

## Knowledge of Female Teachers in Secondary Schools Concerning Breast Self Examination at AL\_Nasiriyha City.

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### **Abstract:**

**Background:** Breast self-examination (BSE) is a screening method used in an try to detect early breast cancer. The method includes the woman herself looking at and Sense each breast for possible lumps, abnormalities or swelling. Considered as a means to detect breast cancer at some point are curable.

**Objective:** to determine the level of knowledge of female teachers in relation to information about breast self-examination

**Methodology:** A descriptive cross- sectional study design was carried out on non-probability (purposive sample) consisted of (200) teachers in (14) female secondary schools and were selected systematic randomly from total (41) Thi-Qar Governorate /Al- Nasiriyah city to identify the teachers knowledge and practices concerning breast self examination (BSE) in al Nasiriyah city female secondary schools. The study has been implemented for the period of 10<sup>th</sup> March 2015 to 28<sup>th</sup> April 2015. Descriptive and Inferential statistical analyses are used to analyze the data.

**Results:** The study results shows relative to teacher's "Age Groups", the highest percentage of the studied sample are registered at group (35 – 39) yrs. and they are accounted 50(25%), the highest percentage 128(64%) of them are married, 156(78%) of them live in nuclear type family, and 172(86%) are urban residency. The vast majority of studied sample has high socioeconomic status, and they are accounted 144(72%) . Their knowledge scored low assessment regarding the reasons for changes that occur in the shape and size of the breast, information about breast self-examination, source of information about breast self-examination, information about common breast diseases, diagnoses of breast diseases , and causes for not practicing breast self examination. While scored moderate for reason for breast self examination only.

**Recommendations:** School health education and make it an ideal platform should be used to promote awareness about self-examination, and find out the time of examination, and to encourage regular practice of breast self examination.

**Key words:** Knowledge, female teachers, breast self examination.

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### I. Introduction

The female breast has been deemed as a symbol of beauty, sexuality and motherhood. Any actual (or) dubitable disease (or) injury affecting breast tends to articulate the societal common, view of the breast. The impending of resection (or) loss of a breast may be destructive for women because of psychosocial, sexual and body image implications significance associated with it (1) . Breast self-examination (BSE) is an examination carried out by a female at the age of 20 years after menstruation to help in the detection of any defect in the breast or any abnormal swelling or lumps to get early treatment (2). Breast self- examination is an option for women starting in their 20s. Women should be told about the benefits and limits of breast self-examination. Women should report any changes in how their breasts look or feel to a health expert (3) . Women who perform breast self-examination regularly find 90% of all breast masses (lumps or thickening) that may signal breast cancer. While 80% of all breast lumps are not cancerous (4). Therefore, early detection in order to improve breast cancer outcome and survival remains the cornerstone of breast cancer control (5). Breast cancer is an abnormal growth of cells which begins in breast tissue and it is the second leading cause of cancer deaths among worldwide (6). Pride foundation (2008) reported that, breast cancer afflicts an estimated figure of more than one million women in the world each year. It is estimated that more than 212,000 women and 1,700 men progression of the disease and more than 41,000 die from it each year (7,8). In addition, breast cancer accounts for approximately 12% of deaths worldwide in women (9).

### II. Methodology

A descriptive cross- sectional study design was carried out to identify the teachers knowledge concerning breast self examination (BSE) in al Nasiriyah city female secondary schools. Starting from 10th March. 2015 up to the 28th April 2015. Consisted of (200) teachers in (14) female secondary schools and were selected systematic randomly from total (41) Thi-Qar Governorate /Al- Nasiriyah city. Data was collected

through the use of designed questionnaire format by interview techniques after oral consent were taken from each secondary school female teacher for participation in study sample, each interview took up to 30 to 40 minutes. The questionnaire includes teacher's socio- demographic characteristics and knowledge of female secondary schools teachers with respect to breast self-examination consists (7) domains such that, Reasons for the changes that occur in the shape of breast size:11 items, Information about breast self-examination: 20 items , Information source about breast self-examination: 4 items ,Reasons for self-examination: 5 items, Causes of not practicing breast self-examination: 8 items , Common breast diseases: 20 item, Diagnosis of breast diseases: 14 items .Three different measurements of Likert scale are used , such that (I don't know, I'm not sure, I know) and (Yes, and No). A convenience sample of (10) individuals were selected among female secondary teachers, this preliminary study was conducted for the period of 10th march to 25th march 2015 and content validity was carried out through the (15) experts. Data were analyzed using the Statistical package for Social Sciences (SPSS), through the application of descriptive statistical data analysis include(Frequencies, Percents, and Cumulative Percents, arithmetic mean, standard deviation, Relative Sufficiency and Mean score).

