Original Article

Breast Self-Examination

Assessment of Factors Associated with Practice of Breast Self-Examination in a Tertiary Care Health Setting In Karachi

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ABSTRACT

Objectives: (1) To determine the knowledge, attitude and practice towards breast self-examination (BSE) in tertiary care health setting in Karachi. (2) To assess factors associated with practice of BSE

Study Design: Cross sectional study

Place and Duration of Study: This study was carried out at the Dow University Hospital, Dow International Medical College and Dow Medical College / Dow University of Health Sciences Karachi from July to December, 2014.

Materials and Methods: Study participants were medical students, interns, residents, consultants, as well as female patients and their lady attendants visiting General Surgical Out Patient Department. A questionnaire was developed including demographic details, knowledge about BSE, attitude towards and practice of BSE. These questionnaires were filled in by interns and residents of Department of General Surgery. Interviews were done in privacy after taking verbal consent.

Data were entered and analyzed using SPSS version 16. Categorical variables about knowledge, attitude and practice are presented as frequencies. Predictors of BSE ie., age groups, level of education, occupation, income, marital status, personal history of benign breast disease and family history of breast cancer are also presented as frequencies. Their association with ever practice of BSE is determined by using chi square test.

Results: Total of 729 women were interviewed to achieve a sample size of 500 positive responders, who had heard about BSE, which was 68.6%. Further questioning was done from these women.

Majority of participants were young, 74% being less than 30 years of age. Around half of them were graduates and 21% were post-graduates. Sixty four percent respondents belonged to medical profession, while 22.2% were housewives and 13.8% had other professions. Majority belonged to high income group. 61.4% were married and 11.4% had family history of breast cancer. 29% respondents knew correct age to start BSE. Proposed frequency was stated correctly by 49.6%, appropriate time by 42.6%. Around 42% women said they knew how to perform and 36% could verbally explain the procedure correctly. More than 96% women thought that BSE was useful and should be practiced. Only 39.2% women claimed that they practiced BSE, while just 63 of the total 500 women interviewed, were doing it regularly. Level of education, profession, income, marital status and family member with breast cancer were found to be significant factors associated with BSE practice.

Conclusion: Although overall awareness about BSE was average but correct knowledge and actual performance were poor. Medical profession, graduate level of education, handsome income, married status and family history of breast cancer were associated with BSE practice.

Key Words: Breast Self-Examination, Breast Cancer, Predictors

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INTRODUCTION

Breast cancer is the commonest malignancy affecting women worldwide.[1,2] It is the leading cause of morbidity and mortality among all female cancers.[3] An estimated 502,000 women die each year from this deadly disease.[2] Prevalence of breast cancer is on the rise, more so in developing countries.[4] A hundred percent rise has been noted in the last decade in Nigeria.[3]Crude incidence of breast cancer in Asian countries is reported between 21.3 to 52 per 100,000 population.[5] Roughly 1 in 26 women have a lifetime chance of suffering from breast cancer.[6]Moreover, the age of onset is decreasing and cancer in younger women tends to be more aggressive.[7]

Late presentation of patients in third or fourth stage disease is common in developing countries. Lack of awareness, socio-economic constraints, shyness, fear, paucity of widespread diagnostic facilities and misdiagnosis are main factors responsible for low survival rates.[6] It is well known that early detection can considerably improve the outcome. Breast self

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examination (BSE), clinical breast examination, ultrasound and mammography are recommended screening methods.

BSE is visualization and palpation of the breasts by one's own self for lump, shape, texture, size and contour. American College of Obstetricians & Gynecologists and American Cancer Society recommends that it should be performed monthly, starting at age of 20 years.[8]BSE has lately been questioned as an effective screening tool as it has not shown to aid in reducing mortality.[9,10]Nevertheless it is simple to perform, time saving and costless method with no associated pain and no risk of radiation.[11] It encourages women to be aware of their own health, as they can be the best persons to identify any change in their body. If widely used, BSE can be of immense help in low resource countries like Pakistan.

This study was planned to gain baseline data about knowledge, attitudes and practice of women of varying educational levels. We further wanted to explore the factors associated with practice of BSE. By highlighting these aspects, we can plan steps and guidelines to promote this method of screening.

