

## RESEARCH COMMUNICATION

# Breast Self-Examination: Knowledge and Practice among Nurses in United Arab Emirates

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### Abstract

This study was conducted to explore the knowledge and practice of nurses regarding breast self-examination (BSE) in the United Arab Emirates. Nurses working in different hospitals constituted the study population. A total of 154 nurses who had come to participate in the breast cancer awareness week programme were the participants. Approval of the Gulf Medical University ethics committee was obtained. A self-administered, pre-tested, structured, close ended questionnaire was used for data collection. Statistical analysis was performed using PASW 17. Age of the participants in this study ranged from 20 to 59 years, with a mean age of 24.1 years. 96.1% of the participants were aware of the ideal age to start BSE, while 87.7% respondents knew that women with regular menstruation should perform BSE monthly on a particular day, preferably on the fifth or seventh day after menstruation. With regard to BSE technique, 68.8% knew that both inspection and palpation were the ideal methods to detect any change in the breast. A high proportion, 84.4% of the respondents, reported performing BSE. Among those married, 87.0% and among single 78.3% were practicing BSE. The results point out that the nurses have a satisfactory knowledge regarding BSE and this is shown in their practice of BSE. Emphasis should be laid on BSE in undergraduate and postgraduate courses, especially for nurses, as they are mostly involved in patient care and education.

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### Introduction

Globally, over one million new cases of breast cancer among females are detected each year. It is the most commonly occurring neoplasm in women, accounting for over one-fifth of the estimated annual 4.7 million cancer cases diagnosed in females and the second most common tumour, after lung cancer, in both sexes (Ferlay et al., 2001). Breast cancer is also the most common female cancer in both developing and developed countries, with most cases (55%) occurring in the latter regions, where age-standardized rates are three times higher than in developing countries (Freddie et al., 2004). Breast cancer is a disease of the affluent countries, but it is not rare anywhere, whereas cervix cancer is largely a disease of the poor countries. It is the leading cause of cancer death in women between the ages of 15 and 54 years. Every thirteen minutes a woman dies from it and every three minutes, a new case of breast cancer is diagnosed (Gass and Rebar, 2008). Incidence of breast cancer and mortality due to breast cancer are increasing in most countries of Africa and Asia.

Cancer incidence in United Arab Emirates (UAE) has been increasing in the last few decades and cancer patterns are changing rapidly. Cancer is the third leading cause of death in the UAE following cardiovascular diseases and

road traffic accidents. Breast cancer accounted for 8.3% of total deaths in 2001 and 7.7 % of total deaths in 2002 (MOH, 2006). For the year 2002, breast cancer ranked the first cancer among females in UAE and accounted for 13% of the total cancers. Among Emirati females, also breast cancer ranked the first as per 2002 report and accounts for 23.1% of total cancers among Emirati females. In UAE, the Age Specific Rate for female breast cancer was 19.4 per 100,000 for the year 2002 (MOH, 2006).

Most successful approach to decrease mortality due to breast cancer is the application of secondary prevention. Breast Self-Examination (BSE), Clinical Breast Examination (CBE) and mammogram are the important methods traditionally used for detecting the breast cancer in the early stage. Mammography screening is costly, grab considerable economic and human resources and hence not practicable in developing countries. The effectiveness of BSE as a mode of detection has shown different results. Some studies found no reduction in the breast cancer mortality among those regularly performing BSE (Thomas et al., 2002; Semiglazov et al., 2003; McCready et al., 2005). There is an argument about the concern of women against BSE and CBE because the current evidence is inconclusive or incomplete (Kearney and Murray, 2009). American Cancer Society Guidelines for the early detection of breast cancer for all women says

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that to perform monthly BSE is optional; women should be informed about the potential benefits and limitations associated with BSE. Women who detect their own breast cancer usually find it outside of a structured breast self-exam while bathing or getting dressed (American Cancer Society., 2008). Haagensen (1986) reported that before the use of mammography, 65% of breast cancer cases identified as a breast mass detected by BSE or CBE. Hence, this study was conducted to explore the knowledge and practice of nurses regarding Breast Self-Examination in UAE.

## Materials and Methods

The cross sectional study was conducted between June and November 2009 at Gulf Medical University, Ajman, United Arab Emirates. Nurses working in different hospitals of United Arab Emirates constituted the study population. A total of 154 came to participate in the breast cancer awareness week programme. The study was approved by the Ethics committee of Gulf Medical University, Ajman, UAE. Informed consent was obtained from all participants before administering the questionnaire. A self-administered, pre-tested, structured, close ended questionnaire was used for data collection. The questionnaire contained areas on the socio-demographic characteristics of the study subjects, knowledge of breast self-examination and responses to the practice of breast self examination by the study subjects. Descriptive statistics about socio-demographic characteristics and awareness and practice of breast self examination are used. Statistical analysis was performed by using PASW 17.

