



Causes that make women afraid to experience breast self examination among attendants of primary health centers (Al-Sharqi and Al-Wahda) in Mosul city

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Abstract

Background: breast cancer one of the commonest causes of cancer morbidity & mortality worldwide. Early diagnosis remains the cornerstone of the fight against breast cancer. Breast self-examination (BSE) is free, painless & easy to practice especially in the developing countries where no facilities to do early diagnosis by mammographic scan though, the majority of women still not practicing it & there are fears & wrong thoughts about it among women. We conduct this study to highlight these factors that influence the practice of BSE.

Aim: We aim to provide useful data that could be used by the department of health in Mosul city to reformulate their programs of early detection of breast cancer, through investigating the factors & beliefs that are related to BSE, that influence the practice of BSE among women which make them away from practicing it and afraid to do it even though they have or they haven't knowledge about it.

Patients & Methods: Across sectional study was conducted on a sample of 200 women aged (15-65 yrs) who were chosen randomly from the attendants of two overcrowded primary health care centers (AL-Sharqi & Al-Wahda PHHCS) in Mosul city, they were inquired about whether they or they do not experience the (BSE) and those who answered that they didn't experience BSE were inquired about the causes that make them unwilling to do it, through answering a questionnaire which is constructed for this purpose. The study conducted through the period from the 1st of August – 1st of September 2019.

Statistical analysis: Due to the descriptive nature of the study variables were described as numbers & percentages, for comparison between two variables we apply "chi" test.

Results: out of 200 responders 119 women (59.5%) were married while (16%) were single there was high rate of illiteracy & primary school education which constitute for (66%) of the participants & those with low & moderate economic status constitute for (92%). 138 women (69%) answered that they haven't ever practiced BSE, the others who practiced BSE (13.5%) of them only who practiced BSE regularly while (17.5%) were practicing it sometimes & irregularly. There was significant relation between education & practicing BSE. (57.5%) of those who haven't experienced BSE claimed that they haven't heard about it while (42%) said that they didn't know how to perform it, the others (28%) were afraid to experience BSE. The rest of the responders who haven't practiced BSE had wrong beliefs and knowledge about breast carcinoma & BSE.

Discussion: BSE might be of meticulous significance in countries where there are inadequate resources to perform mammogram screening for early detection of carcinoma of breast.

This study showed that the vast majority of women who participate in the study have not ever practiced BSE & there is significant difference between women with low education & those with high education regarding practicing BSE. Regarding the causes that prevent women from practicing BSE the study showed that 41% of those who haven't experienced BSE haven't heard about it or they don't know how to actually perform it. In addition this study showed that there is wrong beliefs and knowledge about carcinoma of breast & the benefits of BSE in early detection and thus complete cure from this disease

Recommendations: we recommend that there is a need for continuing & enhancing health education programs through TV & social media which are accessible for nearly all women, in addition to the educational courses for doctors and health team members who are seeking forward with patients to increase their knowledge about the importance & the way of performance of BSE.

Keywords: breast, carcinoma, BSE

1. Introduction

Breast cancer is the commonest type of malignancy in Iraq [1-2], it accounts for approximately one-third of the registered female cancers according to the "latest Iraqi Cancer Registry" [3]. It is also the leading cause of cancer-related deaths worldwide, case fatality rates being highest in low resource countries, the burden of cancer in developing countries is growing and leading to a heavy morbidity, mortality, and economic cost in these countries in the last twenty years [4]. From the time of onset of breast carcinoma to that of diagnosis patients may experience disease progression which could lead to the tumor growth, & consequently worse the outcomes [5]. Stages at diagnosis

differ among countries with different incomes. Saleh *et al.* reported that 70% of women with breast cancer in developed countries had disease stage one or two, compared with (20-60%) in low /middle- income countries [6]. As proposed by the World Health Organization (WHO), early detection and screening, especially when combined with adequate therapy, offer the most immediate hope for a reduction in breast cancer mortality. This was the basis of the Iraqi national program for early detection of breast cancer, which was initiated in 2001 in an attempt to downstage this disease at the time of presentation [7]. Since then specialized centers and clinics for early detection of breast tumors have been established in the major hospitals in

