

Knowledge, Attitude and Practice towards Breast Cancer and Breast Self Examination among Women Attending Al-Mustfa Medical Center, Ombadda Locality, Khartoum State, Sudan (2018 - 2019)

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Abstract

Background and Objective: Breast cancer is the major public health problem both in developed and developing countries, it is the 2nd leading cause of death worldwide as well as in Sudan. Breast self-examination is one of the screening methods, it is a simple and quick procedure help in early detection of Breast lumps. The study aim to assess the level of knowledge, attitude and practice to breast cancer and breast self-examination and to identify the Barriers to Breast self-examination practice.

Method: A cross-sectional study conducted at Al Mustafa medical center in OMBADA locality among 380 females 20 years old and above. Data was collected using self administered and interview questionnaire and analyzed by SSPS version 23.

Results: The mean age of participants was 34.32 Years (SD = 11.34) About 64.5% had heard about Breast self-examination and 25% were practiced Breast self-examination. the level of practice was found to be significantly influenced with family history ($p = 0.000$) educational level ($p = 0.00$), and occupation ($p = 0.00$).

The most common reasons for not practicing Breast self-examination was the lack of knowledge about the Breast self-examination and do not know how to perform the technique correctly.

Conclusion: The study revealed a good level of knowledge regarding breast cancer and Breast self -examination but low level of practice in the study area.

Keywords: Knowledge; Attitude; Practice; Breast Cancer; Breast Self-Examination

Abbreviations

BC: Breast Cancer; BSE: Breast Self Examination; SPSS: Statistical Package For Social Science; SD: Standard Deviation

Introduction

Breast cancer is the major public health problem in both developed and developing countries. with more than one million new cases are diagnosed annually [1]. It is the second leading cause of death worldwide as well as in Sudan [2].

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. In Arab countries the incidence rate is ranged from (6.3%) in Oman to (34.5%) in Sudan [3].

BC is the commonest cancer in Sudanese women, it forms 29 - 34.5% of all cancers among females, it occurs at a younger age compared to Western Women, about 40% of the patients are below the age of 45 years, mean age of 50 years. Most of the patients present with stages 3 and 4 [2]. Prevention and early detection is the best way for women to lower their risk of dying from the disease.

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The appropriate screening procedure has an important role in early detection and diagnosis that can promote the treatment response. Early diagnosis can improve the effectiveness of the treatment and decrease the disease burden in all types of cancer, including breast cancer. It also plays a pivotal role in the prevention of breast cancer. The 5-year survival rate has reached approximately 85% with early detection, whereas the late detection can decrease the survival rate to 56%. Therefore, screening has an undeniable role in prolonging life expectancy and decreasing the complications and mortality rate of breast cancer [8].

Screening methods include: BSE, clinical breast examination and mammogram. In Sudan; screening programs are focused on BSE and clinical breast examination because of the high cost of mammogram. BSE is very important and may be the only means for identifying breast cancer at early stages in low- and middle-income countries in sub-Saharan Africa.

Public awareness and education in self-examination can have tremendous impact on early identification, diagnosis, treatment and consequently survival from breast cancer [2].

Several studies have shown that barriers to diagnosis and treatment can be addressed by increasing women awareness of breast cancer. A positive correlation also exists between breast cancer awareness and screening practice [4].

BSE is a self-practice that is easy, private, safe, involving no cost, and requiring no specific equipment [3]. reasons like lack of knowledge about BSE, lack of self confidence in their ability to perform the technique correctly, fear of possible discovery of lump, lack of time and embracement associated with manipulation of breast have been cited as reasons for not practicing BSE [6]. 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. 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 [3].

Problem statement

Breast cancer in women is a major health burden both in developed and developing countries. It is the second leading cause of death in women worldwide as well as in Sudan. it is estimated that more than 1.6 million new cases of BC occurred among women worldwide in 2010 [2]. The rising global incidence of malignant diseases as documented by world health organization is an issue of serious concern particularly in developing countries where the increase seems to be more predominant and the majority of patients arrive the medical centers at late stages, thus resulting in high mortality [7].in Sudan 80-85% of patients discover the disease in advanced stages due to low level of knowledge about breast cancer and screening methods.

Justification

Breast cancer remains one of the leading causes of morbidity and mortality worldwide. Early detection of breast cancer and early treatment increase the chances of survival; in low- and middle-income countries, diagnose breast cancer early by promoting breast self-awareness; clinical breast examination and mammographic screening will reduce breast cancer mortality.

