Impact of education program on breast self examination among a group of women in the Kurdistan Women Union, Erbil city

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Abstract

Background and objective: Breast cancer is a global health concern. It has been identified as a major public health problem in both developed and developing nations. Breast cancer associated morbidity and mortality can be reduced through early detection and diagnosis by breast self-examination. This study aimed to assess the level of knowledge and practices regarding breast self-examination, and determine the effectiveness of a teaching program on breast self- examinations' knowledge and practice among the women who are members of the Kurdistan Women Union.
Methods: A quasi-experimental study was conducted in the Kurdistan Women Union building in Erbil city in Kurdistan Region of Iraq from June 1st to August 30th, 2015. Fifty-one women were included in the study. A questionnaire was designed and divided into three parts: socio-demographic data, previous obstetrical history, and knowledge and practices regarding breast self-examination. The checklist for the theoretical session included the knowledge about breast self-examination.
Results: The highest percentage of women was in the age 18-30 years old, graduated from primary school, married, and no family history of breast problems. The participant's knowledge and practice regarding breast self-examination were poor but throughout the educational program their knowledge was improved. There was a statistically significant difference between pre and post- educational program.
Conclusion: The study concluded that training women about breast self-examination have a positive impact on their related knowledge and practices.
Keywords: Breast Self-Examination; Kurdistan Women Union; Breast Cancer.

Introduction

The breast is an accessory organ of the reproductive system in females, and it is perceived by the society as an evidence of feminity, womanhood and motherhood. Breasts are associated with sexual attractiveness, sexual stimulation and feeding of babies.[1] Breast cancer is a global health concern and a leading cause of morbidity and mortality among women. It has been identified as a major community health problem in both developed and developing nations because of its high incidence-prevalence, over-burdened health system and added direct medical outlay. Trend analysis of breast cancer appears a rise by 50-100% in the incidence of breast cancer in last 20 years. Breast cancer associated morbidity and mortality can be reduced through speedy disclosure and diagnosis by breast self-examination (BSE).[2] BSE is the examination by women themselves to help detect any abnormality within the breasts. It involves visually and handiwork inspecting the breasts for lumps, cusps and changes in the skin and nipples of the breasts. It should be performed monthly after the age of 20 years; ideally a few days after an individual's menstrual period when the breasts are least swollen. BSE is a very serious part of every adult woman's personal health regimen.[1] Regularly examining woman owns breasts helps her more easily detect any changes that may occur. Many women obviously have some

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lumpiness and asymmetry (differences between the right and left breast). The clef to the BSE is to impart how to find changes in the breasts that persist over time. Teaching BSE seems like a good idea: it sounds inexpensive, simple, and potentially serviceable to people without access to mammography. Unequal the other methods, BSE are gratis, comparatively easy, painless, non-invasive, self-care action, and can be performed secretly. It allows women to take charge of their own health and teaches them about their bodies.[3] Therefore, this study was conducted to examine the impact of an education program on BSE among a group of members of Kurdistan Women Union. More specifically, this study tried to assess the level of knowledge and practices regarding BSE, and determine the effectiveness of a teaching program on BSE knowledge and practice.

Methods

A quasi-experimental study was conducted in the Kurdistan Women Union building in Erbil city in the Kurdistan Region of Iraq. Fifty-four women were included in this study. The inclusion criteria were age between 18-50 years old, both married and unmarried women and women who their mothers' language was Kurdish. Women who were illiterate and had breast cancer were excluded from the study. Three women were dropped from the study in the post-test theory session. Finally, the study included 51 women that participated in an educational program which divided to theory and practical sessions. The proposal of the present study was approved by the Scientific and Ethical Committees in the College of Nursing/Hawler Medical University. Then, the participants were informed about the purpose of the study and their rights before taking verbal consent. A questionnaire, composed of three parts, was designed and constructed to collect the basic data. Part one included socio-demographic characteristics such as age, marital status, the level of education,

