

## Republic of Sudan

Ministry of Higher Education and scientific Research University of Shendi

## College of Graduate Studies and Scientific Research

Research entitled:
Prevalence and Knowledge Associated of Breast Cancer Among Women in Shendi Locality from 2015-2016

A thesis submitted in full filament for the requirements for master degree in public health

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الاســتهلال

قال تعالي :

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## Dedication

I dedicate this work,
To my mother,
Who over whelmed me with her truelove, care and kindness.
To my husband,
Who lived every moment of my work to reach this achievement
To my children
To my brothers and sisters, Who have always helped me and believed that I could do it.

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## Abbreviations

USA United States of America.
WHO World Health Organization
SPSS Statistical Package for Social Sciences.
BSE Breast Self-Examination.
SES Socio Economic Status

## ملخص البحث



 الإصـابة وتز ايدها بمعدل ه\%سنويا مما يدل علي خطور رة الوضع.

 الثدي بين النساء.
وقد أجريت هذه الار اسة بالمنهج الوصفي وتم اخذ العينة بالطريقة العـشـو ائية
N=z 2.pq/d2 المنتظمة بحجم عينة (٪^) امر أة تم تحديدها بـا بو اسطة المعادلة تم اختيار عدد . T مربع من عدد or مربع بطريقة عشو ائية وتم جمــع البيانـــات
 استنبيان مغلق تحتوي علي أسئلة مغلقة عن موضـو ع الدر اسة. تم تدليــل البيانـــات عن طريق برنامج التحايل الإحصـائي (SPSS). وأهم ما نوصلت إليه الدر اسة: أن نسبة سرطان الثغي تبلغ 0 \% 7 \%

 و \& , , (\% فقط من النساء ذكرن أنه نو ع من الأور ام السرطانـية.

يعرفن الكثشف الذاتي (\%or،


 منظمات المجتمع المدني علي تسخير طاقتها في نشر التو عية بهذا المرض.


#### Abstract

Breast cancer is one of the most common problems of women on the surface of the earth. Cancer is the most common cancer among women and the main cause of cancer death. The rates indicate an increase in the rate of infection and increase by $5 \%$ per year, indicating the seriousness of the situation.

This study was conducted in Shendi from 30/5/2016 to 30/4/2018 in order to identify the knowledge and risk factors associated with breast cancer among women.

The study was carried out by the descriptive method. The sample was taken in a systematic random manner with the size of a sample of (384) women identified by equation $\mathrm{N}=\mathrm{z}^{2} * \mathrm{pq} / \mathrm{d} 2$.

The number of 20 boxes of 52 square boxes was randomly chosen. Data were collected from the sources related to the study, and were collected from the target group by means of a closed questionnaire form that included closed questions about the subject of the study. - Data were analyzed by the Statistical Analysis Program (SPSS). - The most important findings of the study: - The breast cancer rate is $6.5 \%$. - Of the women (59.8\%) reported breast cancer as infections, $15.8 \%$ reported to be hereditary, $13.8 \%$ reported breast cancer as unifications, only $10.4 \%$ reported that it is a type of tumor cancer. - The knowledge of breast self-examination was good, with 52.1\%.

Therefore, we recommend focusing on the delivery of knowledge of breast cancer and its symptoms and signs and risk factors and ways to control it through prevention and early detection to all segments of society to reach the category of women from housewives.


We also recommend that civil society organizations be able to use their capacity to spread awareness about this disease.

# Chapter One 

## Introduction

## Pro6Cem statement

Justification
Objectives

### 1.1 Introduction

Known breast cancer for nearly 1,600 years BC, where he described the disease on one of the ancient Egyptian papyri that exist now in the British Museum, described Socrates, one of the breast cancer cases since 400 BC , was the first of the semi-disease Balqbakb (crab) is the world's Galen. Since that date, it was believed that the disease is caused by the yellow clotting breast and continued this belief prevailed until the year 1810 when the world German Moser as the first cancer cell, and in 1840 the world explained Virchow that breast cancer arises from the epithelium of the breast. ${ }^{(1)}$

The first process for mastectomy in 1889 by the world Halstead conducted Since then rolled and developed theories about the disease, and learn a lot about the nature and means of diagnosis and methods of treatment. Breast cancer is the most common types of women's cancers are frequent, with an estimated woman out of every nine women (Rate $11 \%$ ) you will get the disease during one of the stages of their lives, as well as consider this cancer more cause of death from cancer, especially among women in the age group (40-44) years and so it is considered a part of the health problems in many countries of the world, especially in Western countries. ${ }^{(2)}$

Breast cancer is one of the commonest causes of death in many developed countries in middle. aged woman, and is becoming frequent in devolving countries as well egg Egypt, Tunis, Breast cancer causes 5,19.000 deaths a year word wide, about $9,000,000$ women are diagnosed every year with the disease. In detribalized countries, about $2,20,000$ in Europe and about $1,80,000$ in north America $(1,3)$ Motility rates from breast cancer have increased during the past 60 years in every county. ${ }^{(2)}$

International variation in both incidence and mortality is one of the most striking features of breast cancer. Rates are high in the USA, Scotland, Australia, Canada and certain past of western Europe, and very low in Japan, India and some areas of Africa. ${ }^{(2)}$

Studies of japans migrants to the USA have shown that their breast cancer rates inter mediate between those of Japan and the USA, and that their rates approach the level of American women after 2 to 3 generations This suggests that international differences are due to environ mental rather than genetic factors. ${ }^{(3)}$

### 1.2 The Statement of the problem

Breast disease cancer, one of the main concerns of the female wherever they are on the surface of the planet after more cancers prevalent among women, and the leading cause of death from cancer about them and suggest rates to the high incidence and their increase at a rate of $5 \%$ per year which shows the seriousness of the situation, prompting World Health Organization to be described in (2005) on the agenda and called for concerted efforts to strengthen the breast cancer support programs to reduce the mortality rate and improve the awareness of life for patients and their families more than (1'1 diagnosis) million cases of cancer a new breast implants each year and constitute a proportion of deaths $(410,000)$ each year ${ }^{(4)}$, and this happens disease in men too, but by $(11 \%)$ of all registered cases occupies breast cancer ranked first among the causes of mortality in women in Europe and the United States, so that one of every four women almost ten develop breast cancer has shown her statistics indicate that the rate in the Netherlands and the United States, France and Japan are: 91,6,914, 83.431 .41 each case 100000 Lady ${ }^{(4)}$. In Egypt, an Egyptian medical study confirmed that the incidence of breast cancer tops the list of cancers in Egypt by 42 cases per 100 thousand of the population, and in Saudi Arabia showed one of the statistics issued recently that the number of cases of breast cancer among Saudi women nearly 11.8 lady of between 100 thousand of the population estimated to number in Saudi Arabia in 2741 case, and in Lebanon, and the Ministry of Health statistics indicate that it was recorded 700 new cases of breast cancer in Lebanon annually (cnnarobic) As for Jordan, the breast cancer is one of the most diseases that threaten the lives of Jordanian women, as it accounts for about ( $31 \%$ ) of the total cancers Jordanian women, and records annually (500-550) cases of cancer by oceans National cancer ${ }^{(4)}$. Breast cancer is a common cancer in Sudan and affects women in middle and advanced ages, and rarely in the ages of pre-25 years and frequently in women who have their relatives infected with the disease, because the proportion of global genetics in
breast diseases $5 \%$, but we in the Sudan, we note that the ratio much more up to $10 \%$ and that for the continuation of the number of the mating of relatives. ${ }^{(5)}$