Improvement of prognosis of breast cancer and reduction in mortality are achieved through early detection which is highly dependent on practicing the screening methods and raising the awareness of women about BC and BSE. Also, evidence shows that having knowledge of BSE has a positive impact on early detection of BC [9].

To facilitate early detection of BC, knowledge attitude and practice on the screening methods are essential so we need more researches to be conducted in this area [9].

Objective of the Study

General objective

To assess the knowledge, attitude and practice to breast cancer and breast self-examination.

Specific objectives

1. To assess the knowledge of women to breast cancer, symptoms and signs.
2. To assess the knowledge of women BSE.
3. To assess the practice of women to BSE.
4. To identify the barriers to BSE.

Materials and Methods

This is a descriptive cross-sectional study conducted at Al- MUSTAFA medical center in OMBADDA locality. The center has a general practitioner and many specialists such as: obstetrician, pediatrician, dermatologist, dentist, lab technician, and ophthalmologist. There is lab and pharmacy, the center works every day in the morning and evening and there is health insurance in the center.

The study population include 380 women according to the following.

Inclusion criteria

women who are 20 years old and above attending the center in the period from 11th of October to 3rd of November 2018, because BSE should be done by all women who are 20 years old and above.

Exclusion criteria

- Women who were less than 20 years old.
- Women who were not from OMBADA locality.

The sample size was determined by using the following formula: $(n = z^2pq/e^2)$.

Based on 0.5 expected prevalence, considering 95% confidence interval and 5% marginal error which gave sample size of 384 women, but the collected samples were 380 women because of refusal of 4 women. the sample technique which was used is convenience sampling.

Data was collected by using self-administered and interviewing questionnaire which was designed based on previous articles.

The questionnaire consist of 20 item questions to elicit demographic data, knowledge to breast cancer and BSE, attitude to breast cancer and BSE, family history practice of BSE and barriers for not performing BSE.

Barriers for not performing BSE were investigated by asking participants to 'agree' or to 'disagree' that any of the 9 items stated in the questionnaire were barriers to BSE practice. examples of these barriers included statement, Didn't hear about BSE, don't know how to do BSE, fear from being diagnosed with breast cancer, and have no time to practice BSE.

Participant were informed that they could choose more than one statement.

For those participants who have misconceptions about BSE such as "the concept that BSE is for patients only" have been corrected.

Data management and analysis were performed using statistical package for social science (SPSS version 23). categorical variables were presented as frequencies percentages and figures.

To find the association between independent and dependent variables chi-square test was used with corresponding 95% confidence intervals. A P-value of <0.05 was considered statistically significant.

Ethical approval was obtained from University of Khartoum faculty of medicine, department of community medicine.

In addition, permission was obtained from the administrator of the center, and also verbal consent was taken from each participant as the participation is voluntary.

Results

Table 1 show the demographic profile of 380 participants with mean age = 34.32 years (SD = 11.341). 48.4% (184) of the respondent were between 20 - 30 years, about 70.3% were married 39.5% were have university/above university educational level and majority of respondents were housewife (51.6%).

		Frequency	Percent
Age	20 - 30	184	48.4
	31 - 40	96	25.3
	41 - 50	72	18.9
	51 - 60	20	5.3
	More than 60	8	2.1
	Total	380	100.0
Marital status	Married	267	70.3
	Single	94	24.7
	Widowed	13	3.4
	Divorced	4	1.1
	Separated	2	0.5
	Total	380	100.0
Educational level	Un educated	29	7.6
	Primary school	80	21.1
	Intermediate school	23	6.1
	Secondary school	98	25.8
	University/above	150	39.5
	Total	380	100
Occupation	Housewife	196	51.6
	student	59	15.5
	Worker	34	8.9
	Employee	89	23.4
	Other (not work)	2	0.5
	Total	380	100

Table 1: Socio demographic profile of participants (n = 380).

Regarding the family history about 48.4% had a positive family history of breast cancer. Regarding the general knowledge and attitude of breast cancer among the respondent the majority (84.5%) of women knew that BC is tumor, it is nor bacterial neither inflammatory disease.

Most of the participants (81.6%) knew that it isn't an infectious disease. 53.2% of respondent thought that presence of lump is from the signs of disease and about 96.6% of respondent their attitude to presence of lump is through go to doctors.

Regarding knowledge and practice relative to BSE: most of the respondents (64.5%) heard about BSE as shown in figure 1 below.

