Çankırı Karatekin University
Graduate School of Health Sciences
Master of Science Thesis

EXAMINING THE PERCEPTION OF SOCIAL SUPPORT AND ASSOCIATED FACTORS IN WOMEN WITH BREAST CANCER IN IRAQ

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Çankırı 2022

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BY
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The Institute of Health Sciences
The Department of Nursing
The Institute of Health Nursing Master"s Program with Thesis

The Degree of Master of Science

Advisor
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Çankırı 2022

ACCEPTANCE AND APPROVAL

Mokhles Ghalıb AHMED, the graduate student of The Institute of Health Sciences with the student number of 198205309, has successfully presented her thesis entitled "EXAMINING THE PERCEPTION OF SOCIAL SUPPORT AND ASSOCIATED FACTORS IN WOMEN WITH BREAST CANCER IN IRAQ" before the jury whose signatures are below, after fulfilling all of the requirements determined by the relevant regulations for the degree of Master of Science in Nursing.

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ETHICS STATEMENT

The thesis entitled “Examining The Perception of Social Support and Associated Factors in Women With Breast Cancer in Iraq” which was prepared and presented as a thesis, was written by myself and in accordance with the scientific, academic rules and ethical conduct. The idea/hypothesis of my thesis solely belongs to my supervisor and to me. The research pertaining to the thesis was conducted by myself and therefore, all of the used sentences and interpretations within the work belongs to me.

I declare the aforementioned issues to be correct.

29 July 2022

Mokhles Ghalib AHMED

DEDICATION

First of all, praise be to God, the Most Merciful, the Most Merciful. Dr. Öğr. Üyesi Yaşar Kemal Yazgan. My advisor is Dr. I would like to express my deepest gratitude, special thanks and appreciation for his guidance, help, time and encouragement throughout the study and all he did for me.

ABSTRACT

EXAMINING THE PERCEPTION OF SOCIAL SUPPORT AND ASSOCIATED FACTORS IN WOMEN WITH BREAST CANCER IN IRAQ

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Master of Science in Nursing

Advisor: Asst. Prof. Dr. Yaşar Kemal YAZGAN

July 2022.

Objective: This research aims to evaluate and examine the perception of social support and its associated factors in women diagnosed with breast cancer.

Study Methodology: A cross-sectional, descriptive study was conducted at Anbar Specialized Cancer Center in Ramadi, Iraq, in the period between 09/03/2021 - 25/7/2021 the research scientist consists of breast cancer patients in this center. The sample number was determined to be no less than 150 breast cancer patients from During the sample calculation method in cases where the universe is unknown. Data were collected face-to-face A "personal information model" and a multidimensional scale of perceived social support were used to collect data.

Results: The study sample consisted of females diagnosed with breast cancer over 35 years old. The social support provided to the majority of the study sample was by a private person 17.6 ± 8.3, it was determined that there is a positive, statistically significant relationship between social support and having children, income, family history of cancer, surgical treatment, chemotherapy, hormonal therapy, targeted therapy, family structure at significance level $p < .05$

Conclusion: It was determined that the degrees of social support for breast cancer patients were high for the privileged person, followed by the family and finally friends, and it had a positive impact on these patients.

Key Words: Breast cancer, social support, chemotherapy, hormone therapy, targeted therapy

ÖZET

IRAK DAKİ MEME KANSERLİ KADINLARIN SOSYAL DESTEK ALGISI VE İLİŞKİLİ FAKTÖRLERİN İNCELENMESİ

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Tez Danışmanı: Dr. Öğr. Üyesi Yaşar Kemal YAZGAN

Temmuz 2022

Amaç: Bu araştırma meme kanseri tanısı alan kadınlarda sosyal destek algısını ve buna bağlı faktörleri değerlendirmeyi ve incelemeyi amaçlamaktadır.

Çalışma Metodolojisi: Irak'ın Ramadi kentindeki Anbar İhtisas Kanser Merkezi'nde 09/03/2021 - 25/7/2021 tarihleri arasında kesitsel, tanımlayıcı bir çalışma yapılmış ve araştırma bilimcisi bu merkezde meme kanseri hastalarından oluşmaktadır. Evrenin bilinmediği durumlarda örnek hesaplama yöntemi sırasından örneklem sayısının en az 150 meme kanseri hastası olduğu belirlendi. Veriler yüz yüze toplandı Veri toplamak için "kişisel bilgi modeli" ve algılanan sosyal desteğin çok boyutlu ölçeği kullanıldı.

Bulgular: Çalışma örneklemini 35 yaş üstü meme kanseri tanısı alan kadınlardan oluşmaktadır. Çalışma örneğinin büyük çoğunluğuna sağlanan sosyal destek özel bir kişi tarafından 17.6 ± 8.3, sosyal destek ile çocuk sahibi olmak arasında olumlu, istatistiksel olarak anlamlı bir ilişki olduğu, gelir, ailede kanser öyküsü, cerrahi tedavi, kemoterapi, hormonal tedavi, hedefe yönelik tedavi, önem düzeyinde aile yapısı olduğu tespit edilmiştir $p < .05$

Sonuç: Meme kanseri hastalarına yönelik sosyal destek derecelerinin ayrıcalıklı kişi için yüksek olduğu, bunu aile ve son olarak arkadaşların takip ettiği ve bu hastalar üzerinde olumlu etki yarattığı belirlenmiştir.

Anahtar Kelimeler: Meme kanseri, sosyal destek, kemoterapi, hormon tedavisi, hedefe yönelik tedavi

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ABBREVIATIONS AND SYMBOLS

AJCC	American Joint Committee on Cancer
ADMA	Asymmetric dimethylarginine
BC	Breast Cancer
SS	Social Support

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1. INTRODUCTION

Breast cancer (BC) is the most frequent disease in the world, according to the WHO, with 2.26 million instances registered in the previous year, 2020. According to certain estimates, the incidence rate may not accurately reflect the reality of the situation since fewer women have been checked for detection. Breast cancer during the Corona pandemic, since one out of every 12 women will have BC in their lifetime. It is the biggest cause of death in women connected to cancer, and it is anticipated that 685,000 women will die from it by the year 2020. The bulk of new cases of breast cancer and deaths from the disease occur in countries with low and middle incomes. There are considerable discrepancies between high-income and low- and middle-income nations, with high-income countries having a 5-year breast cancer survival rate of more than 90%, while India and South Africa had rates of less than 66 percent and 40 percent, respectively (WHO, 2021).