all Iraqi provinces [8]. In 2010, a study done by Alwan N.A *et al.* in Iraq showed that breast cancer was diagnosed in 19.8% of women as palpable breast lumps though 90.6% of those women had recognized the lumps by themselves only 32% sought to medical advice in the first month, rest 47% of these women were presented at a late stage of the disease, and 16% gave a positive family history [9]. Breast self examination (BSE) involves self-inspection and palpation of the breast and axilla [10]. The absolute scientific validity of this type of screening is still under question however it is sufficiently promising for promotion to some extent, if done on monthly basis to augment early detection, thereby, reducing the catastrophic results of more advanced disease. Some might argue that this recommendation is not based on any scientific facts; but still it has so far proven to be effective [11].

▪ Early detection of breast carcinoma

Diagnosing breast cancer early & efficiently is a critical component of any strategy aimed at decreasing breast cancer mortality in developing countries, this is done through screening asymptomatic women by means of breast self examination, clinical examination or mammography. As BSE is painless, free & easy practice, that’s why we have focused our research on this point to have an eye on the obstacles that face women in practicing it [12, 13].

Problems in practicing BSE

1. Disgrace and Myths pertaining to cancer sometimes keep the asymptomatic women away from BSE [14].
2. Absence of comprehensive national public health educational programs.
3. Fragile training/educational curriculum for Primary health care (PHC) providers [15].
4. Fears of women towards breast cancer [16].
5. Lack of confidence about the benefits of BSE [17].
6. Absence of positive family history of breast carcinoma.

▪ Advantages of BSE

Women can use BSE to assess their breast. When they perform BSE properly & regularly, they can discover any changes in their breasts and seek further evaluation. Examination should be done every month & at the end of menses in all menstruating women [18].

▪ Steps of BSE

i) Inspection

Visual self exam is the first tool in identifying possible breast disease, women should stand in front of mirror with unclothed upper body, and the arms should be in following positions:

1. Arms relaxed & to the side.
2. Arms raised.
3. Palms flat on sides of her hips & pressing down.
4. Hands clasping in front of forehead with palms squeezed together.
5. Tighten the chest pectoralis muscles & bending forwards.

What to look out in this exam

1. Change in breast contour such as swelling.
2. Change in breast color or shape.
3. Nipple discharge, inversion, scaling, ulcers,
4. Skin changes: dimpling, puckering, orange peel, redness, prominent veins [19].

ii) Palpation

Tactile self exam, should include examining whole breast, axilla & upper chest. Each area should be examined three times with light, medium & firm pressure using vertical strip, wedge section, &/or concentric circle detection methods by the sensitive palmer pad on the flat, inner surfaces of the two or three fingers with thumb extended as this part of fingers is more sensitive than finger tips [20].

Patients & Methods

Across sectional study was conducted on a sample of 200 women who were chosen randomly from the attendants of 2 primary health care center (AL-Sharqi & Al-Wahda PHHCS) in Mosul city, they were inquired about whether they or they do not experience the BSE and those who answered that they didn’t experience BSE were inquired about the causes that make them unwilling to do it, through answering a questionnaire which is constructed for this purpose. The study conducted through the period from the 1st of August – 1st of September 2019. Due to the descriptive nature of the study variables were described as numbers & percentages, for comparison between two variables we apply chi squire test “x²”.

Statistical analysis

For statistical analysis of the result we used statistical package for social sciences (SPSS) version 25 for windows 10 and the result were expressed as numbers, percentages & tables. Chi² test was used to determine the differences between groups. P value above 0.05 considered significant

Results

In our study, out of 200 responders, 50 (25%) were at age group (15-24) years. The highest number was at age groups (25-34), (35-44). As 38% and 25% respectively. while the least number was at age group (45-65) which is (20 %).The majority of the responders 119 women (59.5%) were married, while 32 (16%) were single, the rest 24.5% were widowed & divorced women. There were high rate of illiteracy & primary school education which constitute 66% of the participants while those who had secondary education 19% & those who had university education were only 15% of the responders. The low economic status as poor & moderate constitute 92% while high economic status constitute only 8% of the sample, these socio-demographic characteristics were shown in Table (1).

