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Death anxiety and coping mechanisms among women with breast cancer attending Beit-Jala Governmental Hospital in Bethlehem

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Death anxiety and coping mechanisms among women with breast cancer attending Beit-Jala Governmental Hospital in Bethlehem

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Thesis Approval

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Declaration

I certify that this thesis submitted for the degree of master is a result of my own research, except where otherwise acknowledged, and this thesis has not been submitted for a higher degree to any other university or institutions.

Signed: Feda shehadeh

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Date: 19 th June 2017

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Abstract

Background: Breast cancer (BC) is the most common cancer among women. It is the leading cause of female deaths and it is a major health problem in almost every country in the world in terms of morbidity and mortality rates.

Aim: to assess death anxiety and coping mechanisms among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem

Method: A cross-sectional design was utilized to achieve this purpose. The sample included 214 women with breast cancer who attending Beit-Jala Governmental Hospital. Data was collected by using self-reported questionnaire including socio-demographic, medical and psychological history data sheet, Templar's death anxiety scale included 15 items, and Brief coping scale included 29 items. Statistical analysis was performed using the statistical package for social sciences (SPSS), version 18.0 and were analyzed by the using parametric test such as frequency, T-test, ANOVAs test and Pearson's test.

Findings: Analysis of the patients' characteristics showed that the participants' age ranged from 18 to more than 50 years old of which 36% were 30 years to less than 40 years old. The majority of the participants 46% lived in a city,
70% were married, 29% had university degree and 50% had family income from 3,000 NIS to 4,000 NIS monthly. For the medical history, 36.3% who were having breast cancer for less than one year, 57.6% of the participants suffered from bone problem and 69.2% of the participant's didn't have psychological problems.

Further, the findings showed high prevalence of death anxiety (59.4%) which is (average level + high concern of death anxiety) among women with breast cancer in Beit-Jala governmental hospital. The findings revealed no significant relationship between death anxiety and dependent variables such as age; marital status and place of residence, economic status and health related variables (breast cancer onset, treatment type, breast cancer treatment complications, and the family history of cancer).

Furthermore, the relationship between the socio-demographic and coping mechanisms revealed a significant association between the marital status, place of residence and education level.

In addition, Pearson correlation test was used to test correlations between coping strategies and death anxiety. Person's test showed a strong inversed statistically relationship between coping mechanism and death anxiety. The strongest relationship was for humor and religion

Conclusion:

The study found that the prevalence of death anxiety was (59.4.0%) among the women with breast cancer in Beit-Jala governmental hospital in Bethlehem which indicates the need to provide mental health services for these women including counseling and psychotherapy in the hospitals and centers that provide treatment for them .

قلق الموت وآليات التكيف بين النساء المصابات بسرطان الثدي و يتلقين العلاج في مستشفى بيت جالا الحكومي في بيت لحم

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إشراف: د. منى حميد

ملخص الدراسة

خلفية الدراسة: سرطان الثدي هو السرطان الأكثر شيوعا بين النساء. وهذا هو السبب الرئيسي لوفيات الإناث وهو مشكلة صحية رئيسية في كل بلد تقريبا في العالم من حيث معدلات الاعتلال والوفيات.

الهدف: تقييم قلق الموت وآلية التكيف بين النساء المصابات بسرطان الثدي في مستشفيات بيت جالا الحكومي في بيت لحم.

منهجية الدراسة :استخدمت الدراسة المنهج الكمي المقطعي من أجل تحقيق هذا الهدف .تم جمع البيانات باستخدام الاستبيان بما في ذلك البيانات الاجتماعية والديمغرافية والطبية والنفسية . وتم جمع البيانات من 214 مريضة تعاني من سرطان الثدي في مستشفى بيت جالا الحكومي . احتوت الإستبانة على 15 سؤال . أستخدم برنامج الرزم الإحصائية للعلوم الاجتماعية لتحليل العينة .حيث استخدمت النسخة من هذا 18.0 البرنامج لقياس العلاقة بين البيانات الديموغرافية (الشخصية)، اختبار تمبلرلقياس قلق الموت الذي يحتوي على 15 سؤال و اختبار التكيف الاجتماعي ويحتوي على 29سؤال عن طريق إختبار تحليل التباين الأحادي، اختبار تي تيست، إختبار التكرار، الاختبار الارتدادي وإختباربيرسون.

النتائج: أظهر تحليل خصائص المرضى أن أعمار المشاركات تراوحت بين 18 إلى أكثر من 50 سنة، وكان 36٪ منهم 30 سنة إلى أقل من 40 سنة. غالبية المشاركين46٪ كانوا يعيشون في المدينة،و 70٪ منهن متزوجات، و 29٪ منهن يحملن شهادة جامعية، و 50٪ لديهن دخل عائلي 3000 شيكل إلى 4000 شيكل

شهريا. بالنسبة للتاريخ المرضي 36.3٪ يعانون من سرطان الثدي لمدة تقل عن سنة واحدة، 57.6٪ من المشاركات عانوا من مشكلة العظام و 69.2٪ من المشاركات لم يكن لديهم مشاكل نفسية.

كشفت النتائج عدم وجود علاقة ذات دلالة إحصائية بين قلق الموت والمتغيرات التابعة مثل العمر؛ والوضع الاقتصادي، ومكان الإقامة، والوضع الاقتصادي والمتغيرات المتعلقة بالصحة (بداية سرطان الثدي، ونوع العلاج، ومضاعفات العلاج، والتاريخ العائلي).بالاضافةالى ذلك كشفت العلاقة بين آليات التكيف والعوامل الديموغرافية وجود علاقة كبيرة بين الحالة الزوجية ومكان الإقامة ومستوى التعليم.

كما تم استخدام اختبار ارتباط بيرسون لاختبار الارتباطات بين استراتيجيات التكيف وقلق الموت. أظهر الاختبار علاقة قوية إحصائيا بين آلية التكيف وقلق الموت. وكانت العلاقة الأقوى بين الفكاهة، والدين حسب النتائج.

الخلاصة:

ووجدت الدراسة أن انتشار قلق الموت كان (59.4 ٪) وهي ناتج (جمع المستوى المتوسط + قلق كبير من قلق الموت) لدى النساء المصابات بسرطان الثدي في مستشفى بيت جالا الحكومي في بيت لحم مما يشير إلى ضرورة توفير خدمات الصحة النفسية لتلك النساء بما في ذلك تقديم المشورة والعلاج النفسي في المستشفيات،و المراكز التي توفر العلاج لهم.

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List of Abbreviations / Acronyms

BC	Breast Cancer
DA	Death Anxiety
MOH	Ministry of heath
DSM	Diagnostic and statistical manual of mental disorder
WHO	World health organization
PTSD	Post-traumatic stress disorder
DAS	Death anxiety scale
HADS	Hospital anxiety and depression scale
DCIS	Ductal carcinoma in situ
IDC	Invasive or infiltrating ductal carcinoma
ILC	Invasive lobular carcinoma
ACS	American Cancer Society
FFTP	First full term pregnancy

Definitions

Death anxiety

Carpenito -Moyet (2008) defines death anxiety as “the state in which an individual experiences apprehension, worry, or fear related to death and dying”. Death anxiety is also defined as “vague uneasy feeling of discomfort or dread generated by perceptions of a real or imagined threat to one’s existence” (Moorhead et al., 2008).

Cancer

An abnormal growth of cells which tend to proliferate in an uncontrolled way and in some cases, to metastasize (spread). Cancer arises because of changes in the growth and behavior of cells. Unlimited and uncontrolled growth of tumor cells leads to a progressive increase in tumor bulk with consequent impingement on the structure and impairment of function of adjacent normal tissues (Williams.1990).

Breast cancer

Breast Cancer is abnormal cells in the breast. Breast cancer originates from the breast tissue, most commonly from inner lining of milk ducts or the lobules that supply the ducts with milk. These abnormal cells grow out of control and produce more cells that grow into tumors or growths (Salehi et al, 2017).

Coping mechanism

Coping mechanism refers to cognitive and behavioral efforts which the patient makes to tolerate external and internal demands. Coping may be active or passive. Active coping refers to confronting problems and deciding on solutions, while passive coping refers to escaping the source of the distress. A positive behavioral pattern can assist with adaptive function, as opposed to hopelessness or helplessness style which contributes to poor treatment outcome (Van Oers HM, 2013).

Chapter One

Introduction

Chapter One

1.1. Introduction

Cancer is known as a difficult disease affecting patients and their families both physically and emotionally (Tavoli et al., 2007). According to the World Health Organization (2011) report, there were approximately 7.6 million deaths in 2008 all over the world and in 2030 that number is expected to rise to13.1 million (World Health Organization, 2012).In Palestine, the new reported cases were 2,400 in West Bank, the incidence rate was 83.8 per 100,000 of population, 1,260 cases were females (52.5%) and 1,140 were males (47.5%).(MOH 2015)

Cancer diagnosis is traumatic for any patient to hear, when physicians inform patients they have cancer, individuals can react in a myriad of ways. There is no right or wrong way to assimilate information that no one ever wants to hear. The patient's routine may be disrupted along with ensuing financial upheaval, health insurance coverage problems, and caregiver issues, while roles and duties inside the family may change (Foster &McLellan, 2000).

A common denominator of cancer patients is their fear of death, regardless of personal characteristics, religious beliefs or cultural background. Although Muslims believe in life after death, fear of death exists in the culture even though it is a natural human experience. The cancer patient might be unique in the fact that the fear might come from the meaning that the patients attach to the word cancer and its association with death (Vilhuer, 2008).Vilhuer states that most patients have a fear of the unknown. Once the diagnosis of cancer has been made, patients start to experience feelings of fear, stress, depression, and worry of what the future holds for their lives (Rodgers et al., 2005).

Cancer and depression are related; the majority of cancer patients have similar fears; fear of pain, death, loss of control and function. These fears may lead to suffering and depression; because of the difficulty faced by cancer patients when they have to live their lives with the threat of their impending death always present (Sigal et al., 2008). Diagnosis of breast cancer has not only physical, but also social and psychological implications because of the importance of the breast in a woman's body image, sexuality and motherhood. They may experience a range of concerns

and fears, which include physical appearance and disfigurement, uncertainty regarding recurrence and fear of death. In cancer patients one of the major concerns is death (Gupta, 2012).

When facing a disease such as cancer, patients have to cope with several changes in different areas of their lives (Knight & Emanuel, 2007). Although it may seems that cancer is an aversive life event that can lead only to suffer and negative feelings, it has in fact a different meaning for every human being. Therefore, cancer disease can lead different patients to use a different array of coping mechanisms that are unique to the person's characteristics and the individual situation (Lazarus &Folkman, 1984).

Coping refers to the attitudes and behaviors that use to maintain emotional wellbeing and to adjust to the stresses caused by cancer. Different people cope in different ways, and some ways of coping are more successful in promoting a person's emotional wellbeing and psychological adjustment than others. (Ghoreishi, 2015).

1.2 Problem statement:

Breast cancer (BC) is the most common cancer among women. It is the leading cause of female deaths and it is a major health problem in almost every country in the world in terms of morbidity and mortality rates. Breast cancer is the most prevalent cancer among women and being the second mortality cause after cardiovascular disease. While 6 million people are found to have cancer in each year in the early 2000s, it is estimated that this number will reach 12 million in later years. In addition, there will be 75 million cancer patients worldwide in 2030 and 17 million of these patients will die (Beydag, 2012).According to American Cancer Association, there were 200 million women afflicted with breast cancer (Gupta, 2012)

In Palestine, breast cancer is the most common cancer among Palestinian women,it ranked the first, with 427 reported cases and formed 17.8% from all reported cases (MOH, 2015). It represented 16.2 from all reported cancer case, and partially among the age group between 20-59 years in 2012 and 18.3 from all reported case in 2013. Also, the breast cancer is the first type of cancer causing of deaths among women representing 10% of all cancer death (MOH, 2013). It is the second rank of disease that leads to death after cardiovascular diseases. In 2011, for example, (12.4%) died from cancer and the incidence rate was 7.5 per 100,000 populations in 2005. Its

mortality rates has increased from (10.3%) in 2007 to (10.8%) in 2010, (12.4%) in 2011 to (13.6%) in 2012 (MOHO 2012), 13.3% in 2013 and (13.8%) in 2015 (MOH, 2015).

Cancer diagnosis may cause death anxiety. Carpenito-Moyet (2008) defined death anxiety as "the state in which an individual experiences apprehension, worry, or fear related to death and dying" (p. 39).

So, people diagnosed with cancer may become depressed and fearful of dying. This causes them to question treatments and sometimes avoid treatment altogether. There are few studies such as Hu and Chen (2015), Tsai (2014), Wu, Chiu (2013), Mystakidou (2005) and Vilhauer (2008) assessed fear of death among patients with cancer and their families. Most of the published studies are focused on the terminally ill, so it is not clear what patients experience in the earlier stages of their illness (McClain-Jacobson, et al., 2004). For example, Vilhauer (2008) interviewed 14 Caucasian women with metastatic breast cancer who were all involved in online support groups. The mean age of the women was 51.6 years. The study aimed to assess the experiences of women diagnosed with metastatic breast cancer. A 30-90 minute recorded interview was done by phone, using open-ended questions to encourage the patients to talk about what they felt. The result showed that 71% of patients reported having fear of death. The women's fear came from the stress of worrying about dying, the fear of the disease progression, the loss of their future, and practical concerns such as fear of being dependent, and not able to do normal daily activity.

Some strategies are used by patients to deal with death anxiety such as seeking social support which serves both emotional and problem-focused functions. Neither of the two forms of coping is inherently adaptive or maladaptive, thus in stressful situations individuals may use a combination. The key to successful coping is the use of coping flexibility. Coping flexibility involves ability to change, and adapt coping strategies over time and across different stressful conditions as different strategies; Coping does not imply success, but efforts to resolve a stressful situation (Mukwato, 2010).

For example, one study conducted in Lebanon, by Doumit et al, to assess identified social support and spirituality as important factors in coping. Participants described cancer as a 'cut in their lives that they had to deal with and the journey with cancer as continuous battle'.

Participants spoke of facilitating and hindering factors to coping. Facilitating factors included reliance on God, positive support from work, family and husband, sharing with people who know (living the same experience) and considering cancer as any other disease in particular diabetes. Among the hindering factors were age, social support, cognitive appraisal, information and guidance, access to resources, stressor, diagnosis of breast cancer, primary appraisal, breast cancer is a harm, loss, threat or a challenge, secondary appraisal, problem-focused, coping emotion-focused, coping adaptation/coping, adaptive (positive) and maladaptive (negative) factors, changed body image was prominent. All participants reported hair loss as having been detrimental to their coping. Being pitted by others was also stated as a hindering factor (Doumit et al, 2010)

In Palestine, there is a limited data regarding death anxiety and coping mechanism among patients with breast cancer.

Therefore, the purpose of this study is to assess death anxiety and coping mechanism among female patients with breast cancer attending Beit-Jala Governmental hospital in Bethlehem.

1.3 Justification of the Study

- This study is selected because there is a lack of studies that assess death anxiety and coping mechanism among women with breast cancer in Palestine.
- This study may help policy makers and managers in the Palestinian Ministry of Health and counseling centers in planning the services and interventions for this group in the Palestinian community.

1.4 Aim of the study

The aim of the study is to assess death anxiety and coping mechanism among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.

1.5 Specific Objectives of the study

- To assess the relationship between coping mechanisms and death anxiety among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.
- To assess the relationship between death anxiety and socio-demographic variables; such as age, social economic status, education level, and place of residence, and marital status among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.
- To assess the relationship between death anxiety and medical history such as duration of the diseases, type of treatment (chemotherapy, surgery, hormonal therapy or radiation), complication of treatment among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.
- To assess the relationship between death anxiety and psychological or mental history (type of problem, help seeking behavior and treatment) among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.
- To assess the relationship between coping mechanisms and socio-demographic variables; such as age, social economic status, education level, and place of residence, and marital status among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.
- To assess the relationship between coping mechanisms and medical history such as duration of the diseases, type of treatment (chemotherapy, surgery, hormonal therapy or radiation), complication of treatment among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.

- To assess the relationship between coping mechanisms and psychological or mental history (type of problem, help seeking behavior and treatment) among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.

1.6 Research questions:

- What is the prevalence of death anxiety and coping mechanisms among women with breast cancer attending Beit-Jala Governmental hospital?
- Is there a relationship between coping mechanisms and death anxiety among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?
- Is there a relationship between death anxiety and socio-demographic variables; such as age, social economic status, education level, and place of residence, and marital status among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?
- Is there a relationship between death anxiety and medical history such as duration of the diseases, type of treatment (chemotherapy, surgery, hormonal therapy or radiation), complication of treatment among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?.
- Is there a relationship between death anxiety and psychological or mental history (type of problem, help seeking behavior and treatment) among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?
- Is there a relationship between coping mechanisms and socio-demographic variables; such as age, social economic status, education level, and place of residence, and marital status among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?
- Is there a relationship between coping mechanisms and medical history such as duration of the diseases, type of treatment (chemotherapy, surgery, hormonal therapy or radiation),

complication of treatment among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem.

- Is there a relationship between coping mechanisms and psychological or mental history (type of problem, help seeking behavior and treatment) among women with breast cancer attending Beit-Jala Governmental hospitals in Bethlehem?

1.7 Limitation of the study:

Despite of the feasibility of this study, each study has limitations, so the following limitations may be anticipated:-

- The generalization of the findings of this study might be limited as this study only included Beit-Jala Governmental Hospital in Bethlehem area.
- Data collections depended on self-reported questionnaire so the participants might reluctant to report their anxiety.
- This study included women with breast cancer and excluded women with other types of cancer, so generalization of the findings might be limited.

The next chapter discussed the literature review of the current study.

1.8. Summary

- The literature reveals a lack of studies in Palestine that assess death anxiety and coping mechanism among women with breast cancer.

- The aim of the study is to assess the death anxiety and coping mechanism among breast cancer women in Beit-JalaGovernmentalHospital which is the most important center for treating cancer in Palestine.

- The chapter also presented the problem statement, the study objective, research questions and limitations.

Chapter Two
Literature review

Chapter Two

2.1. Introduction

The presence of breasts is one of the main aspects for distinguishing mammals from other living creatures. With a support system of interlobular stroma and fibroadipose tissue, the female breast has 6-10 duct systems, which originate at the nipples. Similar to a tree branching into finer and finer branches, the ducts in the mature, lactating breast end in clusters of acini (Ellberg, 2014). Cancer is a term used for diseases in which abnormal cells divide without control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems (American Cancer Society, 2013).Cancer is not just one disease but many diseases and there are more than 100 different types of cancer. Most cancers are named for the organ or type of cell in which they start - for example, cancer that begins in the colon is called colon cancer; cancer that begins in melanocytes of the skin is called melanoma (National Cancer institute, 2014).

Breast cancer was the form of cancer that most often described in ancient documents which causes death anxiety. The oldest description of cancer was discovered in Egypt and dates back to approximately 1600 BC. The Edwin Smith Papyrus describes 8 cases of tumors or ulcers of the breast that were treated by cauterization. The writing says about the disease, "There is no treatment."(American Cancer Society. 2002). For centuries, physicians described similar cases in their practices, with the same conclusion. Ancient medicine, from the time of the Greeks through the 17th century, was based on humoralism, and thus believed that breast cancer was generally caused by imbalances in the fundamental fluids that controlled the body, especially an excess of black bile. Alternatively, patients often saw it as divine punishment. In the 18th century, a wide variety of medical explanations were proposed, including a lack of sexual activity, too much sexual activity, and various forms of lymphatic blockages, either internal or due to restrictive clothing. In the 19th century, the Scottish surgeon John Rodman said that fear of

cancer caused cancer, and that this anxiety, learned by example from the mother, accounted for breast cancer's tendency to run in families (Abramowitz, 2007).

Although breast cancer was known in ancient times, it was uncommon until the 19th century, when improvements in sanitation and control of deadly infectious diseases resulted in dramatic increases in lifespan. Previously, most women had died too young to develop breast cancer. Additionally, early and frequent childbearing and breastfeeding probably reduced the rate of breast cancer development in those women who did survive to middle age (Olson .2002).

Mastectomy for breast cancer was performed at least as early as AD 548, when it was proposed by the court physician Aetios of Amida to Theodora. It was not until doctors achieved greater understanding of the circulatory system in the 17th century that they could link breast cancer's spread to the lymph nodes in the armpit. The French surgeon Jean Louis Petit (1674–1750) and later the Scottish surgeon Benjamin Bell (1749–1806) were the first to remove the lymph nodes, breast tissue, and underlying chest muscle. Radical mastectomies remained the standard of care in America until the 1970s, but in Europe, breast-sparing procedures, often-followed radiation therapy, were generally adopted in the 1950s. Breast cancer staging systems were developed in the 1920s and 1930s (Olson .2002).

During the 1970s, a new understanding of metastasis led to perceiving cancer as a systemic illness as well as a localized one, and more sparing procedures were developed that proved equally effective. Modern chemotherapy developed after World War II (Olson, 2002). The French surgeon Bernard Peyrilhe (1737–1804) realized the first experimental transmission of cancer by injecting extracts of breast cancer into an animal (Lacroix, 2011). Breast cancer is a malignant tumor that starts in the cells of the breast. A malignant tumor is a group of cancer cells that can grow into (invade) surrounding tissues or spread (metastasize) to distant areas of the body. The disease occurs almost entirely in women, but men can get it (American Cancer Society, 2013).

This chapter discussed that following:

- **Section one: Breast cancer**
    - Brest cancer prevalence
    - Breast cancer stages and types
    - Risk factors of breast cancer
    - Treatment of breast cancer
- **Section two: Death anxiety**
    - Introduction
    - Causes of death anxiety
    - Theories that explain death anxiety
- **Section three: coping mechanism**
    - Introduction
- Coping mechanisms of women with breast cancer
- **Section four:**
    - Studies that assessed death anxiety and coping mechanism among women with breast cancer.