The breast cancer accounted for $34 \%$ of malignant tumors in women in Sudan, according to information from the National Registry of Tumors in Sudan and the number of cases recorded at the Registry between 6-10 thousand diagnosis cases a year about 1,200 new cases, or about 40 cases per 100,000 in the proportion of cases that can be treated at the early self-disclosure to avoid the side effects of $30-40 \%$ and $80 \%$ of breast cancer cases in Sudan comes in the later stages of treatment. ${ }^{(5)}$

### 1.3 Justification of the study

This study will be a real addition to previous studies on breast cancer and will help in the early detection of breast cancer in a local Shendi.

### 1.4 Objectives

### 1.3.1 General objective:

To study prevalence and knowledge of breast cancer among women.

### 1.3.2 Specific objectives:

1. To measure the level of knowledge of women in breast cancer.
2. To measure women's or practices of breast self examination.

# Chapter Two Literature Review 

## 2 Literature review

### 2.1. A glimpse anatomical breast anatomy:

The overall shape of the breast varies among women of different age and physiological stages, it is enriched before puberty, it becomes dome-shaped cone after puberty, and flow after menopause. ${ }^{(1)}$

It consists of the adult female breast tissue several:

## $1 \backslash$ breast skin:

Featuring Superfine and contains follicles lattice glands lipid and other duct, and on the breast summit no nipple (nipple) that are upright out normally, and takes the nipple skin area base round know halo nipple (Areola) and there on the perimeter of the halo nipple granules (tubers) know Tubers Morjani (Morgaine) which is about projections represent slots to channels manor known as fatty glands Montgomery Montgomery's glands. ${ }^{(1)}$

## $2 \backslash$ breast tissue:

Consists of a fabric solid and another Stromal and function of the glandular tissue is the basic milk secretion, which consists of 15-20 lobes and each lobe is divided into lobules Regardless each clove glandular channel known as Canal University, one Stromal tissue is glandular tissue strengthening. (1)

## $3 \backslash$ blood vessels:

Provide necessary breast with its needs of blood needed for the growth and activity of the Endocrine through secretory main tributaries and other arterial, and increases blood flow to these arteries such as occurrence of monthly menstruation, and even more during pregnancy and breast-feeding rate. ${ }^{(2)}$

## $4 \backslash$ lymph vessels:

Breast has an extensive network of lymphatic vessels High working on drainage of lymphatic breast and accumulate these vessels to be channels wider lymph moving toward groups of lymph nodes most important axillary nodes, nodes above the collarbone, and the contract apical, and the contract between the
chest and the shoulder-fired, central contract, the work of these lymphatic fluid is useful as a filter for the contract and play an important role in the spread of breast cancer and treatment planning. ${ }^{(3)}$

## 2.2, Types of breast cancer:

There are several types of breast cancer, but the most common is a cancer that starts in the tissues lining the canals and called deciduous (Ductal Carcinoma).

There is another type of cancer claims Lobular (Lobular Carcinoma) and starts in the breast lobules The rest of the species are rare. ${ }^{(4)}$

When breast cancer spreads beyond the breast have a decisive presence in the lymph nodes under the armpit, if the cancer reached these nodes, it may mean the possibility of the spread of cancer cells in other parts of the body to any lymph nodes and other organs of the body such as bone, liver and lung. ${ }^{(4)}$

When breast cancer spreads it carries the same initial characteristics, then it is called Breast Cancer (Metastatic Breast cancer), although the cancer had appeared in another member doctors called this Status distant disease (shear) Distant Disease. ${ }^{(4)}$

## 2.3, Early detection:

If the detection and treatment of breast cancer early, there will be more options for treatment and greater hoping to complete her recovery.

From this standpoint, there is a tendency among officials in the Ministry of Health and in the Bahrain Cancer Society to encourage women to participate in the early detection of the disease and Must be honest their doctors about it and note its symptoms and perform appropriate tests. ${ }^{(5)}$

## Early detection is through:

- Conduct breast X-ray Examination Mammogram
- Breast examination by a doctor or nurse competent.
- Breast self-examination BSE. ${ }^{(5)}$


### 2.4 Risk Factors:

The established risk factors of breast cancer include the following:
2.4.1, (a) Age: Breast cancer is un Camron below the age of 35 the incidence increasing rapidly between the age of 35 and 50 . As light bimodal trend in the age distribution has been observed with a dip in incidence at the time of menopause. A Secondary rise in frequency after occurs after the age of 65 . women who developed their first breast cancer under the age of 40 , had three times. the risk of developing a second breast cancer than second breast cancer that did those who developed their first cancer after the age of 40 indeed the etiologies of pre-menopathsal and post menopausal breast cancer appears to be different. ${ }^{(6)}$

### 2.4.2, (b) Family History:

The risk is high in those with a positive family history of breast cancer, especially if a mother or sister developed breast cancer when premenop ausal.
2.4.3, (c) Parity: McMahon, et alintheir international case. control study found that the risk of breast cancer is directing related to the age at which women bear the first child. An early first, full-term pregnancy seems to have a protective effect those whose first pregnancy is delayed to their late thirties at higher risk than multi parous women - unmarried women tend to have more breast turn ours than married single women and nulliparous women had the same risk. ${ }^{(6)}$

### 2.4.4, (d) Age at menarche and men opuses:

Early menarche and late menopause are established risk factors. The risk is reduced for those with a surgically induced menopause fort you more years of men straction doubles. The eisk of breast cancer as compared with 30 years. ${ }^{(7)}$

### 2.4.5, (e) Hormonal factors:

The association of breast cancer with early menarche and late menopause suggests that ovary appears to play a crucial role in the development of breast cancer. Recent evidence suggests that both elevated estrogen as well as pros
ester one are important factors in increasing breast cancer risk. In short hormones appear to hold the key to the understanding of breast cancer. ${ }^{(7)}$
2.4.6, (f) prior breast biopsy: prior breast biopsy for benign breast disease is associated with an increased risk of breast cancer. ${ }^{(7)}$
2.4.7, (g) Diet: current an etiological hypotheses suggest than cancer of the breast is linked with a high fat diet and obesity. it is not known how dietary fat in fluencies breast cancer risk at a cellular level. ${ }^{(7)}$