### III. Results

**Table (1): Distribution of the studied sample according to Socio-Demographical Characteristics variables with comparisons significant**

Socio-Demographical Characteristics variables	Groups	No.	%	C.S. (*) [P-value]
Age Groups	25 _ 29	27	13.5	$\chi^2= 51.93$ P=0.000 (HS)
	30 _ 34	34	17.0	
	35 _ 39	50	25.0	
	40 _ 44	39	19.5	
	45 _ 49	34	17.0	
	50 _ 54	10	5.0	
	55 _ 59	6	3.0	
	Mean ± SD	38.57 ± 7.78		
Marital Status	Single	48	24.0	$\chi^2= 179.68$ P=0.000 (HS)
	Married	128	64.0	
	Divorced	14	7.0	
	Widow	10	5.0	
Type family	Nuclear	156	78.0	P=1.000 (NS)
	Extended	44	22.0	
Residency	Urban	172	86.0	$\chi^2= 250.12$ P=0.000 (HS)
	Rural	10	5.0	
	Urban parties	18	9.0	

(\*) HS: Highly Sig. at P<0.01; Testing method are based on One-Sample Chi-Square test

Table(1) results has indicated that there has been a highly significant differences at P<0.01 among different levels of the studied socio-demographic characteristic variables. The study results shows relative to teacher's "Age Groups", the highest percentage of the studied sample are registered at group (35 – 39) yrs. and they are accounted 50(25%), with mean and standard deviation (38.57 ± 7.78) years, the highest percentage 128(64%) of them are married, 156(78%) of them live in nuclear type family, and 172(86%) are urban residency.

**Table (2): Descriptive Statistics of Socio-Economic Status among the studied sample with comparison significant**

Factor	Groups	No.	Percent	Cum. Percent	C.S. (*) [P-value]
Socioeconomic Status	Low : 89 - & less	0	0.0	0.00	P=0.000 HS
	Mod. : 90 – 120	56	28	28.0	
	High :121 – 150	144	72	100	
	Total	200	100		

(\*) HS: Highly Sig. at P<0.01; Testing method are based on Binomial test

Table (2) shows that the vast majority of studied sample has high socioeconomic status, and they are accounted 144(72%), then followed with moderate responses, and accounted for 56(28%).

**Table(3): Teacher's knowledge regarding reasons for the changes that occur in the shape and size of the breast**

Reasons for change occur in the shape & size of the breast	Resp.	No.	%	MS	SD	RS%	Ass.
Menstruation	I don't know	63	31.5	1.33	0.92	66.0	M
	I'm not sure	9	4.5				
	I know	128	64				
Age advances	I don't know	89	44.5	0.91	0.89	45.5	L
	I'm not sure	41	20.5				
	I know	70	35.0				
Pregnancy	I don't know	70	35	1.23	0.94	61.0	M
	I'm not sure	15	7.5				
	I know	115	57.5				
Breast Feeding	I don't know	69	34.5	1.25	0.94	62.5	M
	I'm not sure	12	6				
	I know	119	59.5				
Food (fats and sugars)	I don't know	108	54	0.68	0.81	34.0	L
	I'm not sure	48	24				
	I know	44	22				
The use of contraceptives for long periods	I don't know	136	68	0.45	0.71	22.5	L
	I'm not sure	39	19.5				
	I know	25	12.5				
Hormonal treatments	I don't know	152	76	0.39	0.73	19.0	L
	I'm not sure	19	9.5				
	I know	29	14.5				
Chest radiation exposure	I don't know	178	89	0.18	0.54	9.0	L
	I'm not sure	8	4				
	I know	14	7				
Stressful sport (weightlifting, swimming)	I don't know	183	91.5	0.12	0.40	5.5	L
	I'm not sure	11	5.5				
	I know	6	3				
Breast cancer	I don't know	145	72.5	0.52	0.86	25.5	L
	I'm not sure	7	3.5				
	I know	48	24				
Others: such as fibrosis	I don't know	199	99.5	0.01	0.07	0.30	L
	I'm not sure	1	0.5				
	I know	0	0				

Cut-off point=1

Results shows that most items concerning reasons for changes that occur in the shape and size of the breast associated with secondary school female teachers were reported low assessment, and they are accounted 7(63.64%), and leftover items assessed moderate.

