Assessment the Knowledge and Attitude of Breast Self Examination among Secondary School Female Students in Mosul City

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Abstract:

Background: the examination of the Breast is regarded as the secondary method of breast cancer protection which must be done by all females during the age 20 years and above.
Aim: To assess knowledge and attitude level of females secondary school student's towards breast self examination (BSE).
Subject and method: Cross-sectional study design involved 1000 female student in secondary school in Mosul city .The study started from (1st March till 1st June) 2019, lasting for about (3 months) by using a self-administer standardized questionnaire include knowledge and attitudes toward , source of knowledge
Result: the study revealed that grand mean assessment value regarding BSE general information was 2.09 just above the (cut – off point = 2). The main source of knowledge was health professional (32.3%), followed by TV and social media (27.6%). Nearly two third of study sample had positive attitude to consult doctor and period of consultation within one week with mean score 2.3 and 2.4 respectively. In general the mean score assessment value of attitude toward BSE among study sample was below the cut of point 1.7.
Recommendation: Provision of intensive educational program to secondary school students by health professional and encourage school teachers to teach and complete educational curriculum which focus to BSE and take attention to the subject to increase awareness and improve attitude toward it.
Key word: Examination of the breast, Knowledge, Attitude, Secondary school females.

Introduction:

The cancer of the breast canceris regarded as the most prevlant one all over the world which constitutes about 1/3 of Iraqi female's tumor. [1, 2]Although death from malgnancy represent (10.64%) of all death in Iraq 2017 [3]. but breast cancer is the top ten cancer cases (the incidence rate 20.21) and death rate (4.29) among female in Mosul 2014 [4]. All women should be familiar with its appearance [5], look for changes and what to do if any change found [6]. Breast Self-Examination (BSE) consider as one approach of secondary level of prevention of breast tumer, which not improve mortality rates but lower the morbidity rates [7]. In many countries, it may be the only alternative method of early detection of breast tumer and prefer to be adopted monthly by all females aged more than twenty years old [5]. It is agreed by many national organizations such as American Medical Association 2007 [7], Susan G. Komen for the Cure 2009 [8], and American Cancer Society 2012 [9].

A cross sectional study among school teacher in Mosul city 2012, found that there was a lack in general information about disease causes with quite lower attitudes and low practice rate towords the breast examination [10]. Knowledge of BSE affects its practice and change attitude towards it, education is required

to correct misconceptions [11]. This agreed by study 2012, concluded that the breast health promotion program was effective in increasing BSE proficiency of knowledge in a sample of school teachers in Mosul [12].

A similar study was done among 909 students in Pakistan 2018, show that Completing BSE each month allow you to find lumps early in (74.0%), Right time to practice BSE is immediately after end of menses (33.7%), The frequency for practicing BSE is once monthly (41.7%), detection of lumps by BSE reported by (15.6%) of study sample.

The aim of current study to assess the knowledge and attitude level of BSE among female secondary school students in Mosul city.

Subjects and Methods:

The present study implemented in secondary school students in Mosul city aimed to assess knowledge, attitude, toward BSE. The study sample included female student aged between 16-20 years, all from urban area in Mosul, Muslim, and single

Ethical issues with the scintific aggreements from Ninawa health directorate in Mosul city were taken before data collection. A cross sectional study design was carried out at 4 randomly selected female secondary school, including 1000 female student who had no history of breast disease or family history of breast cancer. The study was done during the period from (1^{st} March till 1^{st} June) 2019, extending 3 months by introducing a self-administer standardize data collection form consist from three part as follow.

I- BSE general information consist from 9 items include: (The ideal age to performing BSE is ≥ 20 years old, and the correct time to do BSE is after the monthly period immediately with the proper time needed to perform BSE is ≤ 10 minute and the frequency for examining BSE is once monthly, BSE can be done in home, Completing BSE each month allow you to find lumps early, Completing BSE monthly lower the chance of death from breast tumor, Completing BSE monthly decrease your chances of disfiguring surgery if breast cancer occurs, and what to look for during BSE include: (lump, change in the size of the breast, discoloration of skin, changes in the nipple, and discharge from the nipple**). (Appendix 1)**

II- Source of information include: (health professional, TV and social media, reading any printed material, teachers and school book, and friends)

III- Student's attitudes toward BSE consist of five items which are

1-no any problem detection in my breasts

2- no need for examination

3- It is a difficult procedure

4- Need much time

5-It is an embarrassment

what to do if you discover a breast lump by BSE include: (consult doctor, be worried, tell my family, agree to perform mastectomy, use traditional medicine, go to prayer house), and consultation period if you discover mass: (within week, within month, up to 3 months, and no attention).