Table 1: Sociodemographic characteristics

Variable	Group	Number.	Percentage
Age	15-24	50	25%
	25-34	60	30%
	35-44	50	25%
	45-65	40	20%
Marital status	Single	32	16%
	Married	119	59.5%
	Widowed	30	15%
	Divorced	19	9.5%
Educational status	Illiterate	62	31%
	Primary	70	35%
	Secondary	38	19%
	University	30	
Economic status	Poor	80	40%
	Moderate	104	52%
	Rich	16	8%

There were 138 women (69%) answered that they haven't ever practiced BSE while 27 (13.5%) were interested to practice BSE regularly while 35 (17.5%) were practicing BSE sometimes "infrequently & irregularly". We compared age groups (15-24), (25-34) with age groups (35-44),(45-65),our study showed that there is no significant difference between young & older age groups regarding practicing BSE when $X^2=3.51$ at P value:0.06, as shown in Table(2).

Table 2: Age groups

Variable	Group	Yes				No	
		Regularly		Sometimes		Number	%
		Number	%	Number	%		
Age	15-24	8	4%	2	6%	35	15%
	25-34	10	5%	8	4%	47	21%
	35-44	4	2%	10	10%	31	13%
	45-65	5	3%	15	7%	25	10%
Total		27	13.5%	35	17.5%	138	69%

There was no significant difference between married women and single group, regarding practicing BSE as $X^2=0.0012$ at P value= 0.9726, as in Table (3).

Table 3: Marital status

Variable	Group	YES				No	
		Regularly		Sometimes		Number	%
		Number	%	Number	%		
Marital status	Single	9	4.5%	5	2.5%	18	9%
	Married	17	8.5%	20	10%	82	41%
	Widowed	0	0	7	3.5%	23	11.5%
	Divorced	1	0.5%	3	1.5%	15	7.5%

Between illiterate, primary educated women and those who had secondary & high education there wasn't significant difference regarding practicing BSE as $X^2=8.288$ at P value: 0.0039, as in Table (4).

Table 4: Educational status

Variable	Group	Yes				No	
		Regularly		sometimes		Number	%
		Number	%	Number	%		
Educational status	Illiterate	1	0.5%	8	4%	53	26.5%
	Primary	5	2.5%	18	9%	47	23.5%
	Secondary	12	6%	4	2%	22	11%
	University	9	4.5%	5	2.5%	16	8%

Regarding the causes that make women away from practicing BSE, our study showed that 57% of those who haven't experienced BSE claimed that they haven't heard about it while 42% said that they actually heard about it but didn't know how to perform it well while on the other hand 28% were afraid to experience BSE & the rest had had wrong beliefs & knowledges about breast carcinoma & BSE, as shown in table (5).

Table 5: Causes of not practicing BSE

Variable	Group	Have no idea about it.	Afraid to do it.	Didn't know how to?	No benefit from it.	No family history of Breast carcinoma.
Age	15-24	10	4	19	2	0
	25-34	20	5	18	2	2
	35-44	16	9	4	1	1
	45-65	11	10	2	1	1
Total		57	28	42	6	4