## Results

### Socio-demographic Characteristics

Age of the participants in this study ranged from 20 to 59 years, with a mean age of 24.1 years. Majority were between the age group 20 to 39 years. With regard to marital status, single women made up to 29.9% of the participants and 79.1% were ever married. Among gender, female nurses constituted 82.5% and remaining 17.5% were male nurses. Indian nationals were 83.8%, 6.5% Philipinos and remaining 9.7% were other nationals like Emiraties, Chinese etc. The details are given in Table 1.

### Awareness of Breast Self Examination

96.1% of the participants were aware that the ideal age to start Breast Self Examination is after the age of 20 years. Only 3.9% opined that it is ideal to do breast self examination after 40 years of age. 87.7% respondents were aware that women with regular menstruation should perform breast self examination monthly on a particular day, preferably on the fifth or seventh day after menstruation. 8.4% opined that it is ideal to perform Breast self examination regularly on a particular day in every month. 3.9% respondents felt that breast self examination can be performed on any day. The ideal position of body while performing breast self examination according to 47.4% were either standing or lying and 41.6% opined that

**Table 1. Socio-Demographic Characteristics of the Nurses**

Variable	Group	Frequency	Percent
Age	20 - 29	68	44.2
	30 - 39	54	35.1
	40 - 49	9	5.8
	50 - 59	7	4.5
	Unknown	16	10.4
Gender	Male	27	17.5
	Female	127	82.5
Nationality	Indian	129	83.8
	Filipino	10	6.5
	Others	15	9.7
Marital Status	Ever Married	108	70.1
	Single	46	29.9
Education	GNM	136	88.3
	B.Sc Nursing	18	11.7

**Table 2. Knowledge of the Nurses on Breast Self Examination**

Knowledge	Group	No	%	
Ideal age to perform BSE	20 and above	148	96.1	
	40 and above	6	3.9	
Ideal time for women with regular menstruation to perform BSE	A regular day on each month	13	8.4	
	Day 5 to day 7 after menstruation	135	87.7	
	Any day	6	3.9	
	Ideal position of the body while performing BSE	Lying	4	2.6
		Standing	64	41.6
		Sitting	2	1.3
Ideal technique of doing BSE	Either standing or lying	73	47.4	
	Either lying or sitting	3	1.9	
	Others	8	5.2	
	Inspection	2	1.3	
	Palpation	46	29.9	
	Both	106	68.8	

it is ideal to perform in standing posture. With regard to breast self examination technique 68.8% knew that both inspection and palpation were the ideal methods to detect any change in the breast. However, 29.9% opined that only palpation is the breast self examination technique. 1.3% opined that only inspection of breast is the ideal method to perform BSE. Details in Table 2.

### Practice of Breast Self Examination

In the present study, a high proportion, 84.4% of the respondents reported performing BSE. Potential reasons for performing BSE according to 70% was fear of breast cancer, 53.8% based on doctor's advice, 46.9% influence of media, 43.1% pain in the breast, 47.7% advice by a health worker, 24.6% due to discharge from nipple, 38.5% feeling of mass in the breast, 26.2% family history of breast cancer, 18.5% breast cancer among friends and 30.8% encouraged by a friend. Among those respondents

**Table 3. Practice of Breast Self Examination among Nurses**

Variable	Group	Yes		No	
		No	%	No	%
Age	20 - 29	55	80.9	13	19.1
	30 - 39	48	88.9	6	11.1
	40 - 49	8	88.9	1	11.1
	50 - 59	6	85.7	1	14.3
	Unknown	13	81.3	3	18.8
Nationality	Indian	110	85.3	19	14.7
	Filipino	8	80.0	2	20.0
	Others	12	80.0	3	20.0
Marital Status	Ever Married	94	87.0	14	13.0
	Single	36	78.3	10	21.7
Education	GNM	116	85.3	20	14.7
	B.Sc Nursing	14	77.8	4	22.2

In the present study, 6.5% respondents suffered once in their life time from diseases related to breast. Among them 50.0% were fibroadenoma, 20.0% fibrocystic disease and 10.0% had mass in the breast. None of the participants had history of breast cancer.

who were not performing BSE, the potential reasons for non practice were, 45.8% felt that breast diseases are not a serious problem, lack of time to perform BSE was mentioned by 16.7% of the participants and 4.2% feels that there is no family history of breast cancer so no need to perform BSE.