According to Iraqi Ministry of Health data, breast cancer ranks top among malignant diseases in terms of occurrence, accounting for 36.1 percent of all cases. BC affects just one out of every three women diagnosed with cancer. In 2010, the age group (45-49 years) had the greatest rates of breast cancer, whereas the age group (50-54 years) had the greatest total number of instances in 2016 (Hassoun, 2021).

The presence of a lump inside one or both breasts of a woman, and this lump increases in growth abnormally, and then moves to other cells within the breast quickly and randomly, and then becomes inside what are called lymph nodes and then to all parts of the body gradually. This is what is known as breast cancer. According to what the doctors knew, so far there are no specific causes for it, but there are some factors that can increase the possibility of contracting the disease, including lifestyle (Pan American Health Organization, 2016).

Identifying risk factors for women in general is and will continue to be one of the most effective ways to combat the impacts of this dreadful disease in everyday practice

(WHO, 2016).Early detection options include self-examination, physician examination in general counseling, and mammography (Saudi Ministry of Health, 2022).

The consequences of this tumor vary; from 30 to 50% of those affected develop psychological changes, such as episodes of depression and anxiety; thus, health professionals must improve their attitude in the care of these conditions and improve palliative care, in order to increase quality of life and family and social support, i.e. ensure multifactorial and multidisciplinary support (Saudi Ministry of Health, 2022).

Social support (SS) refers to the availability of people, whether they are family or others, who are trusted by a person, and show him affection and support in order to overcome crises (Saudi Ministry of Health, 2022).

The importance of which lies in reducing emotional discomfort, improving interpersonal relationships and reducing levels of anxiety, depression and experiences of pain, as well as other physical symptoms, which are better tolerated when this behavior is present in the people around them.

According to the findings of a number of studies that investigated the significance of social support, women who are diagnosed with breast cancer need to have access to a variety of supports in order to be able to deal with the effects of their illness (Suwankhong and Liamputtong, 2016).

Successful family and social support is also reflected in the mood of patients, who show a greater willingness to continue treatment and a better attitude toward accepting the disease; however, a large proportion of patients five years after diagnosis continue to feel physical, emotional, and social discomfort (Hassan, 2021).

and These findings provide further evidence that social support is an important factor in the management of psychological stress in breast cancer patients (Atwan et al., 2019).

In addition to this, research suggests that an increase in one's level of social support is associated with a reduction in the amount of psychological suffering experienced. (Al-Zahrani, 2016; Alwan 2016).

It was necessary to conduct this study to examine the impact of social support for these affected women because Iraq is currently experiencing a high number of cases of breast cancer. It is anticipated that the findings of this study will lead to the impact of breast cancer on the biological, psychological, social aspects, and institutional funding when it is not treated. It is necessary to seek out these women and investigate the manner in which they experience care, affection, attention, and assistance with tasks and moments of coexistence if there is a sufficient therapeutic commitment.

1.1. The objective of the study

The purpose of this research is to evaluate and investigate how women who have been diagnosed with breast cancer view their social support and the factors that are associated with it.

2. LITERATURE REVIEW

Breast cancer is a disease that develops when cells in the breast grow out of control. There are numerous forms of breast cancer, This cancer develops in the breast, transforming breast cells into cancerous cells (Patel and Pharm, 2020).

The cells that lining the ducts are where most breast tumors start (ductal cancers). Some malignancies (lobular cancers) develop in the cells that border the lobules, while others begin in other tissues (Sharma et al, 2010).

2.1. Anatomy of the breast

In order to acquire a deeper comprehension of the many varieties of breast cancer, it is helpful to have a quick overview of the structural aspects of the breast as figure 2.1. The breast consists of distinct types of fatty, fibrous and glandular tissue: (Memorial sloan Kettering Caner center, 2021).

- The breast lobes and the breast canals are the two distinct forms of glandular tissue found in the breast.
- The same type of tissue that is found in ligaments and scar tissue is referred to as fibrous, supporting, or connective tissue (also known as fibrous tissue).

- In the breast, adipose tissue fills in the voids left by the fibrous tissue and glandular tissue (Memorial sloan Kettering Caner center, 2021).

It's a medical term for non-adipose tissue. The breast tissue is held in place by ligaments, which are groups of supporting, flexible connective tissue that reach from the epidermis to the chest wall. Muscles play a part, too, but they're less visible. Both breasts are supported by a pectoral muscle on the chest wall. As well as supplying oxygen to the breast tissue, the blood arteries also eliminate waste materials (Memorial sloan Kettering Caner center, 2021).

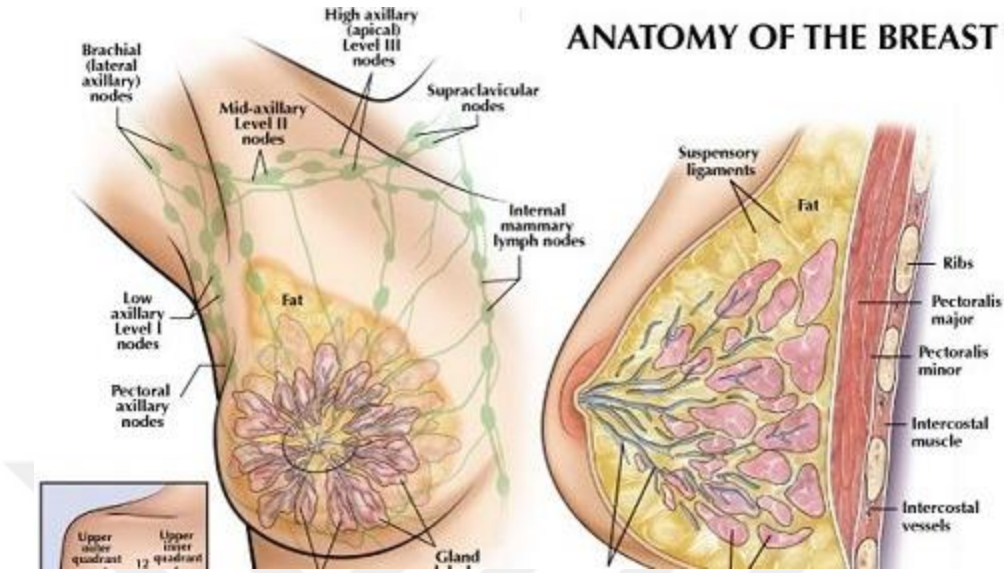

Figure 2.1: Anatomy ot the breast (Srivastava, 2020).