**Table(4): Teacher's information about breast self-examination**

Information about Breast Self-Examination	Resp.	No.	%	MS	SD	RS%	Ass.
I heard a self-examination of the breast	No	38	19	0.81	0.39	81.0	H
	Yes	162	81				
You know how to do self-examination of the breast	No	105	52.5	0.48	0.50	48.0	L
	Yes	95	47.5				
After menstruation is the best time for breast examination	No	120	60	0.40	0.49	40.0	L
	Yes	80	40				
Examine your breasts yourself.	No	135	67.5	0.32	0.47	32.0	L
	Yes	65	32.5				
Determine the time of the next examination.	No	186	93	0.07	0.26	7.00	L
	Yes	14	7				
Breast self-examination period are:(Each month)	No	143	71.5	0.29	0.45	29.0	L
	Yes	57	28.5				
*Breast self-examination period are:(Every 6 months)	No	174	87	0.13	0.34	13.0	H
	Yes	25	13				
*Breast self-examination period are:(Every year)	No	191	95.5	0.05	0.21	4.50	H
	Yes	9	4.5				
*Breast self-examination period are:(Any time)	No	147	73.5	0.26	0.44	26.0	H
	Yes	53	26.5				
There need to practice breast self-examination in the following cases: <i>Pregnancy</i>	No	135	67.5	0.32	0.47	32.0	L
	Yes	65	32.5				
There need to practice breast self-examination in the following cases: <i>Breast feeding</i>	No	136	68	0.32	0.47	32.0	L
	Yes	64	32				
There need to practice breast self-examination in the following cases: <i>Hormonal disorders</i>	No	135	67.5	0.33	0.47	33.0	L
	Yes	65	32.5				
There need to practice breast self-	No	150	75	0.25	0.43	25.0	L

examination in the following cases: <i>The use of contraceptives</i>	Yes	50	25				
There need to practice breast self-examination in the following cases: <i>Menopause</i>	No	142	71	0.29	0.45	29.0	L
	Yes	58	29				
Used methods for breast screening: <i>Look</i>	No	125	62.5	0.38	0.49	38.0	L
	Yes	75	37.5				
Used methods for breast screening: <i>Sensitizing and touching</i>	No	92	46	0.54	0.50	54.0	M
	Yes	108	54				
Used methods for breast screening: <i>Others</i>	No	198	99	0.01	0.10	1.00	L
	Yes	2	1				
Breast examination during: <i>(bath)</i>	No	113	56.5	0.43	0.50	43.0	L
	Yes	87	43.5				
Breast examination during: <i>(Stand in front the mirror)</i>	No	102	51	0.49	0.50	49.0	L
	Yes	98	49				
Breast examination during: <i>(lying down)</i>	No	150	75	0.25	0.43	25.0	L
	Yes	50	25				

\* Items reversed measuring scale, and that reverse an assessments scores. Cut-off point=0.5

Results shows that most of the studied items concerning information about breast self-examination associated with female's secondary school teachers were reported low assessment, and they are accounted 15(75%), then followed with moderate assessment, and they accounted 1(5%), while leftover items are assessed high, and accounted 4(20%).

**Table(5): Teacher's source of information about breast self-examination**

source of information	Resp.	No.	%	MS	SD	RS%	Ass.
Workers in the medical and health field	No	140	70	0.30	0.46	30.0	L
	Yes	60	30				
Parents, relatives and friends	No	156	78	0.22	0.42	22.0	L
	Yes	44	22				
Media (TV, magazines, seminars...)	No	84	42	0.58	0.49	58.0	M
	Yes	116	58				
Others	No	197	98.5	0.02	0.12	1.5	L
	Yes	3	1.5				

Cut-off point=0.5

Results shows that there are low mean scores and relative sufficiency concerning source of information about breast self-examination, in items (Workers in the medical and health field, , parents, relatives and friends, and others ), and they are accounted 3(75%), then followed with moderate assessment, in Media (TV, magazines, seminar), and they are accounted 1(25%).