occupational status, residential area, duration of the marriage, and the number of children. Part two included previous obstetrical history such as previous history and family history of breast problem. Part three included knowledge and practices of BSE. Part three composed of a checklist for the theoretical session included the knowledge about BSE (meaning, purposes, the importance of practicing, accurate time for performing and frequency of BSE), and practical training session included steps of BSE technique (positions, sites to be examined, inspection, and palpation technique). The data were collected through self-report by participants. Pre and post assessment was done regarding knowledge and practice of BSE. The response of the knowledge and practical items included two answers (0 = No and 1 = Yes for knowledge items) and (0 = Not Achieved and 1 = Achieved for practical steps). The number of items was 10 for knowledge and 20 for practice. The women were taught through power point presentation for the knowledge and practice of BSE in addition the researcher demonstrated the techniques on a breast models (simulator). Then, the participants' knowledge regarding BSE was assessed through the questionnaire (post-test) and participants' practice was examined by re-demonstration of BSE on breast model (post-test) by themselves. The data were analyzed through using the statistical package for the social sciences (version 20) for calculating descriptive statistical analysis, percentage and mean, and inferential statistical analysis, t-test (paired t-test) and McNemar test for comparing between pre- and post-tests of participants' knowledge and practice. All statistical procedures were tested on a probability of P value was ≤ 0.001 very highly significant (VHS), ≤ 0.01 highly significant (HS), ≤ 0.05 significant (S), >0.05 nonsignificant (NS).[4]

Results

Socio-demographic characteristics of study sample

Table 1 shows the socio-demographic characteristics of the study sample. Results of the present study indicated that 62.7% of women who participated in the study, their age ranged between 18-30 years old. The highest percentage (31.4%) of the women had primary education, and the lowest were noticed for those with intermediate education (19.6 %). Regarding the marital status, out of 51 women, 33 (64.6%) was married (with an average duration of marriage 15 ± 9 years), and most of them (51%) were workers. The highest percentage (73.3%) of them had 1-4 children.

Table 1: Socio-demographic characteristics of study sample.

Socio-demographic characteristics		n=51	
		F	%
Age group (years) **N=51**	18-30	32	62.7
	31-43	10	19.6
	44-56	9	17.6
Marital Status **N=51**	Married	33	64.7
	Not Married	18	35.3
Education Level **N=51**	Primary	16	31.4
	Intermediate	10	19.6
	Secondary	11	21.5
	Institute and college	14	27.5
Occupation **N=51**	Housewife	20	39.2
	Workers	26	51
	Students	5	9.8
Residency **N=51**	Urban	40	78.4
	Rural	11	21.6
Duration of Marriage **N=33**	1-11	13	39.4
	12-22	13	39.4
	23-33	7	21.2
Number of Children **N=30**	1-4	22	73.3
	5-8	7	23.3
	9-12	1	3.4

Self and family history of breast problems among study sample

Table 2 shows that the highest percentage (82.4%) of the study samples haven't breast problems, and (88.2%) of them haven't a family history of breast problems. While 17.6% of women's reported breast problems in the form of pain 11.8%, abscess 3.9% and redness 2%. Also,

11.8% of the women have reported a family history of breast problems in which 3.9% was breast cancer.

Distribution of women's knowledge regarding BSE

Table 3 shows the participant's knowledge regarding BSE throughout the educational program, which indicates improvements of the women's knowledge in all items.

Table 2: Self and family history of breast problems among study sample.

Self and family history of breast problems n=51	No		Yes	
	F	%	F	%
History of previous breast problems	42	82.4	9	17.6
pain	45	88.2	6	11.8
Redness	50	98	1	2
Crack nipple	51	100	0	0
Engorgement	51	100	0	0
Abscess	49	96.1	2	3.9
Unequal in size breast and rigid slightly	50	98	1	2
Others	51	100	0	0
Family history of breast problem	45	88.2	6	11.8
Breast cancer	49	96.1	2	3.9
Breast abscess	50	98	1	2
Others	49	96.1	2	3.9

Table 3: Distribution of women's knowledge regarding BSE (Pre and post-test).