Among married, 87.0% and among single 78.3% were practicing BSE. With regard to the frequency of performing BSE, 61.5% respondents were practicing it regularly on a monthly basis. 32.3% reported that they perform BSE when it comes to their mind. Only 3.1% respondents perform BSE once a year. According to majority of the respondents, 80.0% perform BSE on the fifth to the seventh day after menstruation on every month. Among participants, 87.7% were aware that women with regular menstruation should perform breast self examination on a particular day every month preferably on the fifth to the seventh day after menstruation and among them 82.5% practice BSE on fifth to the seventh day after menstruation. 7% perform when it comes to mind, 4.6% used to practice any day after menstruation, 3.8% practice immediately after menstruation and 1.5% respondents practiced at the first day of menstruation every month.

Among those who practice BSE, most (63.1%) of the respondents adopted standing posture to perform BSE, 33.1% assumed either standing or lying posture to perform BSE. Among those who practice BSE regularly, 16.2% used lying down position to perform BSE. The least frequently adopted position was sitting, by 6.9% and either standing or sitting by 1.5%. The details are given in Table 3.

## Discussion

It is ideal that women should know how their breasts normally look and feel. Performing regular breast self-examination is the best way to know this. BSE also helps one to notice changes that may occur in the breast.

A change from the normal look and feel can be a sign of diseases related to breast. The best time to do breast self-examination is when your breasts are not tender or swollen, such as a few days after your period ends. Overall, the majority of subjects knew recommended steps of BSE.

Among the study population, 96.1% of the participants were aware that the ideal age to start Breast Self Examination is after the age of 20 years. A study conducted by Agboola et al., (2009) in Nigeria reveals that 41.4% of the nurses believe that BSE should start below the age of 19 years. Study also observed that a high percentage of respondents were aware that women with regular menstruation should perform breast self examination on a particular day every month preferably on the fifth to the seventh day after menstruation. A study conducted among Jordanian nurses reported that nurses had high levels of knowledge of breast self-examination (Alkhasawneh et al., 2009). A university hospital-based study in USA observed that those who are teaching had more knowledge about breast cancer screening and BSE technique and reported more confidence and competence in performing BSE (Han et al., 1996). The present study was also conducted in a teaching hospital. A study conducted in Iran among health care workers, reports that 63% of the respondents claimed that they know how to examine their breasts (Mahmoodi et al., 2002). But a study conducted in Turkey observed that healthcare workers had a low mean level of knowledge and practice of BSE. The knowledge score was significantly high among those practiced BSE compared to those who did not (Nihal et al., 2009).

In the present study, 89% knew that the ideal position of body while performing breast self examination is either standing or lying. With regard to breast self examination technique 68.8% knew both inspection and palpation are the ideal way. A study conducted among nurses in Turkey reported that the most frequently endorsed steps in BSE were examining the breasts in front of a mirror or examining breasts while lying down and feeling for a lump or hard knots, nipple discharge or breast thickening. The least frequently endorsed step was looking at the breasts in the mirror with hand on thighs (Ertem and Kocer, 2009).

The present study reported that 61.5% perform BSE regularly, 26.2% had a family history of breast cancer and 43.1% had pain in the breast. A study conducted in Jordan showed that 52% of the study sample perform BSE, among them 30% perform BSE regularly. They also reported that 5% had a family history of breast cancer and 31% of the respondents were having pain in the breast (Ali and Hassan, 2007). A study in Iran reported that only 6% performed BSE monthly and 11% revealed a family history of breast cancer (Mahmoodi et al., 2002). The results of the study conducted in Turkey indicated that 52% of the participants performed BSE and 32% performed it regularly, only 8% of the subjects were having a positive family history of breast cancer and out of the total sample, 20% of the nurses reported pain in their breasts (Ertem and Kocer, 2009). A study conducted in Nigeria reveals that the level of practices of BSE regularly among the nurses is only 30%. Only 28.6% of the nurses, performed BSE within five days after menstruation (Agboola et al., 2009). A study conducted by Agmu et al (2007) among nurses

observed that only 28.6% practiced BSE monthly, 87% did not adopt the correct steps.

The knowledge of the nurses in the present study on the frequency and ideal time to perform BSE with regular and irregular menstrual cycle is found to be satisfactory. The finding that some of the nurses did not practice BSE, suggests that there is a need for continuing nursing education programs to change attitude and behavior towards BSE. The main reasons provided by non-practicers were that breast diseases are not a serious problem, lack of time and no family history of breast cancer.

The results indicate that the nurses have a satisfactory knowledge of BSE and this has reflected in their practice of BSE. The finding that some of the nurses did not practice BSE suggests that there is a need for continuing nursing education programs. Emphasis should be laid on BSE in undergraduate and postgraduate courses, especially for nurses, as they are mostly involved in patient care and education. Also, provision of BSE educational programs is necessary for nurses to increase their knowledge, confidence, performance and teaching of BSE.

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