

## **Knowledge & Practice of Saudi Women about the Prevention of Breast Cancer**

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### **Abstract**

*Breast cancer is the most prevalent disease globally. This study done to find out the knowledge and practice would prevent the breast cancer among Saudi women. 200 women participated from three primary health care centers in Riyadh city were selected purposely. The data was collected by structure interview questioners. The findings of this study was around 62.5% women reported that breast feeding could prevent breast cancer. Additionally, around 85.5% women reported that they applied the self-breast examination (SBE) once a month. This study showed there was a relationship between knowledge and skills to the breast cancer prevention that is highly a significant ( $P$  value 0.000). The findings of this study indicate that lack of knowledge would affect the prevention of breast cancer. Recommendations for nursing practice were involved the women from community in health education program. The nursing curricula must include how to do the BSE in the related courses.*

**Keywords:** breast cancer, prevention, knowledge, Saudi women, self-breast examination.

### **Background**

Breast cancer accounts for 31% of cancers among women, and 19% of death among women are due to cancer (Jemal, Siegel, Ward, Murray, Xu, Smigal, &Thun, 2006). Breast cancer is the most prevalent form of cancer is the Kingdom of Saudi Arabia as well. According to T.R. Ministry of Health (2004), there were around 11% of all female would have cancer. Many women miss early detection and treatment opportunities owing to lack of information knowledge and awareness of breast cancer as well as to cancer screening practices (Jeber, Soyer, Ciceklioglu, &Climat, 2006).

Moreover, breast cancer awareness campaigns have been very successful at improve public health through greater compliance with prevention and screening strategies, enhanced research activities and creation of effective treatments (Smith, Cokkinides, & Eyre, 2006). Maternity nurses and health educators play a unique role in altering the community to the early detection of breast cancer as they usually have the closest contacts with female patients. According to Aderounmu, et al. (2006), 832 women participated in this study with tertiary education level presented that 304(36.4%), and 604 had previous experience with breast cancer that presented (72.6%). While, 149(17.4%) offered possible etiological reasons and 341(41.1%) have certain knowledge of cancer symptoms. The researcher of that study included that etiological reasons of breast cancer that known as attitude to symptoms sign of inadequate knowledge is associated with breast cancer.

Nurses and educators can use their knowledge of the health services to educate women about breast cancer risk factors and available breast cancer screening services and practices, they may also play an important role in health education, helping young people develop healthy behavior including BSE (Breast self examination). The result of this study will help the health authority to determine the knowledge and practice of Saudi women in regards to prevention of breast cancer and to plan preventive programs for breast cancer using the obtained data to serve the Saudi community and promote the quality of life for Saudi women. The aim of the study is the determination of knowledge and practices regarding the prevention of breast cancer among Saudi women.

### **Methodology**

The study was conducted in three primary health care centers in Riyadh city, the centers were selected purposefully. The target population of the study is all mothers who have agreed to participate in this study. A total of 200 subjects were interviewed, those women had met the criteria of being Saudi nationality, married and single, not pregnant, and their reproductive age was between 20 and 45.

The data collection took place through the period from January 2009 until June 2009. Data was collected through a structured interview questionnaire to obtain certain demographic and obstetrical characteristics and to assess the knowledge of the subject about preventive measures for cancer breast (e.g. breast feeding, life style ... etc.). A checklist containing eight elements on how to perform breast self-examination was developed and used.

A scoring system was used for assessing the general knowledge of Saudi women based on the percentage of the correct answers. While for the determination if the subject performs self-breast examination, the woman gets an "8" and her answer is considered correct if she knows all eight steps of the examination, and she gets a wrong answer even if she misses one of the steps of the self-breast examination. Each of the interviews lasted between 45 and 95 minutes with a mean of 63 minutes. Ethical aspects were considered throughout the study; the ethical principles emphasize the concern for participants' interests i.e. informed consents and confidentiality. The SPSS "Statistical Product and Services Solutions" computer program was used to create a database and analyze the data. Part one, was pertained to using descriptive statistical analysis to describe the sample in relation to demographic and obstetrical characteristics. In part two, inferential statistics was used (Chi-square).

### **Results**

Table "1" shows that nearly 30% of the subjects were aged between 31 and 35, 34% completed their intermediate education, 72% of the sample is married and they have their menarche by the ages of 12 and 13 years old (62.5%). Nearly 33% and 31% were pregnant and delivered more than 5 times respectively.

Table "2" represents the knowledge of the women regarding the prevention measures against breast cancer. The table shows that 60% gave wrong answers about the preventive measures against breast cancer. 62.5% mentioned that breast-feeding might prevent breast cancer and 85.5% answered correctly about the frequency of self-breast examination (once per month). On the other hand, more than two thirds (70.5%) do not know the correct time to perform the examination, 74% do not know the link between the dietary patterns and the risk of breast cancer. More than three quarters (82.5%) of the study population do not know the environmental and lifestyle factors that may predispose breast cancer.

Table "3" reflects that 93% of the study population cannot perform the self-breast examination. The data in table "4" shows that respondents have neither knowledge nor skills related to breast cancer prevention and it is a highly significant level at P value 0.000. Table "5" shows the correlation between the study population demographic characteristics (age, educational level, menarche age, regularity of menstrual cycle, complications during pregnancy, and family history of breast cancer) and their knowledge and skills, which was highly significant with P value at 0.000, while it shows no significance between the number of pregnancies and the number of deliveries.

### **Discussion**

In order to develop an effective health education program, it should be based on proper diagnosis of a particular problem. Therefore, the initial step is to identify the factors that cause people to behave the way they do in any situation. Knowledge is one of the factors that influence an individual's behavior, and results reveal that women had low knowledge scores regarding the preventive measures; this result is in line with (Grunfeld, Ramirez, Hunter, & Richards, 2002; McMenamin, et al. 2006).