**Table(6): Teacher's knowledge about reasons for self examination**

Reasons for self-examination	Resp.	No.	%	MS	SD	RS%	Ass.
Knowledge of the occurrence of any abnormal changes in the breast	No	70	35	0.65	0.48	65.0	M
	Yes	130	65				
Discovery of tumors and the node early by the teacher	No	115	57.5	0.42	0.50	42.0	L
	Yes	85	42.5				
Treatment of abnormal changes early	No	135	67.5	0.32	0.47	32.0	L
	Yes	65	32.5				
I feel the need for it	No	163	81.5	0.19	0.39	19.0	L
	Yes	37	18.5				
One of my relatives disease	No	177	88.5	0.12	0.32	12.0	L
	Yes	23	11.5				

Results shows that most items had low assessment concerning reasons for self-examination, and they are accounted 4(80%),while leftover items had a moderate assessment, and they are accounted 1(20%).

**Table(7): Teacher's Causes for not practicing breast self-examination**

Causes of not practicing BSE	Resp.	No.	%	MS	SD	RS%	Ass.
<b>* Absence of a breast problem</b>	No	51	25.5	0.75	0.44	75.0	L
	Yes	149	74.5				
<b>* Lack of confidence in myself</b>	No	187	93.5	0.07	0.25	6.5	H
	Yes	13	6.5				
<b>* I'm not able to fumbling like the others</b>	No	184	92	0.08	0.27	8.0	H
	Yes	16	8				

* I am concerned, tension and fear	No	110	55	0.45	0.50	45.0	M
	Yes	90	45				
* Leave it to health workers	No	130	65	0.35	0.48	35.0	M
	Yes	70	35				
* I do not have enough time to conduct the examination	No	177	88.5	0.11	0.32	11.0	H
	Yes	23	11.5				
* I do not want it	No	157	78.5	0.21	0.41	21.0	H
	Yes	43	21.5				
* I do not know	No	131	65.5	0.34	0.48	34.0	M
	Yes	69	34.5				

\* items reversed measuring scale, and that reverse an assessments scores. Cut-off point=0.5

Results shows that most items had high assessment concerning causes of not practicing breast self-examination, and they are accounted 4(50%), then followed with a moderate assessment, and they are accounted 3(37.5%), finally followed with one item of low assessment.

Table(8): Teacher's knowledge about common breast diseases

Common Breast Diseases	Resp.	No.	%	MS	SD	RS%	Ass.
1.Mastitis: is an inflammation of the mammary tissue as a result of clogged canals, where the proliferation of lactic bacteria	I don't know	181	90.5	0.15	0.47	7.5	L
	I'm not sure	9	4.5				
	I know	10	5				
Signs and symptoms of mastitis: 1.1. Mastodynia and swelling	I don't know	183	91.5	0.15	0.50	7.5	L
	I'm not sure	5	2.5				
	I know	12	6				
1.2. Redness of the breast	I don't know	187	93.5	0.10	0.38	4.8	L
	I'm not sure	7	3.5				
	I know	6	3				
1.3. Fever due to breast congestion and blockage of blood channels	I don't know	189	94.5	0.08	0.35	4.0	L
	I'm not sure	6	3				
	I know	5	2.5				
2. Breast abscess is a bag full of pus in the soft tissue under the skin or milky channels	I don't know	194	97	0.06	0.32	2.8	L
	I'm not sure	1	0.5				
	I know	5	2.5				
2.1.Women more susceptible to breast abscess are : women who did not treated enough of mastitis	I don't know	194	97	0.04	0.21	1.8	L
	I'm not sure	5	2.5				
	I know	1	0.5				
2.2. Women more susceptible to breast abscess are : women who suffer from cracking and irritation of the nipple	I don't know	194	97	0.04	0.21	1.8	L
	I'm not sure	5	2.5				
	I know	1	0.5				
3. Fibro adenoma is a solid block is painful and non-cancerous	I don't know	192	96	0.04	0.20	2.0	L
	I'm not sure	8	4				
	I know						
4. HPV is a small solid tumor growing inside deciduous channels in a non-cancerous breast	I don't know	192	96	0.07	0.33	3.3	L
	I'm not sure	3	1.5				
	I know	5	2.5				
Signs and symptoms of HPV: 4.1.Mass in the breast	I don't know	192	96	0.08	0.39	4.0	L
	I'm not sure	0	0				
	I know	8	4				
4.2. Abnormal discharge from the nipple	I don't know	192	96	0.08	0.39	4.0	L
	I'm not sure	0	0				
	I know	8	4				
4.3. Pain	I don't know	192	96	0.08	0.39	4.0	L
	I'm not sure	0	0				
	I know	8	4				
5. Breast cancer is cell division and growth in ways that are abnormal in breast	I don't know	145	72.5	0.48	0.81	24.0	L
	I'm not sure	14	7				
	I know	41	20.5				
Signs and symptoms of breast cancer: 5.1. Tumor and node in breast	I don't know	136	68	0.58	0.88	29.0	L
	I'm not sure	11	5.5				
	I know	53	26.5				
5.2. Change in breast size and shape of the nipple	I don't know	138	69	0.56	0.87	28.0	L
	I'm not sure	12	6				
	I know	50	25				
5.3. Congestion and redness of the breast	I don't know	154	77	0.40	0.77	20.0	L
	I'm not sure	11	5.5				
	I know	35	17.5				
5.4. Swollen lymph nodes under the armpit	I don't know	141	70.5	0.55	0.87	27.5	L
	I'm not sure	8	4				
	I know	51	25.5				
5.5. Pain and heaviness in the breast	I don't know	153	76.5	0.40	0.76	20.0	L
	I'm not sure	14	7				
	I know	33	16.5				
5.6. The withdrawal of the nipple to the interior	I don't know	174	87	0.20	0.55	10.0	L
	I'm not sure	12	6				
	I know	14	7				
5.7. Bloody discharge from the nipple	I don't know	173	86.5	0.20	0.55	10.0	L
	I'm not sure	13	6.5				
	I know	14	7				

