre-menopause while (97.4%and 87.25%) respectively reported no such knowledge. Regarding knowing the steps of BSE (9.9%) of the study group reported knowing the steps while those who did not know constitute (90.1%). The frequency of BSE was known by only (14.2%) (Table-2).

Table-1- Knowledge level of students about breast self examination.

Knowledge level about breast self examination					
High level		**Low level**		**Total**	
No.	**%**	**No.**	**%**	**No.**	**%**
107	8.5	1153	91.5	1260	100

Table-2- Distribution of students according to their knowledge about breast self examination.

	know		Don't know		total	
	No.	**%**	**No.**	**%**	**No.**	**%**
Having any idea about breast self examination	1038	82.4	222	17.6	1260	100
Know steps	125	9.9	1135	90.1	1260	100
Know time to practice in females:						
- pre-menopause	161	12.8	1099	87.2	1260	100
- menopause	33	2.6	1227	97.4	1260	100
Know the frequency	179	14.2	1081	85.8	1260	100

High percentage of students (70.1%) was willing to learn BSE and (49.7%) reported that they want to practice it (Table-3).

Mass media was the main source of information about the variables studied except for steps of BSE where school was the main source of information (Table-4).

Regardless of its regularity only 71(5.6%) of the study group reported practicing BSE. The leading cause for not practicing BSE was "don't know steps of BSE" it represented (58.55%) while the least important cause was "not sure about their examination result" it represented (1.1%) (Table-5).

Table-3- The attitude of students towards breast self examination.

Attitude of students toward breast self examination	want		Don't want		total	
	No.	%	No.	%	No.	%
Students that want to learn breast self examination	883	70.1	377	29.9	1260	100
Students that want to practice breast self examination	626	49.7	632	50.2	1260	100

Table-4- Students' knowledge about breast self examination according to their sources of information.

Variables	No*	School		Friends		parents		Mass media		Health personnel	
		No.	%	No	%	No	%	No.	%	No	%
Having any idea about BSE*	1038	389	37.4	83	7.9	32	3.1	953	91.8	29	2.8
Steps of BSE	125	64	51.2	10	8	3	2.4	42	33.6	20	16
Time to practice BSE	194	63	32.5	3	1.5	3	1.5	110	56.7	18	9.3
Frequency of BSE	179	16	8.9	3	1.6	2	1.1	157	87.7	6	3.3

*BSE = Breast self examination   * More than one source

Table-5- Distribution of students according to breast self examination practice and causes for not practicing breast self examination.

Breast self examination practice		
	No.	**%**
Yes	71	5.6
No	1189	94.4
Total	1260	100
Reported causes for not practicing breast self examination		
- don't know steps of breast self examination	696	58.5
- there's no benefit from breast self examination	246	20.7
- only females with breast problems need to practice breast self examination.	121	10.2
- Only married females need to practice breast self examination	44	3.7
- Afraid to practice breast self examination.	33	2.8
- Didn't remember to practice breast self examination.	21	1.8
- Didn't have any idea about breast self examination.	15	1.3
- Not sure about the its' examination results.	13	1.1

More than eighty percent of the students believed that there is benefit from practicing BSE. Detection of any changes in breast was the benefit of BSE as reported by (39.1%), early detection of breast cancer was reported by (29.1%), early treatment was reported by (18.3%), and considering BSE a method of breast cancer prevention in(13.5%) (table-6).

The knowledge level about BSE was significantly associated with history of having mammogram(P value 0.0001), visiting of a private clinic of breast cancer(P value 0.0001), visiting a special center for early detection of breast cancer(P value 0.0001), having history of breast problems(P value 0.001) and having history of breast surgery(P value 0.037) (Table - 7).

Table-6- Students' beliefs about the benefits of breast self examination.