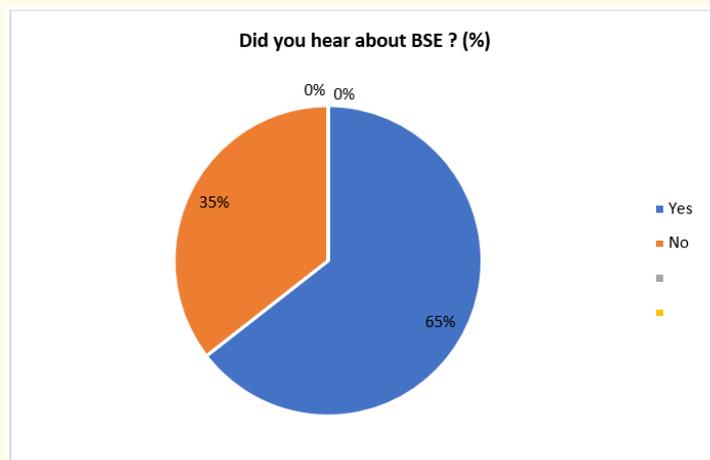


Figure 1: Percentage of women who had heard about BSE.

Among those who heard about BSE, a total of 95 (25%) practiced BSE and the remaining 150 (39.5%) didn't practice BSE, also majority of them about (62.9%) knew that BSE is an important method in early detection of breast cancer and about 40.8 of them knew how to do BSE all these result shown in table 2 below.

Item	n	%	Item	n	%
1-Do you hear about BSE?			5-The suitable time for practicing BSE?		
Yes	245	64.5	1 week prior to menstrual cycle	28	7.4
No	135	35.5	During menstrual cycle	15	3.9
Total	380	100	After menstrual cycle	95	25
2-If, yes is it important in early detection?			During breast feeding	9	2.4
Yes	239	62.9	Don't know	98	25.8
No	2	0.5	I did not hear about BSE	135	35.5
I do not know	4	1.1	Total	380	100
I did not hear about BSE	135	35.5	6-Have you ever practice BSE?		
Total	380	100	Yes	95	25.0
3-Do you know how to do BSE?			No	150	39.5
Yes	155	40.8	I did not hear about BSE	135	35.5
No	90	23.7	Total	380	100
I did not hear about BSE	135	35.5	7-If yes, the number of times you practice BSE		
Total	380	100	Once every month	31	8.1
4-At which age BSE start?			Once in 2 months	6	1.6
Before puberty	13	3.4	Once in 3 - 6 months	42	11
After puberty	182	47.9	Once in more than a year	16	4.2
Don't know	50	13.2	I did not hear about BSE	135	35.5
I did not hear about BSE	135	35.5	I do not practice BSE	150	39.5
Total	380	100	Total	380	100

Table 2: Knowledge and practice relative to BSE (n = 380).

*BSE= Breast Self-Examination.

Regarding barriers for not performing BSE the most common reasons were: “don't hear about BSE” (38.4%), “don't know how to do BSE” (37.6%), fear of being diagnosed with breast cancer as well as becoming worry if do BSE (36.1%) and ignorance of BSE (26.8%). Some of respondent (22.4%) thought BSE isn't important at all, fewer of respondents about 16.3% believed that BSE is for patients only also 16.3% reported that have other responsibilities more important than BSE and about 12.9% thought that some women have no time to practice BSE as shown in the figure 2 below.

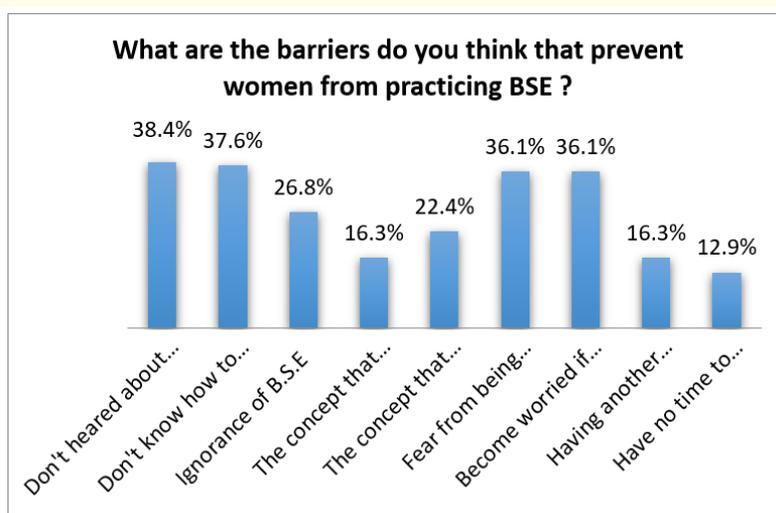


Figure 2: Summarize the barriers to BSE.