### 2.4.8, (h) socio-Economic status:

Breast cancer is common in higher socio-economic groups. this is explained by the risk factor of higher age at first birth. ${ }^{(7)}$
2.4.9, (I) others: (I) Radiation: An increased incidence of breast cancer has been observed in woman exposed to radiation. (ii) oral contraceptives: oral contraceptive appears to have little overall effect on breast cancer although prolonged use of oral pills before the first pregnancy or be fore the age of 25 may increase. the risk in younger woman. ${ }^{(7)}$

## 2.5, Signs and symptoms of breast cancer:

Wider pread use of screening mammograms has increased the number of breast cancer found before they cause any symptoms. still some breast cancers are not found by mammograms either because the test was not done of because even under ideal conditions mammograms do not find every breast cancer. ${ }^{(8)}$

The most common symptom of breast cancer is anew jump or mass. amass that is painless hard, and has irregular edges is more likely to be cancerous, but breast cancers can be tender soft or rounded. the can even painful for this reason, it is important to have any new mass, lump, or breast change checked by a health care professional with experience in diagnosing breast diseases. ${ }^{(8)}$

Other possible signs of breast cancer include.

- swelling of all or pait of abreast (even if no distinct jumps felt).
- skin irritation or dimpling.
- breast or nipple pain.
- nipple retraction (tuning inward).
- redness, scanlines or thickening of the nipple or breast skin.
- a nipple discharges other than breast milk. ${ }^{(8)}$


## 2.6, Diagnosis of Breast cancer:

To assess the success of breast cancer control activities in Connecticut turn or registry, deterring differences in breast care stage at time of diagnosis over time and in selected subgroups from 1982 to 1985 , the percentage of women with cancer confined to the breast increased from 54.0 percent to 61.3 percent during 1984 and 1985, lower be diagnosed with early stage disease (56.9 percent vs 62.7 percent) SES was estimated by census tract of residence. In the same years, the overall incidence of breast cancer was greater in higher SES women. projections based on these incidence data found that lower SES women as compared to higher SES women, had a higher rate of expected breast cancer deaths ( 24.6 vs 19.7 per100/000), and a grater percentage of those deaths considered preventable by early detection ( 22 percent vs 11 percent). The rate of presentable deaths in lower SES women was 2.5 time as great as that for higher SES women ( 5.3 vs 1 per 100/000). Turn or regisistnies can serve as useful surveiance System to aid cancer control programs breast cancer early detection programs should give special attention to lower SES women. ${ }^{(9)}$

## 2.7, Treatment of breast cancer:

Breast cancer treatment varies, depending on several things, the most important stage of the development of cancer and determine the appropriate treatment, which varies depending on the woman's age, type, and size of the tumor and breast size, the arrival of the cancer until the lymph nodes, and despite the availability of possibilities for the treatment of cancer, but that wisdom lies in the proper selection, which scrape treatments in surgical treatment to eradicate the cancerous breast tumor or totally eradicate the lymph
nodes and chemical therapy, radiation therapy and hormone therapy, and treatment Diversity. ${ }^{(9)}$

### 2.7.1, Surgical treatment:

This is the best solution in most cases, especially the early ones, where you know the early stages of cancer through tests and investigation are then surgically treatment aimed at eradicating the cancerous tumor in the tissue surrounding it. ${ }^{(9)}$

## Surgical operations are divided into:

1 -total eradication of the breast.
2. cancer lumpectomy.
3. mastectomy smallpox average.
4. dissected lymph nodes and eradicated.
5. lymphatic edema. ${ }^{(9)}$

## Side effects of surgical operations:

1. inflammation of the incision.
2. bleeding.
3. surgical wound healing was delayed.
4. pain at the surgical process may be simple or severe.
5. nerve injury, leading to loss of sensation in the hand or chest or a feeling Numbness. ${ }^{(9)}$

### 2.7.2, Hormone therapy:

Drug treatment aims to limit the estrogen receptor, because breast cancer cells proliferate and annexed under the influence of this hormone, the treatment is to limit the receptors to stop the proliferation of cancer tumors and their decline. ${ }^{(10)}$

### 2.7.3, Chemotherapy:

Treatment with drugs slows cell proliferation or stops completely, this treatment affects the cells multiply rapidly, but the side effects of many private tissue with natural reproduction rapid blood Cells and others. ${ }^{(10)}$

Chemotherapy side effects including, fatigue, nausea, fatigue and constant vomiting and hair loss, diarrhea, anemia, white blood cells and platelets, increases the likelihood of bleeding and numbness and Impairment Myocardial. ${ }^{(10)}$

### 2.7.4, Radiotherapy:

Radiotherapy leads to damage to cancer cells, and thereby causing her death. The radiotherapy is often when the patient lying down and directing radiation to a patient. This is in 5-6 days a week in most cases. ${ }^{(10)}$

## 2.8, Prevention:

### 2.8.1, primary prevention:

Current knowledge of the etiology of breast cancer of firs little prospect of primary cancer of firs little prospect of primary prevention. However, the aim should be to wards elimination of risk factors discussed above and promotion of cancer education. ${ }^{(10)}$ The average age at menarche can be increased through a reduction in childhood obesity, and an increase in strenuous physical activity, and the frequency of evaluation (after menarche) decreased by an increase in strenuous physical activity. ${ }^{(10)}$
There is also good reason for reducing fat intake in the diet. ${ }^{(10)}$

### 2.8.2, Secondary prevention:

Breast screening leads to early diagnosis of breast cancer, which in turn influences treatment and hopefully, mortality. An important component of secondary prevention is follow - up, i.e., to detect recurrence as early as Possible, to detect cancer in the opposite breast at an early stage and to generate research data might be useful. ${ }^{(10)}$

No major improvement in survival waters has yet been shown by current diagnosed at an if, treatment modalities some cases progress rapidly even years even after metastatic 20 others surviving for apparently early stage spread the remove of the tumor early is more likely to be, in general, However arative than removal at after stage. ${ }^{(10) .}$

### 2.9 Breast self-Examination:

Brest self-Examination is a regular in spection by a woman for abnormalities in her breasts. Although physicians generally agree that women should examine their breast on a monthly basis to help detect breast jumps and thus potential cancer at an early stage 1 , it is controversial where her self examination alone or together with screening mammography can actually reduce deaths from breast cancer clinicians are identifying more disease, but they are not identifying all the women who have the most lethal forms of breast cancer. On an individual basis, though, if a woman is found to have a cancer jump, early detection and treatment increase her chances for remission and potential cure it is important not to rely on mammography alone to identify jumps because not all early abnormalities show up on the mammogram. ${ }^{(4)}$

Breast self-examination (BSE) should in deally be done once a month, although an occasional exam is better than none. Constant timing of the exams increases a women's ability to identify a new abnormal. many women find the (BSE) easier after their clinicians has demonstrated it to them some clinicians also offer a pamphlet or videotape detailing effective techniques. ${ }^{(4)}$

The best time to do BSE for apremeno Paula women is right after the monthly men stroll period when breasts are usually least jumpy and tender women who no longer menstruate, menstruate irregularly, or who are pregnant can arbitrarily preselect a specific date each month per form the exam. Although BSE begins with an in spection in the mirror in which breasts are checked for any changes from previous appearance. ${ }^{(4)}$

These can include changes in shape size or symmetry, skin discoloration or dimpling. so res or scaling in the aweola or nipple, and discharge or puckering of the nipple and, Raising the hands above the head helps to re real changes in contour any dimpling placing hands on hops with shoulders forward will help show. ${ }^{(4)}$

### 2.10 Previous studies:

## 1- knowledge and practices of women in Iraqi universities on breast selfexamination:

The study was carried out in irag in which a sample of 858 women aged 18-62 years from Iraqi universities participated.