2.1 Section one: Breast cancer

2.1.1 Brest cancer prevalence

Cancer is a group of diseases that cause cells in the body to change and grow out of control. Most types of cancer cells eventually form a lump or mass called a tumor, and are named after the part of the body where the tumor originates. The vast majority of breast cancers begin in the parts of the breast tissue that are made up of glands for milk production, called lobules, and ducts that connect the lobules to the nipple. The remainder of the breast is made up of fatty, connective, and lymphatic tissues (American Cancer Society, 2016).

Breast cancer is the most common cancer in women both in the developed and less developed world. It is estimated that worldwide over 508 000 women died in 2011 due to breast cancer (WHO 2013). Although breast cancer is thought to be a disease of the developed world, almost 50% of breast cancer cases and 58% of deaths occur in less developed countries (WHO 2008).

Worldwide, breast cancer is the most common invasive cancer in women. Breast cancer comprises 22.9% of invasive cancers in women and 16% of all female cancers. In 2012, it comprised 25.2% of cancers diagnosed in women, making it the most common female cancer (WHO 2009)

In addition, in 2008, breast cancer caused 458,503 deaths worldwide (13.7% of cancer deaths in women and 6.0% of all cancer deaths for men and women together). Lung cancer, the second most common cause of cancer-related death in women, caused 12.8% of cancer deaths in women (18.2% of all cancer deaths for men and women together) (WHO 2014).

Also, in 2012, 1.7 million women across the world were diagnosed with BC. The incidence increased by more than 20%, while mortality has increased by 14%. BC is a major cause of morbidity and cancer related mortality among women (522 000 deaths in 2012) and the most frequently diagnosed cancer among women in 140 of 184 countries worldwide (WHO, 2013). For example, in United States of America in the year (2013), it was estimated that 232,000 new

cases of invasive breast cancer and almost 65,000 new cases of Carcinoma in situ (early stage cancer) would be diagnosed for women with breast cancer and an additional 2,240 new cases of invasive breast cancer was expected to be diagnosed for men (American Cancer Association, 2014). In Iran, breast cancer is amongst the five most common cancers and ranks first among cancers diagnosed in women. It affects Iranian women at least one decade younger than women in developed countries, with the mean age ranging from 47.1 to 48.8 years. Although, the incidence of breast cancer in Iran is still relatively low (about 23 per 100,000), the number of patients with newly diagnosed breast cancer is increasing (Khazaee-Pool, 2014).

Incidence rates are highest in more developed regions, but mortality is relatively much higher in less developed countries due to a lack of early detection and access to treatment facilities. For example in Western Europe, breast cancer incidence has reached more than 90 new cases per 100 000 women annually, compared with 30 per 100 000 in eastern Africa (Sarahneh 2014).

In Palestine, breast cancer is the most common cancer among Palestinian women. In 2012, breast cancer represented (22%) of cancers among women, (57.3%) affected age 15-60 years old (P.H.I.C. 2011) representing 16.2 % from all reported cancer cases, particularly among the age group (20-59 years). In addition, breast cancer is the first causes of deaths among women representing 10% of all cancer death (MOH, 2013) and it is the second rank of disease that leads to death. In 2011, for example, (12.4%) died from cancer and the incidence rate was 7.5 per 100,000 populations in 2005. Also, its mortality rates has increased from (10.3%) in 2007 to (10.8%) in 2010, (12.4%) in 2011 to (13.6%) in 2012 and 13.3% in 2013(MOH, 2013).

2.1.2 Breast cancer stages and types

Most cancers are staged based on the size and spread of tumors. Breast cancer stage describes the extent of the cancer within body. Knowing the stage of breast cancer helps plan treatment. Breast cancer stage is the most important factor for prognosis. In general, the earlier the stage, the better the prognosis will be.

The stages of breast cancer range from 0 to IV (0 to 4) as following:

Stage 0 is a pre-cancerous or marker condition, either ductal carcinoma in situ (DCIS) or lobular carcinoma in situ (LCIS).

Stages 1–3 are within the breast or regional lymph nodes.

Stage 4 is 'metastatic' cancer that has a less favorable prognosis (Williams.1990).

Breast cancer can be classified into different types based on the way the cancer cells look under the microscope. Most breast cancers are carcinomas, a type of cancer that starts in the cells (epithelial cells) that line organs and tissues like the breast. Also, breast cancers are often a type of carcinoma called adenocarcinoma, which is carcinoma that starts in glandular tissue. Other types of cancers can occur in the breast too, such as sarcomas, which start in the cells of muscle, fat, or connective tissue (Alred, 2010).

In general, breast cancer includes the following types:

Ductual carcinoma in situ

Ductal carcinoma in situ (DCIS); also known as (intraductal carcinoma) is considered non-invasive or pre-invasive breast cancer. DCIS means that cells that lined the ducts have changed to look like cancer cells. The difference between DCIS and invasive cancer is that the cells have not spread (invaded) through the walls of the ducts into the surrounding breast tissue. Because it has not invaded, DCIS cannot spread (metastasize) outside the breast. DCIS is considered a pre-cancer because some cases can go on to become invasive cancers. Right now, though, there is no good way to know for certain which cases will go on to become invasive cancers and which ones won't (Ellberg, 2014).

Invasive (or infiltrating) ductal carcinoma

This is the most common type of breast cancer. Invasive (or infiltrating) ductal carcinoma (IDC) starts in a milk duct of the breast, breaks through the wall of the duct, and grows into the fatty tissue of the breast. At this point, it may be able to spread (metastasize) to other parts of the body through the lymphatic system and bloodstream. About 8 of 10 invasive breast cancers are infiltrating ductal carcinomas (NICE, 2009).

Invasive (or infiltrating) lobular carcinoma

Invasive lobular carcinoma (ILC) starts in the milk-producing glands (lobules). Like IDC, it can spread (metastasize) to other parts of the body. About 1 in 10 invasive breast cancers is an ILC. Invasive lobular carcinoma may be harder to detect by a mammogram than invasive ductal carcinoma (Ellberg, 2014).

2.1.3 Risk factors of breast cancer:

A review of potential risk factors associated with BC is important in understanding various risk reduction strategies to prevent breast cancer. Risk factors for the development of BC can be grouped into categories, including personal characteristic; familial \ genetic factors; reproductive history; environmental factors; and other life style factors (Bevers et al., 2010).

1- **Person characteristics:**

Being a woman is the main risk factor for developing breast cancer. Men can develop breast cancer, but this disease is about 100 times more common among women than men. This is probably because men have less of the female hormones estrogen and progesterone, which can promote breast cancer cell growth (Pherson et al., 2000). Age is believed to be a strong risk factor after gender for developing breast cancer. The incidence and death rates of breast cancer generally increase with age, ranging between 45-50 years. Two thirds of breast cancer cases

occur after the age of 55 (Tirona et al., 2010). In Arab world, the average age at diagnosis was 48 years, which is considered as young age (Najjar and Easson, 2010). Breast cancer is strongly related to age with only 5% of all breast cancers occurring in women under 40 years old. There were more than 41,000 newly diagnosed cases of breast cancer registered in England in 2011; around 80% of these cases were in women age 50 or older (WHO, 2014).

2- Familial history \ Genetic risk factors

The risk of breast cancer is two or more greater if ,women has a first degree relative (mother, sister, daughter, father , or brother) who developed the disease, and the risk increased about 3 fold if two or more relatives are affected (ACS, 2012). A family history of ovarian cancer is also associated with increased risk factors of breast cancer. Approximately 15% of all breast cancer cases can be attributed to familial and genetic influence (Freedman el al., 2013). A woman with cancer in one breast has a 3- to 4-fold increased risk of developing a new cancer in the other breast or in another part of the same breast. This is different from a recurrence (return) of the first cancer (Tirona et al., 2010). Also, women diagnosed with benign breast disease slightly have increased risk factors of breast cancer. According to ACS, benign breast conditions can be classified into 3 general groups depending on how they affect the risk. They are non-proliferative lesions: these conditions are not associated with increased risk of BC; proliferative lesions without atypia: these conditions are not associated with twofold increase in risk (Tirona et al., 2010); and III-proliferative lesion with atypia: these conditions are associated with fivefold increase in risk (Tirona et al., 2010).

3-Reproductive \ hormonal factors:

The effect of these reproductive factors differed according to menopausal status. Risk of BC increased in developed countries compared with women in less developed due to fewer children on average and a limited duration of breastfeeding (Clavel- Chapelon et al., 1995). Also, early age at menarche (before the age of 12) has been associated with an increased risk of breast cancer. Age at menarche was similar in both pre and postmenopausal this effect due to prolonged exposure of breast epithelium to estrogen produced by regular ovulation cycle (Meshram et

al.,2002).This risk decreasing with increasing age of menarche (after 12 years, has been decreased risk by 7% for premenopausal women, and 3% for postmenopausal women) (Clavel-Chapelon , 2002).

Further, early age at first full- term pregnancy (FFTP) before 20 years of age had 50% reduced risk of BC (Kobayashi et al., 2012). On other hands, late age at FFTP (above age 30) has been associated with an increased risk of breast cancer. For example, increasing age of FFTP increased risk by 4% per year for breast cancer diagnosis in premenopausal women and by 2% per years for breast cancer diagnosis in postmenopausal women (Clavel- Chapelon, 2002).

In addition, late menopause after the age of 55 years has been associated with slightly higher risk of breast cancer. For every year delayed, there is 3% increase in the risk of developing breast cancer (Willams.1990). Higher levels of all endogenous sex hormone have been strongly associated with increased risk of breast cancer in postmenopausal women (Key et al., 2002). The line between these hormone and premenopausal breast cancer risk is not clear (Kaaks et al., 2005).

Finally, exogenous hormones may cause breast cancer. For example,these hormones may include oral contraceptives as women using oral contraceptives (birth control pills) have a slightly greater risk of breast cancer than women who have never used them. Dose and type of hormone within the contraceptives, duration of use and age at first use had little additional effect on breast cancer risk (Parkin, 2011). Moreover, hormone replacement therapy (HRT) use was inversely associated with breast cancer risk, and longer duration of HRT use did not result in significant change in risk, and the inverse effect of HRT was observed in women who use estrogen therapy (Archer et al., 2000). In addition, women with dense breasts on mammogram have a risk of breast cancer that is 1.2 to 2 times that of women with average breast density. Unfortunately, dense breast tissue can also make mammograms less accurate. A number of

factors can affect breast density, such as age, menopausal status, certain medications (including menopausal hormone therapy), pregnancy, and genetics (Pherson et al., 2000).

4-Environment factors:

Dose- response relationship depends on age at exposure. Women who receive radiation therapy to the chest area to treat disease (such as Hodgkin disease or non- Hodgkin lymphodma) have increased risk for breast cancer .The risk is high between the ages of 10 and 20 years old while the breast tissue is still developing and decreases after the age of 30 with little or no risk before age 10 or after the age 40 (Kelsey, Berkowitz, 1988).

Chemical exposures come such as work place, residence of area, food, product we use (for example, paints, shampoos, cleaning products).Frequent exposure to harmful environmental toxic chemicals and ionizing radiation at work place such as framer, radiology technicians, and chemists may cause breast cancer. Timing of exposure is more harmful, so exposure to toxic environment during period of breast development is associated with increased with increased BC risk (Health and environment (Alliance, 2008).

5 -Lifestyle factors

Women who have had no children or who had their first child after age 30 have a slightly higher breast cancer risk overall. Having many pregnancies and becoming pregnant at a young age reduce breast cancer risk overall. Still, the effect of pregnancy is different for different types of breast cancer. For a certain type of breast cancer known as triple-negative, pregnancy seems to increase risk (ACS, 2012).Also, Women with history of breast feed decreased their risk compared with women who haven't history of breastfeed (Lodha et al., 2011). Long duration of breast feeding decrease the risk by 4.3% for every year, and decrease of 7% for each birth (Clavel- Chapelon, 2002).

The use of alcohol is clearly linked to an increased risk of developing breast cancer. The risk increases with the amount of alcohol consumed. Compared with non-drinkers, women who

consume 1 alcoholic drink a day have a very small increase in risk. Those who have 2 to 5 drinks daily have about 1½ times the risk of women who don't drink alcohol. Excessive alcohol consumption is also known to increase the risk of developing several other types of cancer (Pherson et al., 2000). Also, smoking 10 or more cigarettes per day showed 70% increased the risk of breast cancer (Archer et al., 2000). It is found that there is a 35% increase in the risk of breast cancer among women who had smoked for 50 years or more compared with all lifetime non – smokers. Also, women who have exposure to passive smoking had 32% excess risk of breast cancer than those who had never been exposed to passive smoking (Luo et al.,2011).

Finally, high intakes of fat and meat was associated with an increased risk of breast cancer, approximately 19 % for fat , and 17% for meat , and high intake of fruit is associated with a small decrease in breast cancer risk (Aune et al.,2012).

2.1.4 Treatment of breast cancer

A number of modalities are available and their use has changed dramatically in the past 20 years. Surgery is still the mainstay of curative therapy (but now often used with adjuvant treatments) in addition to chemotherapy and radiation therapy (Williams.1990).

Surgery is the major treatment modality used for breast cancer treatment. It is conducted either as modified radical mastectomy, partial mastectomy or breast-conserving surgery. Breast-conserving surgery is the primary choice for patients with early stage breast cancer (Veronesi et al., 2002). This is coupled with removal of lymph nodes from the axilla, which is the primary location of metastasis. Currently, the sentinel node technique is most often used, which is based on the investigation into which lymph node/nodes drainage from the breast occurs. A radioactive isotope is injected prior to the operation, followed by a blue dye injection at the same spot at the time of the operation. The colored assimilation of isotopes indicates the draining node. The lymph node is removed and sent for immediate his to-pathological analysis, conducted by a pathologist. If metastases are present, axillary dissection is performed; otherwise, the axilla is spared from further dissection (Williams.1990).

To eradicate possible residual microscopic disease at and around the localization of the tumor, postoperative radiotherapy is administered. Postoperative radiotherapy of the breast and thoracic wall is to be administered when the risk of local recurrence within the next 10 years is greater than 20%. Therefore, radiotherapy is recommended for all patients with breast cancer who undergo breast-conserving therapy, for all mastectomized patients with breast cancer, and in certain subtypes of tumors larger than 20 mm(Mueke et al., 2013) It has been shown that postoperative radiotherapy administered after breast-conserving therapy reduced the relative risk of recurrence up to 50%(Collaborative et al., 2011). Although not proven, there are indications that radiotherapy should perhaps be considered in patients with tumors smaller than 20 mm but with one to three metastatic lymph nodes present (Karlsson et al.,2007) Loco-regional radiotherapy is recommended for all patients with metastases in four or more lymph nodes. Radiotherapy induces side effects, both acute, such as erythema of the skin and pneumonitis, and late side effects, including neuropathy of the affected brachial plexus, lymphedema of the upper extremity and increased mortality from cardiac disease. However, it seems that the improved precision of the modern techniques have reduced the risk of developing these side effects (Clarke et al., 2005).

To systemically remove potential micro-metastases, adjuvant systemic therapy is recommended. Systemic therapy includes chemotherapy, endocrine therapy and anti-HER2 therapy, either individually or in various combinations. The decision to administer systemic treatment is based on a collection of risk factors and/or the presence or absence of predictive biomarkers (Chris and Williams.1986).

Chemotherapy is unselective and targets all dividing cells or proliferating cells.The dugs travel through the bloodstream to reach cancer cells in most parts of body. Chemo is given in cycles, with each period of treatment followed by recovery period. Treatment usually lasts for several months (Alred, 2010).

Breast cancer can be divided into subtypes based on presence of the estrogen receptor (ER); 70% to 80% of all breast cancers are ER positive and depend on estrogen for survival to some extent. Tamoxifen can be utilized for both pre-and postmenopausal BC patients. For pre-menopausal

breast cancer patients, oophorectomy, radiation or suppression through gonadotropin-releasing hormone analogues is an option. Tamoxifen, and ovarian suppression are all used in the adjuvant setting; fulvestrant, in contrast, is used in the metastatic setting. A combination of chemotherapy followed by tamoxifen for approximately five years decreases survival by half for ER positive, low-risk tumors(Williams.1990).

2.2. Section two: Death anxiety

2.2.1 Introductions

Anxiety is one of the most dominant psychological challenges associated with cancer. In another word, anxiety is just a normal reaction for cancer patients. Patients' anxiety increases once they discover that they suffer from breast cancer, they may also become more anxious as cancer spreads or treatment becomes more intense. Consequently, the level of anxiety experienced by one person with cancer may differ from the anxiety experienced by another. Many anxiety cases associated with cancer were treated from this sickness, but others were not. Therefore, psychologists need to give support and hope to breast cancer's patients; they need to help them to cope with their feeling and pain (Rissanen, 2013).

Moreover, cancer's patients may experience anxiety at different situation as while undergoing a screening test, waiting for the results, receiving a diagnosis, undergoing treatment, or anticipating a recurrence of their cancer. The anxiety associated with cancer may increase feelings of pain, interfere their ability to sleep, causes nausea and vomiting, and interfere with their quality of life. In addition, the severe anxiety may even shorten the patient's life (Rissanen, 2013).

For most patients, cancer requires facing uncertainty, worries about cancer treatment effects, fear of cancer progression and death, guilt, and spiritual questioning. A study by Cancerfonden S, (2013) indicated that 77% of patients within 2 years of treatment recalled experiencing anxiety. On the other hand, anxiety after cancer diagnosis is not necessarily to be normal, understanding the nature of the anxiety in cancer patient populations is important because anxiety is troublesome the psychological wellbeing of the patients (Bergman et al.,2013, Claus et al.,1991).

Also, anxiety in patients with breast cancer is associated with death anxiety, fear of death as a result of their symptoms. According to Pollak, this type of anxiety is lower for people who have a positive sense of well-being and sense of meaning in life. In addition, religious beliefs influence their level of anxiety. Although breast cancer treatments have been modified to include the less radical and invasive treatment options, patients still report distress in relation to both the breast cancer diagnosis and treatments (Rissanen, 2013).

According to the Diagnostic and Statistical Manual for Mental Disorders, IV (DSM-IV), life threatening events, such as cancer diagnosis has been recognized as a trigger for post-traumatic stress disorder (PTSD), a phobic and anxious reaction following a traumatic experience. A unique feature of PTSD is that specific triggers are linked to the phobic and anxious reactions. Unlike other PTSD triggers, cancer diagnosis is not a short-lived event. Instead, cancer experience consists of several events over a long period of time beginning with the diagnosis, followed by cancer treatments, sometimes months and years following diagnosis, which may act as potential triggers for trauma-related stressors (Rissanen, 2013).

Diagnosis may act as a trigger because of the uncertainty surrounding the breast cancer diagnosis, and the distress is often related to worries about the future and what it may hold (Foulkes, 2008, Miki and Swensen 1994). The state of uncertainty per se may be more distressing than the actual cancer diagnosis (Barnes and Antoniou, 2012). Waiting for biopsy results and the diagnosis can be distressing, and about half of the patients with cancer overestimate their personal risk for a negative outcome, which consequently elevated their distress levels .The waiting period is often experienced as a type of limbo with panic attacks, insomnia and an inability to concentrate on work and reluctance to make plans for the future (Moynahan et al., 2010). It is not only the time close to diagnosis, which might be experienced as stressful as mentioned previously, but cancer diagnosis opposes a future threat by worries about the diagnosis and consequent treatment options (Huen et al., 2010). The cancer treatment trajectory can be a long and burdensome ordeal, which might last from some months to several years. Cancer treatments are highly invasive with negative consequences, such as hair loss, vomiting, nausea and fatigue, which affect the individual not only physically but also mentally in addition of fear of death (Rissanen, 2013).

For the purpose of this thesis, this section discussed in depth death anxiety, theories that explain death anxiety and studies that assessed death anxiety.

Concept of anxiety and death anxiety:

As mentioned previously, anxiety can be defined as an unpleasant subjective experience associated with the perception of real threat; therefore, it is a common symptom in connection with cancer (DSM-IV, 2013). It can be described as an emotional state characterized by feelings of unpleasant expectation and a sense of imminent danger (Aass, et al., 1997).Kazdin (2002) defined anxiety as an emotion that characterized by feelings of tension, worry, and stress as well as physiological changes such as increased blood pressure (Baqutayan, 2012).

According to Stark, et al., anxiety has both physiological and psychological components. Autonomic hyper-arousal with acceleration of heart rate and respiration, tremor, sweating, muscle tension, and gastrointestinal changes are common physiological experiences. Apprehension, feeling powerless, and fearing loss of control are psychological aspects (Baqutayan, 2012).Death anxiety/fear is a common and unpleasant human experience. During the last half of the 20th century, death is a considered powerful human concern that has been conceptualized as a powerful motivating force behind much creative expression and philosophic inquiry throughout the ages (Paul, 2007). Also, "Death anxiety" is a term used to conceptualize the apprehension generated by death awareness (Abdel-Khalek, 2005). Humans are unique in that they must learn to live and adapt to the consciousness of their own finiteness (Becker, 1973). Thus, a major task for cultural systems is to provide a symbolic structure that addresses (Abdel-Khalek, 2005).

Further, death anxiety refers to the fear and apprehension of one's own death. It is the neurotic fear of the self which in intense state parallels feelings of helplessness and depression. Man's awareness of his own death produces anxiety that can only be dealt with by recognizing one's individuality. According to form and the existential analysts, man's awareness of death gives him the responsibility for finding meaning in life. Further, death is a biological, personal, and

socio-cultural and process of aging and the ending called death (Sharma, 2014). Kublor (1969) had found that in the majority of persons, almost regardless of age, the personal reactions to imminent death pass through five phases: denial, bargaining, depression and acceptance (although not every individual achieves the final phase). Dying and death laid other major aspects of human life are also very important cultural and social phenomena (Kublor, 1969).

