

## Assessment Of Nurses Knowledge And About Breast Cancer

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### Abstract

**Background:** Breast cancer is the most common type of cancer in women with an increasing incidence. Health professionals play an important role in reducing disability and death from breast cancer, a major public health problem.

**The aim:** Is to determine the levels of knowledge of nurses in two hospitals in Basrah city, Iraq about breast cancer, risk factors and symptoms.

**Method:** Cross-sectional descriptive study including nurses working in Al-Sadr Teaching Hospital and Basrah Teaching Hospital. The study sample consisted of 125 nurses who agreed to participate in the study. A personal information form and questionnaire prepared by the researchers were used to determine nurses' knowledge levels and attitudes about risk factors and symptoms for breast cancer and breast cancer in the data collection.

**Results:** It was determined that 82.4% of the research group were aged (20-41 years), 45.6% were married and 28.8% were university graduates. It was determined that 8% of nurses had a history of breast cancer, 13.6% had a family history of breast cancer, 31.2% did not know how to get BSE, and 60.8% did not have an annual breast examination. The averages of the respondents in the questionnaire were, respectively:  $(1.83 \pm 0.36)$  (risk factors for breast cancer),  $(1.91 \pm 0.43)$  (signs and symptoms of breast cancer),  $(2.32 \pm 0.45)$  (methods of detection of breast cancer).

**Keywords:** Behavior, Breast Cancer, Knowledge, Nurse.

## INTRODUCTION

Breast cancer has become the most common type of cancer, with a high death rate among women in all societies, and the results of the report published by the World Health Organization in 2008. Breast cancer is among all types of cancer among women (23-25%) and with

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1.1 million new cancers. Cases are diagnosed every year. Due to the new treatments and the increase in awareness for patients, the early detection of the disease caused the reduction in the rate of removal of the breasts or one of them. Despite significant advances in screening and treatment, breast cancer remains the number one cancer-related death that affects women (American Cancer Society, 2017).

Therefore, many doctors around the world recommend an early diagnosis of breast cancer through Breast self-examination (BSE). If performed on a monthly basis, (BSE) has been touted as an important tool for the early diagnosis of breast cancer. (BSE) is easy to use at home and thus cost-effective as it is free (Korkut, 2019).

Breast cancer is one of the leading causes of death for women over the age of 30. It shortens the lives of people at risk, especially those between the ages of 31 and 50. Breast cancer is becoming more and more common around the world. Breast cancer is becoming more common in societies where it was not common before. Breast cancer has become the most common cancer among women around the world (with the exception of skin cancers). The prognosis is poor for women over the age of forty. Many patients because of fear are late to go to the hospital if nothing happens or because of their wisdom and attitude towards breast cancer (Salaudeen et al., 2009).

Since many factors such as biology, diet and environmental factors influence breast cancer risk, the etiology of breast cancer is complex and unknown. However, according to (O'Sullivan et al., 2018), the condition has a variety of causes. These factors include age, female gender, positive family history, harmful changes in gene sequences (BRCA1, BRCA2, CHEK2, PALB2, etc.), mammography density (dense breast), and reproductive factors (including infertility, early menstruation, delayed menstruation and late menopause). Therefore, it is impossible to prevent disease progression due to several of these reasons Impact breast cancer development and as a result, early detection is critical to reducing death rates. (BSE), clinical breast examination (CBE), and mammography (MMG) are also known as early detection techniques (Qaseem et al., 2019). Which enables it to obtain a huge amount of information when searching for any topic using search sites, whether at home or office (10) . Nursing is the sum of services given to individuals and their families to help them maintain their natural state or help them to relieve their organic and psychological pain ( luaay et al ., 2018 ).

## **MATERIALS AND METHODS**

**Design:** A descriptive cross-sectional study.

**Sample and Preparation:** The study was conducted with female nurses working in Al-Sadr Teaching Hospital and Basrah Teaching Hospital,

both of which are in Basrah Governorate. The universe of the study consisted of 200 nurses working in Al-Sadr Teaching and Basrah Teaching hospitals. The sample of the study consisted of 125 nurses who agreed to participate in the study. 59 nurses from Al-Sadr Teaching hospital and 66 nurses from Basrah Teaching hospital participated in the study.

The excluded samples are those who completed less than 90% of the survey and those who did not respond to the questionnaire even after completing the questionnaire.

**Data Collection Tools:** Instruments were selected in two parts; the data was collected using a questionnaire to determine the socio-demographic characteristics of nurses and a questionnaire consisting of three sections developed to determine nurses' knowledge and attitudes about breast cancer.