2.2. BC symptoms and signs

Despite the fact that mammograms are an essential component of the breast cancer screening procedure, they are not able to detect all subtypes of breast cancer (BC). You should also be aware of the signs and symptoms of cancer and pay close attention to any changes that occur in your breasts. The most typical sign of breast cancer is the development of lumps. However, even if the mass is tender, solid, or round, it still has the potential to be malignant. There are some uncomfortable moments along the way. As a consequence of this, it is imperative that any newly discovered breast lumps, tumors, or changes be examined by a competent medical practitioner as soon as humanly possible (American Cancer Society, 2021).

2.3. BC symptoms

- Swelling of any part or all of the breast (even if there is no lump)
- Irritation from pecking (sometimes it looks like an orange peel)
- Having discomfort in the chest or the nipples

- Pull cage (turn inward)
- The skin of the breast or nipple is scaly or reddened.
- irritation brought on by lymph node swelling (sometimes breast cancer can spread to lymph nodes under the arm or around the collarbone and cause a lump or swelling there, even before the original tumor in the breast is large enough to feel) (American Cancer Society, 2021).

2.4. BC stages

The initial size of the tumor and whether it has spread to the skin or chest wall below the breast are represented by the letters T and TNM, followed by a number from 0 to 4. When the T value is higher, it indicates that the tumor is larger and/or that there is a wider spread of tissue close to the breast. (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022):

- TX: There is no way to analyze the original tumor.
- T0: There is no indication of a primary tumor.
- This condition, also known as Paget's disease of the breast in the absence of concomitant tumor masses, is referred to as carcinoma in situ.
- A tumor that is classified as T1 (T1a, T1b, or T1c) is one that is less than 2 centimeters (3/4 inch) in width.
- T2: The tumor has a diameter of more than 2 centimeters but a width of less than 5 centimeters (2 inches).
- T3: The tumor has a diameter that is greater than 5 centimeters.
- T4 (T4a, T4b, T4c, and T4d) is the hormone that is produced by the tumor.

2.4.1. 0th stage

Breast cancer at this stage is localized and has not spread since it is restricted to ducts and lobules (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

2.4.2. The first stage

At this point, the cancer has begun to spread, but it is still localized to a relatively small area around the primary site of development. If the tumor is less than 2 centimeters in diameter, breast cancer is considered stage I. This stage indicates that cancer cells have invaded the breast tissue that is surrounding the tumor. The first subtype of Stage I BC is 1a, and the second subtype is 1b. BC at stage 1A is defined as a tumor no larger than 2 cm in diameter that has not spread outside the breast. People who have breast cancer at the stage 1B level may also have invasive breast cancer. This type of breast cancer occurs when there is no tumor in the breast but the cancer cells have grown in clusters with diameters ranging from 0.2 to 2 millimeters (mm) and may be in the lymph nodes. Invasive breast cancer is more aggressive than noninvasive breast cancer. A breast tumor that is no larger than 2 centimeters in size and contains minuscule clusters of cancer cells ranging in size from 0.2 millimeters to 2 millimeters that form in the lymph nodes as shown in figure 2.2 (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

2.4.3. Stage two

The size of the tumor increases, it spreads to new locations, and it might even reach the lymph nodes (2-5cm). There are two subtypes of stage 2 BC 2a and 2b. There is no evidence of tumor development in the breast during the stage 2A of breast cancer; however, malignant masses with a diameter of more than 2 millimeters can develop in as many as three axillary lymph nodes or lymph nodes located around the breastbone. A malignant breast tumor with a diameter of less than 2 centimeters that has spread to the axillary lymph nodes. The diameter of the tumor ranges from 2 to 5 centimeters, and it has not spread to the axillary lymph nodes (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

Stage 2B of BC is an invasive form of BC in which a tumor with a diameter of 2 cm to 5 cm develops in lymph nodes with tumor cell populations. These cancer cells are

lumps that range in size from 0.2 mm to 2 mm. A tumor with a diameter of 2-5 cm exists. Cancerous cells have progressed to the axillary lymph nodes that run along the sternum. The tumor is more than 5 cm in diameter, yet the cancer cells have not migrated to the axillary lymph nodes (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

2.4.4. Stage three

The size of the tumor increases and it begins to spread to other organs and lymph nodes (greater than 5 centimeters). Stage 3 breast cancer is further subdivided into three subcategories: 3a, 3b, and 3c. A tumor of any size that grows alongside the malignancy in four to nine of the axillary lymph nodes or lymph nodes along the breastbone is considered to be present in Stage 3A of breast cancer. However, there is no tumor present in the breast. A person has a tumor that has a diameter of more than 5 centimeters, and there are clusters of cancerous B cells in their lymph nodes that range in size from 0.2 millimeters to 2 millimeters (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

The diameter of the tumor is greater than 5 centimeters, and the cancer has spread to one to three lymph nodes in the axilla as well as lymph nodes that are located around the breastbone. In the third stage of breast cancer, known as stage 3B, a lump or ulcer forms on the breast skin or chest wall because a tumor of any size has spread to these areas. Additionally, it may spread to as many as nine lymph nodes in the axilla or the lymph nodes that surround the breastbone. Inflammatory carcinoma is a condition that can occur in a patient whose breast cancer has spread to the skin of the breast. Cancer in 10 or more axillary lymph nodes is also possible. A person's cancer has spread to the lymph nodes located above or below the collarbone, the lymph nodes located in the axilla, or the lymph nodes that surround the breastbone (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

2.4.5. 4th stage

Because the tumor has already spread to other organs, such as the liver and the lungs, this is the most dangerous stage. Treatment at this stage is dependent on halting the growth of the tumor and preventing it from spreading further. (The tumor's size is not mentioned, but it extends to the lymph nodes and beyond the breast.) The spread rate is +++EV, and the survival rate can reach 20% (American Joint Committee on Cancer, 2017; NCCN, 2017 American caner society, 2021; Jordanian Breast Cancer Program, 2022).