Results shows that all items concerning common breast diseases among the studied sample had low assessments, and they are accounted 20(100%).

**Table(9): Teacher's knowledge regarding diagnosis of breast diseases**

Diagnosis of Breast Diseases	Resp.	No.	%	MS	SD	RS%	Ass.
Methods of diagnosis of breast diseases ways :	I don't know	61	30.5	1.28	0.90	64.0	M
	I'm not sure	22	11				
	I know	117	58.5				
1. Breast Self-Examination	I don't know	126	63	0.56	0.79	28.0	L
	I'm not sure	37	18.5				
	I know	37	18.5				
2. Clinical examination	I don't know	123	61.5	0.63	0.85	31.5	L
	I'm not sure	29	14.5				
	I know	48	24				
3. Mammography	I don't know	88	44	1.01	0.95	50.5	M
	I'm not sure	21	10.5				
	I know	91	45.5				
4. Ultrasound	I don't know	147	73.5	0.39	0.71	19.5	L
	I'm not sure	27	13.5				
	I know	26	13				
5. Cellular examination (histology)	I don't know	150	75	0.37	0.68	18.5	L
	I'm not sure	27	13.5				
	I know	23	11.5				
6. MRI examination	I don't know	96	48	1.01	0.98	50.5	M
	I'm not sure	7	3.5				
	I know	97	48.5				
Breast examinations have a role in detecting breast cancer early	I don't know	161	80.5	0.33	0.69	16.5	L
	I'm not sure	13	6.5				
	I know	26	13				
Breast Self-examination conduction each month after the age of twenty	I don't know	191	95.5	0.07	0.34	3.5	L
	I'm not sure	4	2				
	I know	5	2.5				
Breast clinical examination done: Once a year from the age of 20-40 years	I don't know	190	95	0.09	0.40	4.5	L
	I'm not sure	2	1				
	I know	8	4				
Breast clinical examination done: Once every six months of age 40 years and older	I don't know	193	96.5	0.06	0.30	2.8	L
	I'm not sure	3	1.5				
	I know	4	2				
Ultrasound device is a screening ultrasound determines whether a tumor is solid or liquid	I don't know	192	96	0.07	0.35	3.5	L
	I'm not sure	2	1				
	I know	6	3				
Cellular examination (tissue) are: By tapping Fine needle	I don't know	193	96.5	0.07	0.35	3.3	L
	I'm not sure	1	0.5				
	I know	6	3				
Cellular examination (tissue) are: By Surgical Specimen	I don't know	195	97.5	0.05	0.29	2.3	L
	I'm not sure	1	0.5				
	I know	4	2				
Cellular examination used for the purpose of obtaining a sample of fluid or tissue from injury in the breast area to determine the type of tumor	I don't know	195	97.5	0.05	0.29	2.3	L
	I'm not sure	1	0.5				
	I know	4	2				

Results shows that most items had low assessments concerning diagnosis of breast diseases, and they are accounted 11(78.6%), then followed by a moderate assessment, and they are accounted 3(21.4%).