Carpenito-Moyet (2008) defined death anxiety as "the state in which an individual experiences apprehension, worry, or fear related to death and dying" (p. 39).Also death anxiety is defined as "vague uneasy feeling of discomfort or dread generated by perceptions of a real or imagined threat to one's existence" (Moorhead et al., 2008, p. 761). In addition, "death anxiety" is a term used to conceptualize the apprehension generated by death awareness (Abdel-Khalek, 2005). It refers not to the anxiety which is felt in the case of an urgent threat towards a person's life; but it refers to the anxiety experienced in "daily life". Yalom (2000) stated that, "The fear of death exists always and everywhere and it is so great that, most of the life energy is spent in the moment of death (Yalom, 2000).

While the terms are mostly used synonymously, the concepts "death anxiety" and "fear of death" have also been distinguished. Death anxiety refers to a dread of complete annihilation, whereas fear of death is a more concrete belief that death is frightening (Momeyer, 1988). Cicirelli (2006) identified that dread of annihilation is related more broadly to a mental or spiritual awareness of the loss of existence, whereas fear of death is related to the physical awareness of loss of existence. Biological approach has shown that anxiety and fear are separate constructs that arise from separate but proximal and related anatomical structures. Anxiety has been more closely associated with septo-hippocampal system activation with pathways that extend to higher cortical regions (Gray, 1985). Also, fear relates more specifically to the activation of the amygdaloidal complex, a system characterized by a survival-oriented, automatic rapid reaction (Larson et al., 2006). While there are anatomical distinctions in origin between fear and anxiety systems, how these phenomena are experienced in the human, particularly in the management of major ongoing survival-oriented threats, the two systems may be activated simultaneously, but

the fast survival-oriented threat system is instantly achieved at the preconscious level (LeDoux, 2008).

There are different types of death anxiety as the following:

1. Predatory death anxiety

Predatory death anxiety arises from the fear of being harmed. It is the most basic and oldest form of death anxiety. In humans, this form of death anxiety is evoked by a variety of danger situations that put the recipient at risk or threatens his or her survival. These traumas may be psychological and/or physical. Predatory death anxieties mobilize an individual's adaptive resources and lead to fight or flight, active efforts to combat the danger or attempts to escape the threatening situation (Castano, 2011).

2. Predation or predator death anxiety

Predation or predator death anxiety is a form of death anxiety that arises from an individual physically and/or mentally harming another. This form of death anxiety is often accompanied by unconscious guilt. This guilt, in turn, motivates and encourages a variety of self made decisions and actions by the perpetrator of harm to others (McDonald, 1996).

3. Existential death anxiety

Existential death anxiety is the basic knowledge and awareness that natural life must end. It is said that existential death anxiety directly correlates to language; that is, language has created the basis for this type of death anxiety through communicative and behavioral changes. Existential death anxiety is known to be the most powerful form (Sterling, 1985).There is an awareness of the distinction between self and others, a full sense of personal identity, and the ability to anticipate the future. Humans defend against this type of death anxiety through denial, which is effected through a wide range of mental mechanisms and physical actions many of which also go

unrecognized. While limited use of denial tends to be adaptive, its use is usually excessive and proves to be costly emotionally.

Awareness of human mortality arose through some 150,000 years ago. In that extremely short span of evolutionary time, humans have fashioned but a single basic mechanism with which they deal with the existential death anxieties this awareness has evoked—denial in its many forms. Thus denial is basic to such diverse actions as breaking rules and violating frames and boundaries, manic celebrations, violence directed against others, attempts to gain extraordinary wealth and/or power—and more. These pursuits often are activated by a death-related trauma and while they may lead to constructive actions, more often than not, they lead to actions that are, in the short and long run, damaging to self and others (Simin, 1994).

2.2.2 Causes of death anxiety:

There are several factors that drive to worry about death such as the fear of physical suffering and pain when dying, the fear of humiliation as a result of physical pain, the fear of stopping the pursuit of goals because life is measured by human achievements, the fear of the death impact on the family especially young children and the fear of divine punishment (Charles, 1992). Also, Surman (1986) attributable cause of death anxiety to many conditions, including disease, accidents, natural disasters and separation.

Other causes of death anxiety are: the fear of the end of life, the fear of the fate of the body after death, the fear of moving to another life, the fear of death after a long illness, fear of the timing of death at any moment, the fear that grieves neighborhoods to die, the fear of punishment on the mundane workers, the fear of the paradox of parents and loved ones, not knowing the fate after death, the fear of the darkness of the grave and the torment and the fear of what accompanies the spirit out of the body from severe pain(Qajlea,2013).

Also, Feifel (1977) indicated different reasons why death is feared. such as concerns about the loss of self and the unknown beyond death, fear of pain and suffering, realization of lost opportunity for atonement and salvation, and concerns about the surviving family members. Furthermore, in growing up human being have been imbued with the importance of achievement

and self-worth; but in growing old, human being realize our own impotence in the face of death which threatens to terminate all that we hold dear in life (Wass&Neimeyer, 1988). Another source of death fear is not so much the awareness of our finitude as our failure to lead a meaningful life (Erikson, 1963; Butler, 1975).

Death anxiety symptoms may include physical symptoms such as excessive stress, bad dreams, rapid pulse at rest, lost control of the self, sweating, nausea or stomach pain, numb hands or feet, rapid heart and dizziness. Psychological symptoms may include panic attack, depression, excessive emotion, inability to distinguish between things, mixing thinking, aggression, easy to anticipate the negative life things, irritability, anger, nervousness, isolation, and withdrawal and waiting for the moment of death .Also, they may have respiratory symptoms such as shortness of breath, rupture of the membrane oral slave, swallowing problems, digestive problems, constipation and vomiting, and general symptoms such as general fatigue, dehydration and loss of appetite(Qajlea,2013).

2.2.3 Theories that explain death anxiety

Sigmund Freud hypothesized that people express a fear of death, called thanatophobia. He saw this as a disguise for a deeper source of concern. It was not actually death that people feared, because in Freud's view nobody believes in his or her own death. The unconscious does not deal with the passage of time or with negations, which does not calculate amount of time left in one's life. Furthermore, that which one does fear cannot be death itself, because one has never died. People, who express death-related fears actually are trying to deal with unresolved childhood conflicts that they cannot come to terms with or express emotion towards. The name Thanatophobia is made from the Greek figure of death known as Thanatos (Langs R, 2004).

Erik Erikson (1987) formulated the psychosocial theory that explained that people progress through a series of crises, as they grow older. The theory also envelops the concept that once an individual reaches the latest stages of life, they reach the level he titled as "ego integrity". Ego Integrity is when one comes to terms with his life and accepts it. It was also suggested that when

a person reaches the stage of late adulthood he becomes involved in a thorough overview of his life to date. When one can find meaning or purpose in his life, he has reached the integrity stage. In opposition, when an individual views his life as a series of failed and missed opportunities, then he does not reach the ego integrity stage. Elders who have attained this stage of ego integrity are believed to exhibit less of an influence from death anxiety (Erikson (1987).

Also, theory of Ernest Becker (1973) based on existential view which turned death anxiety theories towards a new dimension. It said that death anxiety is not only real, but also it is people's most profound source of concern. He explained the anxiety as so intense that it can generate fears and phobias of everyday life—fears of being alone or in a confined space. Based on the theory, many of people's daily behavior consist of attempts to deny death and to keep their anxiety under strict regulation. As an individual becomes more aware of the inevitability of death, they will instinctively try to suppress it out of fear. The method of suppression usually leads to mainstreaming towards cultural beliefs, leaning for external support rather than treading alone. This behavior may range from simply thinking about death to severe phobias and desperate actions (Becker (1973)

2.3. Section three: Coping Mechanism

2.3.1 Introduction

A diagnosis of breast cancer is a great shock. Women report that they fear breast cancer more than heart disease, even though they have a better chance of surviving breast cancer, and later dying of stroke or heart failure. Fear of this disease as well as the treatments for it, seem to be inherent in women all across the world (Pam, 2012) In order to adapt/cope, the patient ought to employ certain coping mechanisms. Individuals with terminal illness who utilize coping strategies have better quality of life compared to those who do not (Kearny, 2006).

Coping is the major determinant in the process from stressful events to adaptational outcomes such as psychological symptoms and somatic illness (Lazarus, 1993). Coping has two main functions: dealing with the problem that is causing the distress (problem-focused coping) and regulating stressful emotions (emotion-focused coping) (Folkman and Lazarus, 1986).

According to Johnson's stress-coping model, coping strategies are efforts directed toward managing or dealing with a stressor. Depending upon how effectively individuals cope with their stressors, they may experience either desired emotional states of acceptance, peace, and equanimity, or undesired emotional consequences such as depression, anxiety, and anger. Coping does not imply successbut efforts to resolve a stressful situation. Several factors influence the stress-coping response. Some factors are related to the stressor such as, intensity, scope, duration, number, and nature of concurrent stressors and predictability. Those related to the individual experiencing the stressor include level of personal control, feeling of competence, availability of social support, information and guidance, and access to resources (equipment and supplies). Others are age at the time of stress and cognitive appraisal (Elshtawawy, 2014)

Although death anxiety is common in breast cancer and worsen the disease course, coping style, and treatment outcomes, these psychiatric disorders are ignored and left untreated. Understanding these common psychiatric disorders and associated psychosocial factors can help to plan for treatment and may result in more treatment success (Elshtawawy, 2014).

Coping is a complex mental process by which a person deals with stress, solves problems, and makes decisions. It is an emotional, cognitive and behavioral response of a patient to an illness. Coping process involves at least two stages: confronting and managing with different aspects of illness or disability. Since every patient is a unique person, an emotional, cognitive and behavioral response can vary a lot and can occasionally be quite unpredictable in the same patient (Oncol, 2004).

Undoubtedly, cancer causes considerable psychological distress in patents, families, and often those health professionals who care for them. Some socially determined problems often augment distress in patients as well in addition to the unpleasant symptoms such as pain, nausea, fatigue and the distress, financial problems and problems concerning employment, housing, childcare, family worries and existential doubts (Oncol, 2004).

Although there is no clear scientific evidence for the association between coping strategies and the cancer initiation, the progression or the recurrence, the therapeutic window for the psychosocial intervention is still wide and shows an important effect on the quality of lives of many cancer patients (Sprah and Sostaric, 2004).

2.3.2. Coping mechanisms of women with breast cancer

Appropriate coping and adjustment is important in facing chronic diseases, especially during the treatment period such as chemotherapy. Coping strategies refer to the specific efforts, both behavioral and events (John and MacArthur, 1999). Payne, (1990) stated that chemotherapy recipients employed four predominant styles in coping with the treatment crisis - think positively/fighter, acceptance, fearfulness and hopelessness. Women, who underwent chemotherapy treatment and had "confrontive" element in coping style, were found to experience less psychological and physical symptoms, as compared to the patients who had "avoidant" element in the coping strategy used(Shapiro,1997). Another researcher pointed out that behavioral escape avoidance and cognitive escape-avoidance as the most important coping mechanisms which contribute to the psychological distress of the cancer patients receiving chemotherapy. Thus, the coping style with a fighting spirit has been observed to associate with a greater adherence to the chemotherapy regimen (Saniah&Zainal, 2010).

A diagnosis of breast cancer regardless of the stage can be stressful, impact multiple spheres of life, and disrupt physical status, emotional and spiritual well-being, and personal relationships for the patient and family. In order to adapt, the patient ought to employ certain coping mechanisms. Individuals with terminal illness who utilize coping strategies have better quality of life compared to those who do not. Coping is the major determinant in the process from stressful events to adaptational outcomes such as psychological symptoms and somatic illness. Coping has two main functions: dealing with the problem that is causing the distress (problem-focused coping) and regulating stressful emotions (emotion-focused coping (Lazarus, 1993).

According to Johnson's stress-coping model, coping strategies are efforts directed toward managing or dealing with a stressor. Depending upon how effectively individuals cope with their stressors, they may experience either desired emotional states of acceptance, peace, and equanimity, or undesired emotional consequences such as depression, anxiety, and anger (Mukwato et al., 2010).

There are two forms of coping strategies; Problem- focused and emotional-focused coping. Problem-focused coping attempts to find solutions to resolve the problem causing the stress. Problem -focused coping strategies functions to alter the stressor by direct action, used when conditions are appraised as amenable. Strategies include learning new skills or developing new standards of behavior. Emotion-focused coping involves managing the emotions that an individual feels when a stressful event occurs. Emotional focused coping mostly occurs when an appraisal has been made that nothing can be done to modify the stressor. Emotion-focused strategies include wishful thinking, minimization, or avoidance (Mukwato et al., 2010).

There are other coping mechanism forms such as self-distraction which is a pattern of behavior or a collection of actions where in all apparent self-inflicted harm or abuse toward oneself , and active coping refers which is the utilization of those psychological or behavioral coping efforts that are characterized by an attempt to use one's own resources to deal with a problem situation (Zeidner& Endler, 1996). Denial which is the denying the happening of an event or the reliability of information, and can lead to a feeling of aloofness and to the ignoring of possibly beneficial information, substance userefers to the overuse of, or dependence on which lead to the effects that are detrimental to the individual's physical and mental health, and the use of emotional supporthas which been described as behavior which assures the individual is loved and valued as a person regardless of achievement (Bloom, 1982). Further coping mechanisms include the use of instrumental support is which is the perception and actuality that one is cared for has assistance available from other people, and that one is part of a supportive social network. These supportive resources can be emotional, financial, assistance, advice, or companionship and intangible; Another coping mechanisms are behavioral disengagement which is fail to follow the rules or expectations for the activity, and engaging instead in behaviors outside of the norms orexpectations, venting which is the process of releasing stress or get rid of emotions, positive reframingmeans which is the try to reconsider things in a positive light, humoris which is the tendency of particular cognitive experiences to provoke laughter and provide amusement , and acceptance which is a person's assent to the reality of a situation, recognizing a process or condition (often a negative or uncomfortable situation) without attempting to change it or protest it. Religion is one of the coping mechanisms that deal with the inevitability of stressful situation

such as death in addition to self-blame which is a cognitive process in which an individual attributes the occurrence of a stressful event to oneself. (Carver, 2007)

Several factors influence the stress-coping response. Some factors are related to the stressor such as, intensity, scope, duration, number, and nature of concurrent stressors and predictability. Those related to the individual experiencing the stressor include level of personal control, feeling of competence, availability of social support, information and guidance, and access to resources (equipment and supplies). Others are age at the time of stress and cognitive appraisal (Fredette, 1995).

2.4. Section four: Studies that assess the death anxiety among patients with breast and other cancers:

Few studies were conducted to assess death anxiety among women with breast cancer. For example; a qualitative study was conducted by Vilhauer (2008) including 14 Caucasian women with metastatic breast cancer who were all involved in online support groups. The mean age of the women was 51.6 years. The study aimed to assess the experiences of women diagnosed with metastatic breast cancer. A 30-90 minute interview was done by phone, using open-ended questions to encourage the patients to talk about what they felt. The result showed that 71% of patients reported having fear of death. The women's fear came from the stress of worrying about dying, the fear of the disease progression, the loss of their future, and practical concerns such as fear of being dependent, and not able to do normal daily activity.

Also, a descriptive study was conducted by Muhbesal (2010) to assess the fear of death among patients with breast cancer. 100 patients with breast cancer and those who were under treatment were selected purposely to find out the various kinds of fears experienced by them and its relation to certain variables (i. e .age, marital status, and level of education). The results showed that all the sample participants (100) experienced the fear of operation and the fear of the consequences of the disease all the time (always). Also, (94) experienced the fear of inability to pay expenses (cost of the treatment and the operation) (always). On other hand, the fear of losing

family support, in effective treatment, inadequate nursing care and danger of their marriage as well have come at the last of types of fears. In addition, the findings showed that death anxiety among patients with breast cancer was 43% (always), 43% (sometimes) and 14% never (Muhbesal, 2010).

Moreover, a study was conducted by Susan (2009) to assess the experience of 45 women with breast cancer in USA, and to analyze cultural attitudes and family reactions to breast cancer and the usage and penetration of early detection measures and existing services. The results showed that women associated cancer with the fear of death, hopelessness, and despair. Also, women were poorly informed about breast cancer related issues, risk factors, prevention and treatment methods. On other hand, it was found that doctors (therapists and gynecologists) had a lack of knowledge about breast cancer and preventative measures research (Susan, 2009).

Another study was done by Qualgia (2013) to assess the death anxiety among adult patients with cancer. The main objective of this study is to assess the suffering of the adult patient with cancer disease, learn more about the mental state of patient with cancer, and psychological problems left by this disease in the patient with cancer, and determine the level of death anxiety among adult patient with cancer. The field study was conducted in the Cancer Center in Bbatna (Algeria).The study relied on (3) cases of people living with breast and colon cancer, where ages ranged from (35-48 years). The result of this study showed that there was a high level of death anxiety among the adult with cancer disease by comparing the result of interviews of three patients with cancer (Breast cancer and colon cancer) with others people without cancers.

Also, another study was conducted by Baqutayan (2012), to assess anxiety among patients with breast cancers in Malaysia. It aimed to investigate generally the effectiveness of different coping mechanisms and specifically religious orientation in managing anxiety among them. Interviewing some patients with breast cancer reported that their anxiety was characterized by a number of typical symptoms and signs such as shivering or tremor. They found that their feelings of anxiety increased or decreased at different times. They might become more anxious as cancer

spreads or treatment became more intense. Anxiety in breast cancer patients was associated with death anxiety, fear of death as a result of their symptom (Baqutayan, 2012).

Further, a comparative study was conducted by Gupta at el. (2012) to assess the coping skills, death anxiety and body image in patients with breast cancer, who have undergone mastectomy and who have been treated none surgically. The result of this study showed that the majority of patients (85.18%) of mastectomy group belonged to stage II and III (40.74% and 44.44% respectively) while all the patient of no surgical group belong to II and IV (38.89% and 61.11% respectively). Thus none of the patient of non surgical group belongs to early stage cancer. No significant difference was seen in body image index score, Death Anxiety scale score and CSCL total score in both the groups. Denial as a coping strategy was used significantly higher by the patients in mastectomy group. Comparison of early stage (I and II) and late stage (III and IV) cancer on mastectomy group shows significantly higher total coping score in late stage (21.77 ± 1.09 vs 19.14 ± 3.57; $p < 0.02$) cancer patients. Death anxiety scale score was significantly higher in urban patients (22.57 ± 8.68 vs 12.09 ± 4.87; $p < 0.01$) as compared to rural patients in non surgical group(Gupta at el., 2012).

On other hand, many studies were conducted to assess death anxiety among other types of cancer. For example, a study was conducted by Gonen at el. (2012), to assess the factors contributing to death anxiety in patients with cancer in Turkey. The aim of this study was to investigate the relationship between death anxiety and its correlates in patients with cancer. Seventy patients with cancer were assessed using SCID-I, Templer's Death Anxiety Scale, the Hospital Anxiety (A) and Depression (D) Scale, the Distress Thermometer, the Visual Analogue Scale for pain (VAS), the Global Assessment of Functioning, and Glock and Stark's Dimensions of Religious Commitment scales. These assessments were compared between patients with cancer with and without death anxiety. Multiple regression analysis was conducted after correlation analysis between death anxiety and socio-demographic and clinical variables. Axis I psychiatric diagnosis, pain scores, and negative believes about what will happen after death were found to be higher in patients having death anxiety than patients not having death anxiety. Also, life expectancy was perceived as shortened in patients with death anxiety. Death anxiety was associated with anxiety, depressive symptoms, and beliefs about what will happen after death. In

conclusion, death anxiety could not be regarded as a natural consequence of having cancer; it is associated with the unresolved psychological and physical distress (Gonen at el., (2012).

Further, a cross-sectional study was conducted by Tang et.al (2011) including 219 patients with cancer (males and females) who were aware of their advanced cancer conditions. The purpose of this study was to explore the correlation of death anxiety between Taiwanese patients with cancer. Participants were asked to answer three questionnaires: a demographic questionnaire, Purpose in Life scale, and Templer Death Anxiety Scale. Data was analyzed by using the stepwise multiple regression analysis. The result demonstrated that average score of death anxiety was 44.79 that indicated the fear of cancer and relapse had a great effect on level of death anxiety. Stage of initial diagnoses was highly associated with anxiety and indicated that people who were newly diagnosed with cancer had greater fear of death than other cancer patients (Tang et al., 2011).

Moreover, an exploratory study was conducted by Sigal et al. (2008) to determine how patients with cancer in different stages of the illness can deal and copes with the three death anxieties: fear of pain and suffering, loneliness, and the unknown. The authors hypothesized that the patients in the late stages of cancer would have the greatest level of death anxiety. The study was conducted on two groups of patients; group one consisting of 50 patients with mean age 53.3, who were in stage I or II of the disease. Group two consisted of fifty-four advanced stage cancer patients with a mean age of 55. All the participants were asked to answer and complete the French version questionnaire as the study was conducted in Canada. Death anxiety was measured by the Death Anxiety Questionnaire. Coping lifestyle, life anticipation, and their spiritual values were also assessed. Pearson correlation coefficient was used in this study to determine the relationships between the variables. Although there are no significant differences in the results between the two groups , the results showed that group one (less advanced) had a correlation ($p < .001$) in all three death anxieties, and group two (more advanced) reported the correlation between the fear of loneliness and unknown. The most unexpected result in the study was although group two had a more advanced type of cancer, it was more familiar with the cycle of

treatment and had learned that the pains did not mean that were becoming worse (Sigal et al., 2008).