There is a benefit from breast self examination		
.	**No.**	**%**
- Yes	1030	81.3
- No	230	18.7
- Total	1260	100
Reported causes for the benefit of breast self examination.		
- Detection of any changes in the breast	402	39.1
- Early detection of breast cancer	299	29.1
- Early treatment of breast cancer	189	18.3
- Prevention of breast cancer	139	13.5
- Total	1030	100

Table-7- Knowledge levels of students about breast self examination according to their history related to breast problem.

Characteristics	Knowledge levels				Chi-square P-value
	High level		Low level		
	No.	%	No.	%	
Had mammogram					
- Yes	6	5.6	6	0.5	26.861 0.0001
- No	101	94.4	1147	99.5	
- Total	107	100	1153	100	
Visit a private clinic for breast problem					
- Yes	7	6.5	5	0.4	38.730 0.0001
- No	100	93.5	1148	99.6	
- Total	107	100	1153	100	
Visit a special center for early detection of breast cancer					
- Yes	5	4.7	3	0.3	Fisher exact 0.0001
- No	102	95.3	1150	99.7	
- Total	107	100	1153	100	
Had history of breast problem					
- Yes	6	5.6	10	0.9	17.54 0.0001
- No	101	94.4	1143	99.1	
- Total	107	100	1153	100	
Had breast surgery					
- Yes	2	1.9	2	0.2	Fisher exact 0.037
- No	105	98.1	151	99.8	
- Total	107	100	1153	100	
Had a relative with breast problem					
- Yes	11	10.2	72	6.2	2.592 0.107
- No	96	89.8	1081	93.8	
- Total	107	100	1153	100	

Discussion:

Breast cancer remains one of the most common cancers among females and its incidence is still on rise, However public education and screening had permitted the detection of the diseases at an early stage [15]. BSE remains the only opportunity to detect breast cancer until screening mammography becomes widely available [16].

The current study sought to throw the light on the knowledge, attitude, believes and practice of the young females on BSE after applying the Iraqi national program on BSE in 2001.

The low level of knowledge about BSE in the current study might be explained by the fact that BSE was not considered mandatory for cancer screening purpose by most preventive programs,

where as mammography and periodic clinical examination were highly recommended [17]. This disagreed with another study [18] conducted in Iran which revealed that (63%) of females had a good knowledge on BSE.

The general attitude toward learning BSE was promising as (70.1%) of the study group wanted to learn about BSE and (49.7%) wanted to practice BSE. This result was comparable with Milaat where (82.4%) of the study group requested to learn BSE [19].

Mass media was the main source of information about many aspects of BSE except for steps of BSE where information were gained from schools, this disagreed with other study [13] where the majority of the study group gained information of BSE technique from their friends or relatives (32.2%).

Only (5.6%) of the study group reported practicing BSE (regardless of its regularity this was comparable to other studies where the minority of the study group practice it [10, 13, 20]. Students who did not practice BSE because they do not know the steps of the examination represented 58.5% of the study group this was higher than that obtained by other study (Shad et al) where 36.4%of the females did not practice BSE because they did not know the steps of the examination. Only 2.8% were afraid to practice BSE this was lower than that obtained by (Shad et al) [15] who found that (13.6%) of females were afraid to practice it. Of those who did not practice BSE (1.1%) were not sure about their examination results this was in controversy with another study where (63.6%) did not practice BSE because they were not sure of the results of their examination[19]

The significant association between BSE and history of some problems related to breast can be explained by the fact that any female who had a breast related problem start to seek early detection of any abnormality related to their breast so they use BSE as a tool for this early detection.

Conclusion and Recommendations:

In conclusion the knowledge level about BSE and the rate of practicing BSE were very low. However the study group showed high attitude towards learning and practicing BSE and high percentage of the study group believed that BSE practice was beneficial.

A wide scale national study about knowledge, attitude and believe of young females about BSE is recommended to provide feedback information on the role of National Iraqi Program on BSE and adopt it accordingly towards achievement of

its objective. Since mass media was the main source of gaining knowledge about BSE Its' role should be emphasized on.

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