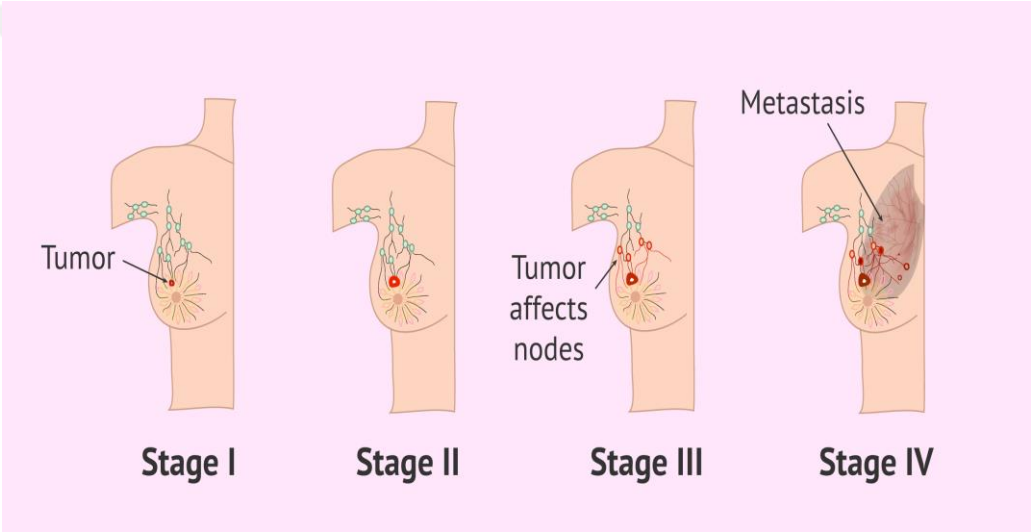

Figure 2.2: BC stages (Suarez et al, 2019).

2.5. BC diagnosis

Your chances of surviving breast cancer increase the sooner it is detected, this is done through mammograms, breast MRIs and breast ultrasounds (Nazario, 2021).

2.6. BC treatments

Treatments that are commonly used Treatment is often determined by the type of cancer and its stage, as well as the woman's menopause.

2.6.1. Common treatment methods

2.6.1.1. BC treatment by stage

Cancer is treated according to table 2.1

Table 2.1. Breast cancer treatment based on its stage (American Cancer society, 2022).

Stage No.	Treatment
Stage 0	1. Breast Conserving Surgery (BCS) 2. DCIS Treatment 3. Mastectomy 4. Hormone therapy after breast surgery
Stages 1- 2	1. brachytherapy (surgery and radiotherapy) 2. Systemic therapy (chemotherapy and other medications)
Stage 3	1. Starting with neoadjuvant therapy 2. Starting with surgery
Stage 4	1. Hormone therapy 2. Chemotherapy (chemo) 3. Targeted drugs 4. Immunotherapy 5. Some combination of these

2.6.2. Local treatment

Some treatments, like surgery and radiation, are considered topical, which indicates that they only treat the tumor itself and have no impact on the rest of the body. The breast tumors of the majority of women diagnosed with breast cancer are removed surgically. You might require additional treatment either before or after surgery, or even at both stages, depending on the type of breast cancer you have and how far along it is (American Cancer society, 2022).

2.6.3. Breast cancer Systemic therapies

Systemic therapy refers to the use of pharmaceuticals because of their ability to eradicate cancer cells virtually everywhere in the body. Some can be taken orally, while others must be given intravenously or injected directly into the bloodstream. Depending on the type of breast cancer and the stage of the disease, there are a variety of pharmacological treatments that may be recommended (American Cancer society, 2022):

- Treatment of breast cancer with chemotherapy
- Breast cancer treatment that involves hormones
- Medication treatment aimed specifically at breast cancer
- Immunotherapy for breast cancer stage (American Cancer society, 2022).

2.7. SS define

SS is one of the important and effective sources that a person needs, as the level of SS can be related to how individuals perceive various psychological problems and pressures, and methods of confronting and dealing with them. This is the importance of SS that the individual realizes as SS is the set of social interactions that provide individuals with real help that the individual views as caring or loving, and therefore SS reflects the individual's cognitive perceptions of the supportive and trusted parties of others, which in turn affected his various life behaviors and its activities (Gillan, 2021).

2.7.1. Types of SS

While there are several methods for individuals to assist one another, much study has been conducted on the impacts of four major types (Scott, 2020; Al-Hubaishi, 2020):

- Emotional Support: Physical comfort, such as a hug or a pat on the back, as well as listening and empathy, are examples of emotional support. A friend or spouse who is emotionally supportive can offer you a tremendous hug.
- Appreciation support: This sort of SS is shown via statements of trust or encouragement.
- Media assistance: Those who give informational support do so through counseling or the gathering and distribution of data that might help people learn about potential next actions that may work well.
- Concrete support: Taking up someone else's responsibilities so they can cope with an issue or taking an active position to help someone manage a situation they are experiencing are examples of concrete support
- Financial support, represented in the appreciation of financial aid
- Cognitive support is included in the processes of guidance and counseling
- Appreciation support It appears in supporting the individual's social network so that he feels personal competence and self-worth.

2.7.2. The importance of SS in BC

Breast cancer patients who are undergoing treatment report that cancer-related fatigue (also known as CRF) is the most common and bothersome symptom they experience. According to the findings of a number of studies, CRF affects anywhere from 25 to 99 percent of cancer patients, and its symptoms are at their worst when chemotherapy is being administered. The nature of CRF is unique compared to that of other types of fatigue. CRF is not alleviated by sleep or rest in general, and both its duration and its intensity increase as a result. In addition, CRF is frequently accompanied by significant levels of suffering, and it frequently manifests itself together with other symptoms such as pain, difficulty sleeping, and depression. CRF has an effect on quality of life and leads to a reduction in participation in social and professional activities (Gillan, 2021).

The presence of SS in one's environment has been shown to improve a person's physical function, psychological well-being, and resistance to the effects of living with cancer. According to the findings of a cross-sectional study carried out in Egypt, breast cancer

patients who received good SS had a lower risk of experiencing adverse changes in their quality of life at the beginning of the treatment process (Scott, 2020).

Several studies on SS have been published, one of which is titled "SS and Breast Cancer: a Comparative Study of Breast Cancer Survivors, Women with Mental Depression, Women with Hypertension, and Healthy Female Controls" and was conducted by the National Cancer Institute (Salakari et al, 2017) The study discovered that the family environment plays a significant impact in survival and adaption, and that adequate SS enhances overall quality of life, particularly in BC and hypertension patients. It was generally believed that the spouse or partner was the most important supporter (Salakari et al, 2017).

Study entitled Observed SS by Iranian women with breast cancer: a qualitative study, According to the findings, SS has a key role in enhancing health outcomes and is an important part of current cancer treatment. A good SS may help patients' spiritual, emotional, and physical well-being when they're sick, and it's one of the most effective ways to battle disease and feel well (Mokhtari et al, 2021).