Discussion

In 2011 the Iraqi ministry of health reported 3845 new cases of breast cancer accounting for 19 % of all newly diagnosed cancers, with higher frequencies of presentation at younger age groups & advanced stages at time of diagnosis [21], which arouse the need for the Establishment of national guidelines of breast cancer In Iraq, as "a low / middle income" country & the purpose of BSE is to urge women to learn the topography of their breasts in order to identify further changes. The sociodemographic characteristics showed high illiteracy rate and low economic status which could be due to the demographic changes that happened during & after the war against ISIS more over the primary health care centers (Al-Sharqui & Al-Wahda) which serve poor districts. This study showed that more than two thirds (69 %) of the responders have not experienced BSE, this not coincide with a study done in United Arab Emirates which showed that 84.4% of the responders reported that they are performing BSE [22] & differ from results of a survey done among female undergraduate students in "Karachi-Pakistan" that showed that 97% of the participants have heard about BSE& 43.9% knew the method to perform it [24], & this is due to low education level in our sample of study. There is a considerable defect in applying the BSE in our locality as only 31% of the women in this research said they do experience BSE and only out of them 13.5% perform it monthly (regularly) and aware of its benefits. On the other hand (17.5%) of the women were practicing BSE sometimes & irregularly, even though they were aware of its benefits, claiming that they have no time to do it & this coincide with a study done in Buea-Cameron in which (74.17%) of participants had previously heard about BSE, however as many as 40% had never done a BSE [23]. Our results showed that there is no significant relationship between age and practicing BSE, this coincide with a study done among Jordanian nurses [25]. Our study showed that there is significant relation between educational level & practicing BSE which goes with the results of a study conducted in Turkey [26] In relation to the causes that make women away from practicing BSE the study showed that the majority of them either didn't hear about it or didn't know how to perform it which constitute (24.5%), (16.5%) respectively which arise the urgent need for training educational programs which include practicing BSE on a study model to enhance the confidence of women regarding performing BSE, and this could be done on T.V shows & videos on social-media which are accessible for the majority of women. Wrong beliefs such as fears from that practicing BSE may result for breast carcinoma or there is no benefit from conducting this experience as breast carcinoma is a fatal disease, in addition to that the wrong beliefs that if there is no positive family history of breast carcinoma then, there is no need to perform BSE, this coincide with a study done at United Arab Emirates were 4.2% of the responders feel the same [22]. All these wrong beliefs could be corrected through educational posts about Breast carcinoma and the effectiveness of BSE in early detection & hence its effect on complete recovery from the disease.

Recommendations

As the results of this study has showed that most of women lack the knowledge & confidence in their selves to do BSE in addition to the wrong beliefs that influence their

experiences, we recommend that:

1. There is great need for continuing & enhancing educational programs through T.V & social media which are accessible for all women
2. Emphasis should be laid on BSE program in schools & universities
3. Adopting post graduate educational courses about early detection of breast cancer & BSE for health workers as they are mostly in touch with attendants of PHCS to improve their knowledge