Another study was done by Almostadi (2012) to assess the psychosocial impact of impending death for cancer patients in Saudi Arabia. This study explored the relationship between death anxiety and death depression among cancer patients in Saudi Arabia. The study sample consisted of 100 Saudi cancer patients, 50 male and 50 female, ranging in age from 18 to 85 years old with a mean age of 45.5 years old.All participants completed a survey questionnaire that included three parts: the first part contained a demographic data form; the second part consisted of 20 statements to measure death anxiety using the Arabic Death Anxiety Scale; the third part was a 21-item, questionnaire designed to measure depression about impending death by using the Death Depression scale-Revised Arabic version. The results of this study revealed statistically significant correlation between death anxiety and death depression ($r = .85$, $p < .001$). The total ASDA mean was out of a possible 20-100 52.3 (SD=22.3) and total DDS mean was 54 (SD=21.7) out of a possible -105. The result showed that, there were significant differences ($p = .001$) in gender between death anxiety and death depression. Moreover, hematological malignancies obtained higher levels of death anxiety ($p = .026$) and death depression ($p = .001$) than solid tumor (Almostadi, 2012).

Harriett &Lawlis (2012) conducted a study to investigate death fear as a function of discomfort level, previous experience with death, and religiosity among indigent patients with cancer in a county general hospital. The patients were those participants in a cancer rehabilitation program who were judged closest to death. The Allport Religious Orientation Scale, Discomfort Indices, and the Death Anxiety Scale (DAS) were administered to each patient. Patients also participated in a structured interview which examined death fear at the conscious and imagery (unconscious) levels, religious values, and support systems. The DAS was also administered to a standardization sample of outpatients in the eye clinic of the same hospital. Results indicate that these patients depend strongly on perceived strength of religious beliefs and integral religious values in their coping with imminent death. Also highly associated with minimal or low fear of

death was previous experience with a dying person with whom one had a close relationship. The mean DAS score for the patient's with cancer was significantly lower than that obtained for the standardization population. These findings reveal sources of support that are very important to this population and that are suggestive of untapped resources available as appropriate intervention avenues (Harriett &Lawlis, 2012).

Another study was conducted by Adelbratt&Strang (2000), about death anxiety in brain tumor patients and their spouses at Linköping University, Vrinnevi Hospital, Norrköping. The aims of this study were to explore what extent patients and their next of kin experience death anxiety, and how these experiences are expressed. Following a purposive sampling technique, 20 patients with brain tumors and 15 of their next of kin took part in interviews. Content and context analyses were performed using a hermeneutic approach, in order to identify and analyzethe main categories. Six main categories common to patients and their next of kin emerged during the process: (1) emotional reactions that could be related to death anxiety and included general anxiety, anguish, sadness, hope and despair; (2) existential fear, existential anxiety and existential pain; (3) contradictions; (4) trigger situations; (5) coping strategies related to death anxiety; and (6) new values for life. Besides these categories, a further category emerged, experiences characteristic of the next of kin. The study shows that both the patients and their next of kin are preoccupied with existential thoughts and death anxiety (Adelbratt&Strang, 2000).

In addition, a cross-sectional analysis was conducted by Neel et al., (2012), to examine the presence of death anxiety in patients with advanced cancer and to identify the psychosocial and disease-related factors associated with it in Princess Margaret Cancer Centre, University Health Network, Toronto, Canada.60 adult outpatients with metastatic breast, endocrine, gastrointestinal, gynaecological, genitourinary and lung cancer participated in this study to measure death anxiety, as measured by the Death and Dying Distress Scale (DADDS). The results of this study thirty-two per cent of the sample reported death anxiety of at least moderate severity. Showed that the most distressing concern involved fears about the impact of one's death on others, and the least distressing concerns were related to dying alone or suddenly. According to regression analyses, death anxiety was negatively associated with self-esteem, and positively

associated with physical symptom burden, having children less than 18 years of age in the family, and age. The physical symptoms most strongly associated with death anxiety were changes in physical appearance, and pain. The findings suggest that death anxiety in patients with advanced cancer is common and determined by the interaction of individual factors, family circumstances and physical suffering. Multidimensional interventions that take into account these and other factors may be most likely to be effective to alleviate this death-related distress (Neel et al., 2012).

Furthermore, Hope et al., (2012) conducted a study to measure death anxiety, conceptual, psychometric, and factor-analytic aspects to investigated death fear as a function of discomfort level, previous experience with death, and religiosity among indigent cancer patients in a county general hospital. The patients were those participants in a cancer rehabilitation program who were judged closest to death. The Allport Religious Orientation Scale, Discomfort Indices, and the Death Anxiety Scale (DAS) were administered to each patient. Patients also participated in a structured interview which examined death fear at the conscious and imagery (unconscious) levels, religious values, and support systems. The DAS was also administered to a standardization sample of outpatients in the eye clinic of the same hospital. Results indicated that these patients depend strongly on perceived strength of religious beliefs and integral religious values in their coping with imminent death. Also, highly associated with minimal or low fear of death was previous experience with a dying person with whom one had a close relationship. The mean DAS score for the cancer patients was significantly lower than that obtained for the standardization population (Hope et al, 2012).

In addition, a cross-sectional study was conducted by Salehi et al, (2017) to measure the relationship between religious orientation and death anxiety in 48 patients with breast cancer who were referred to the Oncology Department of Imam Reza (PBUH) Hospital. Templer Death Anxiety Scale and Allport Religious Orientation Scale were used to gather data.The results indicated that the highest and the lowest scores of religious orientation in these patients were 76 and 48, with mean score 65.31. The highest and lowest death anxiety scores attained by these patients were 14 (8.3%) and 2 (10.4%), and 72.9% of the patients had high levels of death anxiety. Religious orientation and death anxiety were significantly correlated (correlation

coefficient: 0.508), and age was significantly correlated with death anxiety but not with religious orientation (Salehi et al, 2017).

Several studies have investigated coping strategies of individuals diagnosed with breast cancer (Li, & Lambert, et al.). In a study conducted in Lebanon, by Doumit et al, the investigators identified social support and spirituality as important factors in coping. Participants described cancer as a ‘cut in their lives that they had to deal with and the journey with cancer as continuous battle ’. Participants spoke of facilitating and hindering factors to coping. Facilitating factors included reliance on God, positive support from work, family and husband, sharing with people who know (living the same experience) and considering cancer as any other disease in particular diabetes. other hindering factors were age, social support, cognitive appraisal, information and guidance, access to resources, stressor diagnosis of breast cancer, primary appraisal, breast cancer is a harm, loss, threat or a challenge, secondary appraisal, problem-focused, coping emotion-focused, coping adaptation/coping, adaptive (positive) maladaptive (negative) factors, and changed body image was prominent. All participants reported hair loss as having been detrimental to their coping. Being pitted by others was also stated as a hindering factor (Mukwato, 2010)

Furthermore, a qualitative study conducted by Taleghani et al. (2006) including19 women with newly diagnosed breast cancer were interviewed during the period May-September 2004 about coping with their disease. The purpose of this study was to exploring how Iranian women coped with newly diagnosed breast cancer and provides a foundation for cultural-based care. The finding of this study included coping using a religious approach (acceptance of disease as God's will; spiritual fighting), thinking about the disease (positive thinking: positive suggestion, hope, intentional forgetfulness; negative thinking: hopelessness, fear, impaired body image), accepting the fact of the disease (active acceptance; passive acceptance), social and cultural factors and finally finding support from significant others. Conclusion of this study was that the majority of strategies used by Iranian women were positive and religious faith played a major role in this. The findings of the study can be used to design an approach to improve successful coping in Iranian women suffering from breast cancer, and can provide healthcare professionals with deeper understanding of these women as they face this diagnosis (Taleghani et al. 2006).

Meravigilia stated that breast cancer survivors who reported high prayer scale scores had high psychological well-being despite having low education levels and less income to meet their needs. Other frequently used coping strategies are positive cognitive restructuring, wishful thinking, making changes, engaging in 12 physical activities, using medication and resting (Meravigilia, 2007).

Culver et al investigated coping and distress among women undergoing treatment of early stage breast cancer were reported four main coping responses: use of humour, religious coping, self-distraction and venting. The investigators compared the coping responses among women from three ethnic groups; non-Hispanic Whites, Hispanic and African Americans. Non-Hispanic Whites reported more use of humour; Hispanic women used more venting and self-distraction while religious coping was the common strategy among African Americans (Culver, J.L., 2010).

Moreover, descriptive and exploratory study conducted by Henderson et al. (2003) including 66 African American women diagnosed with breast cancer was interviewed in the southeastern United States. Data were collected through tape-recorded interviews using a semi structured interview guide. Data were analyzed by content analysis and frequency distributions. The aim of this study was to determine how African American women cope with breast cancer.The finding of this study was coping strategies described by African American women included relying on prayer, avoiding negative people, developing a positive attitude, having a will to live, and receiving support from family, friends, and support groups .The conclusion was spirituality played a major role in these African American women coping with breast cancer. Supportive networks also served as a vital asset throughout the breast cancer experience. Participants discussed the need for culturally sensitive breast cancer support groups (Henderson et al. 2003)
.

Also, a qualitative study was conducted by Williams&Jeanetta (2016) to explore the lived experiences of breast cancer survivors from diagnosis; treatment and beyond. A total of 15 women breast cancer survivors were interviewed. The finding related three major themes that described the lived experiences of the women. These were factors from the diagnosis and

treatment management impacting survivorship, relationship and support system and implication of survivorship. Participants noted that coping with the diagnosis and treatment was a stressful journey and required lots of adjustment and changes. Some developed various techniques such as journaling their activities which provided comfort. In addition, support from family was shared as the key which gave them strength and courage through the different stages of treatment. However, they found it difficult to articulate what survivorship meant. Conclusion of this study was shed light on the experiences of women who were diagnosed with breast cancer and have completed treatment. They acknowledged frustration with their diagnosis and body changes. Support received from family and friends helped them cope through their treatment. However, they felt abandoned once the treatment phase was over and were uncertain what survivorhood meant to them (Williams&Jeanetta2016).

Finally, a qualitative study was conducted by Yoo et al., (2017) to explore coping strategies among young Asian American survivors' women with breast cancer. In-depth interviews with 22 young (under the age of 50) Asian American women diagnosed with early stage breast cancer were conducted. Through qualitative data analysis, three major themes emerged including moving from managing the emotions of others to expressing emotional vulnerability, moving from work and productivity to work-life balance, and moving beyond the family and reaching out to breast cancer survivors. At diagnosis, participants worked to maintain normalcy including caring for others and working during treatment. Once treatment was over, women worked to find ways to use their experience as a transformative one and also to develop more positive coping skills including expressing emotional vulnerability and reaching out to others. Further studies are needed to create and test culturally tailored supportive Interventions that enhance positive coping tools among young Asian American women diagnosed with breast cancer (Yoo et al, 2017).

The next chapter discussed the conceptual framework of the study.

2.5. Summary:

- In Palestine, breast cancer is the most common cancer among Palestinian women, representing 16.2 % from all reported cancer cases, particularly among the age group (20-59 years). Also, breast cancer is the first causes of deaths among women representing 10% of all cancer death.

- The risk factors for the development of breast cancer include familial \ genetic factors; reproductive history; environmental factors; personal characteristic and other life style factors.

- Coping is a complex mental process by which a person deals with stress, solves problems, and makes decisions. It is an emotional, cognitive and behavioral response of a patient to an illness.

- Death anxiety refers to the fear and apprehension of one's own death. It is the neurotic fear of the self which in intense state parallels feelings of helplessness and depression.

- Studies reported high prevalence of death anxiety among women with breast cancer

Chapter Three
Conceptual Framework

Chapter Three

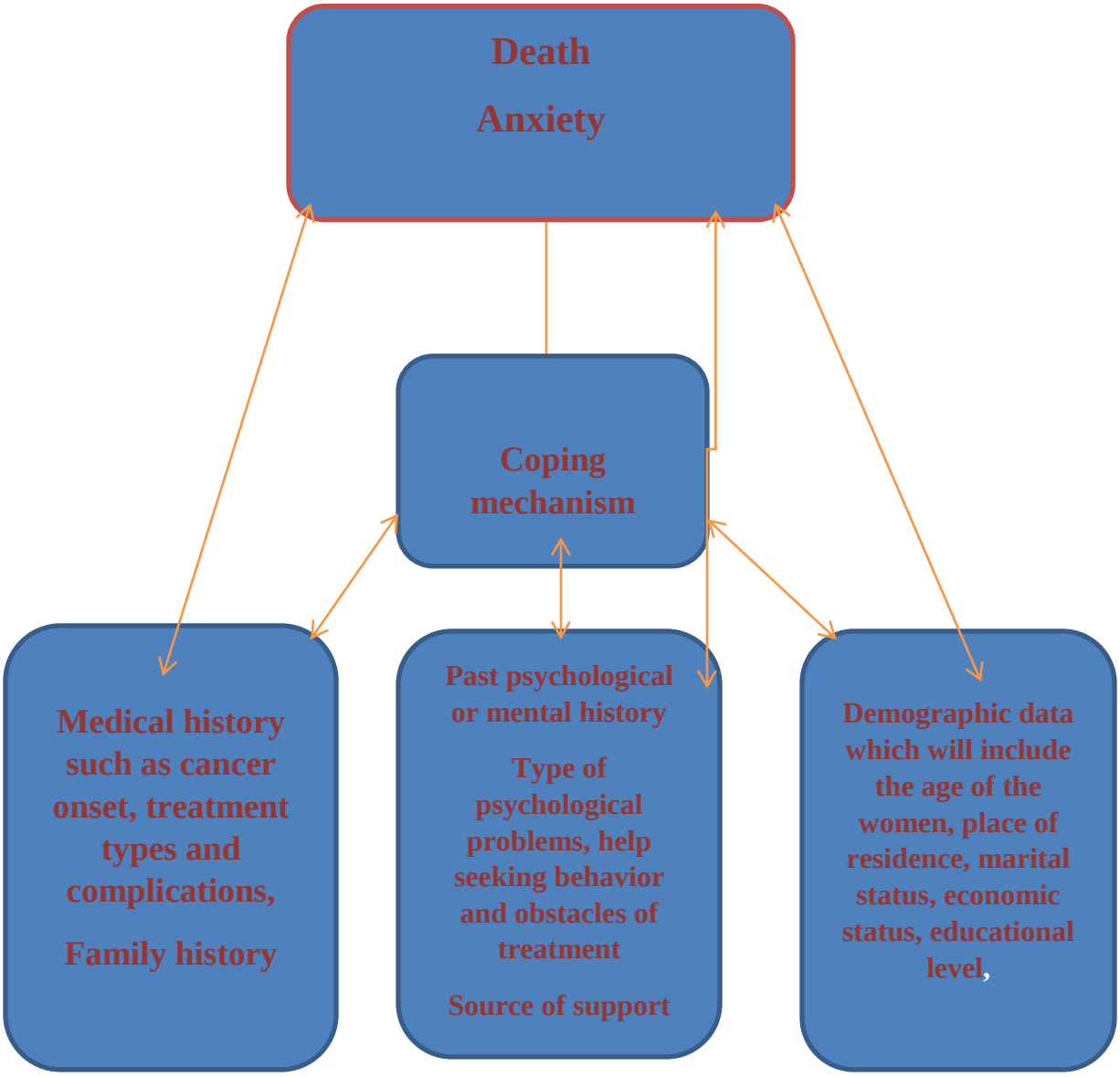
3.1. Introduction

Conceptual framework is a tool structured from a set of broad ideas and theories taken from relevant fields of enquiry that help researchers to properly identify the problem they are looking at, guide their inquiry, frame their questions and find suitable literature. Most academic researchers use a conceptual framework at the outset because it helps the researcher to clarify his research question and aims (Smyth, 2004). It can be a visual or written product that is explained either graphically or narrative (Polit et al, 2004; Burns et al, 1999).

Also, conceptual framework has different purposes. It helps researchers to see the variables of the study clearly, it provides researchers with a general framework for data analysis, and it is essential in the preparation of a research proposal using cross sectional design methods. The conceptual framework also summarizes the major dependent and independent variables in the research, and it gives direction to the study (Smyth, 2004).

The conceptual frame work of this study has death anxiety as independent variable and coping mechanism, socio-demographic, medical and psychological variables as dependent variables as seen in diagram (3.1) below

Figure (3.1) Framework of current study including death anxiety and other dependent variables



3.2 Dependent variable: Death Anxiety.

As mentioned in previous chapter, Carpenito -Moyet (2008) defines death anxiety as "the state in which an individual experiences apprehension, worry, or fear related to death and dying". Death anxiety is also defined as "vague uneasy feeling of discomfort or dread generated by perceptions of a real or imagined threat to one's existence" (Moorhead et al., 2008).

Death anxietyis assessed by Templer's Scale (1970) which is 15-item Death Anxiety Scale (DAS) and have been used most frequently to measure death anxiety (Abdel-Khalek, 2005; Templer, 1993; Abdel-Khalek& Omar, 1988; Donovan, 1993; Lester &Castromayor, 1993; Ray Raju, 2006; Schumaker et al., 1988).

Death anxiety has been measured using largely self-report measures consists of 15 questions and their answers are based on Yes-No options while each question has a score of one or zero. Thus, the total score is between maximum 15 and minimum zero. Some of the questions are prepared in a way that directly measure death anxiety and its related issues; the other questions measure events such as sudden diseases, world war, speed of time passing, shortness of life, and fear of a painful death (Lehto and Stein, 2006).

The DAS is shown to be based on a two-factor model of death anxiety that includes psychological (internal) and life experience (external) factors related to death (Tomer, 1992). The DAS, based on Templer's doctoral thesis, has resulted in a multitude of death anxiety studies in both Western and Mideastern contexts with healthy college-aged samples. Beshai and Naboulsi (2004) noted that Templer's well-validated DAS is translated into 26 languages but was developed in an environmental context that was a theoretical.

In summary, in the current study, the Templer's death anxiety scale was used to assess the death anxiety which consists of 15 questions and its answers are based on Yes-No options while each question has a score of one or zero. Thus, total score is between maximum 15 and minimum zero (see appendix 2).

Table (3.1) Templar's DAS scoring according to each question

Question that answered Yes	1	4	8	9	10	11	12	13	14
Question that answered No	2	3	5	6	7	15			

Further, this study assessed death anxiety major themes as the following: Question 1, q 5 and q 7 assess the absolute death anxiety, question 4; q 6, q 9, and q11 assess the fear of patience and pain, question 3, q 10, q 14 assess the death related thoughts. Question 2, q8and q12 assess the time passing and short life, and finally, the question 13 and q 15 assess the fear of future (See table, 3.2).

Table (3.2) Death anxiety themes and its related questions

No	Death anxiety themes	Questions
1 - Absolute death anxiety		**(1,5,7)**
I am very much afraid to die.		
I am not at all afraid to die.		
The thought of death never bothers me.		
2 - Fear of patience and pain		**(4,6,9,11)**
I dread to think about having to have an operation.		
I am not particularly afraid of getting cancer.		

I fear dying a painful death.
I am really scared of having a heart attack
3 - Death related thoughts (3,10,14)
It doesn't make me nervous when people talk about death.
The subject of life after death troubles me greatly
The sight of a dead body is horrifying to me
4 - Time passing and sort life (2,8,12)
The thought of death seldom enters my mind
I am often distressed by the way time flies so very rapidly.
I often think about how short life really is
5 - Fear of future (13,15)
I shudder when I hear people talking about a world war III or any other war
I feel that the future holds noting for

The presence of death anxiety class interval is ranging as follows: from (0-6) refers to the absence of death anxiety, from (7-8) indicate that there are concerns the death of the average and from (9-15) indicate the presence of high concern to death (Noureddine, 2008, p / p. 102,105).

3.3 Independent variables

In the current study, independent variables included socio-demographic data (such as age, place of residency, marital status, and educational level and economic status), medical history (including duration of BC onset, complications of BC and treatment of breast cancer), and psychological problems including type of psychological problem, seeking psychotherapy and

obstacles of seeking therapy). Questions number 1 to 11 in the questionnaire were designed to assess these variables (See appendix 1).

3.3.1. Socio-demographic variables:

These variables were presented in section one of the questionnaires (question 1-6) and were studied by Al Soweilem& Elzubier (1998), Munger (2007), Kressin (2007) including the following:

1) **Age**: Which is defined as the completed age in years of the enumerated person, and is the difference between the date of birth and the date of interview. The exact age is the time elapsed between the day of birth and a given day, including parts of a year (Palestinian Central Bureau of Statistics. 2004**)**. Respondents in the current study were classified into four age groups which were:
   A.18 years to less than 30 years
   B.30 years to less than 40 years
   C.40 years to less than 50 years
   E. more than 50 years,

Question number (1) in the questionnaire assessed age.

2). **Place of residency**: It refers to the name of the locality in which the person spends most of his time during the year (lived there six months and above), irrespective of whether it is the person's same place of existence during the census, or the place in which he works and performs related activates or the place is his original place (Palestinian Central Bureau of Statistics. 2012). In the current study, a question number (2) assessed residence as the following

A. Village**,**
B. Refugeecamp
C. City.

3) Marital status: It is defined as the status of those 12 years old and over in terms of marriage traditions and laws in the country (Palestinian Central Bureau of Statistics, 2012*).*

Marital status in the current study was classified into 6 categories: single**,** married, divorce**,** widow, separated and others and question number (3) assessed it.

4) Educational level: It referred to the highest successfully completed educational attainment level, the educational level for persons aged 10 years and over (Palestinian Central Bureau of Statistics. 2012). In this study it had 5 categories, and question number (4) assessed this as the following:

A. Illiterate.

B. Primary (1- 6 study years).

C. Elementary (6 – 9 study years).

D. Secondary (10 – 12 study years).

E. University.

5) Economic status: It defined as cash or in kind revenues for individual or household within a period of time; could be a week or a month or a year (Palestinian Central Bureau of Statistics, 2012**)**. There were 5 categories of the monthly income for a family, and question number (6) assessed the economic situation depending on family income per monthas the following:

A. No income.

B. Less than 1000 NIS.

C. 1000 to less than 2000 NIS.

D. 2000 to 3000 NIS.

E. More than 3000 NIS.

3.3.2. Medical and psychological history:

It was assessed through questions (q 5 - q 7- q 8- q 9- q 10- q11-) such as duration of breast cancer, if they encounter any of the BC complications, if any of their family members has been diagnosis by BC, if they suffered from any psychological problems, and if they seek psychotherapy to treat their psychological problems in the past.