**Socio-demographic form;** the form was included questions about the age, education, marital status, religion, family history of breast cancer, breast cancer history, self-exam of breasts, annual breast examination status of the participants, etc... It contains 12 questions in total.

**Breast cancer information and attitude form;** the form prepared to determine nurses' knowledge and attitudes towards breast cancer was adapted from study the model was modified to determine nurses' knowledge and attitudes toward breast cancer from the study (Andegiorgish et al., 2018). The necessary permissions were obtained from him personally for the implementation.

The form consists of three sections. The first section consists of 14 questions about breast cancer risk factors, the second section consists of 12 questions about the signs and symptoms of breast cancer, and the third part consists of 5 questions about breast cancer screening methods. Consists of 31 questions.

The assessment was made by scoring in Section 1 and Section 2 which was calculated by giving "2" to "strongly agree", "1" to "agree" and "0" to "disagree" to the answers. Assessment was done by scoring the third syllable as "0" for the first answer, "1" for the second answer, and "2" for the third answer.

**Data Collection Method:** Data were collected by using the questionnaire and interview technique. The average data collection time was 15 minutes.

#### **Research variables**

**The dependent variable** was; the knowledge level of nurses about breast cancer, risk factors, and symptoms of breast cancer.

**Independent variables** were; age, gender, educational level, marital status, breast problem, etc...

**Data Analysis:** The data were evaluated using the SPSS (V26) Windows package program. As a result of the Shapiro Wilk test conducted to determine whether the data were distributed normality or not, it was determined that the data were normally distributed. Number, percentage, mean and standard deviation were used in the analysis of the data, and the t test and one-way ANOVA were used to compare nurses' characteristics and knowledge scores. The significance level was accepted as  $p < 0.05$ .

## RESULTS

**Table 1** :Descriptive statistics of Demographic Variables.

Demographic Variables	Variables Classes	N	Percent
Age	20-41	103	82.4%
	42-63	22	17.6%
	Total	125	100%
Service	1-15	104	83.2%
	16-30	14	11.2%
	31-45	7	5.6 %
	Total	125	100%
Hospital	Basra hospital	66	53 %
	Sadder hospital	59	47 %
	Total	125	100 %
Marital status	Single	58	46.4 %
	Married	57	45.6 %
	Divorced	7	5.6 %
	Widow	3	3.4%
Total	125	100 %	
Religion	Muslim	123	98.4%
	Otherwise	2	1.6%
	Total	125	100 %
Family history	No	108	86.4 %
	Yes	19	13.6 %
	Total	125	100 %
Breast self-exam	I do not have the ability	39	31.2 %
	I have the ability	86	68.8 %
	Total	125	100 %
Annual examination	No	76	60.8%
	Yes	49	39.2%
	Total	125	100 %
Breast problem	No	115	92 %
	Yes	10	8 %
	Total	125	100 %
Education level	Middle School	34	27.2 %
	High school	33	26.4 %
	institute	36	28.8 %
	College	22	17.6 %
Total	125	100 %	
Workplace	Emergency	18	14.4 %
	Department	20	16 %
	Management	4	3.2 %

	Foyer	42	33.6 %
	Operations	30	24 %
	Center	11	8.8%
	Total	125	100 %
Work type	Nursing	115	92 %
	Management	10	8 %
	Total	125	100 %

The variables related to the demographic characteristics of 125 nurses were distributed as in Table 1. Descriptive statistics of demographic variables were distributed to two hospitals, Basra Hospital, where their number reached (66) and their percentage (53%) and Al-Sadr Hospital (59) and their percentage (47%). Among the 125 nurses studied, the marital status was distributed from (58) single women and their percentage (46.4%) and (57) married and their percentage (45.6%) and (7) divorcee (5.6%) and there were (3) divorced women. The largest percentage in religion was for Muslims, whose number was (123) Muslims and their percentage was (98.4). In the history of the family, the percentage of a yes answer was lowest, their number was (19) and their percentage was (13.6%). When asked about their knowledge of a breast self-exam, the highest percentage was the ability to perform a breast examination, their number (86) and their percentage (68.8%), those who conducted the annual examination and answered the yes, the least, as their number was (49) and their percentage (39.2%) and those who have a problem in the breast. They also have smaller numbers, their number (10) and their percentage (8%), and we tried to take equal samples in terms of educational level, but the results became clear. It is the lowest percentage of female university graduates, their number (22) and their percentage (17.6%) when asked about the workplace, the highest percentage was in operations, their number (30) and their percentage (24%) and the lowest percentage in management, their number (4) and their percentage (3.2%) when Ask them about the nature of the work.