Statistical analysis:

The information regarding each woman was transferred into a code sheet. Data were tabulated, categorized, and analyzed using SPSS (version 23) software program. Simple percentage is used. The answer of Part I and III are scaled according to three point Likert

scale as (yes, uncertain, and no), the mean score was calculated as follows:
(No. of students said correct answer × 3 + No. of students said uncertain answer ×2 + No. of students said incorrect answer × 1) / 1000 which is the total No. of sample size. The deviation of the score using the following formula: Cut-of point (3+2+1)/3=2. [12].

Result:

(Table 1) revealed that grand mean assessment value regarding BSE general information was 2.09 just above the (cut – off point = 2). Completing BSE each month allow you to find lumps early was (80.1%) of student, right time to practice BSE is immediately after end of menses reported by (71.0%) of them, completing BSE monthly decrease chance of dying from breast cancer in (68.9%), and the ideal time required to perform BSE is ≤ 10 minute is least reported (25.6%). The most common symptom was detected by BSE was Lump in (63.0%).
The main source of knowledge was health professional (32.3%) followed by TV and social media (27.6%), reading any printed material (24.5%),
(Table 3) showed that more than half of the study sample believed that BSE neither difficult and time consuming nor embarrassment, while 47.4% of the study samples believed that if they do not have any problem in their breasts, so there is no reason to examine their breasts. Nearly two third of study sample had positive attitude to consult doctor and period of consultation within one week with mean score 2.3 and 2.4 respectively.

Table (1): knowledge regarding BSE general information among the study sample.

BSE general information		No. of student (1000)			Mean of score	Grand mean assessment value
		% of Yes	% of Uncertain	% of No		
1-	Early detection of the breast lump	80.1	15.2	4.7	2.7	2.09
2-	Proper time for practicing .	71.0	23.9	5.1	2.6	
3-	Decrease the chance of death .	68.9	15.5	15.6	2.5	
4-	It is done once monthy	68.7	14.1	17.2	2.5	
5-	BSE can be done in home.	65.8	16.5	17.7	2.4	
6-	Completing BSE monthly decrease your chances of disfiguring surgery if breast cancer occurs.	60.5	23.2	16.3	2.4	
7-	20 years old is the proper age for starting the breast examination	38.6	26.2	35.2	2.0	
8-	Less than 10 minutes is the required time for ding the examination .	25.6	64.4	10.0	2.1	
9	What to look for during BSE					
	1-Lump	63.0	12.1	24.9	2.3	
	2-Change in the size of the breast	30.3	6.5	63.2	1.6	
	3-Discoloration of skin	11.5	12.3	76.2	1.3	
	4-Changes in the nipple	17.0	8.6	74.4	1.4	
	5-Discharge from the nipple	9.7	22.1	68.2	1.4	

Table (2): Source of knowledge regarding BSE among study sample

Source of knowledge		No. of student (1000)	
		No.	%
1-	Health professional	323	32.3
2-	TV and Social media	276	27.6
3-	Reading (any printed) material	245	24.5
4-	Teachers and school book	198	19.8
5-	Friends	196	19.6

Table (3): Attitude toward BSE among the study sample

Attitude toward BSE		No. of student (1000)			Mean of score	Grand mean assessment value
		% of Yes	% of Uncertain	% of No		
1-	I do not have any problem in my breasts, so there is no reason to examine my breasts*	38.3	14.3	47.4	2.3	
2-	BSE is embarrassment*	34.9	9.3	55.8	2.4	
3-	BSE is difficult and time consuming*	17.9	26.0	56.1	2.3	
4-	What to do if you discover a breast lump by BSE?					
	1- Consult doctor.	61.7	12.3	26.0	2.3	
	2- Be worried.	41.3	12.9	45.8	1.9	
	3- Tell my family.	19.0	23.0	58.0	1.6	1.7
	4- Agree to perform mastectomy.	18.8	3.5	77.7	1.4	
	5- Use traditional medicine.	3.8	7.3	88.9	1.1	
	6- Go to prayer house.	3.7	6.3	90.0	1.1	
5-	Consultation period if you discover mass					
	1- Within week.	69.9	2.5	27.6	2.4	
	2- Within month.	17.5	6.7	75.8	1.4	
	3- No attention.	7.1	1.9	91.0	1.1	
	4- Up to 3 months.	5.5	4.9	89.6	1.1	