References

1. Parkin DM, *et al.* Global cancer statistics. *A Cancer Journal for Clinicians*. 2002-2005; 55:74-108.
2. Parkin DM, Fernandez LM. Use of statistics to assess the global burden of breast cancer. *Breast*. 2006; 12(1):70-80.
3. Iraqi Cancer Board. Results of the Iraqi Cancer Registry. Baghdad. Iraqi Cancer Registry Center, Ministry of Health, 2004-2007.
4. Ngoma T. World Health Organization cancer priorities in developing countries. *Annals of Oncology*. 2006; 17(8):viii9–viii14.
5. Webber C, Jiang L, Grunfeld E, *et al.* Identifying predictors of delayed diagnoses in symptomatic breast cancer: a scoping review. *Eur J Cancer Care*. 2017; 26:2.
6. Salih AM, Alfaki MM, Alam-Elhuda DM, *et al.* Factors Delaying Presentation of Sudanese Breast Cancer Patients: an Analysis Using Andersen's Model. *Asian Pac J Cancer Prev*. 2016; 17:2105-2110.
7. Aljuboury N. Breast Cancer in Iraq: A Review. *International Journal of Medical Sciences*. 2012; 1:1.
8. National Cancer Control Programs. Policies and managerial guidelines, 2nd. ed. Geneva, World Health Organization, 2002.
9. Alwan A, Nada AS, Furat N, Nawar AG. Demographic and clinical profiles of female patients diagnosed with breast cancer in Iraq. *Journal of Contemporary Medical Sciences*. 2019; 5(1):14-19.
10. Suh M, Atashili J, Asoh E, Eta V. Breast Self-examination and Breast Cancer Awareness in Women in Developing Countries: a Survey of Women in Buea, Cameroon. *BMC Research Notes*. 2012; 5:627.
11. Baig S, Ali TS. Evaluation of efficacy of self breast examination for breast cancer prevention: a cost effective screening tool. *Asian Pacific Journal of Cancer Prevention*. 2006; 7:154-156.
12. Panieri E. Breast cancer screening in developing countries. *Screening for gynecological cancer*. 2012; 26(2):283-290.
13. Fenton J, Rolnick S, Harris E, Barton M, Barlow W, Reisch L, *et al.* Specificity of Clinical Breast Examination in Community Practice. *J Gen Intern Med*. 2007; 22(3):332–337.
14. Moynihan T. Cancer treatment myths: An expert's view. At Website Mayo Clinic, 2018.
15. Oluwatosin O. Primary Health Care Nurses' Knowledge Practice and Client Teaching Of Early Detection Measures of Breast Cancer in Ibadan. *BMC Nurs*. 2012; 11:22.
16. Cal A, Yildiz MK, Avci IA. Examination of Knowledge and Fear Levels Of Breast Cancer with the Spiritual Characteristics of Nurses. *Front Public Health*. 2018; 6:331.
17. Abay M, Tuke G, Zewdie E, Abraha T, Grum T, Brhane E. Breast Self-examination Practice and Associated Factors Among Women Aged 20-70 Years Attending Public Health Institutions Of Adwa Town, North Ethiopia. *BMC Res Notes*. 2018; 11:622.
18. Hill D, White V, Jolley D, Mapperson K. Self Examination of the Breast: Is It Beneficial? Meta-analysis of Studies Investigating Breast Self-Examination and Extent of Disease in Patients with Breast Cancer. *BMJ*. 1988; 297(6643):271-275.
19. Fletcher S, Malley MO, Earp J, Morgan T, Degnan SL. How Best To Teach Women Breast Self-examination: A Randomized Controlled Trial. *Annals of internal medicine*. 1990; 112(10):772-779.
20. Alwan Al NAS Attar WM, Eliessa RA, Madfaic ZA, Tawfeeq FN. Knowledge, attitude and practice regarding breast cancer and breast self-examination among a sample of the educated population in Iraq. *EMHJ - Eastern Mediterranean Health Journal*. 2012; 18:337-345.
21. Iraqi Cancer Board. Results of the Iraqi Cancer Registry 2011. Baghdad, Iraqi Cancer Registry Center, Ministry of Health, 2013.
22. Sreedharan J, Muttappallymyalil J, Venkatramana M. Breast Self-Examination: Knowledge and Practice among Nurses in United Arab Emirates *Asian Pac J Cancer Prev*. 2010; 11(3):651-4.
23. Atanga Bi Suh M, Atashili J, Fuh EA, Eta VA. Breast Self-Examination and breast cancer awareness in women in developing countries: a survey of women in Buea, Cameroon. *BMC Res Notes*. 2012; 9(5):627. doi: 10.1186/1756-0500-5-627.
24. Rasool S, Iqbal M, Siddiqui A, Ahsan R, Mukhtar S, Naqvi S. Knowledge, Attitude, Practice towards Breast Cancer and Breast Self-examination among Female Undergraduate Students in Karachi, Pakistan. *Journal of Advances in Medicine and Medical Research*, 29(9), 1-11. <https://doi.org/10.9734/jammr/2019/v29i930126>
25. Alkhasawneh IA, MAKHU-Zaheya L, Suleiman SM. Jordanian nurses knowledge & practice of breast self-examination. *Journal of advanced nursing*. 2009; 65(2):412-416.
26. Turk ECM, Cicekioglu M. The effect of educational programs on knowledge of breast cancer early detection practices & health beliefs. *Journal of clinical nursing*. 2010; 19(15-16):2363-2371.