Study entitled Association between SS and quality of life in patients with breast cancer at hiwa cancer hospital in sulaimani city/Iraq, BC is the most frequent kind of cancer among women globally, according to the research. Patients with BC may experience difficulties during and after therapy and require assistance. Receiving an SS may help patients cope with their circumstances, decrease stress, and enhance their quality of life. Kurdish BC patients reported mild SS, a moderate to good overall health state, the most impacted functions being emotional and sexual, and the most troublesome symptoms being financial impotence, weariness, and hair loss. In terms of improving function and lowering symptoms, SS improved patients' quality of life (Mahmood and Amen, 2022).

3. MATERIALS AND METHODS

3.1. Study design

This study is a descriptive cross-sectional study. was conducted at the Anbar Specialized Oncology Center in Ramadi, Iraq, between 09/03/2021 - 25/7/2021.

3.2. Sample and Setting

Cancer patients were selected from the Anbar Specialized Oncology Center. The non-probability sampling method was used to select BC patients as study participants. Sample chosen by using convenience sample. During the power analysis, the G power package program was utilized. According to the findings of the power analysis, the power was determined to be 150 when the effect size, P, and sample size were respectively 3.0 and 0.05.

Inclusion criteria

A woman with breast cancer, arabic speaker, no other chronic diseases and agree to participate in the study

- **Exclusion criteria**; There is no problem with hearing, refusal to participate in studies, or a problem with cognition

3.3. Instrument

A questionnaire that identified socio-demographic characteristics was used to collect the data for this study. (Appendix 1) Multidimensional Scale of Perceived SS (Appendix 2).

3.4. Data collection method

Data was collected online by using the questionnaire and interview technique. The average data collection time was 15 minutes.

3.4.1. Socio-demographic form

The first part included questions about age, marital status, employment status, income, having another patient in the family with breast cancer, receiving surgical treatment, elapsed time from surgery, was there any surgical treatment, receiving hormonal or radiotherapy, was there a psychological diagnosis, Participation in SS programs and family structure for participants.

3.4.2. Multidimensional visualization of the social support scale

A 12-item Multidimensional Scale of Perceived Social Support (MSPSS) by (Zimet et al 1988), for use among European Americans in the USA. The MSPSS scale was developed and validated by (Merhi and Kazarian, 2012) among a sample of Arabic-speaking Lebanese, and it consists of 12 items distributed on perceived SS, It is family 4 items, friends 4 items and having someone special around them includes 4 items, someone who shares sorrows and joys, help Emotional, true comforter, help friends talk about problems with family. Items are scored on a 7-point Likert scale and range from 1 (strongly disagree) to 7 (strongly agree). The overall score ranges from 12 to 84. Higher scores indicate strong SS.

In order to achieve the objectives of the current study, the validity of the content of the produced tool was evaluated by (Zimet et al, 1988) and (Marhi and Kazarian, 2012), and the reliability focuses on the reliability and consistency of the research tool with respect to a variable measure. Cronbach's alpha reliability is applied to measure the reliability of the questionnaire. The internal consistency of 12 items from the Arabic translation of MSPSS was high (α = 0.87) and similarly the internal consistency of

fmaily, friends and other socially significant sources support for the overall sample was high friends $\alpha = 0.86$ special person $\alpha = 0.85$, and family $\alpha = 0.82$. In this study, the reliability coefficient of the dimension was calculated special person $\alpha = 0.87$ ،friends $\alpha = 0.81$ and family $\alpha = 0.74$.

3.5. Data analysis

Analysis of the data in the study was obtained in SPSS and the determination of whether the study objectives were achieved was done using two statistical approaches to analyze the study data. The normal distribution was tested using the kurtosis and for comparisons between groups, percentages, t-test and ANOVA to detect the relationship between SS and demographic data, a significance level

$p \leq 0.05$ was used for all data analyses.

3.6. The ethical dimension

In 20 October 2020, ethical approval was obtained from the Ethics Committee in ankiri Karatekin University, in addition to approvals No. 19, obtained from Iraq in 3 March 2021 (Appendix3), where the researcher presented a detailed description of the study's purpose and methodology. To obtain official permission, it was submitted to the Anbar Health Directorate, whose approval facilitated the matter (Appendix4). Participants were orally informed of the study's objectives, requested to join willingly, and ensured of non-disclosure. No names were written throughout data collection and reporting to protect participant confidentiality. They were told they could deny a question or quit from the research without consequence.

4. FINDINGS

Table 4.1 presents the individual characteristics of BC patients with respect to their experiences with SS. The patients in our study were 35 years old and more (48±.18.8) and it was determined that 120 (80%) of the patients were married and 30 (20%) were single, in addition to that 105 (70%) have children, and 45 (30%) have no children, 62 (41.3%) un employement were determined, and 71 (47.3%) had income of equal expenses as identified 52 (34). 7% of their studies were primary school graduates, it was determined that 60 (90%) had no family history of the disease, and that 105 (70%) had undergone surgical treatment, and it was determined that 90 (60%) had undergone breast-conserving surgery, 56 were identified (37.3%) received nursing services between 7 - 12 months, 120 (80%) received and 105 chemotherapy, 105 (70%) did not receive hormonotheraphy also, 105 (70%) received Radiotherapy

it was determined that 105 (70%) did not receive Targeted Treatment in addition to that 91 (60.7%) did not receive Psychological Diagnosis.107 (71.3%) did not have access to Participation in SS programs for breast cancer patients, and 90 (60%) were determined to live in a large family.

Table 4.1: Distribution of individuals according to their Sociodemographic characteristics (n = 150).

Variables	**Minimum**	**Maksimum**	**Mean (SD)**
Age	35	60	48±.18.8
		n	**%**
Marital status	Single	30	20
	Married	120	80
Have Children	Yes	105	70
	No	45	30
Employment Status	housewife	39	26
	employement	49	32.7
	un employement	62	41.3
Income	lower than expenditures	21	14
	equal expenditures	71	47.3
	higher than expenditures	58	38.7

Table 4.1: (Continue) Distribution of individuals according to their Sociodemographic characteristics (n = 150).