A: Type of Treatment:

Type of treatment is assessed in the current study by question (5) which assessed it as the following:

Which type of treatments do you receive for your cancer?

A- Chemotherapy

B- Hormonal Therapy

C- Biological Treatment

E- Surgery

F- Radiation Therapy

B: Durationof Breast cancer:

Duration of BC is defined as how long the patient has been living with the disease (Wridat. 2011) and it was assessed by many previous studies such as Al-Soweilem&Elzubier (1998), Nuesch et al. (2001), Bovet et al. (2002), Ayumu& Fujita (2003), Cramer (2008), and Jin (2008). In the current study, question (7) assessedtheduration of BC as the following:

When have you been diagnosed by breast cancer?

A- Less than a year

B- from one year to less than three years

C- From three years to five years

E- More than five years

B: Complication of breast cancer treatment

Complication is an unanticipated problem that arises and is a result of a procedure, treatment, or illness. A complication is named because it complicates the situation (Al-Soweilem &Elzubier. 1998). In the current study, question (8) was used to assess the complications as the following:

Have you got any complications of cancer treatment?

A. Problems in bones

B. Problems in heart and lungs.

C. Problems in arm and lymph nodes .

D. Problems in uterus & reproductive system

E. Other problems (mention them) …….

C: Psychological problems:

In the current study, question (9) assessed psychological problems of patients with breast cancer. The question was:

Do you suffer from any psychological problems in addition to breast cancer?

Yes / No.

D: Seeking psychotherapy:

Also, study question (10 and 11) assessed seeking psychotherapy. The question was:

Do you receive counseling services or psychotherapy to help you overcome the problems of cancer?

Yes / No

Question number (11): If your answer is "No", the reason that prevented you from going to seek counseling or psychotherapy service was:

A- Because psychotherapy is not effective

B- The economic situation to my family

C- To avoid the stigma from society

D- Don't know the places that offer services

E- Religious reasons

F- Other reasons, (mention it): ……

3.4 Coping mechanism

Coping is defined as the process of executing a response to a stressor, where stress is viewed as the experience of encountering relevant difficulties in one's goal-related efforts (Lazarus, 1966). Within the framework of self-regulation theory, Carver and Connor-Smith (2010) explicitly highlighted the relationships among stress, coping, and goals.

The Brief COPE (Carver, 1997) as seen in table (3.2) is one of the most frequently used self-report measures of coping responses, and consists of 28 questions (see appendix 3). For each item, respondents indicated whether they have used the coping response on a four-point scale (1 = I haven't been doing this at all; 2 = I've been doing this a little bit; 3 = I've been doing this a medium amount; 4 = I've been doing this a lot) (Monzani et al., 2015).

Table (3.3): The major domain of Brief COPE scale and the questions that assesses each domain.

Number	Domain	Items
1-	Self-distraction	1 and 20
2-	Active coping	2 and 8
3-	Denial	3 and 9
4-	Substance use	4, 5 and 12
5-	Use of emotional support	6 and 16
6-	Use of instrumental support	11 and 24

7-	Behavioral disengagement,	7 and 17
8-	Venting	10 and 22
9-	Positive reframing	13 and 18
10-	Planning	15 and 26
11-	Humor	19 and 29
12-	Acceptance	21 and 25
13-	Religion	23 and 28,
14-	Self-blame	14 and 27.

According to the experts' recommendations, question (5) has been added to the questionnaire to adapt it with the Palestinian culture, which "I used smoking to feel better.

The next chapter discussed methodology of the current study.

3.5 Summary

- This chapter presented the conceptual framework which was developed based of literature review.

- It consisted of two major concepts: dependent variables including death anxiety, and independent variables including socio-demographic variables such as **(**age, place of residency, marital status, educational level and economic status), medical history and psychological history and coping mechanism.

Chapter Four
Methodology

Chapter Four

4.1. Introduction

This section discussed the design of the study, the sample and its inclusion and exclusion criteria, the instruments used to collect data, and data analysis.
To achieve the purpose of the study, a cross sectional design was utilized.

4.2 Study design

There are different types and scientific method of researches that vary in their purpose approach and process. In this study, the quantitative research was utilized (Polit& Beck, 2004).

Quantitative research is a formal, objective, rigorous, and systematic scientific process for gathering information or for investigating quantifiable properties, phenomena and relationships. It involves a collection of numerical data where often there is considerable control and analysis of data by using statistical procedures (Burns et al. 1999; Polit et al. 2004). The objective of quantitative research is to develop employ mathematical models, theories and hypotheses, and it is used widely in social science such as psychology, social work, sociology, nursing and political science (Polit& Beck, 2004).

There are different types of descriptive studies such as, observational, case study, and cross sectional design that was utilized in this study. Cross sectional method involves the analysis of data collected from a population, or a representative group, at one specific point in time (Creswell, 2009)

In the current study, a cross-sectional design was utilized using self-reported questionnaires because it is highly useful for descriptive purposes, and it shows both the determining factors and

the outcome at the same time. Moreover, it is less expensive and it saves time and effort (Polgarr& Thomas, 1997).

On the other hand, the cross-sectional design has many limitations: it does not lend to generalization of the result, it may not enable researchers to make causal inferences, and it is not appropriate for incident estimation especially in the case of long-lasting outcomes (Dimer, 1997).

4.3 Study population and sampling design

The study targeted the women with breast cancer who were treated in Beit-Jala Governmental Hospital, in Bethlehem area. There was no formal statistics that showed the exact number of women with breast cancer who were treated in the hospital, so sample size was calculated depending on the assumption of the total cases (2011-2013), according to the annual reports of the Palestinian Ministry of Health, (PMH, 2011-2013), as seen in table (4.1)

Table (4.1) The number of diagnosed cancer cases in West Bank (2011-2013)

New diagnosed cancer cases in West Bank	**2011-2012**	**2012-2013**	**Total**
Breast cancer	216 cases	141 cases	357

57% of the total populations ofthe years 2011-2013 were taken as a sample size in the study as the following:

357*57\100= 214 participants.

4.4 Inclusion and exclusion criteria

4.4.1 Inclusion criteria:

1- Women who had breast cancer.

2- Participants aged 18 and over.

3-Particiants who attended Bet- Jala Governmental Hospital in Bethlehem for treatment

4.4.2 Exclusion criteria

1. Women with breast cancer who did not attend Beit-Jala Governmental hospital.
2. Women who had other type of cancer such as colon cancer and lung cancer.
3. Women with mental problems such as severe PTSD, psychosis, schizophrenia and severe depression because they might not be able fill in the questionnaire.

4.5 Sampling Approach

In the current study, convenience sampling was utilized. Convenience sampling is a non-probability sampling technique where the subjects are selected because of their convenient accessibility and proximity to the researcher. Furthermore, using convenience sampling in the current study is not just only because it is easy to use, but because there was no formal statistics about the total population of the women with breast cancer who were treated in Beit-Jala Governmental Hospital and because of the sensitivity of the subject. Also, it allows the researcher to obtain basic data and trends regarding the study without the complications of using a randomized sample (Hensly, 2006).

The most obvious criticism about convenience sampling is sampling bias, and that the sample is not representative of the entire population. This may be the biggest disadvantage when using a convenience sample, and there is limitation for generalization (Hensly 2006).

4.6 Study setting

The study was conducted in Beit-Jala Governmental Hospital. It is a government hospital located in the city of Beit-Jala in the Bethlehem district and was established in 1908 by a Swedish NGO called the Swedish Jerusalem Society. The hospital is the only governmental general hospital in the Bethlehem district, providing services to 170,000 people. It is also a referral hospital, mainly for cancer patients who need chemotherapy treatment.Indeed, many of the patients who used to receive treatment in hospitals in Jerusalem are now being treated at Beit-JalaHospital due to the difficulty of accessing Jerusalem. The hospital has the only oncology governmental center and mammography unit serving the districts of middle area Hebron, Ramallah and Jericho. In addition to the pediatric oncology department which is newest department in the Beit-JalaGovernmentalHospital. Its main purpose is to provide exceptional treatment to Palestinian children with cancer. The construction of the department, which is being funded by the Palestine Children's Relief Fund (PCRF), is part of the Palestinian National Authority's National Health Plan (ARIJ, 2010).

Furthermore, the Beit-Jala Governmental Hospital Onco-haematology Center has twenty-four beds; a three-room day careunit with six beds and armchairsfor out-patients; and a speciallyconstructed histopathologylaboratory, in which tissue isstudied for cancerous cells. Also, it provides chemotherapy drugs forpatients during the firstyear of operation, as well as women receive many services atthe Beit-Jala oncology department,colposcopy, which enables doctorsto view the neck of the uterus fordetection of disease; and pap-smears, which all test for forms ofcancer predominant amongst thefemale population including breast examinations (biopsies, surgery and radiographic imaging). Both radiation therapy (RT) and bone marrow transplant (BMT) are not available in the West Bank, and most patients are referred to hospitals in East Jerusalem, Israel, Jordan and Egypt during the course of their treatment (ARIJ, 2010).

4.7 Instrument of the current study

Data collection tools used in this study were self-administrated questionnaires including socio demographic and medical and psychological history sheets, Templer's death anxiety Scale and Brief Coping Scale as seen in table (4.2).

Table (4.2): Instruments of the current study and the numbers of their Questions

No.	Instruments	Number of questions in each Instruments
1.	Socio-demographic sheet history.	▪ 5 questions
2.	Medical and psychological history	▪ 5 question
3.	Templers death anxiety scale	▪ 15 questions
4.	Brief Coping Scale	▪ 29 questions

Each of the study instruments is discussed in more details as the following:

- Socio-demographic self-administrated sheet was developed for the purpose of this study and it included dependent variables such as age, place of residency, marital status, educational level, and economic status.

- Medical history including health variables such as duration of BC, complication of BC, and history of psychological problems, and seeking psychotherapy).

- Templer death anxiety scale (Templer DAS) which was developed by Templar in the year 1970 and it includes15 items. The items assess the following: absolute death anxiety, fear of patience and pain, death related thoughts; time passing and short life, and the fear of future. Answers are based on Yes-No options while each question has a score of one or zero. Thus, total score is between maximum 15 and minimum zero (Noureddine, 2008, p / p. 102,105).

- The Brief COPE scale: was developed by Carver in the year 1997. It is one of the most frequently used self-report measures of coping responses.
  For each item, respondents indicate whether they have used the coping response on a four-point Likert scale (1 = I haven't been doing this at all; 2 = I've been doing this a little bit; 3 = I've been doing this a medium amount; 4 = I've been doing this a lot).

  Brief COPE scale assesses the following coping mechanism: self-distraction, active coping, denial, substance use, the use of emotional support, the use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame.

  One question was added by the experts' recommendations which is question (5) (I've been using smoking to feel better) to the questionnaire to adapt it with the Palestinian culture (Carver, 2007)

4.8 Reliability and validity

4.8.1Reliability

Reliability of measure indicates the extent to which the measure is without bias (error free) and hence offers consistent measurements across time and across the various items in the instruments. (Serkan, 2000). In other words, it's a degree to which a measure is constant and unchanged for a short period of time (Baumgranter and Hensly 2006).

Reliability can be measured by two ways:

(1)Test –retest reliability: the reliability coefficient obtained with repetition of the same measure on a second occasion (Serkan, 2000) and (2) internal consistency of measures: it is an indicative of the homogeneity of the items in the measure that tap the construct. This can be seen by examining whether the items and the subset of items in the measuring instruments are highly correlated. The most popular test of to measure this is Cronbach Coefficient Alpha, where the

higher the coefficient the better the measuring instrument (Sekran, 2000), and it was used in this study.

Cronbach's alpha is the most common form of internal consistency reliability coefficient. By convention, a lenient cut-off of .60 is common in exploratory research; alpha should be at least .70 or higher to retain an item in an "adequate" scale; and many researchers require a cut-off of .80 for a "good scale." Reliability coefficient of **.70** or higher is considered "acceptable" in most Social Science research situations. Cronbach Alpha was calculated to measure the reliability by using SPSS in this study and it was found to be 0.753 for the Templer Death Anxiety Scale and 0.73 for the Brief Coping Scale.

4.8.2 Validity

Validity refers to the extent to which a questionnaire / or test measures what it purports to measure. (Muller, 2012)

Validity has four different types:

Criterion Validity: a correlation coefficient between scores on a test and scores on a criterion measure or standard, it involves determining the correlation between scores. (Barker et al. 2002)

Face validity: is similar to content validity and assesses whether the measure looks right on the face of it, that is, that it self-evidently measure what it claims to measure (Barker et al. 2002).

Construct validity: this tests link between the measure and the underlying theory. If a test constructs validity, you would expect to see a reasonable correlation with test measuring related areas. (Shields, 2004)

Content validity: it assesses whether the measure adequately covers the different aspects of the construct that are specified which was used in this study as a group of expert was tested the content of the scale (Barker et al. 2002).

Content validity of the questionnaires was examined by a committee of 6 experts in mental health and public health who hold doctoral degree (PhDs). Four of them were from Al Quds

University, and they hold (PhDs) in mental health and public heath. The other two of them were from (UNRWA) and holds (PhDs) in psychology. No changes were required by them regarding the language or the content for the scales. Based on the experts' recommendations, question (5) has been added to the Brief Cope Scale which was (I use smoking to feel better) –to adapt it with the Palestinian culture.

In addition, to achieve the aim of this study, the Templer death anxiety and Brief Coping Scales was translated into Arabic language by the researcher and a back translation was done by an English translator.

4.9 Data collection process

After sending a formal letter to the Palestinian Ministry of Health and Beit-Jala Governmental Hospital administration explaining the purpose of the study, permission was granted on March 2016.

Data collection process started April 2016, and the researcher coordinated with the psychologist in the hospital to present during data collection to give support to the patients in the daycare unit and outpatients department if needed.

The purpose of the study, the items of the questionnaire, the inclusion and exclusion criteria of the study and ethical considerations were discussed with women with breast cancer. The questionnaires were distributed on the patients in day care unit and outpatient clinics during treatment days (Sunday, Monday, Thursday and sometimes Saturdays). The researcher collected (214) questionnaires from patients who agreed to participate in the study.

4.10 Statistical analysis

The data was analyzed by using the statistical package for Social Sciences (SPSS) version 18.0. The data were checked for entry errors (data clearance). The relationship between socio demographic data, Templer death anxiety Scale (DAS), and Brief coping scale (Carver's) were analyzed by the using parametric test such as frequency, T-test, ANOVAs test and Pearson test.

4.11 Ethical consideration

Ethical approval was obtained from Al-QudsUniversity.Before starting the survey, the proposal was also submitted to the Public Health Faculty at Al-Quds University and approval to conduct this study according to the thesis preparation guide of the Factually of Graduate Studies was obtained.

The Palestinian Ministry of Health was formally approached via an introductory letter which presented information about the proposed study and its purpose.
Then permission from the director of Biet-Jala Governmental Hospital was taken to conduct the study in the Daycare Unit and Outpatients Clinics.

The participants were provided with the information sheet about the study including the aim of the study; objectives, procedures, and they were informed that they had the rights to refuse to participate in the study.Confidentiality and privacy were assured for all participants and they were informed that all information would be kept strictly confidential. In addition, data was protected and appropriately stored; all files were stored on computer and were protected by a password and nobody was allowed to access it except the researcher and the supervisor. No names or codes or any other mechanisms were used to trace responses back to an individual participant.

Finally, the main researcher took the permission verbally from all the participants who participate in the current study to fill in the questioners

4.12 Summary

- A cross-sectional design was utilized in this study because it is cheap, quick and appropriate for the purpose of the study.
- The data collection tools used in this study was self-reported questionnaires including socio demographic data sheet, Templer's DAS and Brief Coping Scale.
- The data was processed through SPSS statistical package testing.
- Validity of the questionnaires was examined by a committee of six experts.
- Reliability of the instruments was tested by using Cronbachs Alpha coefficient which is 0.753 for the TDAS and 0.73 for brief coping scale.
- The total population of the study was 214 women with breast cancer.
- Different ethical issues including consent forms and confidentiality were discussed.

Chapter Five
Results

Chapter Five

5.1 Introduction

As mentioned in previous chapter, 214 participants agreed to participate in the study with a response rate of 100%. Data was collected by: Templer Death Anxiety Scale (DAS), and Brief Coping Mechanism Scale.

This chapter presented the findings of the current study as the following:

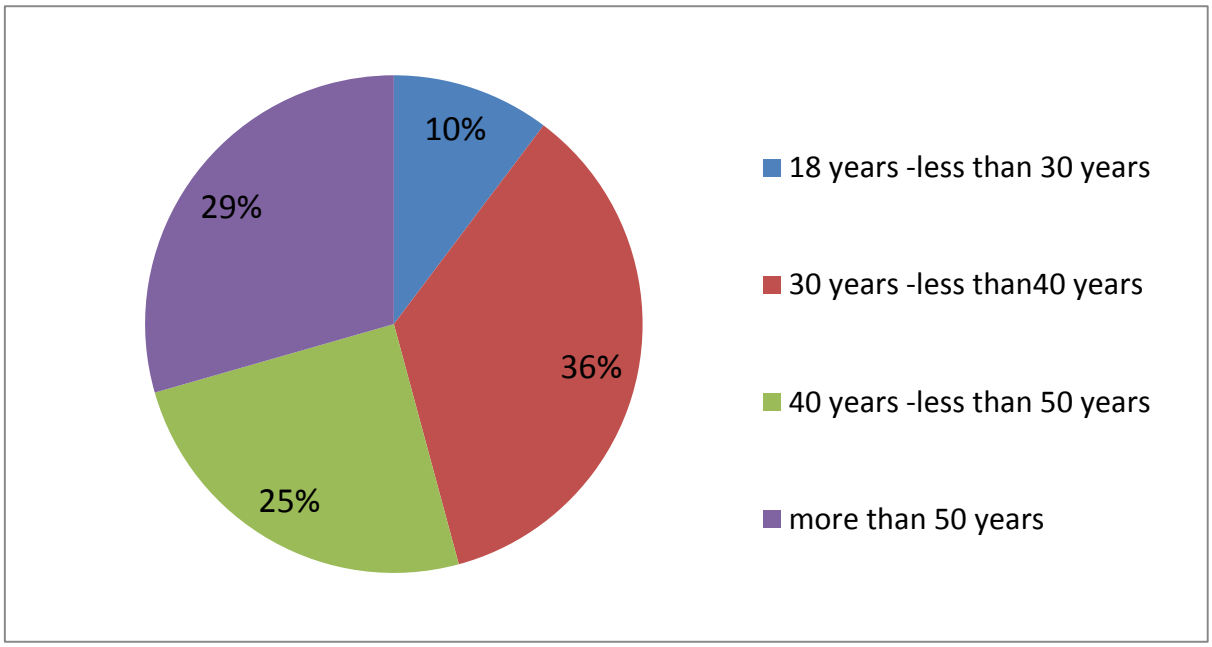
1) The sample characteristics
2) The prevalence of death anxiety
3) Templer Death Anxiety Scale (DAS) related findings.
4) Brief Coping Mechanism Scale related findings.
5) The relationship between independent and dependent variables

5.2 The sample characteristics

This section presented the socio-demographic characteristics and health related variables of the study. Socio-demographic variables included (women's age, place of residence, educational level, economic status, and marital status). Health related variables included (breast cancer onset, breast cancer treatment type and the associated medical and psychological complications, type of psychotherapy, obstacles of getting the treatment, and the family history of breast cancer).

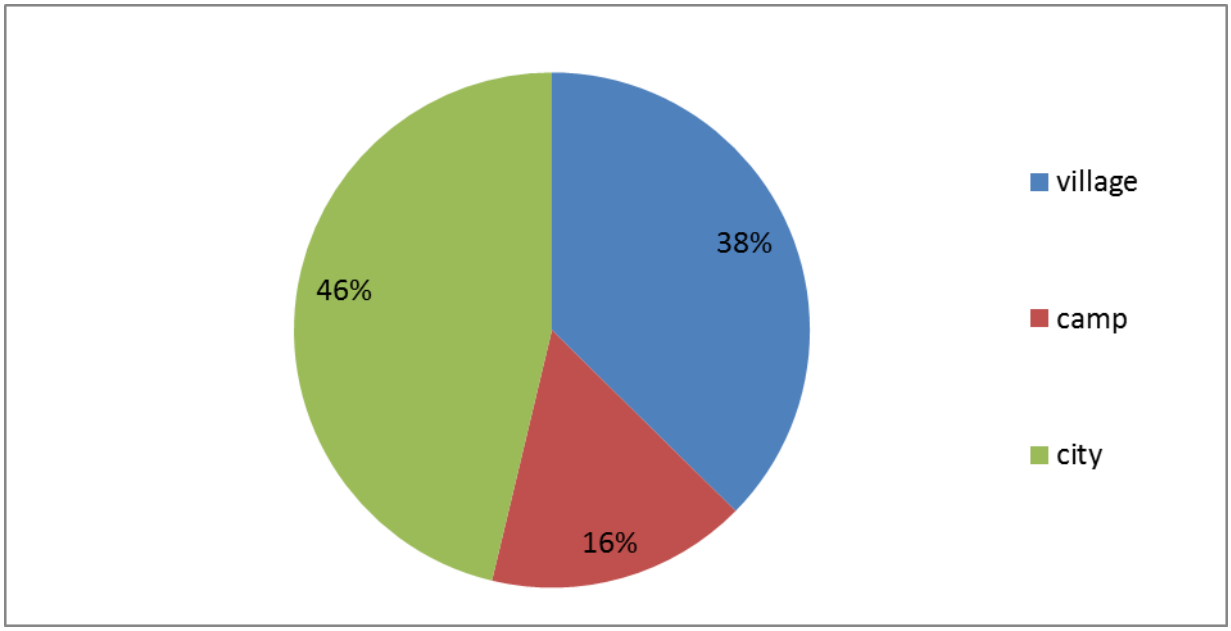
The study results showed that 36%(n=76) of the participants were 30 years old to less than 40 years old, 29% (n=63) were more than 50 year old, 25% (n=53) were 40 years old to less than 50 years old, and 10% (n=22) aged from 18 years to less than 30 years old, as seen in figure (5.1).