Regarding knowledge score to Breast Cancer 84.5% of the participants had a good level of knowledge as shown in figure 3 below.

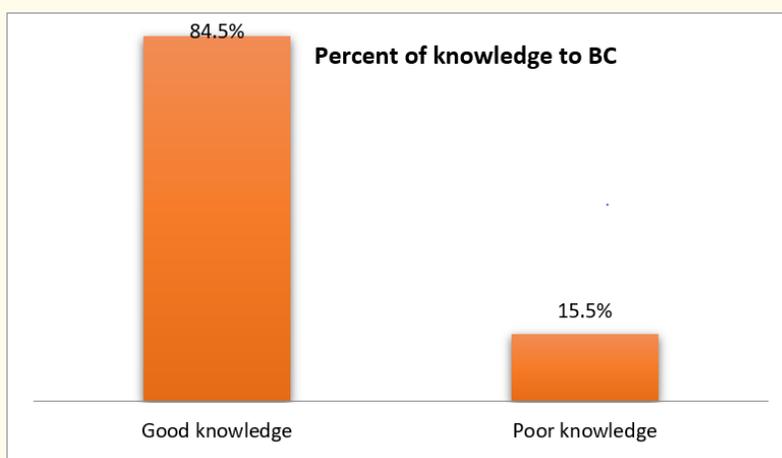


Figure 3: Score of knowledge to breast cancer.

Also more than half of the participants 55.8% had agood level of knowledge regarding BSE as shown in figure 4 below.

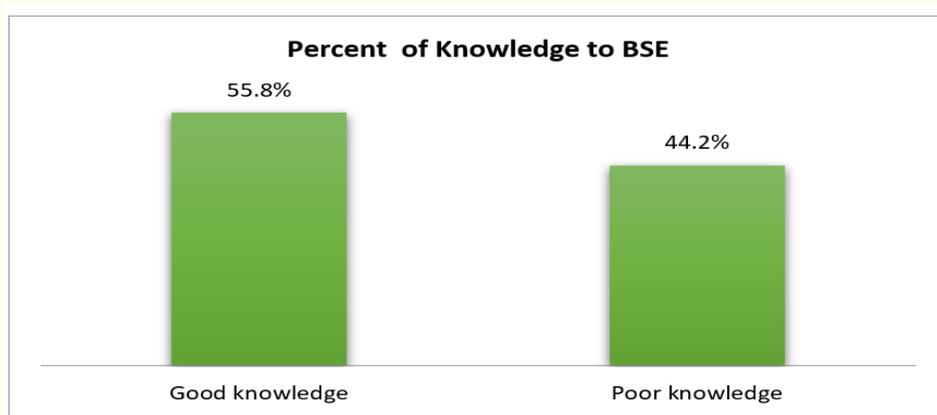


Figure 4: Score of knowledge to BSE.

Regarding the factors that influence the knowledge to breast cancer educational level and occupation significantly influenced the knowledge ($p = 0.005$ $p = 0.01$) respectively. Also educational level and occupation significantly influenced the knowledge to BSE ($p = 0.000$), so those who have high level of education has a good level of knowledge. Regarding the factors that influenced the practice of BSE educational level significantly influenced the practice of BSE ($p = 0.00$). A family history of breast cancer was also significantly influenced the practice ($p = 0.00$) and occupation also has a significant relation with the practice.

Age and marital status weren't significantly related to the practice of BSE ($p = 0.068$ $p = 0.374$ respectively) as shown in table 3.

Variables	Practice		P-Value
	Yes	No	
1. Age group			0.068
20 - 30	42 (11.1%)	72 (18.9%)	
31 - 40	21 (5.5%)	46 (12.1%)	
41 - 50	25 (6.6%)	26 (6.8%)	
51 - 60	6 (1.6%)	5 (1.3%)	
More than 60	1(0.3%)	1 (0.3%)	
2. Educational level			0.000
Un educated	3 (0.8%)	4 (1.1%)	
Primary school	13 (3.4%)	24 (6.3%)	
Seconday school	23 (6.1%)	41 (10.8%)	
Intermediate school	3 (0.8%)	11 (2.9%)	
University/above university	53 (13.9%)	70 (18.4%)	
3. Family history			0.000
Yes	60 (15.8%)	77 (20.3%)	
No	34 (8.9%)	73 (19.2%)	
Donot know	1 (0.3%)	0.0%	
4. Occupation			0.000
Housewife	39 (10.3%)	70 (18.4%)	
Student	6 (1.6%)	29(7.6%)	
Employee	40(10.5%)	37 (9.7%)	
Worker	8 (2.1%)	14 (3.7%)	
Other	2 (0.5%)	0	
5. Marital status			0.374
Married	75 (19.7%)	99(26.1%)	
Single	18 (4.7%)	41 (10.8%)	
Divorced	1 (0.3%)	2 (0.5%)	
Widowed	1 (0.3%)	6 (1.6%)	
Seprated	0	2 (0.5%)	