The samples were collected through a self-answering questionnaire. This study assessed the knowledge and practices towards self -examination of the breast and found that only $53.9 \%$ of the participants are already practicing this examination and the most excuses in which the rest of the participants (46.1\%) justified their non-examination were non- compliance. (11)

2-evaluation of women's knowledge about risk factors and early detection of breast cancer at ibn rushed college of education in Baghdad university:

The study sample included (184) women in the ibn rushed college / university of Baghdad whose age ranged between (17-58) years. Data were collected through structured questionnaire prepared by the national cancer research center which were answered during a scientific symposium about breast cancer.

The results showed limited level of women's knowledge about risk factors. As good medium and weak answer ratios of (11\%)-(21\%) and (69\%) each respectively ... the study revealed no significant relationship between the level of knowledge with age occupation and married status ( $\mathrm{p}<0.05$ ).
There was more than half of a correct answer to some risk factors such as, increase the probability of disease with age (53\%), obesity in postmenopausal (53\%) or breast self -examination once a month after the menstrual cycle (69\%).(2)

## 3-knowledge of students to ward breast cancer and breast self examination practice at high school nursing in Basra city: -

This study descriptive cross-sectional study conducted at the high school of nursing in Basra city during December 2012, the study sample included 210 students. self -administered questionnaire was used to gather information about socio demographic characteristics, knowledge of students about risk factors and symptoms of breast cancer, breast self -examination knowledge, and breast self -examination practice.

More than half of the students had were a poor knowledge about breast cancer risk factors and presentations, only (15.7\%) had a good knowledge .it was reported $(79.5 \%)$ of them she know that the exposure to radiation is a main risk factors while $(76.7 \%)$ of the sample agree that family history one of the reasons for.(12)

## 4-knowledge, attitude and practice of breast self -examination of female workers in benha faculty of medicine:

This study was designed to evaluate the knowledge and trends and the practice of breast self-examination for women working in the faculty of medicine, university of benha , was randomly selected and conducted in period from April 2012 to the end of October 2012, the results have resulted in a higher level of knowledge about breast self -examination among married women over the age of 40 years with a high level of education .the results proved that there is a clear relationship between the level of knowledge about the examination and the exercise of women .the results concluded that knowledge and self-examination of the breast is not enough among participants .but they had appositive attitude toward wanting to teach them how to do breast self examination.(10)

## 5-race, breast cancer subtypes and survival in the Carolina breast cancer study:

To determine population -based distribution $s$ and clinical association for breast cancer subtypes.

Immunohisto chemical surrogates for each sub-type were applied to 496 in cident cases of invasive breast cancer from the Carolina breast cancer study (ascertained between May 1993 and December 1996), a population based, case control study that overs am pled premeno pausal and African American women. The basal-like breast cancer subtype was more prevalent among pre-me no pausal African American women (39\%) compared with postmeno pausal African American women (14\%) and non -African American women (16\%) of any age ( $\mathrm{p}<.001$ ), whereas the luminal a subtype was less prevalent ( $36 \%$ vs $59 \%$ and $54 \%$, respectively. (21)

## 6-knowledge and attitude of Saudi female students to wards breast cancer: across-sectional study:

In Saudi Arabia, females suffering from breast cancer often present late when their cancer has progressed to advanced stages.

On hundred and fifty females a university in Saudi Arabia completed a questionnaire intended to provoke their sociodemographic information and knowledge, attitude and practices to wards breast cancer.

Data analysis was carried out using statistical package for the social sciences (spss). mean knowledge score was 16.6 out of 29 . on hundred and six participants $(70.7 \%$ ) scored $50 \%$ and more one the other hand number of participants whose scores were below $50 \%$ was rather less $(44,29.3 \%)$.
$50.7 \%$ participants admitted to carry out the breast self -examination procedure.

Only 13 study participants ( $8.7 \%$ ) had clinical breast examination. none of the participants had undergone mammography. (9)

## 7-insufficient knowledge of breast cancer risk factors among Malaysian female university student:

Despite continuous argument about the efficacy of breast self examination, it still could be Alfie -saving technique through in spring and empowering women to take better control over their body /breast and health.

This study in vest gated Malaysian female university student's knowledge about breast cancer risk factors, signs, and symptoms and assessed breast self examination frequency among students.

Across -sectional survey was conducted in 2013 in nine public and private universities in the klang valley and Selah for .842 female students were respondents for the self -administered survey technique simple descriptive and inferential statistics were employed for data analysis.

The uptake of breast self -examination was less than $50 \%$ among the students.

Most of students had insufficient knowledge on several breast cancer risk factors.(5)

## 8-assessment of knowledge and perception towards breast cancer prevention and early detection:

The aim of this study was to assess the knowledge and perception of northern Saudi Arabia people to wards breast cancer prevention and early detection. in this cross sectional descriptive study data about breast cancer were obtained from 566 . Saudi volunteer living in the city of ltail Saudi Arabia when the level of individuals knowledge about breast cancer was assessed ,the majority of the study subjects were found with good knowledge followed by mode rat and poor representing $187(34.3 \%), 170(31.2 \%)$ and $86(15.8 \%)$ ,respectively for females most of them were found with good knowledge followed by moderate and poor constituting 142 (36.1\%), 111 (28.2\%) and 62 (15.8\%) respectively. ${ }^{(4)}$

## 9- supporting breast self - examination in female childhood cancer survivors: a secondary analysis of a behavioral in tervention:

Objectives: to identify intervention targets that will increase the frequency of breast self -examination (BSE) in female survivors of childhood cancer. Design: secondary data analysis of longitudinal clinical trial data.

Setting: outpatient clinic in children's research hospital.
Sample :149 female survivors (aged 12-18 years) median of 11 years after diagnosis of leukemia or lymphoma (59\%) or solid tumor (41\%).

Methods: paired tests, Wilcoxon signed rank tests repeated measures analysis of variance, and analysis of vovariance.

Results: the typical survivor in the study was Caucasian ( $84 \% 1,15$ years old, in high school (53\%), and from a middle -income family (58\%) she had been diagnosed with leukemia or lymphoma (59\%) approximately 11 years before the study began. (20)

## 10-knowledge of breast cancer and practice of breast self -examination among female senior secondary school students in Abuja Nigeria:

The study was aimed at assessing the knowledge of breast cancer and practice of breast self -examination among female senior secondary school students in the municipal council area of Abuja, Nigeria.