Figure (5.1): The distribution of the participants by age



Analysis the distribution of the participants by their place of residence showed higher distribution in a city and village; as 46 %(n=99) were from the city, and 38 %(n=80) were from the village, whereas 16% (n=35) were from the refugee camps, as seen in figure (5.2).

Figure (5.2): The distribution of the participants by their place of residence



With regards to the marital status, the results revealed that the majority 70% (n=149) of the participants were married, 17.8% (n=38) were widow, and 6.6% (n=14) were single, and the lowest percentages were for divorced and separated participants 3.3 % (n=7) and 2.3 %(n=5) respectively) as seen in figure (5.3)

Figure (5.3): The distribution of the participants by their marital status

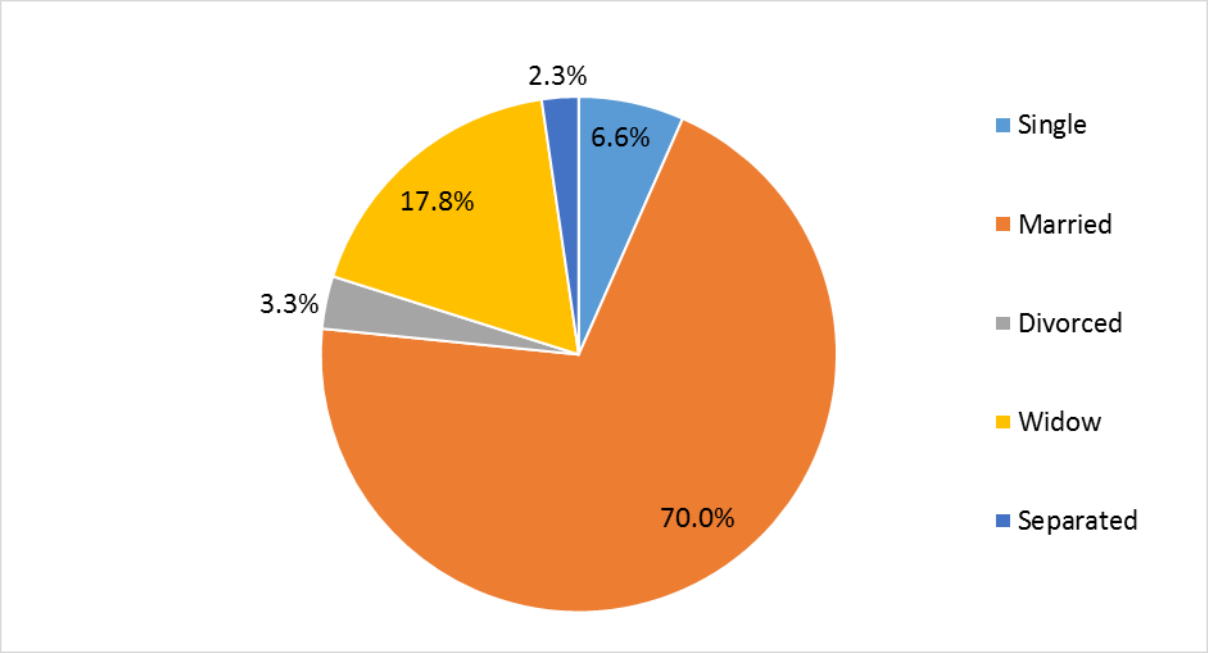
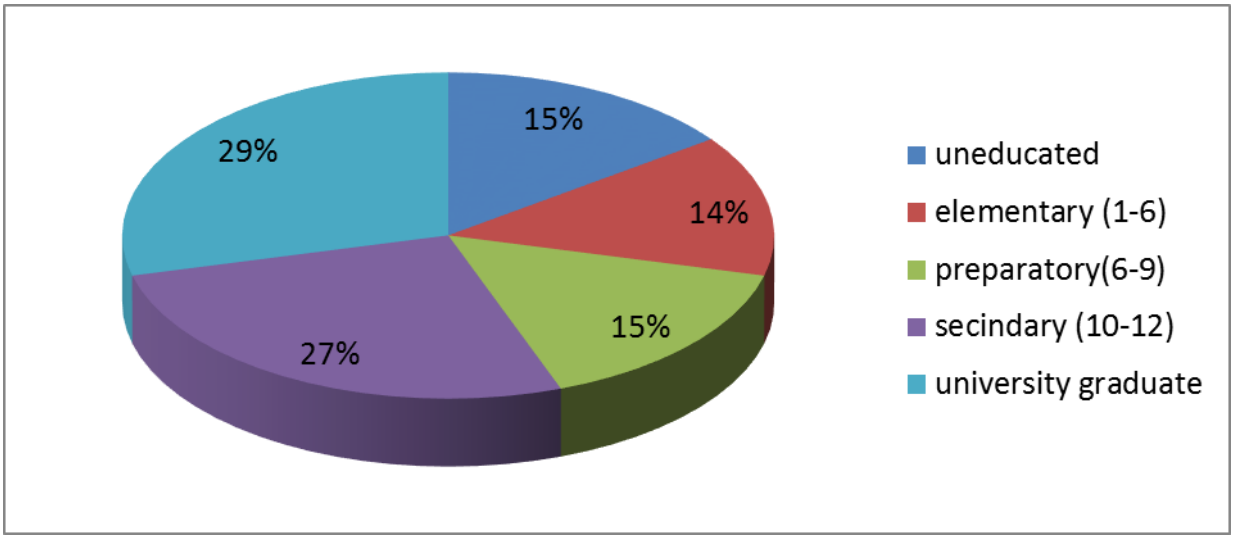


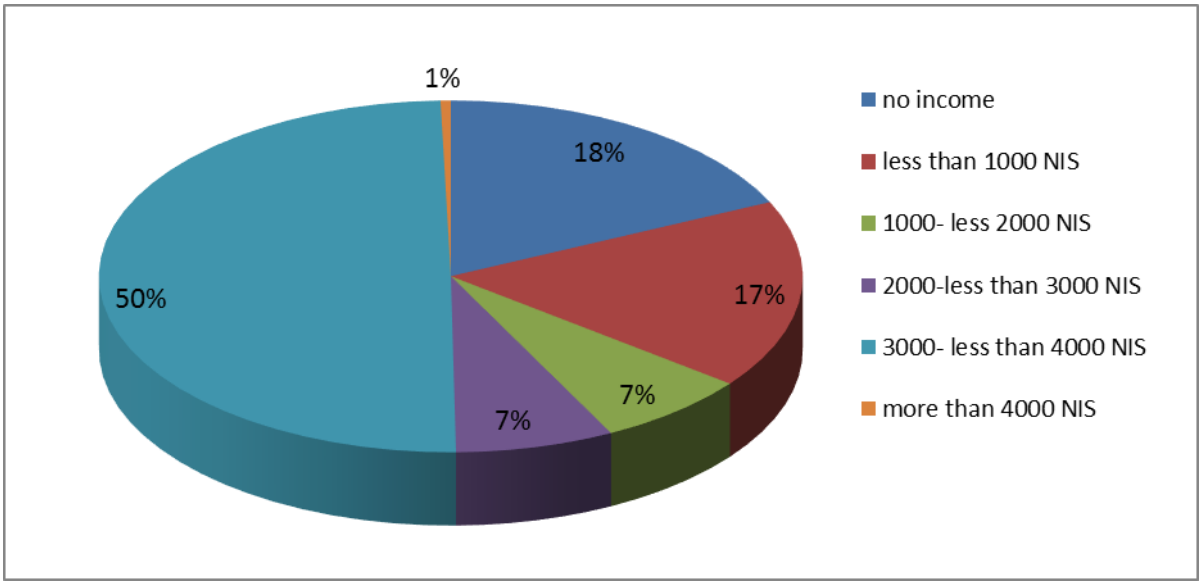
Figure (5.4) below showed the educational level of the study participants. It showed that 29% (n=62) of the participants had a university degree, 27% (n=57) had completed secondary education, 15 %(n=33) had preparatory education, and 14% (n=30) had elementary. The uneducated women were 15 % (n=32). (See figure 5.4)

Figure (5.4): The distribution of the participants by their educational level



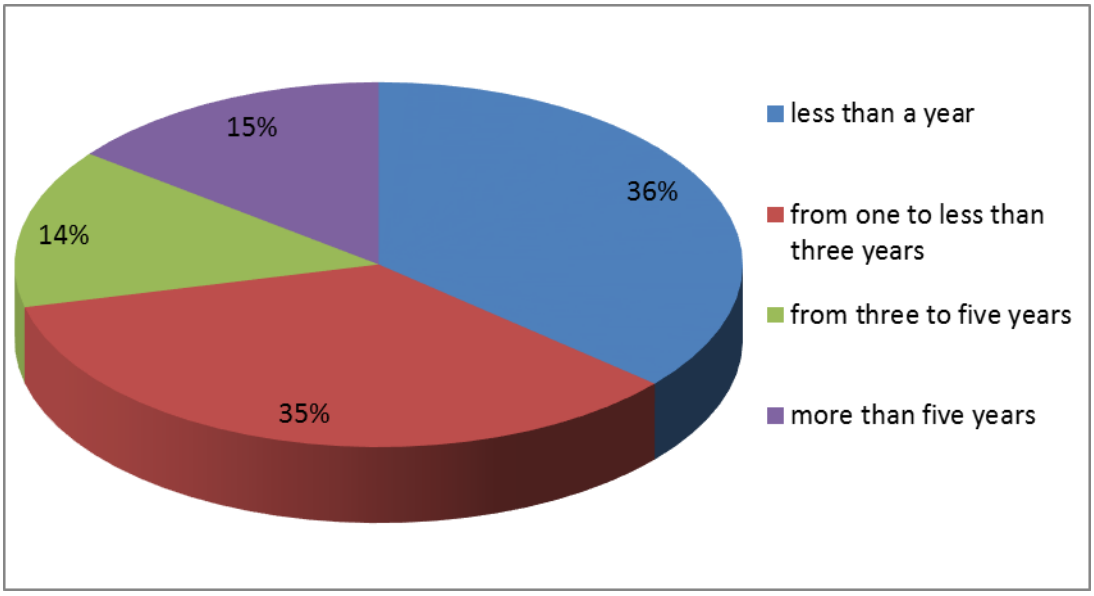
Also, the economic status of the participants ranged from no income to more than 4000 NIS as shown in figure (5). For example, 50% (n=108) had 3,000 NIS to 4000 NIS, 18% (n=38) of them had no income, 17 %(n=36) had less than 1,000 NIS, 7% (n=15) had 1,000 NIS to less than 2,000 NIS, 7% (n=15) had 2,000 NIS to 3,000 NIS, and 1 %(n=2) had more than 4000 NIS (See figure 5.5).

Figure (5.5): The distribution of the participants by their economic status



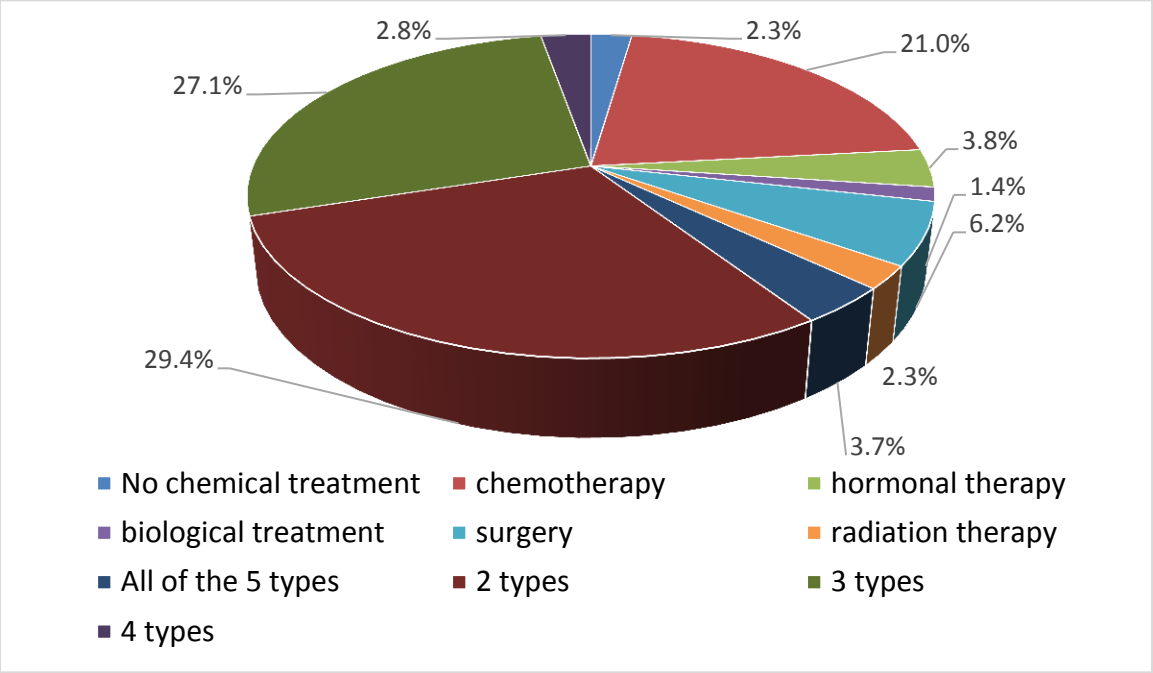
The participants were asked if they were ill for less than one year, one year to less than three years, three years to less than five years, and more than five years. Findings showed that 36 % (n=77) of the participants reported that their cancer onset was less than one years, 35% (n=74) reported from one year to less than three years, 14 % (n=30) reported from three years to less than five years, and 15% (n=31) stated more than five years (see figure 5. 6).

Figure (5.6): The distribution of the participants by cancer onset



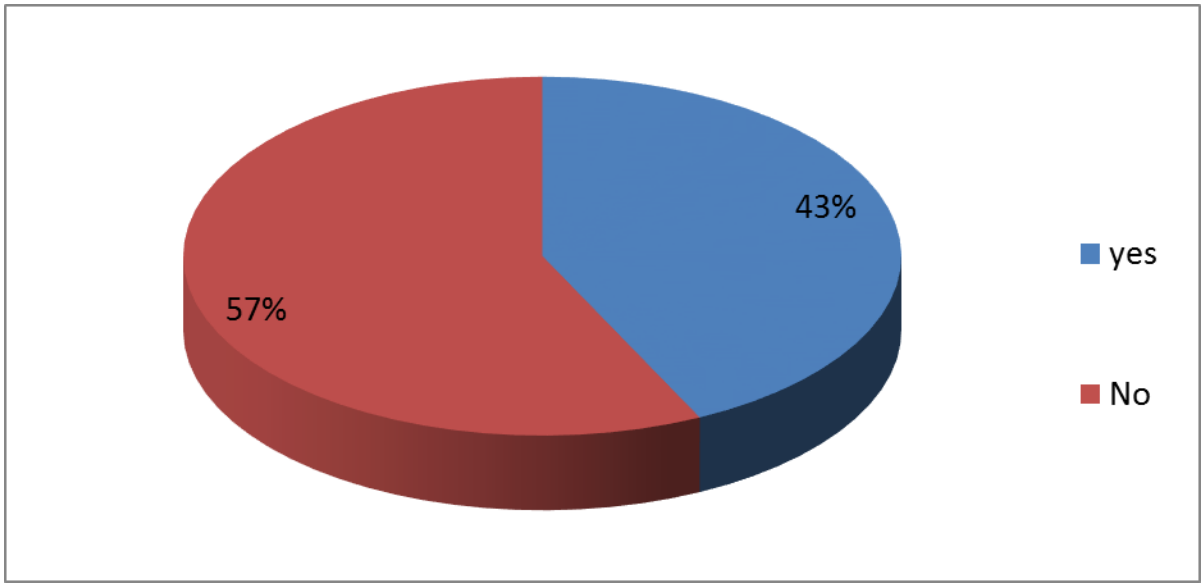
The treatment type was classified into groups; those who received chemotherapy, hormonal therapy, biological treatment, radiation therapy or surgery and a combinations of these types. Findings showed that 21% (n=45) of the participants received chemotherapy, 3.8% (n=8) received hormonal therapy, 1.4% (n=3) received biological treatment, and 6.2% (n=13) received surgery, and 2.3% (n=5) received radiation therapy. Some patients received a combinations of treatments types which are: type 2 -those who received radiation and surgery (29.4%, n=63)type 3 who received radiation and surgery and biological treatment (27.1%, n=58), type 4 who received radiation, surgery, biological and hormonal therapy (2.8%, n=6); and finally the participants' who not received chemotherapy (2.3%, n= 5) (See figure 5.7).

Figure (5.7): Distribution of the participants by the treatment type



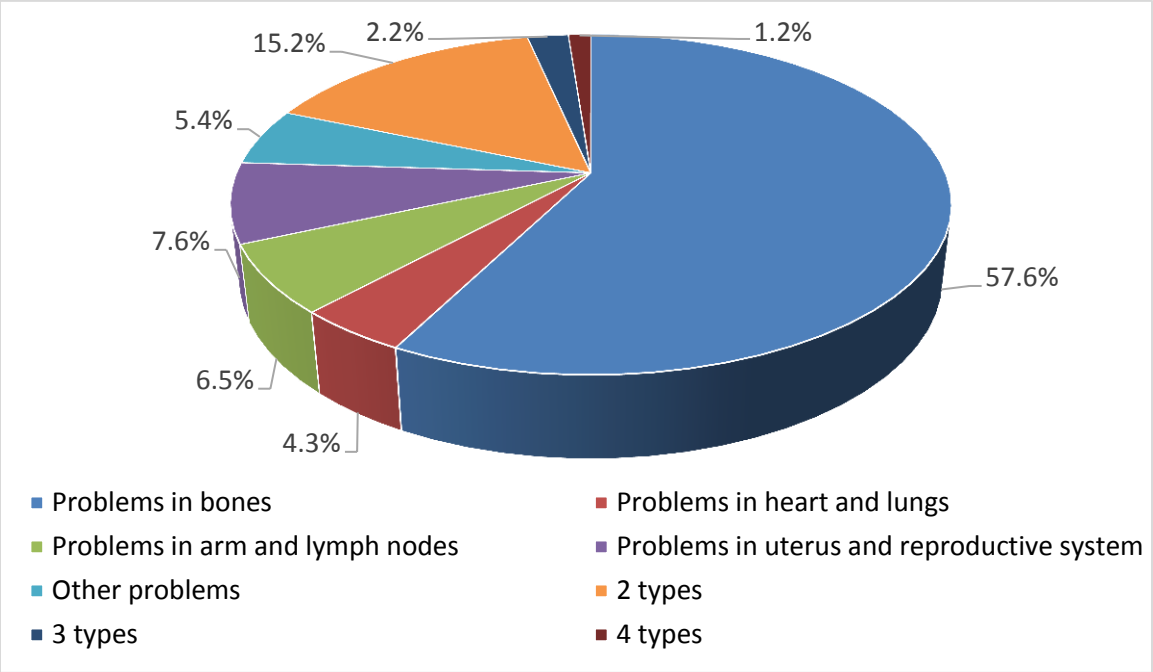
Also, the participants were asked if they suffered from any complications caused by breast cancer treatment and 43% (n=92) of the participants reported that they suffered from breast cancer treatment complications and 57% (n=122) did not suffer from any complications (see figure 5.8).

Figure (5.8): The distribution of the participants by their treatment complication



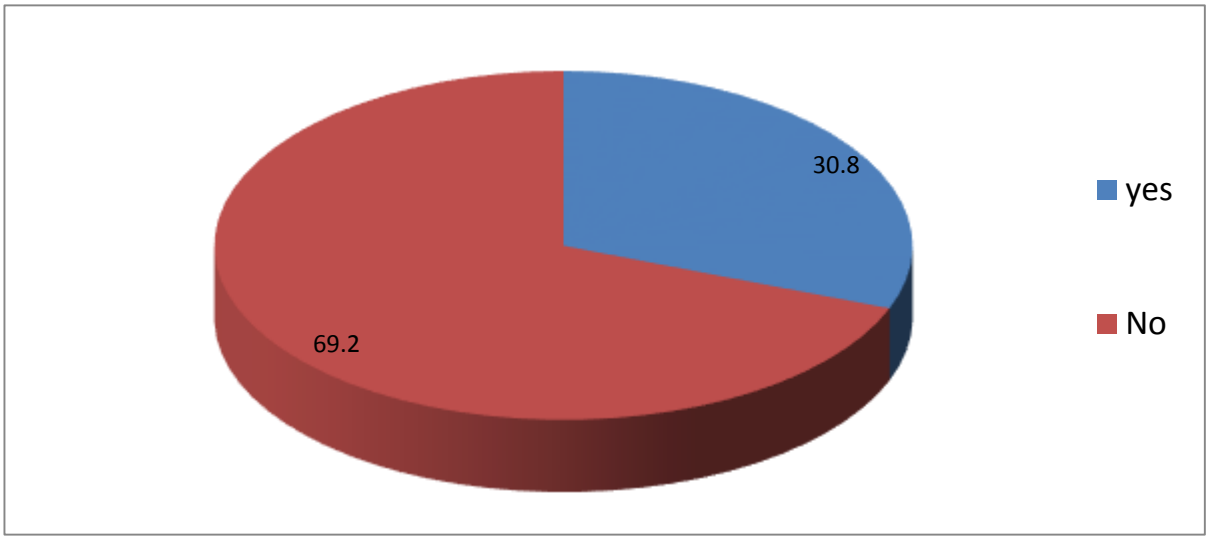
The participant reported different medical complication; for example, (57.6%, n=123) of the participants had bone problem, 4.3% (n=9) had problems in heart and lungs, (6.5%, n=14) had problems in arm and lymph nodes, 6.5% (n=14) had problems in arm and lymph nodes,7.6% (n= 16) had a problem in uterus and reproductive system, 5.4% (n=13) had others problem such as skin burns, irritation or discoloration, osteoporosis, fatigue, menstrual menopause or the menstrual become irregular. 15.2 %(n=32) had combinations of problems in uterus and reproductive system and problems in arm and lymph nodes, 2.2% (n=4)had a combination of problems in uterus and reproductive system , problems in arm and lymph nodes and problem in heart and lungs. Finally, 1.2% (n=2) had combinations of the four all types of problems (see figure 5.9).