Variables	Minimum	Maksimum	Mean (SD)
Education status	uneducated	22	14.7
	elementary school graduate	52	34.7
	high school graduate	50	33.3
	university graduate	26	17.3
Anyone in the family with breast cancer?	Yes	60	40
	No	90	60
Surgical treatment	Yes	105	70
	No	45	30
Type of surgical treatment	Mastectomy	60	30
	Breast conserving surgery	90	60
Years of Nursing Services	1-6 months	53	35.3
	7-12 months	56	37.3
	13 months and longer	41	27.3
Chemotherapy	Yes	120	80
	No	30	20
hormonotheraphy	Yes	45	30
	No	105	70
Radiotherapy	Yes	105	70
	No	45	30
Targeted Treatment	Yes	45	30
	No	105	70
Psychological Diagnosis	Yes	59	39.3
	No	91	60.7
Participation in SS programs for breast cancer patients	Yes	43	28.7
	No	107	71.3
Family structure	Family members	60	40
	large family	90	60
Total		**150**	**100**

In Table 4.2, the results of the study showed that the social support provided to the majority of the study sample was by a special person (17.6 ± 8.3), then followed by the social support provided by the family (17.4 ± 8.0), and finally the social support provided by friends (15.4 ± 7.9), where the average Total Social Support Score (50.4 ± 7.0).

Table 4.2: Distribution of scores for the group of women diagnosed with breast cancer. Research on Social support in women with breast cancer" and its sub-dimensions (n = 150)

Multidimensional scale of perceived social support	**Mean (SD)**
Special human sub-dimension	17.6 ± 8.3
Family sub-dimension	17.4 ± 8.0
Friend sub-dimension	15.4 ± 7.9
Total score	50.4 ± 7.0

The amount of social support provided to breast cancer patients in the city of Ramadi in Iraq is shown in figure 4.1.

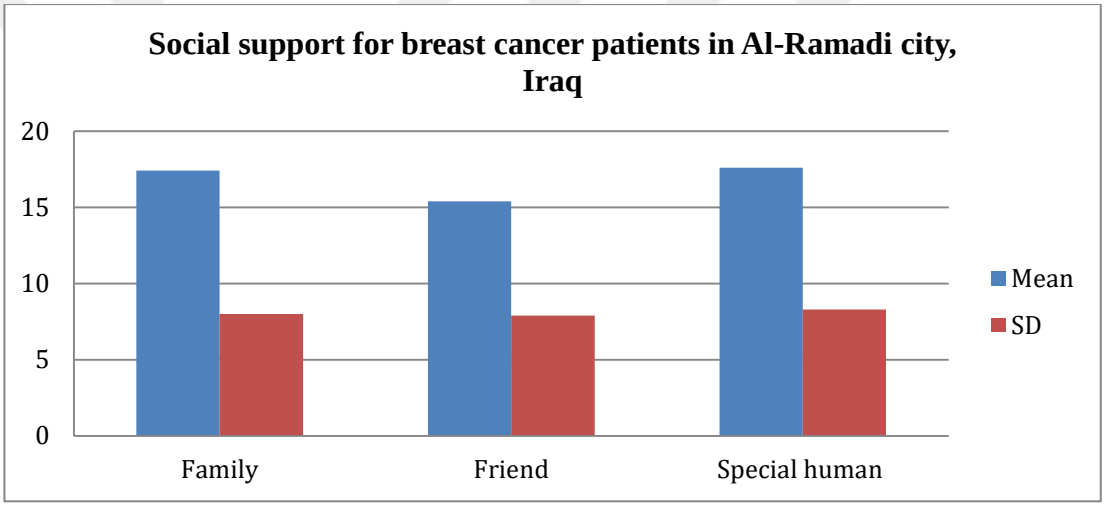

Figure 4.1. Result of SS outcomes for breast cancer patients in Al- Ramadi city, Iraq (Anbar Specialized Oncology Center).

Table 4.3 shows: the distribution of SS scores according to some sociodemographic characteristics of BC patients is shown. When the marital status of the patients is examined the mean SS score was 50.56 ± 4.13 for married females and 50.23 ± 7.66 for single females, and the difference between the mean scores was not statistically significant (t = 0.22 p = 0.72). The mean SS score of the patients was 51.72 ± 7.48 in the childless female and 47.62 ± 5.06 in the childless female, and the difference between the mean score was statistically significant (t = 3.35 p = 0.001*).

When examined employment status in female patients in the SS, mean scores were 51.76 ± 8.86 for females and 25.31 ± 4.08 employment, 51.28 ± 6.29 housewife, 49.00 ± 5.67 not employed, and the difference between mean scores was not statistically significant (F = 2.44 p = 0.091). The mean SS score was income at, 54.33 ± 7.80 at 54.33 ± 7.80 and 51.95 ± 8.91 with equal expenditures, and 48.17 ± 3.57 higher than expenditures and the difference between the mean scores was statistically significant (F= 8.99 p = 0.000*).

when educational status is examined; The mean SS score was 51.88 ± 9.09 at university graduate, 51.31 ± 7.31 at elementary school graduate, 49.98 ± 5.67 at high school graduate, and 48.09 ± 6.50 at uneducated. The difference between mean scores was not statistically significant (F = 1.50 p = 0.215). The mean SS score for patients with a family history of BC, was 53.66±7.33 for those with no family history of the disease and 45.75±2.74 for those with a family history, the difference between the mean scores was statistically significant (t=7.97 p=0.000 *). When the surgical treatment of patients is examined; The mean SS score, was 50.52 ± 6.47 for those who underwent surgical treatment, 50.42 ± 8.42 for those who did not undergo surgical treatment, and that the difference between the mean scores was not statistically significant (t = .072 p = 0.94). When the type of surgical treatment is examined, the mean SS score was found to be 55.84 ± 5.07 for those who chose the profession voluntarily, 24.53 ± 3.81 for those who received Breast conserving surgery, and 46.53 ± 4.10 for those who received Mastectomy, the difference between the mean scores was Statistically significant (t = 10.39 p = 0.000 *).

when the duration of nursing care was examined; The mean SS score was 56.67 ± 6.05 in those who received nursing care from 1-6 months, it was 50.29 ± 4.45 who received nursing care from 7-12 months, and 44.73 ± 3.08 received nursing care for 13 months and more. The difference is statistically significant (F = 19.50 p = 0.000*). when chemotherapy is to be examined for female patients; Mean SS scores, were 51.64±7.46 for those who received Chemotherapy, 45.90 ± 1.37 for those who did not score it and that the difference between the mean scores was statistically significant (t = 7.90 p = 0.000 *).