***The Correct answer was no**

Discussion:

BSE general information:

A cross-sectional study among 909 students in Pakistan 2018, revealed that Completing BSE each month allow you to find lumps early in (74.0%), Right time to practice BSE is immediately after end of menses (33.7%), the frequency for practicing BSE is once monthly (41.7%), detection of lumps by BSE reported by (15.6%) of study sample [13].

The cross sectional study, was conducted on 500 Kurdish Women in Sulaimani Governorate/ Iraq 2016, revealed that 175(35.0%) of the participants were confirmed the importance of breast self-examination

(BSE) in early detection of breast cancer, while only 74(32.5%) identified the correct time for practice of breast self-examination. In addition 54(23.8%) of the female recognized the correct age for starting breast self-examination, the variation in the finding attributed to the difference in age, education, and occupation [14].

Sources of information:

The present study revealed that the main source of knowledge was health professional form (32.3%), this due to wide expand of Iraqi national education program since 2001, as there is periodic visited from health professional to school and give instruction regarding early detection methods and how to protect from breast cancer including importance of practicing BSE [15]. T.V. program and social media rank the second source of information (27.6%) this due to the opportunity and access of these electronic media and watching T.V. including internet especially after year 2003 in addition to that the study sample were educated, young and can interact with such program. Unlike to study done in Mosul 2012, among school teacher revealed that T.V. program and social media rank the top of the source information and health professional rank least [11]. These results were seen among many studies [16, 17]. Teachers and schoolbook rank least source of information in spite of presence of subject in curriculum of schoolbook in fourth grade preparatory stage.

Attitude toward BSE:

More than half of the study sample believed that BSE neither difficult and time consuming nor embarrassment, while 47.4% of the study samples believed that if they do not have any problem in their breasts, so there is no reason to examine their breasts. Nearly two third of study sample had positive attitude to consult doctor and period of consultation within one week with mean score 2.3 and 2.4 respectively. In general, the grand mean assessment value of attitude toward BSE among study sample was below the cut of point 1.7. Age, knowledge, experience, marital status, graduation in education and others factors play an important role in attitude of person. Attitudes are a permanent way of behaving acquired by social interaction so it is caught not taught once it form difficult to change and required collaboration between family, teachers, schools, religious leaders, and elders. Knowledge might dramatically improve the attitude, disbelieve, and misconception. Health behaviors that are formed during adolescence can enhance future health and have implications for the entire life course [18].

A positive attitude was seen among health care worker in Taheran, Iran 2002, the majority of respondent believed that BSE is not difficult and time consuming neither embarrassment (63% and 72%) respectively [19], and in Pakistan, 2018 among 909 medical college student who already taught the important of early detection of breast cancer including BSE in their curriculum in the college, the study showed that the participant had positive attitude toward BSE as (87.1%). Nearly two third of participant believe that BSE not embarrassing. Response if discover mass by BSE include consult doctor, till their family, using traditional therapy, and no attention in (63.8%), (26.2%), (23.5%), (2.7%) respectively.[13] Other study in Qassim University Buraydah-Saudi Arabia, 2017 among 365 student revealed that nearly three fourth of them

consult doctor and only (5.0%) reported no attention [20]. while in Saudi-Arabia 2007, a study among 376 (67.6%) of secondary school teachers show a negative attitude toward BSE as grand mean assessment value 1.3 below the (cut – off point = 1.5) [21], the study done among adult teacher who had his own experience with disease, some of them bad family history of breast cancer result in a frustrating fact about breast cancer prognosis, those teacher spend more day time and transmit thought and ideas to each other.

Conclusion:

The study revealed that although female secondary school student had good knowledge regarding BSE general information as mean score assessment value above cut-off point but had negative attitude toward it.

Recommendation:

1- Provision of intensive educational program to secondary school students by health professional

2- Encourage school teachers to take attention to the subject

3- Teach and complete educational curriculum which focus to BSE to increase awareness and improve attitude toward it.

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