Items of woman's knowledge regarding BSE (n=51)	Pre-test knowledge				Post-test knowledge				P value of McNemar test
	No		Yes		No		Yes		
	F	%	F	%	F	%	F	%	
Knowledge about BSE concept	39	76.5	12	23.5	1	2	50	98	<0.001 VHS
BSE is very useful to detect breast problems	36	70.6	15	29.4	1	2	50	98	<0.001 VHS
BSE is factor of early preventive measure	38	74.5	13	25.5	1	2	50	98	<0.001 VHS
BSE should be done monthly	38	74.5	13	25.5	1	2	50	98	<0.001 VHS
Time of BSE is different according to situation	29	56.9	22	43.1	50	98	1	2	<0.001 VHS

Distribution of women's practice regarding BSE: Table 4 shows poor practice before education program in the pretest but improvement in post-test.

Table 4: Distribution of women's practice regarding BSE (Pre-test and post-test).

No.	Items of women's practice regarding BSE (n=51)	Pre-test practice				Post-test practice				P value of McNemar test
		Not achieved		Achieved		Not achieved		Achieved		
		F	%	F	%	F	%	F	%	
1	Looking at breasts in mirror with arms on hips	51	100	0	0	0	0	51	100	N/A*
2	Looked at both breasts and noted any differences in shape, size, nipple or skin puckering, and dimpling.	51	100	0	0	0	0	51	100	N/A*
3	Raise arms over head	40	78.4	11	21.6	0	0	51		N/A*
4	Looked at both breasts and noted any differences in shape, size, nipple or skin puckering, and dimpling.	42	82.4	9	17.6	0	0	51	100	N/A*
5	look for any signs of fluid coming out of one or both nipples	49	96.1	2	3.9	6	11.8	45	88.2	< 0.001 VHS
6	lying down position, place a towel or pillow under shoulder before examining breast on that side	49	96.1	2	3.9	1	2	50	98	< 0.001 VHS
7	Use right hand to examine left breast and left hand to examine right breast to palpate the breast	40	78.4	11	21.6	1	2	50	98	< 0.001 VHS
8	Examining one breast at a time	37	72.5	14	27.5	1	2	50	98	< 0.001 VHS
9	Using the pads of the three middle fingers flat and together	51	100	0	0	1	2	50	98	< 0.001 VHS
10	Circular pattern	43	84.3	8	15.7	2	3.9	49	96.1	< 0.001 VHS
11	Up and down line pattern	50	98	1	2	6	11.8	45	88.2	< 0.001 VHS
12	Wedge pattern	50	98	1	2	10	19.6	41	80.4	< 0.001 VHS
13	Begin in a standing position	41	80.4	10	19.6	2	3.9	49	96.1	< 0.001 VHS
14	To palpated your right breast raise your right arm over your head.	42	82.4	9	17.6	1	2	50	98	< 0.001 VHS
15	Using the pads of the three middle fingers of your left hand	49	96.1	2	3.9	1	2	50	98	< 0.001 VHS
16	Circular pattern	42	82.4	9	17.6	2	3.9	49	96.1	< 0.001 VHS
17	Up and down line pattern	48	94.1	3	5.9	7	13.7	44	86.3	< 0.001 VHS
18	Wedge pattern	48	94.1	3	5.9	10	19.6	41	80.4	< 0.001 VHS
19	Examine underarm area also	49	96.1	2	3.9	6	11.8	45	88.2	< 0.001 VHS
20	Repeat this process for the other breast	38	74.5	13	25.5	1	2	50	98	< 0.001 VHS

N/A* = Not Applicable McNemar test

Comparison between knowledge and practice regarding BSE

Table 5 shows the comparison of knowledge and practice between pre and post-test that considering improvement after education. There was a highly statistically significant difference between pre and post-test regarding knowledge and practice of BSE.