Table 3: Comparison of BSE practice with selected demographic variables.

Discussion

Regarding BC awareness in this study most of the respondents {84.5%} knew that it is tumor not bacterial or inflammatory disease and the majority knew that it is not a contagious disease.

About 46.6% knew that it doesn't affect women only and most of the participants 53% thought that the presence of lump may be a sign of the disease, all these findings are similar to study conducted in Fadasi Alamrab, Greater Wad Medani locality, Gezira state, Sudan [5].

Regarding knowledge and practice of BSE in this study more than half of the participants {64.5%} had heard about BSE, this is similar to study conducted among women at Muraba 15, abused locality, omdurman city wher 66.9% of the respondents had heard about BSE [2], these findings is less than that reported in another study conducted among educated females in Iraq wher 90.9% had heard about BSE this diffrence may be due to fact that the participants in Iraq study were chosen from higher institution of learning [3]. In another similar study conducted in Malaysia among urban women 90% had heard about BSE [1].

Regarding the practice of BSE in this study 25% of women reported that they had ever practiced BSE. Similar to this finding a study from Nigeria reported that 27.2% of women examined their breast [7]. In similar study in Gezira state the participants reported that 20.6% had ever practiced BSE this figure is near to that of study conducted in omdurman locality where 18.6% of the respondents had practiced BSE.

One study from Baghdad among 1st year female students reported that only 5.6% of study group practiced BSE this is less than that of study carried out in Nigeria among females attending the antenatal clinic where 78% reported that they had practiced BSE [4]. In another Malaysian study among women living in an urban setting revealed that 55.4% of participants practiced BSE [1].

In this study a family history of BC significantly influnced the practice of BSE similar finding reported among Malaysian women that there was statistically significant relation between family history and women practice to BSE [1]. Educational level and occupation also influnced the practice of BSE.

Regarding the barriers towards BSE practice in this study the majority of respondents reported that the lack of knowledge {don't hear about BSE and don't know how to performe BSE} was the main barrier to practice BSE followed by fear from dicoverly of a lump {36.1%}. This is similar to study carried out in Malaysia where 79% reported that the lack of knowledge was the main reason for not practicing BSE.

In a similar study conducted in Iraq the participants reported that "they hadn't taught the proper technique" was the main barrier to performe the BSE followed by having low confidence in their own examination (33.1%) and fear of lump detection (12.8%).

In this study about 22.4% had concept that breast self examination isn't important or not beneficial and about 16.3% thought that BSE is only for females who have breast cancer or any breast problem. this result is consistent with that of study conducted in Baghdad city among 1st year females college students.

Study Limitation

The study was conducted at single center thus the results can't be generalized to whole women in OMBADA locality further community based studies should be undertaken to emphasize these results.

Conclusion

In conclusion the study revealed an acceptable level of awareness regarding the breast cancer a good level of knowledge about BSE and low level of practice toward BSE among the women in the study area.

Recommendation

The study revealed a low level of practice due to lack of knowledge about BSE so an effective education campaigns must be carried out in health care centers which is the first basic level of contact with population within the health system and training the health care providers on BSE is the way to propagate BSE skills across the entire community. informations about BSE should be provided through different media such as T.V, radio, Magezines and facilitate social media as the mean of disseminating information.

We need to expand the campaigns which held in October every Year to cover large population in order to increase the awareness about early detection and change the negative Barriers twoard BSE and empower women to participate actively in their health.

Acknowledgement

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Ethical Consideration

- Research clearance was obtained from department of community medicine university of Khartoum and permission obtained from the administrator of the center.
- All participants get full description of the study and the right to quit at any part of it.
- Verbal consent was taken from all participants and the data kept confidential.
- No conflict of interest in this study and it is conducted to the sake of health promotion.
- This reserch didn't receive any funding.

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