MATERIALS AND METHODS

This cross sectional study was conducted in Dow University Hospital, Dow International Medical College and Dow Medical College / Dow University of Health Sciences Karachi. Duration of study was six months between August to December, 2014. Study participants were medical students, interns, residents, consultants, as well as female patients and their lady attendants visiting General Surgical Out Patient Department. A questionnaire was developed including demographic details, knowledge about BSE, source of knowledge, attitude towards acquiring knowledge and practice of BSE and reasons for not doing so. These questionnaires were filled in by interns and residents of Department of General Surgery. A total of 729 females were approached to reach a number of 500, who had heard about BSE. Interviews were done in privacy after taking verbal consent.

Data were entered and analyzed using SPSS version 16. Categorical variables about knowledge, attitude and practice are presented as frequencies. Factors associated with BSE practice i.e., age groups, level of education, occupation, income, marital status, personal history of benign breast disease and family history of breast cancer are also presented as frequencies. Their association with ever practice of BSE is determined by using chi square.

RESULTS

Total of 729 women were interviewed to achieve a sample size of 500 positive responders, who had heard about BSE, which was 68.6%. Further questioning was done from these women.

Majority of participants were young, 74% being less than 30 years of age. Around half of them were graduates and 21% were post-graduates. Sixty four percent respondents belonged to medical profession; 36.6% medical students and 27.4% doctors, while 22.2% were housewives and 13.8% had other professions. Majority belonged to high income group. 61.4% were married and 11.4% had family history of breast cancer.

Table No.1: Frequency Of Knowledge, Attitude, Practice About BSE

Variables		Response	Number	%age
Knowledge	Heard about BSE (n=729)	Yes	500	68.6
		no	229	31.4
	(n=500) Age to start BSE	20 years	145	29
		After menarche	201	40.2
		After pregnancy	64	12.8
		After menopause	47	9.4
		Any other	43	8.6
	Proposed frequency	Daily	51	10.2
		Monthly	248	49.6
		Yearly	91	18.2
		Whenever get time	65	13
		Any other	45	9
	Appropriate time	Before periods	90	18
		After periods	213	42.6
		No specific time	151	30.2
		Any other	46	9.2
	Know how to perform	Yes	213	42.6
		Partly	209	41.8
		No	78	15.6
	Can explain procedure	Yes	184	36.8
		partly	222	44.4
		No	94	18.8
Attitude	Should be done	Yes	482	96.4
		No	18	3.6
	Useful method	Yes	484	96.8
Practice	Do perform	No	16	3.2
		Yes	196	39.2
		No	304	60.8
	How often (n=196)	Regularly monthly	63	32.1
		Regularly weekly	5	2.6
		irregularly	128	65.3

When asked about which age to start BSE, 29% gave correct answers. Proposed frequency was stated correctly by 49.6%, appropriate time by 42.6%. around 42% women said they knew how to perform and 36% could verbally explain the procedure correctly. More than 96% women thought that BSE was useful and

should be practiced. Only 39.2% women claimed that they practiced BSE, while just 63 of the total 500 women interviewed, were doing it regularly (Table 1). Table 2 shows the different responses of women who were not performing BSE despite awareness. Commonest reason was not knowing the technique properly.

Table 3 shows the significance of various factors which could predict the practice of BSE. Level of education, profession, income, marital status and family member with breast cancer were found to be significant.

Table No.2: Reasons for non practice of BSE. Total number = 304

Responses	n	%
Did not know technique	86	28.3
Not important	26	8.6
Fear of detecting lump or cancer	48	15.8
Don't get time	48	15.8
Don't have symptoms	64	21.1
Feel shy / embarrassed	48	15.8