**Table2:** Nurses' knowledge scores on breast cancer, symptoms, risk factors and screening (N=125).

Parts of Questionnaire	N	Mean± SD
Risk factor	125	1.83±0.36
Signs & Symptoms	125	1.91±0.43
Screening ways	125	2.32±0.45

The average knowledge scores of the nurses participating in the study for breast cancer risk factors, symptoms, and examination are presented in Table 2. when examining the table, it is noted that the average knowledge score about breast cancer risk factors is (1.83 ± 0.36) the average knowledge score about breast cancer, symptoms is

( $1.91 \pm 0.43$ ) and the average knowledge score about breast cancer screening is ( $2.32 \pm 0.45$ ).

**Table 3:** Item score averages of the responses given by the nurses regarding the breast cancer risk factor (N=125).

Rick factor domain	N	Mean±SD
Does the risk of breast cancer increase with age?	125	1.98±0.58
Is breast cancer hereditary	125	1.74±0.72
Is a high-fat diet a risk factor for breast cancer?	125	1.83±0.63
Is smoking a risk factor for breast cancer?	125	1.90±0.65
Menstruation at an early age	125	1.53±0.65
Does raising the ovaries at a young age cause breast cancer	125	1.75±0.65
Late menopause is a risk factor for developing breast cancer	125	1.74±0.65
Is stress a risk factor for breast cancer?	125	1.55±0.66
Hormone therapy causes breast cancer	125	1.92±0.65
Does breastfeeding reduce the risk of breast cancer?	125	2.26±0.65
Is a painless breast lump a sign of breast cancer	125	1.98±0.65
Is obesity a risk factor for breast cancer?	125	1.70±0.63
Do birth control pills increase the risk of breast cancer?	125	1.81±0.61
Does physical activity reduce the risk of breast cancer?	125	1.94±0.69
Total	125	1.83±0.36

The average item scores for the answers given by the nurses to the breast cancer risk factor are presented in Table 3. The top three items with the highest scores by study nurses: "Does Breastfeeding Reduce Breast Cancer Risk?" ( $2.26 \pm 0.65$ ), "Does the risk of breast cancer increase with age?" ( $1.98 \pm 0.58$ ), "Is a painless breast lump a sign of breast cancer?" ( $1.98 \pm 0.65$ ).

**Table 4:** Item averages for responses provided by nurses regarding recognition of breast cancer signs and symptoms (n = 125).

Signs & symptoms domain	N	Mean±SD
A painless lump or knot in the breast or underarm	125	2.01±0.54
Discharge from the breast	125	1.93±0.62
Pain or soreness in the breast	125	1.98±0.64
Swollen or swollen breasts	125	2.03±0.56
Breast color change	125	1.94±0.60
Redness or wrinkling of the skin on the surface of the breast, like an orange peel	125	1.87±0.66
Weight loss	125	1.72±0.72
Changes in the shape of the breast and the presence of veins above the skin	125	1.94±0.61
Nipple inversion or indentation	125	1.86±0.61
Change in the shape, size, or contours of the breast, or wrinkling of the skin	125	1.90±0.64
Underarm knot	125	2.05±0.59
Itchy, crusty sores or a rash around the breasts	125	1.78±0.66
Total	125	1.91±0.43

The average item scores for the answers provided by the nurses about the signs and symptoms of breast cancer are shown in Table 4. The first three items given by the nurses participating in the study are in the mean range and the highest scores for "Underarm knot" ( $2.05 \pm 0.59$ ) and "Swollen or swollen breasts" ( $2.03 \pm 0.56$ ) and "A painless lump or knot in the breast or underarm" ( $2.01 \pm 0.54$ ).

**Table 5:** Item score averages of the responses given by the nurses regarding the breast cancer screening (N=125).

Breast Cancer Screening	N	Mean Score
Breast cancer can be detected	125	2.40±0.73
What is the preferred time to take the test?	125	2.39±0.81
The most important and prominent global methods that help control and reduce the spread of breast cancer?	125	2.27±0.72
One of the factors that help to reduce the proportion Breast cancer	125	2.41±0.59
Ways to prevent breast cancer include	125	2.18±0.88
Total	125	2.32±0.45

Item score averages of the answers given by the nurses to the breast cancer screening are shown in Table 5. The first three items given the highest score by the nurses participating in the study “Breast cancer can be detected” (2.40±0.73), “One of the factors that help to reduce the proportion Breast cancer” (2.41±0.59), “What is the preferred time to take the test?” (2.39±0.81).