**Table(10): Association of Socio-Demographical Characteristics variables according to knowledge assessment**

Demographical Characteristics Variables	Knowledge		
	C.C.	Sig.	C.S. (*)
Age Groups	0.196	0.236	NS
Marital Status	0.034	0.972	NS
Type of Family	0.075	0.289	NS
Residency	0.213	0.008	HS
Socio-Economic Status	0.138	0.048	S

(\*) S: Sig. at P<0.05; NS: Non Sig. at P>0.05

Table (10) shows association between different SDCAs, and overall assessments concerning "knowledge". Results shows that no significant relationships are accounted at P>0.05, except with residency, which are recorded significant different at P<0.008, and socioeconomic status at P<0.048.

#### IV. Discussion

##### Socio-Demographical Characteristics

The study results shows relative to teacher's "Age Groups", the highest percentage (25%) of the studied sample are at group (35 – 39) yrs., with mean and standard deviation ( $38.57 \pm 7.78$ ) years, (64%) of them are married, (78%) of them live in nuclear families, and (86%) are urban residency (Table 1). This study not consistent with study conducted by Abdulla, (2009) who found in her study that the highest percentage of the sample is at the age group (20-29) years, married and live in extended families (10). Also not agree with the study of Smith, et al., (2008) in their study the age of the respondents ranged from 16 years to 28 years, and had an average age of  $21.9 \pm 2.7$  years, most of them are young adults who should be more informed about breast cancer and self-examination of the breast before they reach the age of common disease. This is in line with the advice of health experts who pointed out that women should breast screening starts in the early age of twenty(11).

Regarding socio economic Status , the study results revealed in the table (2 ) that the socio-economic status of female teachers in secondary schools was high (72%) , and then followed by a moderate (28%). The present study was inconsistent with Vyas, (2006) who stated that the poorer the household, the less likely it is to get screened. This association has also been reported previously in different populations. This may be because low SES households tend to be less educated and less likely to be aware of the benefits of cancer screening or are likely to have negative perceptions about screening. It is also likely that working low-paying, menial jobs leaves little time or opportunity to participate in screening programs. This analysis shows that the influence of SES on breast cancer screening varies depending on rural/urban residence. This may be due to the lack of community resources, and the higher cost of living in urban areas compared with rural areas that provide less disposable income for urban middle SES households to be spent on healthcare(12,13).

##### Teacher's knowledge regarding Reasons for the changes that occur in the shape of breast size:

Results shows that most items concerning reasons for changes that occur in the shape and size of breast associated with secondary school female teachers knowledge were reported low assessment, and they are accounted 7(63.64%), While (menstruating; pregnancy; breastfeeding) items assessed moderate, table (3). Even that all participant educated and they are college graduated but their knowledge regarding the changes in the breast still low in most of the items except in the changes which occur during menstruation, pregnancy, and breast feeding. This study was inconsistent with study conducted by Abdulla , (2009) which found that all of the participants in both group have high mean score in all items of women's knowledge regarding the causes of breast changes because most of them have high level of education (10).

American Cancer Society (ACS), stated that breast shape and appearance undergo a number of changes as a woman is getting older. In young women the breast skin stretches and expands as the breast grow, creating a rounded appearance. As women ages, her breast become less dense and the space is filled with fatty tissue. The size and shape of women's breast varies considerably. Some women have a large amount of breast tissue, and therefore have large breasts. Other women have a smaller amount of tissue with little breast fat, many factors may influence a women's breast size, include, volume of breast tissue, family history, ages, weight gain or loss, history of pregnancy and lactation. Thickness and elasticity of breast skin, degree of hormonal influences on the breasts and menopause (6). According to American Cancer Society's (ACS), recommendation, women should know how their breasts normally feel and report any breast changes promptly to their health care providers. BSE is an option for women starting from the early 20s (14).