Figure (5.9): Distribution of the participants by breast cancer treatment complications



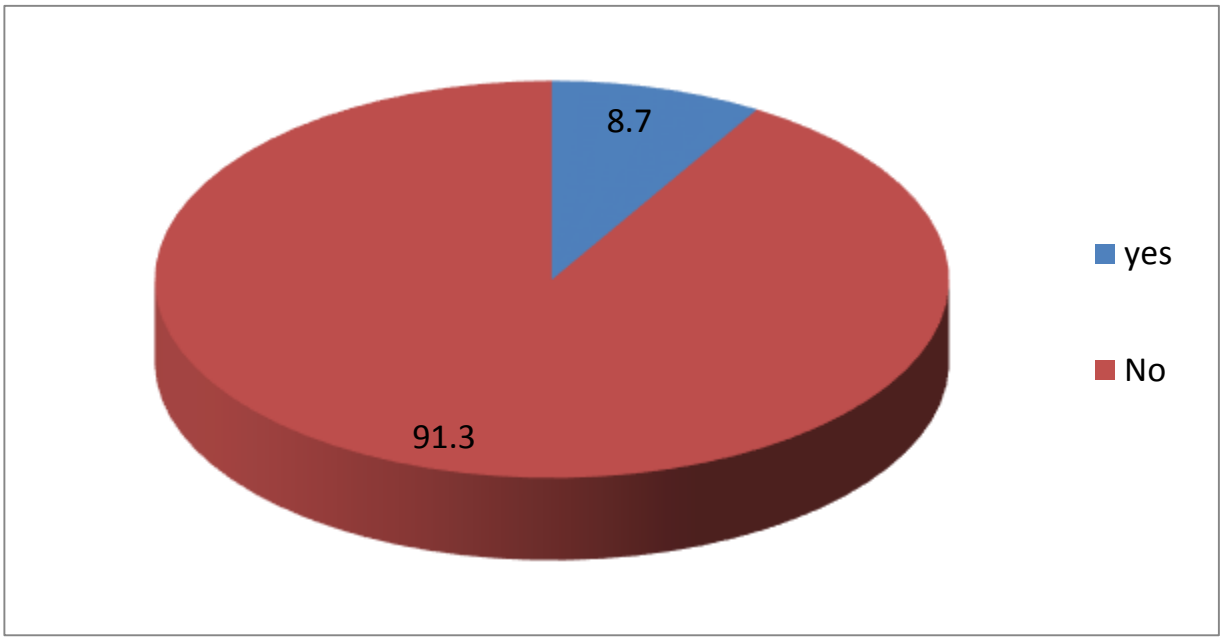
Moreover, the participants were asked if they suffered from any psychological problems in addition to breast cancer and the findings showed that 69.2% (n=148) reported that did not have any psychological problems and 30.8% (n=66) of them reported that they suffered from psychological problems. These problems were such as depression (97%), and anxiety and fears (3.0 %).

Figure (5.10): The distribution of the participants by the presence of psychological problems



Moreover, the participants were asked if they seek psychotherapy to treat their psychological problems and 91.3% (n=190) of them reported that they did not seek psychotherapy, and only 8.7% (n=18) of the participants tried psychotherapy (see figure (5.11).

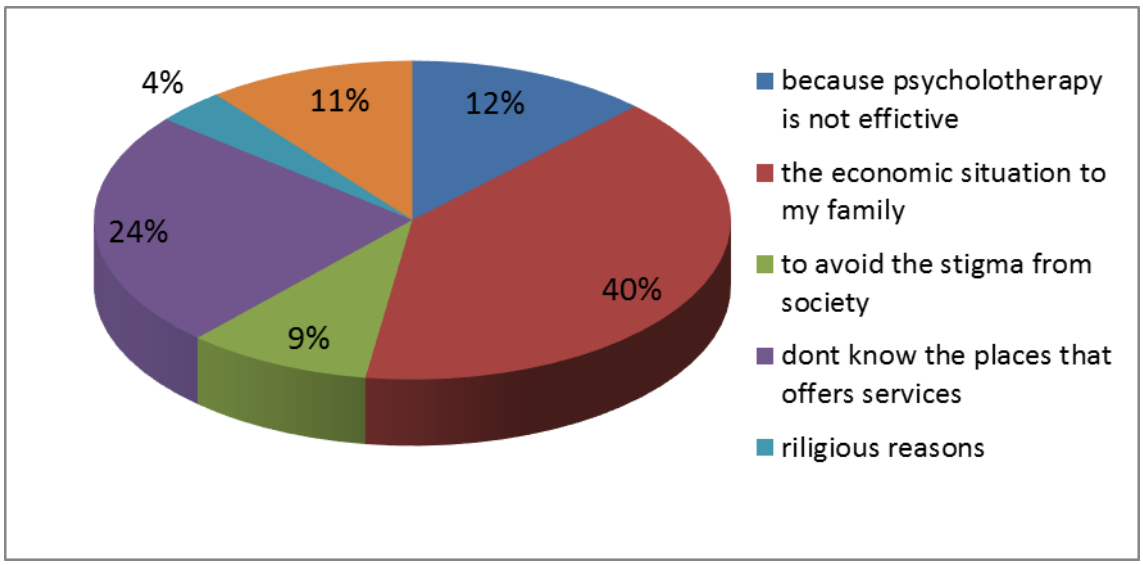
Figure (5.11): The percentages of the participants who seek psychotherapy



In addition, the participants were asked about the counseling centers which they attended to treat their psychological problems and they stated the following: Palestinian Ministry of Health Centers, private clinics, and UNRWA mental health program.

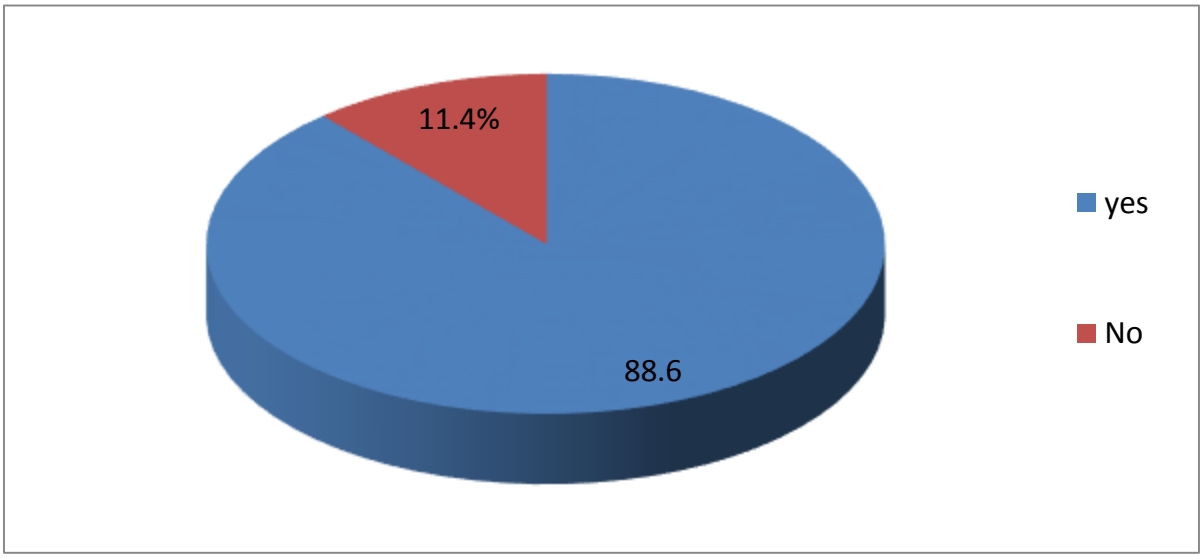
The reasons that prevented the participants from seeking psychotherapy were as the following:12 %,(n=26) reported that they thought that psychotherapy was ineffective, 40% (n=86) mentioned the economic situation of the family, 9% (n=19) reported stigma, 24% (n=51) did not know the places that offered these services, 4% (n=8) reported religious reasons, and 11%, (n=24) reported other reasons but they did not mention them. See figure (5.12)

Figure (5.12): the percentages of the treatment obstacles



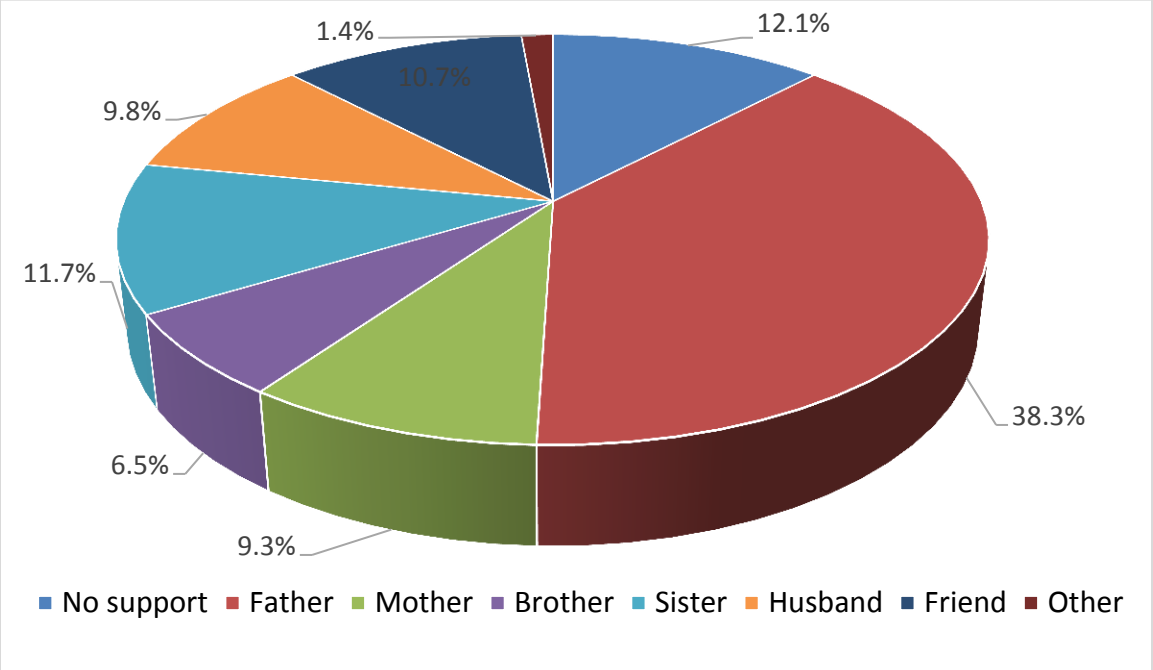
In addition, the participant were asked if they received psychological support from any person, and 11.4% (n=24) reported they didn't receive any support from anybody, while 88.6% (n=186) reported that they received psychological support from other persons (See figure 5.13).

Figure (5.13): The Percentages of psychological support



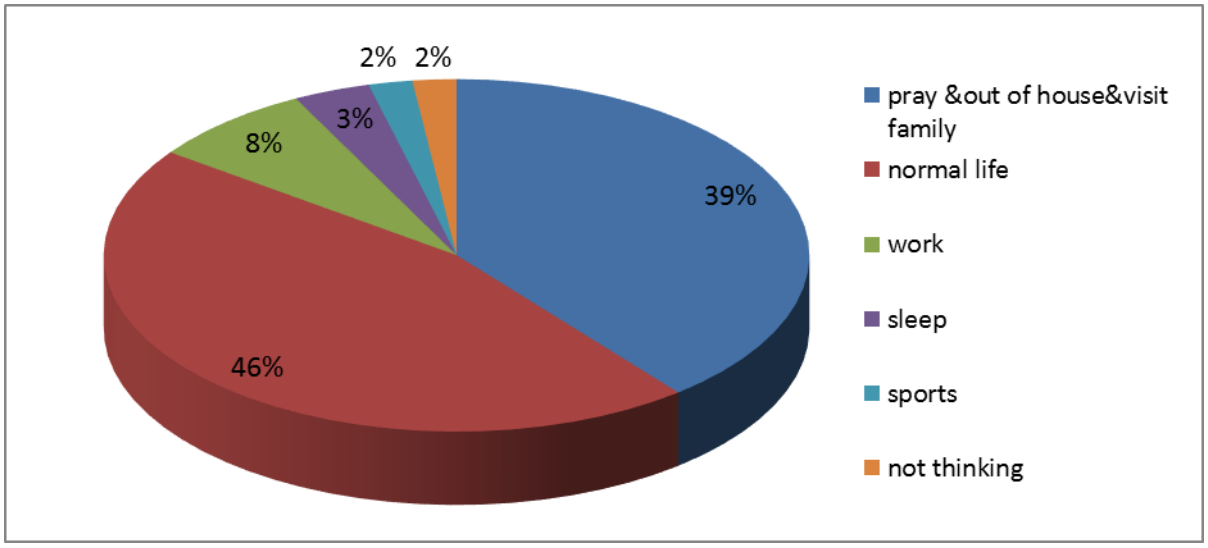
Moreover, the participants were asked to mention the one who supported them, and 38% (n=82) reported their father, 11.7% (n=25) reported the sister, 10.7% (n=24) reported their friend, 9.3 % (n=19) reported their mother, 9.8% (n= 20) reported their husband, 6.5% (n=15) reported their brother, 1.4% (n=3) reported others, while 12.1% (n=26)reported no one supported them (See the figure 5.14.)

Figure (5.14): Percentages of psychological supporter



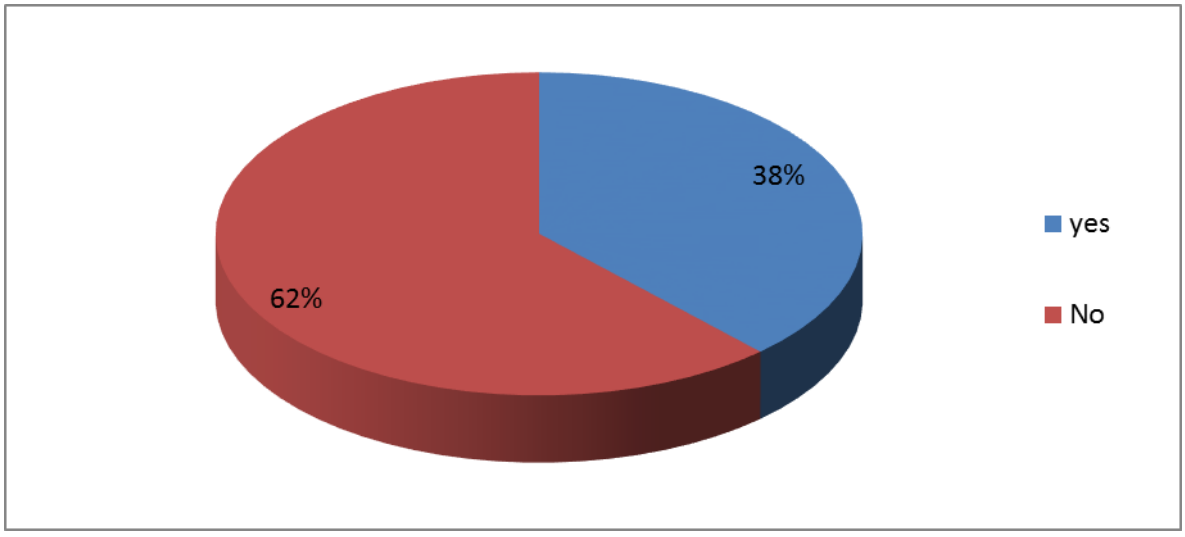
Finally, the participants were asked how did they deal with their tension which resulted from death anxiety , and the answerers varied as 39.2% (n=84) reported prayer, going outside of the house and visiting a family to take positive support, 46% (n=98) reported developing appositive attitude and normal life , 8%(n=17) reported their work , 3% (n=7) reported sleeping, 2.0% (n=4) reported sport , 2.0% (n=4) reported avoiding negative people , neglect and not thinking about the cancer. (See figure5.15)

Figure (5.15): How the participants deal with their tension due to death anxiety



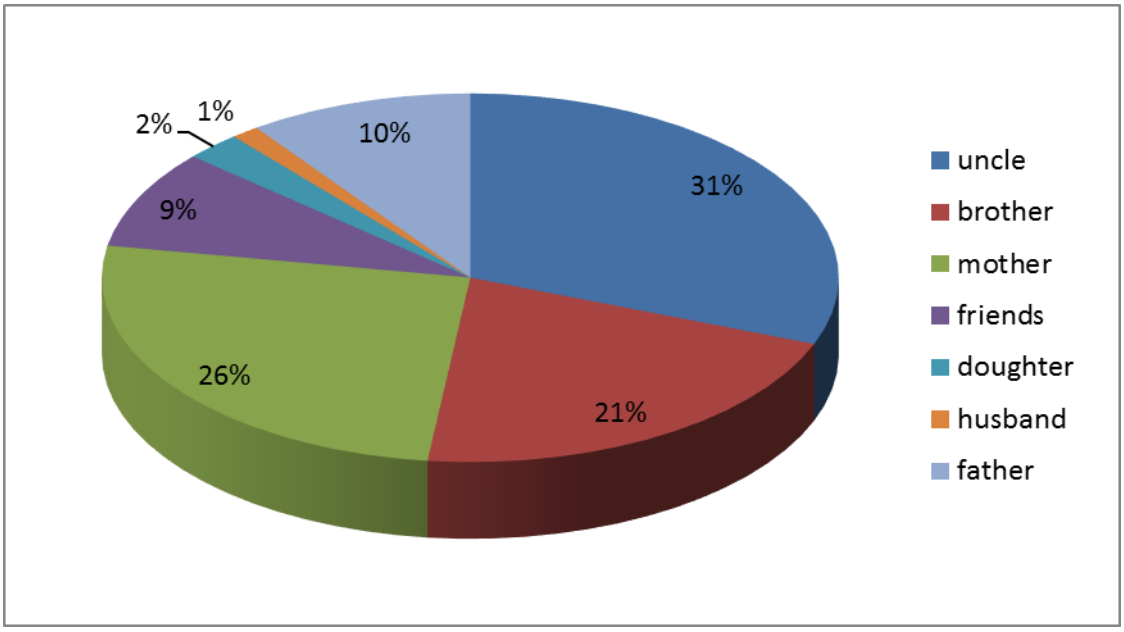
Furthermore, the participants were asked if any family members or acquaintances had been diagnosed with cancer and they answered as the following: 62.0 % (n= 132) reported none of their family or acquaintances had cancer and 38.0 % (n= 81) reported having family members with cancer as seen in figure (5.16)

Figure (5.16): Percentages of the family or acquaintances who were diagnosed with cancer



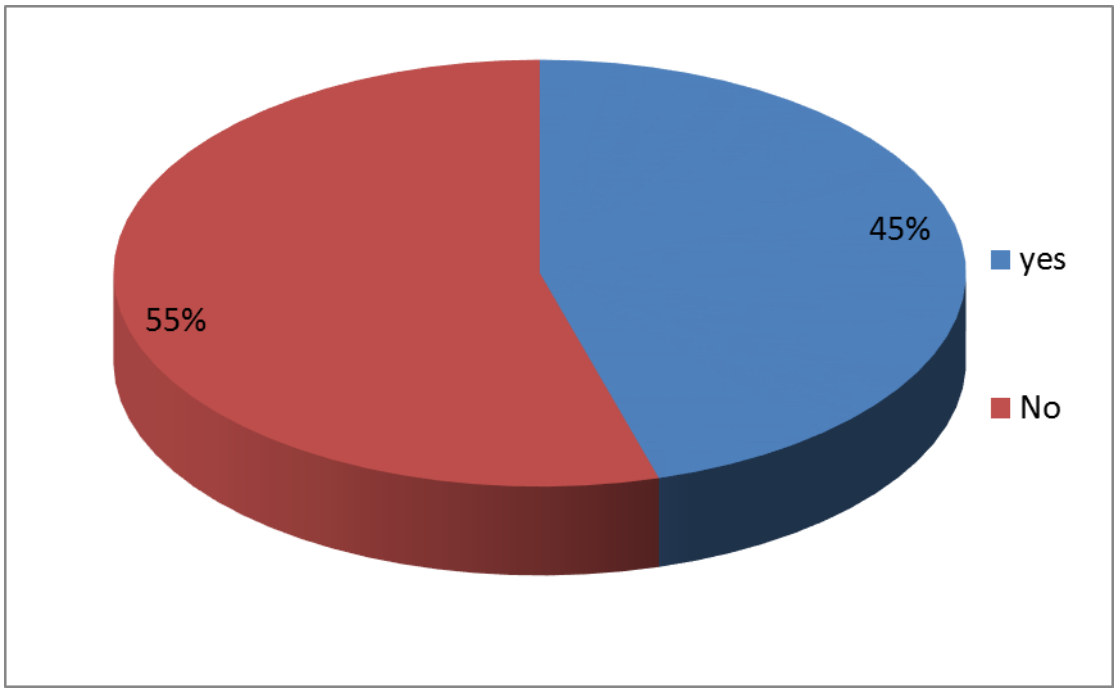
In addition, the participants were asked to mention their relationship, and 31 %(n=67) reported their uncles, 21.0% (n=45) reported their brothers, 26 %(n=56) reported their mothers, 9% (n=19) reported their friends, 2% (n=4) reported their daughters, 10 %(n=21) reported their fathers and one of participant reported her husband (1% n=2) (See figure 17).