This descriptive cross sectional study was carried out among female senior secondary school students from selected school in the municipal area council of Abuja. the tool for data collection was a structured self-administered questionnaire. data were analyzed using spss version 16.

Two hundred and eighty -seven students participated in the study. their mean age was $16.5+-1.4$ years. a greater proportion of respondents $163(56.8 \%)$ had poor knowledge of breast cancer while $217(75.6 \%$ ) had poor knowledge of breast self -examination. only 114 (39.7\%) of the respondents knew that being a female was a risk factors were obesity and aging. only 29(10.1\%) of respondents had practiced bse knowledge of bse was significantly associated with BSE practice.(14)

$$
\begin{aligned}
& \text { Chapter Three } \\
& \text { Methodology }
\end{aligned}
$$

## 3. Methods and Materials

## 3.1, Type of the study:

The study was a sectional descriptive study conducted from May 2016 to April 2018.

## 3.2, Study Design:

A descriptive cross sectional community based study was conducted to determine the prevence and knowledge of breast cancer.

## 3.3, Study area:

Shendi is a town in northern Sudan located on the east bank of the River Nile and north of Khartoum about 175 km and south of Damer (Capital) about 140 and area of $56 \mathrm{~km}^{2}$, the number of people 270473 person .

Shendi is the center of Jaalin tribe and important historic trading center. Most of population working in factories agriculture governmental organization and free business.

The side of the education Shendi University is the enlarges educational in stations in the city and it includes a number of collages, and three are number of secondary school and primary and preschool education.

The side of health there is prevention managements, part of vaccination of the children and department of maternal and child welfare- in the term of treatments, there is Shendi teaching hospital Mak Nimer, military hospital and a number of health center and clinics and a number of health centers and clinics and a large number of private clinics and laboratories for examination and medical tests.

## 3.4, The study population:

Women in Shendi locality.

## 3.5, Sample size:

The sample size was determined by the following formula:

$$
N=\frac{Z^{2} \cdot p \cdot q}{d^{2}}
$$

$\mathrm{N}=$ sample size
$Z=$ the value in normal carve corresponding level of confidence $95 \%$
$=1.96$
$\mathrm{P}=$ expected prevalence
$\mathrm{q}=(1-\mathrm{p})$ not expected prevalence
$d=$ margin of error $=.05$

| $\mathrm{n}=$ | $[1.96 \times(0.5 \times 0.5)]$ | $=384$ |
| :--- | :--- | :--- |
|  | $(0.05)^{2}$ |  |

### 3.6. Data collection and analysis:

The number of 20 boxes of 52 square boxes was randomly chosen. The data was collected systematically using predesign questionnaire.

Data was analyzed by entering it into computer using the statistical package for social science program (spss) and then results were presented in table and figures.

## 3.6, Ethical consideration:

Data were obtained by a closed questionnaire for women and with their consent.

## 3.7, Study limitation:

One of the obstacles encountered in the research was the lack of budget.

## Chapter Four

## Results

## 4, Results

Figure (1) Shows the age of women in Shendi locality, 2015-2016.


The majority of women in ( $20-30$ ) age group are $39 \%$ and age group ( $30-40$ ) by $30 \%$, and the age group is more than 40 years are $19 \%$ and age group is under 20 years by $12 \%$.

Figure (2) Shows the number of births in Shendi locality ,2015-2016


The figure shows that most women have $1-2$ babies.

Figure (3) Shows the occupation of women in Shendi locality, 2015-2016


■ house wife ■ Employee ■ Worker ■ Student

The figure shows that most of the female housewives were $40.4 \%$.

Table (1) Shows the education level of women in Shendi locality, 2015-2016.

| The education level | Frequency | Percent |
| :--- | :---: | :---: |
| Illiteracy | 28 | $7.3 \%$ |
| Base | 57 | $14.8 \%$ |
| Secondary | 118 | $30.7 \%$ |
| Universal | 181 | $47.1 \%$ |
| Total | 384 | $100 \%$ |

$\mathbf{N}=384$
It is noted that most of the women in the university education level in $47.4 \%$, followed by the secondary education level by $30.7 \%$, then the basic level of education by $14.8 \%$ and finally illiteracy by $7.3 \%$.

Table (2) Shows the social status of women in Shendi locality, 2015-2016.

| Social status | Frequency | Percent |
| :--- | :---: | :---: |
| Married | 239 | $62.2 \%$ |
| Unmarried | 100 | $26 \%$ |
| Free | 25 | $6.5 \%$ |
| Widowed | 20 | $5.2 \%$ |
| Total |  |  |

$\mathrm{N}=384$
It is noted from the table that most women are married.

Table (3) Shows the women born in Shendi locality, 2015-2016.

| The motherhood | Frequency | Percent |
| :--- | :---: | :---: |
| Procreator | 220 | $77.4 \%$ |
| no procreator | 64 | $22.5 \%$ |
| Total | 284 | $100 \%$ |

$\mathrm{N}=\mathbf{2 8 4}$
The number of women with children is 220 women, who have no children 64 women.

Table (4) Shows the type of breast feeding used by women to feed their children in Shendi locality, 2015-2016

| Type of feeding | Frequency | Percent |
| :--- | :---: | :---: |
| Breast feeding | 193 | $87.7 \%$ |
| Industrial feeding | 12 | $5.4 \%$ |
| Combined | 15 | $6.8 \%$ |
| Total | 220 | $100 \%$ |

$\mathbf{N}=\mathbf{2 2 0}$
Most women breast feed (193) (87.7\%), only 12 breast feed their babies $5.4 \%$, and 15 breast feed their babies together.

Table (4) Shows breast feeding period for women's children in Shendi locality, 2015-2016.

| feeding period | Frequency | Percent |
| :--- | :---: | :---: |
| Below years | 5 | $2.3 \%$ |
| lyears | 36 | $16.4 \%$ |
| 2years | 171 | $77.7 \%$ |
| morethan2years | 8 | $3.6 \%$ |
| Total | 220 | $100 \%$ |

$\mathbf{N}=\mathbf{2 2 0}$
Most women are breast feed for two years, and only 5 of women breast feed less than a year.

Table (5) Shows the women's use of family planning methods in Shendi locality, 2015-2016

| Family planning methods | Frequency | Percent |
| :--- | :---: | :---: |
| Yes | 144 | 65.5 |
| No | 76 | 34 |
| Total | 220 | $100 \%$ |

$\mathrm{N}=\mathbf{2 2 0}$
Most of the married women use family planning methods and few of them use them.