**Table 6:** Distribution of the research group's average knowledge scores on breast cancer risk factors according to demographic variables.

Demographic Variables	Variables Classes	N	Mean±SD	*P value
Hospital	Basra hospital	66	1.80±0.345	0.446
	Sadder hospital	59	1.85±0.383	
Age	20 – 41	103	1.81±0.351	0.818
	42 – 63	22	1.88±0.420	
Social status	Single	58	1.79±0.353	0.126
	Married	57	1.89±0.358	
	Divorced	7	1.76±0.453	
	Widow	3	1.45±0.218	
Religion	Muslim	123	1.82±0.364	0.512
	Otherwise	2	2.00±0.404	
Family history	No	108	1.81±0.357	0.308
	Yes	17	1.91±0.401	
Breast self-exam	I don't have the ability	39	1.835±0.410	0.948
	I have	86	1.830±0.342	
Annual examination	No	76	1.82±0.345	0.879
	Yes	49	1.83±0.393	
Breast problem	No	115	1.81±0.352	0.128
	Yes	10	2.00±0.457	
Education level	middle School	34	1.64±0.345	0.001
	high school	33	1.80±0.245	
	Institute	36	1.85±0.360	
	College	22	2.12±0.361	
Workplace	Emergency	18	1.95±0.348	0.200
	Department	20	1.71±0.313	
	Management	4	2.07±0.391	
	Foyer	42	1.78±0.381	
	Operations	30	1.88±0.317	
	Center	11	1.79±0.463	
Service	1 – 15	104	1.83±0.350	0.609
	16 – 30	14	1.89±0.433	
	31 – 45	7	1.72±0.433	
Work type	Nursing	115	1.83±0.361	0.924
	Management	10	1.82±0.411	

**T-test for independent samples when it is two groups , using one-way ANOVA when**

**it is three or more groups**

Table 6 showed the distribution of the research group's mean knowledge score on breast cancer risk factors according to some characteristics. It was determined that knowledge scores were affected only by education level and knowledge scores on breast cancer risk factors increased as education level increased ( $p=0.001$ ).

**Table 7: Mean knowledge distribution of research group scores regarding breast cancer signs and symptoms according to demographic variables.**

Demographic Variables	Variables Classes	N	Mean± SD	*P – value
Hospital	Basra hospital	66	1.91±0.381	0.984
	Sadder hospital	59	1.92±0.485	
Age	20 – 41	103	1.92±0.448	0.803
	42 – 63	22	1.89±0.353	
Social status	Single	58	1.93±0.504	0.918
	Married	57	1.91±0.364	
	Divorced	7	1.82±0.415	
	Widow	3	1.86±0.127	
Religion	Muslim	123	1.91±0.433	0.415
	Otherwise	2	2.16±0.235	
Family history	No	108	1.86±0.374	0.003
	Yes	17	2.28±0.582	
Breast self-exam	I don't have the ability	39	1.89±0.428	0.632
	I have	86	1.93±0.435	
Annual examination	No	76	1.85±0.405	0.041
	Yes	49	2.01±0.457	
Breast problem	No	115	1.89±0.388	0.012
	Yes	10	2.22±0.736	
Education level	middle School	34	1.80±0.346	0.085
	high school	33	1.89±0.421	
	Institute	36	1.94±0.527	
	College	22	2.09±0.347	
Workplace	Emergency	18	2.25±0.632	0.000
	Department	20	1.82±0.194	
	Management	4	2.12±0.284	
	Foyer	42	1.84±0.434	
	Operations	30	1.85±0.338	
	Center	11	1.90±0.388	
Service	1 – 15	104	1.90±0.444	0.519
	16 – 30	14	2.04±0.357	
	31 – 45	7	1.86±0.378	
Work type	Nursing	115	1.92±0.431	0.647
	Management	10	1.85±0.459	

\*Using T-test for independent samples when it is two groups, one-way ANOVA when it is three or more groups

Table 7 showed the distribution of the research group's average knowledge scores regarding symptoms and outcomes of breast cancer according to some characteristics. Cognitive scores for signs and symptoms were compared with those with a family history of breast cancer ( $g = 0.003$ ), those who had annual check-ups compared to those who did not ( $p = 0.041$ ), those with breast problems compared to those who did not ( $p = 0.012$ ) and those who worked in the emergency department compared to those who worked in other units ( $p = 0.000$ ), found to be higher.