It was also when the hormonotheraphy of the patients was examined; Mean SS score, was 52.15 ± 7.29 for those without hormonotheraphy , 46.62 ± 4.71 for those who scored it and that the difference between the mean scores was statistically significant (t = 5.52 p = 0.000 *). As for the radiotherapy that was examined for the patients, the mean SS score was 50.90 ± 8.09 for those who received radiotherapy, and 49.56 ± 3.75 for those who did not receive radiotherapy, and it was found that the difference between the mean scores was not statistically significant (t = 1.38 p = 0.16).

In addition, when the Targeted Treatment was examined for the patients; Mean SS scores, were 56.49±8.03 for those who received Targeted Treatment and , 47.92 ± 4.73 for those who did not score it and that the difference between the mean scores was statistically significant (t = 6.67 p = 0.000 *). Also, the Psychological Diagnosis for the patients who underwent it, the mean SS score was 50.99 ± 8.62 for those who did not undergo Psychological Diagnosis, and 49.73 ± 3.54 for those who did not undergo Psychological Diagnosis, and it was found that the difference between the mean scores was not statistically significant (t = 1.24 p = 0.21).

When the Participation in SS programs for BC patients were examined, the mean SS score was 51.00 ± 7.37 for the patients who had Participation in SS programs for BC patients and 50.29 ± 6.99 for those who did not participate in the SS programs for BC patients. It was not statistically significant (t = .541 p = 0.590).When Family structure is examined the average SS score was found to be 55.12±7.37 for those who are Family members, and it was 47.41 ± 4.89 for those with a large family and the difference between the mean scores was statistically significant (t = 7.11 p = 0.000 *).

Table 4.3: Relationship between social support for breast cancer patients and demographic data (n = 150)

Variables		**Multidimensional perceived social support total score X ± SD**
Marital status	Single	50.23± 7.66
	Married	50.56± 4.13
t = .22 p= 0.72		
Have children	Yes	51.72± 7.48
	No	47.62± 5.06
t= 3.35 **p= 0.001***		
Employment Status	housewife	51.28± 6.29
	employement	51.76± 8.86
	un employement	49.00± 5.67
F = 2.44 p= 0.091		
Income	lower than expenditures	54.33± 7.80
	equal expenditures	51.95± 8.91
	higher than expenditures	48.17± 3.57
F = 8.99 **p= 0.000***		
Education status	uneducated	48.09± 6.50
	elementary school graduate	51.31± 7.31
	high school graduate	49.98± 5.67
	university graduate	51.88± 9.09
F= 1.50 p= 0.215		
Anyone in the family with breast cancer?	Yes	45.75± 2.74
	No	53.66± 7.33
t=7.97 **p= 0.000***		
surgical treatment	Yes	50.52± 6.47
	No	50.42± 8.42
t=.072 p= 0.94		
Type of surgical treatment	Mastectomy	46.53± 4.10
	Breast conserving surgery	55.84± 5.07
t= 10.39 **p= 0.000***		
Years of Nursing Services	1-6 months	56.67± 6.05
	7-12 months	50.29± 4.45
	13 months and longer	44.73± 3.08
F= 19.50 **p= 0.000***		

Table 4.3: (Continue) Relationship between social support for breast cancer patients and demographic data (n = 150)

Variables		**Multidimensional perceived social support total score X ± SD**
Chemotherapy	Yes	51.64± 7.46
	No	45.90± 1.37
t= 7.90 **p= 0.000***		
hormonotheraphy	Yes	46.62± 4.71
	No	52.15± 7.29
t= 5.52 **p= 0.000***		
Radiotherapy	Yes	50.90± 8.09
	No	49.56± 3.75
t= 1.38 p= 0.16		
Targeted Treatment	Yes	56.49± 8.03
	No	47.92± 4.73
t= 6.67 **p= 0.000***		
Psychological Diagnosis	Yes	49.73± 3.54
	No	50.99± 8.62
t= 1.24 p= 0.21		
Participation in social support programs for breast cancer patients	Yes	51.00± 7.37
	No	50.29± 6.99
t= .541 p= 0.590		
Family structure	Family members	55.12± 7.37
	large family	47.41± 4.89
t= 7.11 **p= 0.000***		

T-test and ANOVA $p \leq 0.05$

5. DISCUSSION

This chapter explains and presents a specific and systematically structured interpretation of the thesis and then a discussion that will be reasonably derived from the findings supported by the available literature and relevant studies.

5.1. Discussing the distribution of degrees of SS among female diagnosed with BC

The patients in our study were 35 years old and more (48±18.8), an important finding was that all BC patients had adequate social support (50.4±7.0). The social support on the basis of the sub-scales was as follows. The highest percentage for Special human sub-dimension was (17.6 ± 8.3), then followed by the social support provided by the family (17.4 ± 8.0), and finally the lowest percentage of social support provided by friends (15.4 ± 7.9).

These results are similar to the study (Shrestha et al., 2017) which showed that patients were middle-aged that all BC patients had sufficient SS (65.03 ± 6.85). The SS on the basis of the sub-scales as follows was the highest percentage of Special human sub-dimension with its value ranging (28.03 ± 8.85), then followed by the SS provided by the family (48.1 ± 8.0) and finally the lowest percentage of SS provided by friends (23 ± 10.11).

This is consistent with (Öztunç et al., 2013) the patients in our study were middle-aged and an important finding is that all breast cancer patients had adequate social support (60.8 ± 18.1). Social support was based on the subscales as follows. The highest proportion of the dimension was private person (23.4 ± 4.4), followed by social support provided by the family (19.1 ± 7.9), and finally the lowest proportion of social support provided by friends (18.4 ± 8.5).

This is consistent with (Çürük et al., 2020) the patients in our study were middle-aged (40 ± 18.8), and an important finding is that all breast cancer patients had adequate

social support (60.9 ± 8.2). Social support was based on the subscales as follows. The highest proportion of the family sub-dimension was (23.7 ± 2.4), followed by the social support provided sub-important (20.2 ± 3.7), and finally the lowest proportion of social support provided by friends (16.9 ± 4.2).

Similarly, in other studies of breast cancer patients, patients' average social support scores were similar where social support was adequate; In the study by (Rizalar et al.,2014) 56.15 ± 14.02 and (Schonholtz, 2000) 56.0 ± 9.5, and similar to that of (Swain et al., 1996) 51.46 ± 9.97.

2.2. Discussing the relationship between SS for BC patients and demographic data

The result was according to Table 4.3 It was found that the SS given to the patients was the presence of children as a variable that made a difference in the SS, and the scores of those who got it were ($p < 0.05$). It shows that those who have children feel SS more than those who do not. In the literature, there are results similar to those of our research on this topic. (Shrestha et al., 2017) found in their study that there is a relationship between the presence of children and SS ($p < 0.05$), and (Çürük et al., 2020) found in their study that patients with children received higher social support than the rest of the patients who do not have.