Table (6) Shows women's knowledge of breast cancer in Shendi locality 2015-2016.

| Knowledge of the disease | Frequency | Percent |
| :--- | :---: | :---: |
| Infectious disease | 230 | $59.8 \%$ |
| Un infectious disease | 53 | $13.8 \%$ |
| Inherit | 61 | $15.8 \%$ |
| Type of tumor cancer | 40 | $10.4 \%$ |
| Total | 384 | $100 \%$ |

$\mathrm{N}=\mathbf{3 8 4}$
Of the women 230 reported breast cancer as infections, 61 reported to be hereditary, 53 reported breast cancer as un infections, 40 reported that it is a type of tumor cancer.

Table (7) Shows women's knowledge of breast cancer factors agents in Shendi locality 2015-2016

| Causes of breast cancer | Frequency | Percent |
| :--- | :---: | :---: |
| Eating and drinking | 323 | $84.1 \%$ |
| Genetics | 16 | $4.1 \%$ |
| Infecting in breast | 43 | $11.1 \%$ |
| Other | 2 | $0.5 \%$ |
| Total | 384 | $100 \%$ |

$\mathrm{N}=384$
The table shows that women (323) reported that eating and drinking were factors from breast cancer, and only two mentioned that breast stroke is a factor for breast cancer.

Table (8) Shows the incidence of breast cancer in Shendi locality 2015-2016.

| Breast cancer | Frequency | Percent |
| :--- | :---: | :---: |
| Yes | 25 | 6.5 |
| No | 359 | 93.4 |
| Total | 384 | 100 |

$\mathrm{N}=384$
The incidence of breast cancer was $6.5 \%$.

Table (9) Shows the women's knowledge of breast self-examination in Shendi locality, 2015-2016.

| The knowledge of breast self- <br> examination | Frequency | Percent |
| :--- | :---: | :---: |
| Yes | 200 | 52.1 |
| No | 184 | 47.9 |
| Total | 384 | 100.0 |

$\mathrm{N}=\mathbf{3 8 4}$
It is noted that the number of women (200) know the breast self examination, and the number of (184) women do not know the breast self examination.

Table (10) Shows the practice of breast self- examination in Shendi locality, 2015-2016.

| The practice of breast self-examination | Frequency | Percent |
| :--- | :---: | :---: |
| Yes | 61 | 15.8 |
| No | 323 | 84.1 |
| Total | 384 | 100.0 |

$\mathrm{N}=\mathbf{3 8 4}$
Few women (61) actually practice of breast self- examination.

Table (11) Shows the year of breast cancer in Shendi locality, 2015-2016.

| Year of breast cancer | Frequency | Percent |
| :--- | :---: | :---: |
| 2015 | 22 | 88.0 |
| 2016 | 3 | 12.0 |
| Total | 25 | 100.0 |

$\mathrm{N}=25$
In 2015, (22) women had breast cancer and in 2016 only (3) women were infected.

Table (12) Shows the relationship between age and breast cancer.

| Age |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: |
| 20year | Count | 22 | 23 | 45 |
|  | \% of Total | 51\% | 48.8\% | 12\% |
| 20 to 30 | Count | 100 | 52 | 152 |
|  | \% of Total | 65.7\% | 34.2\% | 39.0\% |
| 30 to 40 | Count | 100 | 14 | 114 |
|  | \% of Total | 20.0\% | 4.0\% | 30.0\% |
| more than 40 | Count | 3 | 70 | 73 |
|  | \% of Total | 46.1\% | 95.8\% | 19.0\% |
| Total | Count | 225 | 159 | 384 |
|  | \% of Total | 59\% | 41.4\% | 100.0\% |

$\mathrm{Ch}^{2}=14.37$
P.v $=0.002$ significant

Table (13) Shows the relationship between occupation and breast cancer

| Occupation |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | House wife | Count | 100 | 55 | 155 |
|  |  | \% of Total | 64.5\% | 35.4\% | 40.4\% |
|  | Employee | Count | 18 | 100 | 118 |
|  |  | \% of Total | 9.5\% | 84.7\% | 30.7\% |
|  | Worker | Count | 20 | 6 | 26 |
|  |  | \% of Total | 76.9\% | 23\% | 66.8\% |
|  | Student | Count | 60 | 25 | 85 |
|  |  | \% of Total | 70.5\% | 29.4\% | 22.1\% |
| Total |  | Count | 198 | 186 | 384 |
|  |  | $\begin{aligned} & \% \text { o f Tot } \\ & \mathrm{al} \end{aligned}$ | 51.5\% | 48.4\% | 100.0\% |

$\mathrm{Ch}^{2}=4.941$
$p v=0.176$ non significant

Table (14) Shows the relationship between educational level and breast cancer:

| The educational level |  |  |  | Total |
| :--- | :--- | :---: | :---: | :---: |
| Illiteracy | Count | 8 | 20 | 28 |
|  | \% of Total | $28.5 \%$ | $71.4 \%$ | $7.3 \%$ |
| Base | Count | 18 | 39 | 57 |
|  | \% of Total | $31.5 \%$ | $68.4 \%$ | $14.8 \%$ |
| Secondary | Count | 114 | 4 | 118 |
|  | \% of Total | $96.6 \%$ | $3.3 \%$ | $20.9 \%$ |
| Universal | Count | 160 | 21 | 181 |
|  | \% of Total | $88.3 \%$ | $11.6 \%$ | $60.0 \%$ |
| Total | Count | 300 | 184 | 384 |
|  | \% of Total | $78.1 \%$ | $21.8 \%$ | $100.0 \%$ |

$\mathrm{Ch}^{2}=7.361$
$\mathrm{Pv}=0.061$ non significant

Table (16) Shows the relationship between the motherhood and breast cancer:

| The motherhood |  |  |  | Total |
| :--- | :--- | :---: | :---: | :---: |
| Procreator | Count | 200 | 20 | 220 |
|  | $\%$ of Total | $90.1 \%$ | $9 \%$ | $77.4 \%$ |
| no procreator | Count | 4 | 60 | 64 |
|  | \% of Total | $36.2 \%$ | $11.1 \%$ | $93.7 \%$ |
| Total | Count | 204 | 80 | 284 |
|  | \% of Total | $71.8 \%$ | $28.1 \%$ | $100.0 \%$ |

$\mathrm{Ch}^{2}=0.180 \quad \mathrm{pv}=0.588$ non-significant

Table (17) Shows the relationship between the type of feeding and breast cancer

|  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type of feeding |  |  |  |  |  |
|  | Breast | Count | 100 | 93 | 193 |
|  | feeding | \% of Total | 51.8\% | 48.1\% | 87.7\% |
|  | Industrial | Count | 10 | 2 | 12 |
|  | feeding | \% of Total | 83.3\% | 16.6\% | 5.4\% |
|  | combined | Count | 0 | 15 | 15 |
|  |  | \% of Total | .0\% | 6.8\% | 6.8\% |
| Total |  | Count | 110 | 110 | 220 |
|  |  | \% of Total | 50\% | 50\% | 100.0\% |