**Table 8:** Mean distribution of the research group's average knowledge scores about breast cancer screening according to demographic variables.

Demographic Variables	Variables Classes	N	Mean±SD	*P – value
Hospital	Basra hospital	66	2.30±0.476	0.492
	Sadder hospital	59	2.35±0.432	
Age	20 – 41	103	2.34±0.464	0.396
	42 – 63	22	2.25±0.410	
Social status	Single	58	2.37±0.431	0.406
	Married	57	2.31±0.494	
	Divorced	7	2.28±0.323	
	Widow	3	1.93±0.305	
Religion	Muslim	123	2.32±0.457	0.399
	Otherwise	2	2.60±0.001	
Family history	No	108	2.33±0.451	0.998
	Yes	17	2.32±0.494	
Breast self-exam	I don't have the ability	39	2.26±0.395	0.262
	I have	86	2.36±0.479	
Annual examination	No	76	2.35±0.425	0.483
	Yes	49	2.29±0.500	
Breast problem	No	115	2.32±0.452	0.940
	Yes	10	2.34±0.508	
Education level	middle School	34	2.22±0.391	0.001
	high school	33	2.18±0.492	
	Institute	36	2.36±0.404	
	College	22	2.63±0.439	
Workplace	Emergency	18	2.23±0.549	0.500
	Department	20	2.37±0.524	
	Management	4	2.20±0.565	
	Foyer	42	2.37±0.427	
	Operations	30	2.39±0.369	
	Center	11	2.12±0.449	
Service	1 – 15	104	2.34±0.467	0.662
	16 – 30	14	2.25±0.345	
	31 – 45	7	2.22±0.495	
Work type	Nursing	115	2.32±0.462	0.515
	Management	10	2.42±0.370	

Using T-test for independent samples when it is two groups, one-way ANOVA when it is three or more groups

Table 8 showed the distribution of the research group's average knowledge scores about breast cancer screening according to some characteristics. It was determined that knowledge scores for breast cancer screening are affected only by educational level, and knowledge scores for breast cancer screening increased with increasing level of education ( $p = 0.001$ ).

## DISCUSSION

### Discussing the Demographic Distribution of Nurses

The samples were 125 from Al-Sadr Hospital who completed their questionnaire 66 samples, and the number of samples from Basrah Teaching Hospital was 59 nurses divided by place of work. Most of the nurses helped many of the women do the self-examination, and the study revealed that most of those who answered the questionnaire were single. The study showed that most of those who answered the

questionnaire are single (46.4%) of the total number and (45.6%) are married in the study group. These results showed that the majority of the nurses studied were unmarried, widowed (5.6%), and divorced (3.4%). The comparative study conducted in a rural area in western Turkey included a group of women (20-64 years). They were single housewives (19.7%), married women (67.6%), widowed (12.7%) (Dündar et al., 2006). The nurse should be well versed in applying the biological, psychological, and social approach to breast self-examination, ensuring health promotion and maintenance, breast cancer prevention, and methods of prevention and treatment. Spreading awareness in the sectors of the individual and society, which helps in the development and ensures access to public health care. The largest proportion of responses was determined by clinical breast examination. When asked about their ability to breast examination and whether they practice self-examination, the largest proportion of them answered that they have the ability to breast examination, (68.8%) and number (86) as an outcome-based study. While the percentage of nurses who performed the annual examination was small. Those who had a breast problem were very few. While a study conducted in Jordanian hospitals in (2011) found that the majority of participants (95.5%) had no family history of breast cancer and that (55.4) percent practiced self-examination. There have also been 'concerns about an identifiable breast lump'. One of the risk factors for breast cancer is having a positive family history. Long-term use of birth control pills, smoking, and alcohol use have been identified as risk factors for breast cancer (Amasha, 2013). As for the level of education, university nurses are characterized by their access to high nursing information and their ability to diagnose nursing diseases, the percentage of institutes graduates (28.8%), and its graduates. (26.4%) secondary nursing the majority of nurses are graduates of the preparatory stage (27.2%). A small number of fresh university graduates in the province were distributed in important and sensitive places in healthy joints, and the spread of the Corona epidemic, which made it difficult to find a few of them. The current study shows that the years of service are the years of experience in the departments of the majority of nurses working in hospital wards who have less than 15 years of experience. There is a study conducted in rural areas in Turkey that was identical to my study in terms of the number of participants and the sample of nurses and their ages. The study showed that there were no statistically significant differences between the knowledge of breast cancer risks, signs, symptoms, and examination methods in terms of (age, marital status, years of experience) (Yuan et al., 1988). In another study, a researcher used the B-CAS Psychometric Characteristics Scale for the age group (25-49) in health centers in another study in the Turkish province of Konya (2021)

as five components: knowledge of risk factors, knowledge of signs, symptoms, women's attitude towards breast cancer and its prevention Breast screening methods and health behavior related to breast cancer awareness. The validated and reliable test can be used to screen women's awareness of breast cancer with a simple and easy-to-use self-report assessment tool. The scale can help create new health assessment scales (Altuntuğ et al., 2021).