Regarding the practice of breast self-examination (BSE) as a method for early detection of the disease, authors reported that the most women did not know how to practice BSE the high number of women get risk to cancer (Odusanya, &Tayo, 2001; Haji-Mahmoodi, 2002).

Therefore, less knowledge and less frequent practice of BSE was more often detected in women with less health information and awareness about the usefulness of this method for early detection of breast cancer. According to Okobia, Bunker, Okonofua, &Osime (2006); Jebbin and Adotey, (2004), the BSE was related to women` lacking knowledge and what are their attitudesand beliefs regarding to learn how to prevent breast cancer. Involvement of the women in the community to participate in the development and implantation of health education programs about this topic.

Frequent continuing medical education programs on breast cancer at institutional level are desirable. In addition, greater emphasis needs to place on breast cancer in the curricula of nursing and other healthcare training institutions so that graduates of such schools are better informed about the disease. Aderounmu, et al. (2006), recommended that education program for community to present more knowledge for women needed to prevent breast cancer and limit the complication of breast cancer. This will support the findings and recommendations of this study to bridge the gaps of lacking knowledge regarding breast cancer and how to prevent it by applying SBE in proper way.

Table "1": Distribution of Sociodemographic Data of the Research Sample

<i>Sociodemographic Data</i>	<i>Frequency</i>	<i>Percentage %</i>
<b>1. Age:</b>		
a. 20 – 25 years old	41	20.5
b. 26 – 30 years old	51	25.5
c. 31 – 35 years old	60	30
d. 36 – 40 years old	35	17.5
e. 41 – 45 years old	13	6.5
<b>Total</b>	200	100
<b>2. Educational level:</b>		
a. Illiterate	17	8.5
b. Primary	20	10
c. Intermediate	68	34
d. Secondary	54	27
e. Graduate	41	20
<b>Total</b>	200	100
<b>3. Marital status:</b>		
a. Single	44	22
b. Married	144	72
c. Divorced	5	2.5
d. Widow	7	3.5
<b>Total</b>	200	100
<b>4. Menarche age:</b>		
a. 9 – 11	61	30.5
b. 12 – 13	125	62.5
c. 14 & more	14	7
<b>Total</b>	200	100
<b>5. Regularity of menstrual period:</b>		
a. Yes	77	38.5
b. No	123	61.5
<b>Total</b>	200	100
<i>Sociodemographic Data</i>	<i>Frequency</i>	<i>Percentage %</i>
<b>6. Number of pregnancies:</b>		
a. None	46	23
b. 1 – 2	48	24
c. 3 – 4	40	20
d. 5 – 6	35	17.5
e. 6 and more	31	15.5
<b>Total</b>	200	100
<b>7. Number of deliveries:</b>		
a. None	48	24
b. 1 – 2	50	25
c. 3 – 4	40	20
d. 5 - 6	36	18
e. 6 and more	26	13
<b>Total</b>	200	100
<b>8. Number of living children:</b>		
a. None	49	24.5
b. 1 – 2	49	24.5
c. 3 – 4	41	20.5
d. 5 - 6	35	17.5
e. 6 and more	26	13
<b>Total</b>	200	100

**Table “2”:** Distribution of Respondents by Selected Knowledge about Prevention of Breast Cancer

<i>Statement</i>	<i>Frequency</i>		<i>Percentage %</i>	
	<i>Correct</i>	<i>Wrong</i>	<i>Correct</i>	<i>Wrong</i>
1. Do you know what the preventive measures from breast cancer are?	80	120	40	60
2. Do you think that breast-feeding prevent breast cancer?	125	75	62.5	37.5
3. Did you hear about self-breast examination?	152	48	76	24
4. Do you know the importance of self-breast examination?	105	95	52.5	47.5
5. How many times should you perform the self-breast examination?	175	29	85.5	14.5
6. When should you perform the self-breast examination?	59	141	29.5	70.5
7. Food factors	52	148	26	74
8. Environmental and lifestyle factors	35	165	17.5	82.5

**Table “3”:** Distribution of the Sample’s Practice Regarding to Self-Breast Examination

	<i>Frequency</i>		<i>Percentage %</i>	
	<i>Correct</i>	<i>Wrong</i>	<i>Correct</i>	<i>Wrong</i>
Practice	14	186	7	93

**Table “4”:** Chi-Square Test for Sample’s Knowledge & Skills in Regards to Breast Cancer Prevention

	<i>X<sup>2</sup></i>	<i>P Value</i>
Skills	147.920	0.000*
Knowledge	74.420	0.000*

\* Significance level at  $>0.05$

**Table “5”:** Chi-Square Test of Socio-Demographic Characteristics, Knowledge & Skills of the Sample in Regards to the Prevention of Breast Cancer

<i>Demographic Characteristics</i>		<i>Skills</i>	<i>Knowledge</i>	<i>P Value</i>
		<i>X<sup>2</sup></i>	<i>X<sup>2</sup></i>	
1. Age	31.900	147.920	74.420	0.000*
2. Educational Level	80.900	147.920	74.420	0.000*
3. Menarche Age	93.130	147.920	74.420	0.000*
4. Regularity of the Menstrual Period	89.780	147.920	74.420	0.000*
5. Number of Pregnancies	5.150	147.920	74.420	0.272
6. Number of Deliveries	9.400	147.920	74.420	0.052
7. Complications during Pregnancy	375.050	147.920	74.420	0.000*
8. Family History of Breast Cancer	156.430	147.920	74.420	0.000*

\*Significance level at  $>0.05$

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