$\mathrm{Ch}^{2}=1.364$

$$
\mathrm{pv}=0.506 \text { non-significant }
$$

Table (18) Shows the relationship between the family planning methods and breast cancer:

| Family planning methods |  |  |  | Total |
| :--- | :--- | :---: | :---: | :---: |
| Yes | Count | 140 | 4 | 144 |
|  | \% of Total | $97.2 \%$ | $2.7 \%$ | $65.5 \%$ |
|  | Count | 73 | 3 | 76 |
|  | \% of Total | $96.7 \%$ | $3.9 \%$ | $34 \%$ |
| Total | Count | 213 | 7 | 220 |
|  | \% of Total | $96.8 \%$ | $3.1 \%$ | $100.0 \%$ |

$\mathrm{Ch}^{2}=0.016$
$\mathrm{pv}=0.689$ non-significant

Table (19) Shows the relationship between knowledge of disease and breast cancer:

| Knowledge of disease |  |  |  | Total |
| :--- | :--- | :--- | :---: | :---: |
| Infectious disease | Count | 30 | 200 | 230 |
|  | $\%$ of Total | $13.0 \%$ | $86.9 \%$ | $59.8 \%$ |
|  | Count | 20 | 23 | 53 |
|  | $\%$ of Total | $37.7 \%$ | $62.2 \%$ | $13.8 \%$ |
| Inherit | Count | 1 | 60 | 61 |
|  | $\%$ of Total | $1.6 \%$ | $98.4 \%$ | $15.8 \%$ |
| Type of tumor cancer | Count | 20 | 20 | 40 |
|  | $\%$ of Total | $50 \%$ | $50 \%$ | $10.4 \%$ |
|  | Count | 71 | 313 | 384 |
|  | $\%$ of Total | $18.4 \%$ | $81.5 \%$ | $100.0 \%$ |

$$
\mathrm{Ch}^{2}=2.014 \quad \mathrm{pv}=0.570 \text { non-significant }
$$

Table (20) Shows the relationship between feeding period and breast cancer:

| Feeding period |  |  |  | Total |
| :--- | :--- | :---: | :---: | :---: |
| years | Count | 1 | 40 | 41 |
|  | \% of Total | $8.3 \%$ | $16.7 \%$ | $18.6 \%$ |
| 2years | Count | 70 | 101 | 171 |
|  | \% of Total | $25.0 \%$ | $25.0 \%$ | $77.7 \%$ |
| More than 2 years | Count | 7 | 1 | 8 |
|  | \% of Total | $8.3 \%$ | $16.7 \%$ | $3.6 \%$ |
| Total | Count | 78 | 142 | 220 |
|  | \% of Total | $35.5 \%$ | $64.5 \%$ | $100.0 \%$ |

$\mathrm{Ch}^{2}=1.215$
$\mathrm{pv}=0.371$ non significant

## Chapter Five

Discussion

### 5.1 Discussion

The results of this study, conducted in Shendi in the period from 30 May 2016 to 30 April 2018, in order to identify the knowledge and risk factors associated with breast cancer among women, indicate that the rate of the disease is $6.5 \%$ of which $88 \%$ will occur in 2015 and $12 \%$ in 2016.

Most of the cases were in the age group ( $20-30$ ) years, where they reached $39 \%$, followed by the age group ( $30-40$ years ) by $30 \%$, then the category ( more than 40 years by $19 \%$ ). This in line with reference (6) in terms of cases in the age group ( less than 20 ). It is reported that $75 \%$ of cases of breast cancer after the age of 50 compared with $19 \%$ in the fourth decade, and $4 \%$ before the third decade of it, and on the other hand, reported in the magazine ${ }^{(7)}$ that statistics show that only $5 \%$ of cases of breast cancer appear in women under the age of forty.

Among female housewives, $40.4 \%$ were women, followed by female students ( $22 \%$ ), female workers ( $6.8 \%$ ) and female employees (30.7\%). 62.1\% of the women are married, $26 \%$ are unmarried and $5.2 \%$ are widows and divorced women. This is in consist with Channel ${ }^{(9)}$, where a new study revealed that breast cancer affects single girls more than married women.

It is also clear that most cases of the disease in the university education level by $47.1 \%$, followed by the secondary level by $30.7 \%$, and then the foundation and the mother by $14.8 \%$. More than half of the female student suffer from poor knowledge about breast cancer risk factors, and only $15.7 \%$ have good knowledge, according to an Iraqi study. ${ }^{(11)}$

This is also consistent with a Malaysian study ${ }^{(5)}$, where most students did not have sufficient knowledge about Many risk factors for breast cancer.

It was also found that $87.7 \%$ of the women breast-feeding, $5.4 \%$ breast feeding their babies, and $6.2 \%$ breast-feeding both natural and industrial. This is not consistent with reference ${ }^{(6)}$, where it was mentioned in a study of more than 10.000 women breast feeding for 12 months reduces the risk of breast cancer to
4.3\%. This explains that breastfeeding reduces the number of menstrual cycles during a woman's life, and reduces the exposure of breast tissue to female hormones. As well as not with Reference No. 14, where he said that women who breastfeed for a period of not less than 4-6 months over a period not necessarily with one child reduces the risk of breast cancer by at least $20 \%$.

The proportion of the disease in women who use family planning methods is $65.5 \%$, and those who do not use the means of regulation $34 \%$. This is in line with reference 6 where the risk of breast cancer increases among users of contraceptive pills. Use, and inconsistent with Reference 14 where women who use oral contraceptives containing low doses of estrogen do not seem to be more likely to have breast cancer ........ Commenting that the increase in the rate of estrogen in the blood constantly Linked to an increased risk of breast cancer.

This is consistent with an Iraqi study ${ }^{[1]}$ where more than half of the students reported poor knowledge of cancer risk factors and only $15.7 \%$ had good knowledge. This also coincided with a Malaysian study ${ }^{[5]}$ where most of the students did not have sufficient knowledge about many risk factors for breast cancer, Half of the respondents ( $56.8 \%$ ) had low breast cancer knowledge, $37.6 \%$ had good knowledge, and only $5.6 \%$ had excellent knowledge of cancer N breast.

It was also found that the knowledge of breast self-disclosure was good, with $52.1 \%$ of the women known to be self-examination. However, only $15.8 \%$ of them actually do breast self-examination. This is not consistent with the study of Najera, 15 where only $24.4 \%$ The study concluded that the knowledge and practice of self-examination of the breast is not good between the participants.

# Chapter Six Conclusion <br> <br> Recommendations 

 <br> <br> Recommendations}

### 6.1 Conclusion

The study found that the proportion of breast cancer is $6.5 \%$. women do not have a good knowledge of breast cancer only few of them have a good knowledge of breast cancer and also knowledge of self -examination was good and yet a few women actually exercise breast self-examination. There is need for adequate health education on breast cancer and breast self-examination among women in shendi.

### 6.2 Recommendations

Education and lectures contributes to the promotion of many concepts about breast cancer risk factors symptoms signs and methods of control through prevention and early detection.