Table No.3: Factors associated with BSE practice

Variables		Total N(%)	BSE N(%)	p
Age	< 30	371(74.2)	149(76)	0.261
	31-40	86(17.2)	37(18.9)	
	41-50	26(5.2)	6(3.1)	
	51-60	13(2.6)	3(1.5)	
	60	4(0.8)	1(0.5)	
Level of education	< matric	59(11.8)	1(0.5)	0.000
	Matric	30(6)	4(2)	
	Intermediate	105(21)	30(15.3)	
	Graduate	245(49)	124(63.3)	
	Postgraduate	61(21.2)	37(18.9)	
Profession	Housewife	111(22.2)	12(6.1)	0.000
	Medical student	183(36.6)	85(43.4)	
	Doctor	137(27.4)	79(40.3)	
	Other	69(13.8)	20(10.2)	
income	< 10,000	36(7.2)	1(0.5)	0.000
	10-30,000	61(12.2)	9(4.6)	
	31-50,000	49(9.8)	15(7.7)	
	51-100,000	138(27.6)	65(33.2)	
	1-2 lac	145(29)	69(35.2)	
	2 lac	71(14.2)	37(18.8)	
Marital status	Single	184(36.8)	45(23)	0.000
	Married	307(61.4)	145(74)	
	Divorcee / Widow	9(1.8)	6(3)	
Personal history of breast disease	Yes	5(1)	3(1.5)	0.338
	No	495(99)	193(98.5)	
Family history of breast cancer	Yes	57(11.4)	30(15.3)	0.027
	No	443(88.6)	166(84.7)	

DISCUSSION

A National study from Lahore suggests that Pakistani women tend to present with malignant breast disease at comparatively younger age. They found 20% of breast lumps to be malignant.[12]It is postulated that if all women examine their breasts monthly and visit healthcare professional timely for clinical examination and mammography, it may be possible to prevent breast cancer progression in 95% cases.[13]

The present study was conducted amongst women attending a private tertiary care setup and medical students / professionals. This explains why majority of participants had heard about BSE. In a study conducted in Saudi Arabia, 91.2% women employees and relatives in a teaching hospital were aware of BSE.[14]In another study involving Ethiopian teachers, 52% were aware of BSE.[15] In our study, around half of women responded positively to frequency, appropriate timing, knowledge about how to perform and could verbally explain the technique. But only few knew the correct age to start. In a study of mixed population in Iran, 67.2% knew correct frequency and 41.8% knew proper timing.[16]

Our participants exhibited a very positive attitude,> 96% considered it was a useful method and should be performed. This is consistent with findings in study by Demirkiran F, et al in Turkey.[17] But even with this reassuring attitude, very few of our participants were actually performing regular BSE. In Iranian women study 51.5% performed BSE[16], while Abolfotouh MA, et al reported that 41.6% women performed BSE.[14] Unfortunately, our results match with a study of market women in Nigeria, 21.8% of whom were practicing BSE.[8]

Our study showed that women who were not performing BSE despite awareness did so because they did not know the technique properly. Other responses like 'don't know importance' and 'don't have symptoms' point to incomplete knowledge. In the Saudi women study, 54.9% said they did not know technique, while 24.5% said they did not trust their own findings.[14]

We studied factors associated with positive BSE practice. We have found that level of education, medical profession, high income, being married and having a family member with breast cancer were significant predictors. In the fore mentioned study of Saudi women, family history of breast cancer was significantly associated with BSE performance.[14] Amongst the Ethiopian teachers, important predictors were good knowledge, perceived susceptibility to cancer, perception that cancer is severe and feeling benefited from BSE.[15]In a study from Western Massachusetts involving various ethnic groups, it was found that despite a positive attitude towards BSE, Vietnamese women were less likely to perform BSE regularly and low health literacy scores was important factor.[18] In a Nigerian rural setup, level of education of family head, type of family whether nuclear or extended, breast cancer in family and smoking status were found to be significant predictors for BSE performance.[19] Mohammadi E, et al have described a computer vision technique to calculate the percentage

of the palpated blocks in BSE. Using this real time evaluation women can perform BSE in private without any human supervision.[20]

We suggest that awareness in general population should be enhanced using various forms of media. Furthermore, awareness can be provided and technique taught to females attending antenatal and postnatal clinics. Limitation of our study was that the participants do not represent true general population of Pakistan. More and larger studies are needed in this regard.

CONCLUSION

Although overall awareness about BSE was average but correct knowledge and actual performance were poor. Medical profession, graduate level of education, handsome income, married status and family history of breast cancer were found to influence BSE practice.

Conflict of Interest: The study has no conflict of interest to declare by any author.

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