##### Information about breast self-examination:

The study results shows that most of the studied items concerning information about breast self-examination associated with secondary school female teachers were reported low assessment, and they are accounted 15(75%), then followed with moderate assessment for the item (methods used to examine the breast: sensitizing and touching ), and they are accounted 1(5%) for , while leftover items are assessed high in the items (heard of breast self-examination, and the period of breast self-examination are: (every 6 months), (each year), and (at any time) , and are accounted 4(20%) table (4).

In Jordanian women, only 18% of the participants reported that they practiced BSE on monthly basis (15). Milaat, (2000) reported that 14.4% of secondary school female nursing students had knowledge about the frequency of BSE and that 7.1% of the students had knowledge about appropriate time for BSE(16) . Fry et. al,( 2006) stated that it is important for younger women to become familiar with how their breasts look and feel through monthly BSE(17) . In a study conducted in Turkey by Beydag et . al, (2007) they found that 50% of female university students did not know how to perform BSE (18) .

### **Source of information about breast self-examination :**

Study results shows that there are low mean scores and relative sufficiency concerning source of information about breast self-examination, in items (Workers in the medical and health field, , parents, relatives and friends, and others ), and they are accounted 3(75%), then followed with moderate assessment, in Media (TV, magazines, & seminars), and they are accounted 1(25%), table (5 ).

Previous study carried among educated population in Iraq which illustrated 90.9% had heard about BSE, and for (55.9%) of them the main source of knowledge about breast self-examination was the television; particularly among teaching staff practice of breast self examination was studied among women in the Unit and students emphasizing the potential effectiveness of the visual media in modifying health behavior and promoting education (19). Knowledge level of BSE be required and nurses, as medical professionals getting to meet women in various environments, play a key role in increasing women's awareness about breast health. A study among female medical students in Nigeria reported that 97.3% were aware of BSE mainly through television and radio (20).

### **Reasons for Breast Self-Examination Performance:**

Study results shows that most items had low assessment concerning reasons for breast self-examination, and they are accounted 4(80%) , while leftover items had a moderate assessment for the item (Knowledge of the occurrence of any abnormal changes in the breast , and they are accounted 1(20%), table(6), the majority of them not aware about the importance of breast self examination performance by them self, and the importance of early detection of any lump, node, unfamiliar form in their breast , or any abnormal changes in the breast.

The American Cancer Society also commended the positive role of self-examination of the breast in the early detection of cancer, women advised its exercise per month, and regularly, to get to know the nature of the breast and feel, so that they can see any changes that may occur later and when they occur (21).

Wu and Yu,(2003); & Lagerlund et. al, (2000) stated that early detection improve survival, they studied beliefs related to cancer screening practices , used the health belief model as a theoretical frame work to study breast cancer screening behavior such as BSE. or mammography screening , and this is influenced by a person's perception of the threat posed by a health problem and the value associated with action to reduce the threat (22,23) .

Petro- Nustas & Mikhail, (2002) stated that a woman who perceives that she is susceptible to breast cancer and that breast cancer is a serious disease would be more likely to perform regular BSE. Similarly, women who perceives more benefits from and fewer barriers to BSE. would be more likely to practice BSE (18) . Furthermore, all studies examining breast screening practices are designed on the premise that through early detection of breast lumps, breast cancer mortality can be reduced and lives can be saved. Early detection and prompt treatment offer the greatest chance of long term survival breast examination and BSE are the secondary preventive methods used for screening the early detection of breast cancer. Cancer screening test play a pivotal role in reducing breast cancer related mortalities (24,25).

### **Causes for not Practicing Breast Self Examination:**

When attempt to stand on the real reasons behind the lack of practice breast self-examination in this study, it was found that most items had high assessment concerning causes of not practicing breast self-examination, and they are accounted 4(50%) (do not have confidence in mastering the examination, not able to fumbling, do not have enough time to conduct the examination, and do not want to perform the examination ), then followed with a moderate assessment at the items (feel the fear of discovering any node or disease in the breast , I leave it to health workers, do not know the correct way) , and they are accounted 3(37.5%), finally followed with one item of low assessment in item attributed the cause of them to the lack of problem in the breast, and accounted 1(12.5%) , table ( 7). These results are similar to that recorded by some other Arab studies conducted in the Eastern Mediterranean Region revealed that women frequency and the practice of breast self-examination is due to be concerned of the discovery of cancer and lack of knowledge about the seriousness of cancer (26).

