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 femininity, womanhood and motherhood. Breasts are associated with sexual attractiveness, sexual stimulation and feeding of babies. 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). 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. Regularly examining woman owns breasts helps her more easily detect any changes that may occur. Many women obviously have some
Impact of education program on breast self examination among women in Kurdistan region of Iraq

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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 whose 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

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.
## 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>
<thead>
<tr>
<th>Socio-demographic characteristics</th>
<th>n=51</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age group (years)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30</td>
<td>32</td>
<td>62.7</td>
<td></td>
</tr>
<tr>
<td>31-43</td>
<td>10</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>44-56</td>
<td>9</td>
<td>17.6</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>33</td>
<td>64.7</td>
<td></td>
</tr>
<tr>
<td>Not Married</td>
<td>18</td>
<td>35.3</td>
<td></td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>16</td>
<td>31.4</td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>10</td>
<td>19.6</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>11</td>
<td>21.5</td>
<td></td>
</tr>
<tr>
<td>Institute and college</td>
<td>14</td>
<td>27.5</td>
<td></td>
</tr>
<tr>
<td><strong>Occupation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>20</td>
<td>39.2</td>
<td></td>
</tr>
<tr>
<td>Workers</td>
<td>26</td>
<td>51</td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>5</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td><strong>Residency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>40</td>
<td>78.4</td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>11</td>
<td>21.6</td>
<td></td>
</tr>
<tr>
<td><strong>Duration of Marriage</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-11</td>
<td>13</td>
<td>39.4</td>
<td></td>
</tr>
<tr>
<td>12-22</td>
<td>13</td>
<td>39.4</td>
<td></td>
</tr>
<tr>
<td>23-33</td>
<td>7</td>
<td>21.2</td>
<td></td>
</tr>
<tr>
<td><strong>Number of Children</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-4</td>
<td>22</td>
<td>73.3</td>
<td></td>
</tr>
<tr>
<td>5-8</td>
<td>7</td>
<td>23.3</td>
<td></td>
</tr>
<tr>
<td>9-12</td>
<td>1</td>
<td>3.4</td>
<td></td>
</tr>
</tbody>
</table>
Impact of education program on breast self examination

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

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

- 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.
Impact of education program on breast self-examination (BSE)

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

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

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 professionals 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. 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. 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.

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 Governorate, Kingdom 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.

Although BSE is one method of primary

<table>
<thead>
<tr>
<th>Knowledge and Practice regarding BSE (n=51)</th>
<th>P value of t-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant’s Knowledge</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td></td>
<td>VHS</td>
</tr>
<tr>
<td>Participant’s Practice</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td></td>
<td>VHS</td>
</tr>
</tbody>
</table>
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 related knowledge and practices. Hence, similar training programs should be implemented in similar settings. The 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.10

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.

References