Discussion

The present study was carried out to test the research objectives through the implementation of an educational program about BSE. Results show poor knowledge and practice among women regarding BSE before the intervention, as well as the high effect of an educational program on their knowledge and practice. Almost all previous study supports the results of the present study. In a study done by Gucuk and Uyeturk, women were randomized into control and test groups and the effect of a training program conducted by healthcare professional on BSE was examined. They concluded that BSE training provided by healthcare professionals might increase early breast cancer diagnosis and treatment rates by improving BSE awareness and practice.[5] The results of a cross-sectional study conducted on dental students at Panineeya Institute of Dental Sciences, India, to assess the knowledge, attitude, and practice (KAP) regarding BSE, showed that the knowledge and practice of BSE were quite low. The study also highlights the need for educational programs to create awareness regarding regular breast cancer screening behavior.[6] To assess the level of knowledge and effectiveness of planned teaching program among 40 college female students on BSE, Shalini et al. carried out a pre test post-test design by using cluster sampling method from selected colleges of Udupi district, India. The data analyzed showed that majority (52%) of them was in the age group of 18-19 years and 72% of them were had average knowledge on BSE in the pretest score. Out of 40 participants, only one student was performing BSE occasionally. They concluded that awareness regarding breast self examination among young generations is useful and it is the most important viable tool for early detection.[7] The results of a quasi experimental study conducted on 36 women from the Faculty of Education for Science Departments in Dammam University at Hafer Al Batin Governate, Kingdome of Saudi Arabia, indicates that the knowledge of breast cancer, as well as a practice of BSE among participants, were poor before starting the educational program. Factors contributed to this could be gaining such information from a nonprofessional source. The majority of women in this study were married, so they could be busy raising and supporting their children and family and have no time to care for themselves. Further, lack of awareness regarding the correct methods of how to perform BSE could also be a factor. The researchers recommended: developing a community awareness programs targeted toward women to improve their knowledge and prioritize their concerns and raise women awareness regarding BSE early in their life through media, schools, premarital examinations and maternity clinics.[8] Although BSE is one method of primary

Table 5: Comparison between pre and post test knowledge and practice regarding BSE

Knowledge and Practice regarding BSE (n=51)	P value of t-test
Participant's Knowledg	< 0.001 VHS
Participant's Practice	< 0.001 VHS

level of prevention of breast cancer, which should be adopted by all females started with an age of 20 years and above. It does not improve mortality but decreases morbidity, but many studied show that the majority of women did not practice BSE. A cross-sectional study design conducted on 200 teachers in 32 schools for girls in Mosul city revealed that two-thirds (122 teachers) had heard of BSE and the main source of knowledge was TV program (72.9%). One hundred three (84.4%) of participant had knowledge about the procedure of BSE, but assessment of this knowledge procedure was below the (cut-off point = 2), and general information was also low, attitude toward BSE just above the mean (50.8%). One handed forty eight (74%) of the responders stated that they had never done BSE. The commonest reason given for not doing it, did not hear about BSE (39.0%). The study concluded that obvious lack of knowledge regarding and general information, negative attitudes, very low practice rate to BSE among school teachers, certain effort required to improve knowledge, change attitude, and enhance practicing of BSE by applying wide extended educational program to them.[9] A quazi-experimental study was implemented on 134 students in technical health institute by Moussa and Shalaby. Their results demonstrated very low students' knowledge, attitude and practice before the intervention, with statistically significant improvements after the intervention. The study concluded that training nursing students in BSE have a positive impact on their knowledge, attitude and practice. Hence, similar training programs should be implemented in similar settings. The issue should also be incorporated in nursing schools curricula.[10] In the present study, few of the women had a family history of breast cancer, almost similar to finding of a study conducted among women in South India, by Kommnla et al. that showed that 4.8% had a family history of breast cancer. Also, they found

that 16.5% were aware of BSE and only 2.4% are practicing BSE.[11] It is worth mentioning that nurses can play an obvious role in educating the women regarding BSE, so it is important that primary health nurses have adequate breast cancer knowledge and practice of breast self examination to contribute effectively to primary health care. The in-service education program can improve the knowledge about breast cancer and practice of breast self examination in trained primary health nurses.[12] The limitation of the preset study is no concern the attitudes of the women regarding BSE and reasons behind the poor knowledge and practice.

Conclusion

The study concluded that training women about BSE have a positive impact on their related knowledge and practices. It is recommended that similar training program is implemented for all the public clubs of women. This issue should also be incorporated in the second school's curriculum. It is also important to increase the information about breast cancer, early diagnosis, and BSE practice given by health care staff and especially through media (such as television, magazine, newspaper) which can provide information and raise awareness about BSE practices.

Conflicts of interest

The authors report no conflicts of interest.

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