#### **Assessment of Nurses' Knowledge of Breast Cancer, Symptoms, Risk Factors, and Screening Method**

The statistics are categorized into three main areas as follows: knowledge about breast cancer related to nurses' knowledge regarding the domain of breast cancer risk factors, and nurses' knowledge about signs and symptoms of breast cancer. Regarding the methods of early detection of breast cancer, the question items were optional in the knowledge areas in each study, as observation of the results showed that all 125 nurses had an average level of general knowledge. This showed that most of the nurses surveyed had generally unsatisfactory practices. The study showed that there is an average risk ratio in certain areas of the nurses in the study group about the level of knowledge that there are no statistically significant differences in their knowledge ratios except for the question. (5 and 8) about knowledge of risk factors Questions (1, 2, and 4) have poor knowledge of early detection methods. Hence, the practices need to be adequately improved and developed because these results show that there is insufficient and unsatisfactory knowledge. While a different study in Karachi (2018) showed that the average knowledge score was (5.24 - 2.92). Altogether, 42 percent of the participants were found to have sufficient knowledge of breast cancer, while 58 percent had insufficient knowledge (Arif et al., 2018). Breast cancer knowledge is closely related to regularity Nursing and family history courses and work units. Knowing the breast cancer risk factor among nurses is important so that they can provide the appropriate examination and recommendation for high-risk women. Nurses graduating from a private nursing school were 4 times more likely to have a good knowledge of the risks compared to those who graduated from a public nursing school. The knowledge subscale was adapted for a survey among Jordanian nurses and had a low-reliability coefficient (Ahmed et al., 2006).

#### **Assessment of Nurses' Towards Breast Cancer**

When asked about their ability to examine the breast and whether they practiced self-examination, the largest proportion of them answered that they had the ability to examine the breast, (68.8%) and number (86) as an outcome-based study. The study showed that the

largest group is that no family member had breast cancer, and the study conducted in Iran matched my results (Fotedar et al., 2013). The largest percentage when asked about who performs the annual examination (60.8%) said that they did not see a doctor or did a mammogram. The majority did not have a breast problem (92%), which is a good sign and there was a study that matched my problem (Lemlem et al., 2013). Among the risk factors for developing cancer, it was found that there were concerns about breast cancer among nurses, and they were asked whether the risk of developing breast cancer increases with age, answered (83) in agreement, and the circumstances. the breast. Cancer is hereditary, (57.6%) of them answered that it is hereditary, and with the BRCA1 gene, women are up to 50% more likely to develop breast cancer and affect their lives (Faramarzi et al., 2021). The results of the question showed that a high-fat diet is a risk factor for breast cancer (72). They answered in agreement. Was the attitude to smoking a risk factor for breast cancer? (82) of them answered in agreement, as their attitude was satisfactory, and some nurses were afraid to hear the name of the disease and did not accept to participate in the name of the research only, but many of them had positive ideas about or learn about the latest developments about it and the possibility of its detection and prevention by focusing and identifying with Self-examination and educating their family and friends, and in general, when asking nurses about breast cancer risks. Knowledge of breast cancer attitudes and practices was relatively poor in Kirkuk due to conflicts in the city, but a positive attitude towards learning screening techniques and the intention to educate others was somewhat encouraging (Alwan et al., 2012).

## **CONCLUSIONS**

The study confirms that there is a high percentage of nurses who do not have the ability to recognize and diagnose the disease and know the signs and symptoms and that some health workers need to increase their knowledge because they do not have the desire to do so and do not accept to hear or know what breast cancer is and what it is. Risks that lead to the loss of the patient's life and expresses her fear of the name

## **Recommendations**

We recommend raising awareness among nurses by training all medical staff, holding multiple and periodical courses, making posters and television programs and presenting them to all nursing staff working in all hospitals to increase their knowledge of breast cancer and its life-threatening risks.

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