This study found that the income variable is a variable that makes a difference in perceived SS for those with lower than expenditures higher than those whose income equals their expenditures and those whose income is higher than their expenditures ($p < 0.05$). This means that there is a significant difference between patient scores according to sociodemographic characteristics. For BC patients. In the literature, there are results similar to those of our research on this topic. It was found (Özkan et al., 2017) that BC patients who have SS are higher for those with lower incomes ($p < 0.05$). It also agrees with the study (Jin and Lee, 2021) who showed a relationship between SS where it is higher for the lowest income ($p < 0.05$).

This study found that breast conserving surgery for BC patients, as it was a significant difference variable in the SS ($p < 0.05$), showed that those who underwent breast conserving surgery were higher than that of BC patients who underwent a mastectomy. In the literature, there are different findings regarding the results of our research on this topic (Thompson et al., 2013) showed a positive attitude between breast-conserving surgery and SS ($p < 0.05$) and this is in agreement with the study (Sorensen et al., 2020) who found a statistically significant relationship between breast surgery and SS ($p < 0.05$).

In this study we found chemotherapy, hormone, and targeted therapy were the most significant difference variables in the SS, which was higher in those who performed it ($P < 0.05$). That is, there is a significant difference between the scores of SS patients according to their socio-demographic characteristics. In the literature, in similar studies, which was found a statistically significant relationship between Chemotherapy, hormone, targeted therapy (Salakari et al., 2017; Almuhtaseb et al., 2021) ($p < 0.05$).

6. CONCLUSION AND RECOMMENDATION

The research was conducted on 150 BC women patients receiving treatment at Ramadi Hospital in Iraq in order to determine the relationship between SS levels.

- In this study, the variables that influence the SS dimensions of BC patients were determined to be marital status, have children income, family history of BC, type of surgical treatment, years of nursing care, chemotherapy, hormonal therapy, targeted therapy, family structure ($p < 0.05$)
- In this study, factors such as Employment Status, Education status. and Education status Radiotherapy, Psychological Diagnosis, and participation in social support programs for breast cancer patients, and these variables were identified that did not affect the sub-dimensions ($p > 0.05$)
- In this study, the results of the study showed that the social support provided to BC patients by a private person, followed by the social support provided by the family, and finally the social support provided by friends.

6.1. Recommendations

In line with the results obtained from the research;

- Because SS from family is a key aspect for patients, family awareness should be increased and appropriate family support offered in collaboration with the family in the patient's care and treatment.
- Increasing the social support programs provided to the sick family in order to increase it
- Conducting weekly or monthly special programs for breast cancer patients, which increases the social support provided through these programs
- Making a psychological diagnosis for breast cancer patients, and then allocating a psychiatric nurse to talk to a breast cancer patient, which increases the social support provided to her

- Providing work for non-working breast cancer patients, which makes them engage in society, and this enhances the social support provided to them
- Adequate social support resources benefit the patient in a variety of ways. It is advised that adequate social support resources be identified in order to improve the psychological and social adjustment of breast cancer patients.

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APPENDIX

APPENDIX 1: Sociodemographic and Clinical Characteristics Form
APPENDIX 2: Multidimensional Perceived Of Social Support Scale
Appendix 3: Ethics Committee In Çankiri Karatekin Approval
Appendix 4: Ethics Committee in Iraq Approval

APPENDIX 1: Sociodemographic and Clinical Characteristics Form

1. **Age**: .....
2. **Marital status**: Married (...) Single (...)
3. **Employment Status**

a housewife b) employement c) un employement

4. **Income**: a) lower than expenditures b) equal expenditures c) higher than expenditures

5. **Your educational status**

a) uneducated b) elementary school graduate c(high school graduate d) university graduate

7. **Does anyone in your family have breast cancer? (Mother, aunt, etc.)**

a) yes b) No

8. Did you receive surgical treatment

a) yes b) no

9. Which did you receive surgical treatment

a) Mastectomy b) Breast conserving surgery

10. Time elapsing from surgery

a) 1-6 months

b) 7-12 months

c) 13 months and longer

11. Did you receive chemotheraphy

a) yes b) no

12. Did you receive hormonotheraphy

a) yes b) no

13. Did you receive radiotheraphy

a) yes b) no

14. Did you receive targeted treatment

a) yes b) no

15. Is there a psychological diagnosis?

A) yes b) no

16. Do you participated in asocial support program after the diagnosis of breast cancer ?

a) yes b) no

17. **What is your family structure like ?**

a) Family members (mother-father-children) b) large family (grandmother - grandfather -mother - father - children)

APPENDIX 2: Multidimensional Perceived Of Social Support Scale

Multidimensional Perceived of Social Support Scale

Circle the "1" if you Very Strongly Disagree Circle the "2" if you Strongly Disagree Circle the "3" if you Mildly Disagree Circle the "4" if you are Neutral Circle the "5" if you Mildly Agree Circle the "6" if you Strongly Agree Circle the "7" if you Very Strongly Agree

1. There is a special person who is around when I am in need.
1 2 3 4 5 6 7
2. There is a special person with whom I can share my joys and sorrows.
1 2 3 4 5 6 7
3. My family really tries to help me. 1 2 3 4 5 6 7
4. I get the emotional help and support I need from my family. 1 2 3 4 5 6 7
5. I have a special person who is a real source of comfort to me. 1 2 3 4 5 6 7
6. My friends really try to help me. 1 2 3 4 5 6 7
7. I can count on my friends when things go wrong. 1 2 3 4 5 6 7
8. I can talk about my problems with my family. 1 2 3 4 5 6 7
9. I have friends with whom I can share my joys and sorrows. 1 2 3 4 5 6 7
10. There is a special person in my life who cares about my feelings. 1 2 3 4 5 6 7
11. My family is willing to help me make decisions. 1 2 3 4 5 6 7
12. I can talk about my problems with my friends. 1 2 3 4 5 6 7

Appendix 3: Ethics Committee In Çankiri Karatekin Approval

Appendix 4: Ethics Committee in Iraq Approval

CIRRICULUM VITAE

Name and surname : Mokhles AHMED

Education status

Undergraduate : 2010, University of Al-Fallujah , College of nursing

Career : Employee at Fallujah Teaching Hospital

Work start date : 06-24-2011-Still -nurse in Department of operations room