Because the dissemination of knowledge and health culture would reduce the spread of this disease sow recommend focusing on the delivery of these conceits to segments of society to reach the women of house wife through the establishment of program for the early detection of breast cancer by the ministry of health and ministry of higher education and research scientific research institute for cancer research. we also recommend that civil society organizations be mobilized to harness their capacity to raise awareness about it.

Appendix
References
Questionnaire

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## Shendi university

## Faculty of Graduate Studies and Scientific Research

 Closed questionnaire on prevalence and knowledge and risk associated of breast cancer among women in shendi locality, 2015-2016

## 1- Number of formula :( )

2- Name: $\qquad$
3- Age? a- below 20 years ( ) b- 20 --- 30 years ( ) c - 30 --- 40 years d - More than 40 years ( )

## 4- Occupation?

a house wife ( ) b-employee ( ) c-Worker ( ) d-Student ( )
5- The education level?
a-Illiteracy ( ) b-Base ( ) c-Secondary d-Universal ( ) 6- Social status? a- Married ( ) b-Un married ( ) c - Free ( ) d-Widowed ( )
7 - The motherhood? a - Procreator ( ) b-Non procreator ( )
8- If were your procreator number of deliveries?

$$
a-1--2(\quad) \quad b-3--4(\quad) \quad c-4---5(\quad) d-\operatorname{more} \text { than } 5(\quad)
$$

## 9- Type of feeding?

a-breast feeding ( ) b-Industrial feeding ( ) c-Combined ( )
d - Others ( ) select
10- period of feeding? a - below years ( ) b-1 y ears ( ) $\mathrm{c}-2$ years ( ) d - More than 2 years ( )
11 - period between deliveries?
a - below years ( ) b-1 y ears ( ) c-2 years ( ) d-more than 2 years . 12 - Are you used resources for organizing family? a-Yes ( ) b-No ( )

## 15- What you know about breast cancer?



## 16 - Symptoms of breast cancer?

a - Small grain under mammilla of breast ( ) b- Painful grain in breast ( )
c- grain appearance under axillaries ( ) d-Others ( )
Select $\qquad$
17 - Causes of breast cancer?
$\mathrm{a}-$ Eating and drinking ( ) b-Generics ( ) $\mathrm{c}-\operatorname{Infecting}$ in breast ( )
d-Others ( ) Select
18 - What you do with appearance of any grain in breast?
a - Go to the nearest healthy unit ( ) b-Doing indigenous treatment ( ) c - Go to spell and recital ( ) d-Others ( ) Select $\qquad$
19- Are your precession infecting any mistress in family with breast cancer?
$\mathrm{a}-\mathrm{Yes}(\quad) \mathrm{b}$ - No ( )
20 - If were you answer with (yes) :
a - Age ( ) b-History of infecting ( ) c-Treatment ( )
d - Social condition ( )
21 - Presence of current infecting in family:
a - Yes ( ) b-No ( )
22 - In case of answer with (yes) ?
a - Age ( ) b-When you infect with disease ( )
c - What you do with remediating concerning ( )
d - How you discover the infecting

23 - The most foods which you make?
a - Meats and vegetables ( ) b-Fish ( ) c-chickens ( ) d-Others ( ) Select $\qquad$
24 - The most drinks which you make?
a-Gaseous ( ) b-Naturalism juices ( ) c-Hot drinks ( )
d-Others ( ) Select $\qquad$
25 - Location of living?
a - Near from agricultural area ( ) b-Near wastes dumpsite ( )
c - Near from tumors treating hospital ( ) d - Others ( )
Select $\qquad$
26 - Are you know autologous detectability to breast cancer? a - Yes ( ) b-No ( )

27 - Are you listened with centers of autologous detectability to breast?
a - Yes ( ) b-No ( )
28 - Are you premised with performance autologous detectability to breast?
$a-\operatorname{Yes}(\quad b-N o \quad(\quad)$
29 - If were you answer with(yes): after how long of time?
a- Every month ( ) b-Every three months ( ) c-Every six months ( ) d-Every year ( )

30 - Are you prepared to act autologous detectability with cyclic character: a - $\operatorname{Yes}(\quad \mathrm{b}$ - No ( ) $\quad \mathrm{c}$ - Un know ( ) 1 - Are you know correctly method to autologous detectability to breast? a - $\operatorname{Yes}(\quad$ ) $\quad$ - No ( )

32 - what is the best time for autologous detectability to breast?
a - Five days before menstruation
b - During menstruation
c seven days after menstruation

$\qquad$ r/ الاسم: $\qquad$ / / رقم الاستمارة






^/ إذا كانت منجبة عدد الولادات: أ/ ا د/ أكثر من 0 ( )
9/ نوع الرضاعة: أ/ طبيعية ( ) بر ب/ صناعبة ( ) ج/ مشتركة ( ) د/ أخرى ( ) حددي ................................

- // فترة الرضاعة: أ/ أقل من سنة ( ) ب/ سنة ( ) ج/ ب سنة ( ) د/ أكثر من ب سنة ( )


זا/ ماذا تعرفي عن سرطان الثڭ: أ/ مرض معدي ( ) ب/ غير معدي ( ) ج/وراثي ( ) د/ نوع من الأورام السرطانية ( )
 ج/ ظهور حبة تحت الإبط ( ) د/ أخرى ( ) حددي ........................................ 1/ أسباب سرطان الثڭي: أ/ الأكل والشرب ( ) ب/ ) ب/ الور اثة ( ) ج/ الإصابة في الثي ( ) د/ أخرى ( ) حددي

17/ ماذا تفعلين عند ظهور أي حبة في الثڭي: أ/ الذهاب إلى أقرب وحدة صحية ( ) ب/ عمل علاج بلاي ( ) ج/ الذهاب إلى الرقية والنلاوة ( ) د/ أخرى ( ) حدي ....................


د/ الحالة الاجتماعية ( )

 بخصوص علاجها ( ) د/ كيف اكتثفت الإصابة ( ) ا/ أكثر الأطعمة التي يتم تتاولها: أ/ لحم وخضروات ( ) ب/ ( أسماك ( ) ج/ دجاج ( ) د/ أخرى ( ) حددي .............................

ץ 「/ أكثر المشروبات التي يتم تتاولها: أ/ غازية ( ) ب/ عصائر طبيعية ( ) ج/ مشروبات ساخنة ( ) د/ أخرى ( ) حددي .
זّ/ موقع السكن: أ/ بالقرب من مناطق زراعية ( ) ( ) ب/ بالقرب من مكب النفايات ( ) ج/ بالقرب من مستشفى معالجة الأورام ( ) د/ أخرى ( ) حددي .



rv ج/ كل 7 أشثهر ( )

 - r/ ما هو أفضل وقت للكشف الذاتي للثڭي: أ/ ه أيام قبل الطمث ( ) ب/ أثناء الحيض ( ) ج/ه أيام بعد الحيض ( )