McCready et. al,(2005) in their study reported that the most common reasons for not doing BSE were "not knowing how to perform BSE" (98.5%), "not expecting to get breast cancer" (45.6%) and "not having a close relative with breast cancer" (42.9%)(57). Nadia & Magda, (2000) stated that the reasons for not performing BSE regularly were mainly lack of knowledge, forgetfulness, fear or anxiety to discover breast cancer, dislike to touch breast, no time, and cultural and health beliefs (27).

### **Knowledge about Diagnosis of Breast Diseases:**

Interpretation of study results in table (9) to assess the knowledge of secondary school teachers shows that most items had low assessments concerning diagnosis of breast diseases, and they are accounted 11(78.6%),

then followed by a moderate assessment only in the items regarding methods of diagnosis of breast diseases (Breast Self-Examination, Ultrasound, and Breast examinations have a role in detecting breast cancer early), and they are accounted 3(21.4%).

WHO seeks to strengthen the fight against breast cancer in the context of comprehensive national cancer control programs involving prevention, early detection, treatment and palliative care (28). In spite of the potential contribution of preventive strategies in reducing some of the risks of breast cancer, but they are not able to get rid of most of the cases. This applies in particular to developing countries, which is witnessing an increase in the incidence rates of the disease as a result of increased life expectancy and the adoption of Western life which is usually where the cancer is diagnosed in the late stages of the disease (Strategy for cancer control in the Eastern Mediterranean Region, 2010).

Accordingly, early detection remains the cornerstone of the fight against breast cancer and improve survival rates alive. There is some evidence that the contribution of early detection strategy "retreat" increase the proportion of breast cancer cases to a more curable stages by treatment (18). The adoption of mammography screening has led to reduction in mortality from the disease in women (29). Since mammography, which is one of the most prominent means of early detection of breast cancer, high cost, it is not recommended to resort to it only in countries that have good basic health structure to enable them to bear the cost of implementing the program in the long run. Therefore, the WHO recommends that women in developing countries of the world Blatant to marks the first symptoms of the disease through breast conducted by the doctor's clinical examination, self-examination of the breasts, as the organization stresses that it is essential for the success of early detection of cancer strategy factors: development of a sustained program minute plans and regular than raise the level of public awareness of the problem posed by this disease, a program aimed at the appropriate population group, and ensures coordination of procedures and quality at all levels of care (28).

#### **Association of Socio-Demographical Characteristics variables according to knowledge assessment**

Study findings shows association between different socio-demographic characteristics variables, and overall assessments concerning "knowledge". Results shows that no significant relationships are accounted at  $P > 0.05$ , except with residency, which are recorded significant different at  $P < 0.008$ , and socioeconomic status at  $P < 0.048$  (table 10). Women's marital status was found to be predictor of performing BSE in Iranian women, as married women performed more BSE, but this result is in contradiction with the finding of some other studies (30). Differences in how BSE information was obtained were identified according to age, household income level, and education level. Considering the effect of socioeconomic status on the mortality of breast cancer in Korea (31,32) Karayurt et.al, (2008) study shown that there are several factors (age, marital status, education, and years of experience, and previous breast problems, and was close with breast cancer and the level of knowledge) associated statistically with breast self-examination(33).

#### **V. Conclusion**

The study results concludes that most of the studied sample of secondary schools female teachers with respect to breast self-examination in the city of Nasiriyah in light of knowledge domain (Reasons for the changes that occur in the shape of breast size, Information about Breast Self-Examination, Source of information about Breast Self-Examination, Causes of not practicing Breast Self-Examination, Common Breast Diseases, Diagnosis of Breast Diseases), or teacher practices that relate to Breast Self-Examination had recorded in general weak assessments.

#### **VI. Recommendation**

- 1- School health education and make it an ideal platform should be used to promote awareness about self-examination, and find out the time of examination, and to encourage regular practice of breast self-examination.
- 2- Publication of BSE and education programs propagated in media as a measure for early detection of breast cancer.
- 3- To spread BSE knowledge and practice among the younger females collaboration with the education ministry, university.

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