Figure (5.17): The percentages of the family or acquaintances that were diagnosed with cancer



The participant were asked directly (question number 5 in the questionnaire) if they had death anxiety due to cancer,and (45.0%) said “yes” and 55 % said “no” as seen in figure (5.18).

Figure (5.18): The prevalence of death anxiety among the study sample



5.3 Templer's Death Anxiety Scale related findings

Also, the 15-items Templar Death Anxiety Scale (TDAS) was used to measure the level of death anxiety among the women with breast cancer. The results of the women responses to these 15 items are presented in table (5.1) in terms of frequency, percentage, mean and standard deviation (SD).

As shown in table (5.1), the highest percentages of 'yes' answer were for the statements "I often think about how short life really is." (88.7%, a mean of 0.11). Followed by "It doesn't make me nervous when people talk about death." (80.3%, a mean of 0.20). And "I am not at all afraid to die." (74.2%, a mean of 0.26).

Furthermore, findings showed that (73.7%) answered yes when they were asked if "the thought of death never bothers them" with a mean of (0.26), followed by "they were shudder when they heard people talked about a World War III or any other war." (73.2%, with a mean of 0.73). In addition, 71.4% reported,"they were not particularly afraid of getting cancer" with a mean of (0.71). While, (66.7%) reported that 'the thought of death seldom enters their minds' with a mean of (0.33). Finally (65.7%) answered yes for the statement "The subject of life after death troubles them greatly." with a mean of (0.34).

The lowest percentages of 'yes' answer were for the statements: "the sight of a dead body is horrifying to me." (43.4%, with a mean of 0.57), followed by "I dread to think about having an operation." (35.2%, with a mean of 0.35), and "I am very much afraid to die." (32.4%, with a mean of 0.32).

Table (5. 1): The percentages and frequencies of each question of TDAS

No	Questions	Yes		No		Mean	SD
		Frequency	%	Frequency	%		
1	I am very much afraid to die.	69	32.4%	144	67.6%	0.32	0.46
2	The thought of death seldom enters my mind.	142	66.7%	71	33.3%	0.33	0.48
3	It doesn't make me nervous when people talk about death.	171	80.3%	42	19.7%	0.20	0.4
4	I dread to think about having to have an operation.	75	35.2%	138	64.8%	0.35	0.48
5	I am not at all afraid to die.	158	74.2%	55	25.8%	0.26	0.43
6	I am not particularly afraid of getting cancer.	152	71.4%	61	28.6%	0.71	0.45
7	The thought of death never bothers me.	157	73.7%	56	26.3%	0.26	0.47
8	I am often distressed by the way time flies so very rapidly.	133	62.4%	80	37.6%	0.38	0.49
9	I fear dying a painful death.	125	58.7%	88	41.3%	0.59	0.49
10	The subject of life after death troubles me greatly.	140	65.7%	73	34.3%	0.34	0.48
11	I am really scared of having a heart attack.	97	46.2%	113	53.8%	0.46	0.50

12	I often think about how short life really is.	189	88.7%	24	11.3%	0.11	0.32
13	I shudder when I hear people talking about a World War III or any other war.	156	73.2%	57	26.8%	0.73	0.44
14	The sight of a dead body is horrifying to me.	92	43.4%	120	56.6%	0.57	0.50
15	I feel that the future holds noting for me to fear.	97	45.5%	116	54.5%	0.46	0.50

Table (5.2) also describes the mean scores of each question on TDAS according to its major 5 themes. Each death anxiety theme is assessed by 2-4 questions. Three themes (absolute death anxiety, death related thoughts, and time passing and short life) were assessed by three questions, one theme (fear of patience and pain) was assessed by four questions, and the last one (fear of future) was assessed by two questions.

Analyzing the mean score of the three questions referring to the absolute death anxiety revealed lower mean score for the three questions: I am very much afraid to die (mean 0.32 ± 0.46), not at all afraid to die (mean 0.26 ± 0.43), and the thoughts of death does no bother me (mean 0.26 ± 0.47). Study results also reflected lower mean score for the three questions referring to time passing and short life theme; The thought of death seldom enters my mind (mean 0.33 ± 0.48), I am often distressed by the way time flies so very rapidly (mean 0.38 ± 0.49) and I often think about how short life really is (mean 0.11 ± 0.32).

Regarding the death related thoughts theme, the highest mean score was for the question"the sight of a dead body is horrifying to me" (mean of 0.57 ± 0.50), then "the subject of life after death troubles me greatly" (mean of 0.34 ± 0.48) and "it doesn't make me nervous when people talk about death" (mean of 0.20 ± 0.4).

Furthermore, for the questions related to fear of patience and pain theme, results showed high mean scores for two questions "I am not particularly afraid of getting cancer" (mean of 0.71 ± 0.45), and "I fear dying a painful death" (mean of 0.59 ± 0.49). The low mean scores were found

for the questions; “I am really scared of having a heart attack” (mean of 0.46 ± 0.50), and“I dread to think about having to have an operation,” (mean of 0.35 ± 0.48).

For the fear of future theme, study results showed a high mean score for the question“I shudder when I hear people talking about a World War 3” (a mean of 0.73 ± 0.44), while low mean score was for the questions “I feel that the future holds nothing for me to be afraid off” (a mean of 0.46 ± 0.50) as seen in table (5. 2)

Table (5. 2) the mean and SD for each question in the major themes of TDAS

No	Death anxiety themes	Questions	Mean	SD
1 - Absolute death anxiety (1,5,7)			0.3	0.37
		I am very much afraid to die.	0.32	0.46
		I am not at all afraid to die.	0.26	0.43
		The thought of death never bothers me.	0.26	0.47
2 - Fear of patience and pain (4,6,9,11)			0.5	0.25
		I dread to think about having to have an operation.	0.35	0.48
		I am not particularly afraid of getting cancer.	0.71	0.45
		I fear dying a painful death.	0.59	0.49
		I am really scared of having a heart attack	0.46	0.50
3 - Death related thoughts (3,10,14)			0.4	0.24
		It doesn’t make me nervous when people talkabout death.	0.20	0.4
		The subject of life after death troubles me greatly	0.34	0.50

The sight of a dead body is horrifying to me	0.46	0.50
4 - Time passing and sort life(2,8,12)	0.3	0.26
The thought of death seldom enters my mind	0.33	0.48
I am often distressed by the way time flies so very rapidly.	0.38	0.49
I often think about how short life really is	0.11	0.32
5 - Fear of future (13,15)	0.6	0.35
I shudder when I hear people talking about a world war III or any other war	0.57	0.50
I feel that the future holds noting for	0.46	0.50

As seen in table (5.3) in this study, five themes of death anxiety scale were identified: absolute death anxiety, fear of patience and pain, death related thoughts, time passing and short life and fear of future. Analyzing the mean scores of each theme revealed the highest mean scores of the fear of future (mean 0.6 ± 0.35), and fear of patience and pain (mean 0.5 ± 0.25). The lowest mean scores of death anxiety were found for the death related thoughts theme (mean 0.4 ± 0.24), the time passing and short life theme (mean 0.3 ± 0.26) and for absolute death anxiety (mean 0.3± 0.35).

Table (5.3) The mean and SD of the major themes of TDAS

Measure	Mean (SD)
Death Anxiety themes	
Absolute death anxiety (1,5,7)	0.3 (0.37)
Fear of patience and pain (4,6,9,11)	0.5 (0.25)
Death related thoughts (3,10,14)	0.4 (0.24)
Time passing and short life (2,8,12)	0.3 (0.26)
Fear of future (13,15)	0.6 (0.35)

In order to examine and to assess death anxiety indicator, the responses of the 15 items were transformed to scores using 0/1 scale. The answer that is consistent with the positive direction for the indicator was given the number 1 and the answer that is in the opposite direction of the indicator was given the number 0.

Table (5.4) shows the total scores of this scale ranged from 0-15. The higher scores indicated higher level of death anxiety. Participants' answers were grouped as following: 0-6= absence level of anxiety, 7-8= average level of anxiety, and 9-15= high concern of anxiety.

In general, this study showed that the mean scores of death anxiety among patients with breast cancer on the TDAS was 7.0 ± 1.6 indicating that the concern of death among the study participants was on the average. The analysis revealed that 40.6% of the participants had an average level of death anxiety (mean scores: 7-8), and 40.2% had an absence level (0-6). High concern of death anxiety (9-15) was found in 19.2% of the patients. As seen in table (5.3)

Table(5.4) : the mean and SD of death anxiety categories

Measure	Mean (SD)
Death Anxiety	7.0 (1.6)
absence of death anxiety (0-6)	40.20%
concerns the death of the average (7-8)	40.60%
presence of high concern to death (9-15)	19.20%

5.4 Brief COPE scale related findings

The 29 items of Brief COPE scale were used to assess coping strategiesamong women with breast cancer by using frequency, percentage, mean and standard deviation (SD) as seen in table (5.5).

The most frequent coping strategies that were used by the patients with breast cancer in the current study were "finding comfort in religion or spiritual beliefs" (81% answered doing it a

lot), followed by "praying or meditating" (76% answered doing it a lot), "trying to get advice or help from other people about what to do." "getting comfort and understanding from someone" (both statements were answered by (67%) that they do it a lot), "getting a help and advice from other people " (62% answered doing this a lot). In addition,(61%) reported that they gotan emotional support from others a lot,50% of them reported "doing something to think about it less, such as going to movies, watching TV, reading, daydream, sleeping or shopping" and "accepting the reality of the fact that it has happened" (34% answered doing this a lot while (33%) answered medium amount)

The least frequent coping strategies which were used by the patients with breast cancer were: "using smoking to feel better" (5% answered doing it a lot, while (87%) answered not at all and a little bit) , followed by "giving up the attempt to cope" (4% answered doing it a lot and 87% answered doing it not at all and a little bit), "the use of alcohol or other drugs to help them get through it (3%answered doing it a lot, while (88%) answered not at all), "giving up trying to deal with it" (2% answered doing it a lot and 72%answered not at all), and finally "using alcohol or other drugs to make myself feel better" (1% answered doing it a lot and 93% answered not at all).

Moreover, for "blaming myself for things that happen", (73%) answered not at all, and for "saying things to let my unpleasant felling escape", (64%) answered not at all and little bit.

Table (5.5): The frequency and percentage for each item on Brief COPE scale

No	Questions	1. Not at all		2. A little bit		3. Medium amount		4. I've been doing this a lot		Mean	SD
		Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent		
1	I've been turning to work or other activities to take my mind off things	16	8%	20	9%	73	34%	104	49%	3.2	0.90
2	I've been concentrating my efforts on doing something about the	15	7%	31	15%	82	38%	85	40%	3.1	0.90

	situation I'm in										
3	I've been saying to myself "this isn't real.”	127	60%	44	21%	18	8%	24	11%	1.7	1.0
4	I've been using alcohol or other drugs to make myself feel better	198	93%	4	2%	9	4%	2	1%	1.1	0.50
5	I’ve been using smoking to feel better	168	79%	17	8%	18	8%	10	5%	1.3	0.83
6	I've been getting emotional support from others	24	11%	14	7%	45	21%	130	61%	3.3	1.0
7	I've been giving up the attempt to cope	141	66%	45	21%	18	8%	9	4%	1.5	0.82
8	I've been taking action to try to make the situation better	15	7%	84	39%	69	32%	45	21%	2.6	0.88
9	I've been refusing to believe that it has happened	138	65%	39	18%	14	7%	22	10%	1.6	0.99
10	I've been saying things to let my unpleasant feelings escape.	90	42%	47	22%	42	20%	33	16%	2.0	1.1
11	I’ve been getting help and advice from other people	26	12%	20	9%	35	16%	132	62%	3.4	1.1
12	I've been using alcohol or other drugs to help me get through it	187	88%	9	4%	10	5%	7	3%	1.2	0.68

13	I've been trying to see it in a different light, to make it seem more positive	29	14%	50	23%	71	33%	63	30%	2.7	1.0
14	I've been criticizing myself	111	53%	51	24%	27	13%	22	10%	1.8	1.0
15	I've been trying to come up with a strategy about what to do.	21	10%	70	33%	101	47%	21	10%	2.5	0.80
16	I've been getting comfort and understanding from someone	19	9%	17	8%	34	16%	141	67%	3.4	0.97
17	I've been giving up trying to deal with it	152	72%	39	18%	16	8%	4	2%	1.3	0.71
18	I've been looking for something good in what is happening	82	39%	56	27%	45	21%	28	13%	2.0	1.1
19	I've been making jokes about it	63	30%	52	25%	61	29%	35	17%	2.3	1.1
20	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	20	9%	15	7%	70	33%	106	50%	3.2	0.94
21	I've been accepting the reality of the fact that it has happened	22	11%	59	28%	57	27%	71	34%	2.88	1.1
22	I've been expressing my negative feelings	110	52%	43	20%	34	16%	24	11%	1.8	1.1

23	I've been trying to find comfort in my religion or spiritual beliefs	11	5%	13	6%	16	8%	170	81%	3.6	0.81
24	I've been trying to get advice or help from other people about what to do.	16	8%	20	9%	33	16%	142	67%	3.4	0.94
25	I've been learning to live with it	31	15%	82	39%	53	25%	45	21%	2.5	0.98
26	I've been thinking hard about what steps to take	57	27%	79	38%	54	26%	20	10%	22.1	0.93
27	I've been blaming myself for things that happened	154	73%	29	14%	12	6%	16	8%	1.4	0.90
28	I've been praying or meditating	15	7%	16	8%	19	9%	161	76%	3.5	0.91
29	I've been making fun of the situation	36	17%	64	30%	47	22%	64	30%	2.6	1.1

Further analysis was done to assess the answers' of the participants for each questions in major domains of Brief COPE scale by using the mean and SD as seen in table (5.6). Brief COPE scale consisted of 28 items and the responses were scores between 1 and 4 as discussed in chapter 4. Each domain included two items, except one domain (substance use) which included three items. Study results showed no difference in mean scores between items in all domain except one domain (active coping), where the patients focused their efforts on doing something about the situation they are faced with a mean of 3.1 ± 0.90 , and "rather than taking action to try to make the situation better: (mean 2.6 ± 0.88).

Similar mean scores between items were found in the domain of self-distraction. The patients used work or other activities to take their mind off things (mean 3.2± 0.90), and they were occupied in doing something to distract them from thinking about breast cancer, such as going to movies, watching TV, reading, day dreaming, sleeping or shopping (mean 3.2 ± 0.94).

Through the religion domain; patients trying to find comfort in their religion or spiritual beliefs (mean 3.6± 0.81), and tried to take comfort through praying and meditating (mean 3.5 ± 0.91). For the emotional support domain; the patients getting comfort and understanding from someone (mean 3.4 ± 0.97) and they got emotional support from others (mean 3.3 ± 1.0). for the use of instrumental support domain; the patients tried to get advice or help from other people about what to do (mean 3.4 ± 1.1).

Furthermore, for the acceptance domain: the patients accepted the reality of the fact that it had happened (mean 2.88 ± 1.1), and they learned to live with this disease (mean 2.5 ± 0.98). For humor domain; the patients made fun of the situation (mean 2.6 ± 1.1), and they made jokes about cancer (mean 2.3 ±1.1). For the planning domain; the patients tried to come up with a strategy about what to do (mean 2.5 ± 0.80), and they thought hard about what steps to take (mean 22.1 ± 0.93). For the positive reframing domain; the patients tried to see it in a different light, to make it seem more positive (mean 2.7 ± 1.0), and they looked for something good in what was happening (mean 2.0 ± 1.1).

For the venting domain; the patients said things to let their unpleasant feelings fade away (mean 2.0 ± 1.1), and they expressed the negative feelings (mean 1.8 ± 1.1). for the denial domain; the patients said to themselves this was not real (mean 1.7 ± 1.0), and they refused to believe that it had happened (mean 1.6 ± 0.99). For self-blame domain; the patients criticized their self (mean 1.8 ± 1.0), and blamed themselves for things that happened (mean 1.4 ± 0.9). for behavioral disengagement domain; the patients gave up the attempt to cope (mean 1.5 ± 0.82), and they gave up trying to deal with it (1.3 ± 0.71). Finally for the substance use domain; the patients had tendency to smoke to help them feel better (mean 1.3 ± 0.83), used alcohol or other drugs to

help them get through it (mean 1.2 ± 0.68), and used alcohol or other drugs to make themselves feel better (mean 1.1 ± 0.50).

In addition, the analysis was done to assess which major categories of coping strategies mainly the participants used in general as seen in table (5.6). The analysis showed that most common used strategies were religion (mean 3.6 ± 0.82), the use of emotional support (mean 3.4 ± 0.9), the use of instrumental support (mean 3.3 ± 0.9) and self-distraction (mean 3.2 ± 0.79). Followed by active coping (mean 2.9 ± 0.66), acceptance (mean 2.7 ± 0.87), humor (mean 2.5 ± 0.96), and planning and positive reframing (mean 2.4 ± 0.66 vs. 2.4 ± 0.81, respectively). The lowest scores were for venting (mean 1.9 ± 0.94), denial and self-blame (mean 1.7 ± 0.91 vs. 1.7 ± 0.76, respectively), behavioral disengagement (mean 1.5 ± 0.61) and substance use (mean 1.2 ± 0.49).

Table (5.6): Descriptive statistics for 14 domain of coping mechanism

No	Domain	Question	Mean	SD
1.	Self-distraction (1,20)		3.2	0.79
		I've been turning to work or other activities to take my mind off things	3.2	0.90
		I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping	3.2	0.94
2.	Active coping (2,8)		2.9	0.66
		I've been concentrating my efforts on doing something about the situation I'm in	3.1	0.90
		I've been taking action to try to make the situation better	2.6	0.88
3.	Denial (3,9)		1.7	0.91
		I've been saying to myself "this isn't real."	1.7	0.91

		I've been refusing to believe that it has happened	1.6	0.99
4.	Substance use (4,5,12)		1.2	0.49
		I've been using alcohol or other drugs to make myself feel better	1.1	0.50
		I've been using smoking to feel better	1.3	0.83
		I've been using alcohol or other drugs to help me get through it	1.2	0.68
5.	Use of emotional support (6,16)		3.4	0.9
		I've been getting emotional support from others	3.3	1.0
		I've been getting comfort and understanding from someone	3.4	0.97
6.	Use of instrumental support (11,24)		3.3	0.9
		I've been getting help and advice from other people	3.4	1.1
		I've been trying to get advice or help from other people about what to do.	3.4	0.94
7.	Behavioral disengagement (7,17)		1.5	0.61
		I've been giving up the attempt to cope	1.5	0.82
		I've been giving up trying to deal with it	1.3	0.71
8.	Venting (10,22)		1.9	0.94
		I've been saying things to let my unpleasant feelings escape	2.0	1.1
		I've been expressing my negative feelings	1.8	1.1
9.	Positive reframing (13,18)		2.4	0.81
		I've been trying to see it in a different light, to make it seem	2.7	1.0

		more positive		
		I've been looking for something good in what is happening	1.5	0.82
10.	Planning	(15,26)	2.4	0.66
		I've been trying to come up with a strategy about what to do	2.5	0.80
		I've been thinking hard about what steps to take	2.1	0.93
11.	Humor	(19,29)	2.5	0.96
		I've been making jokes about it	2.3	1.1
		I've been making fun of the situation	2.6	1.1
12.	Acceptance	(21,25)	2.7	0.87
		I've been accepting the reality of the fact that it has happened	2.88	1.1
		I've been learning to live with it	2.5	0.98
13.	Religion	(23,28)	3.6	0.82
		I've been trying to find comfort in my religion or spiritual beliefs	3.6	0,81
		I've been praying or meditating	3.5	0.91
14.	Self-blame	(14,27)	1.7	0.76
		I've been criticizing myself	1.8	1.0
		I've been blaming myself for things that happened	1.4	0.90

5.5 Relationship between dependent and independent variables

Table (5.7) describes the relationships between the socio-demographic, health related variable, death anxiety and coping strategies by using T-test and one way analysis of variance (One Way ANOVA). For example, the relationship between the socio-demographic and coping mechanisms revealed a significant relationship between the marital status and the using of coping strategies. ANOVA test showed that the patients who were divorced (mean: 2.47) used more coping

strategies than married (mean: 2.46) than, single (mean: 2.36) the widowed (mean: 2.33) and the separated patients (mean: 2.11) at a p-valueof 0.003.

In addition, there was a significant relationship between the use of coping mechanism and place of residence as shown in Table (5.7). For example, the participants who lived in a city had a higher mean score of using coping mechanisms (mean: 2.5) than the participants who lived in refugee camps (mean: 2.4) and villages (mean: 2.3) at p-value (0.035). Further, there was a significant relationship between the use of coping strategies and level of education. For example, the participants who had preparatory, secondary, and university education (the mean: 2.5 respectively) used more coping strategies than the participants who were uneducated (the mean: 2.3) orhad elementary education (the mean: 2.2) at p-value (0.001).

However, there were no statistically significant relationships between death anxiety and all other dependent variables such as age, marital status, place of residence, education level and economic status as shown in table (5.7)

Table (5.7): relationships between dependent variables and death anxiety and coping mechanisms

Variable	Death anxiety			Coping mechanisms		
	Mean	SD	P-value	Mean	SD	P-value
Age (year)						
18- <30	0.43	0.16	0.323	2.5	0.27	0.613
30- <40	0.48	0.13		2.4	0.34	
40- <50	0.47	0.15		2.4	0.36	
≥ 50	0.46	0.15		2.4	0.35	
Place of residence						
Village	0.40	0.15	0.664	2.3*	0.31	0.035
Camp	0.40	0.15		2.4	0.30	
City	0.41	0.13		2.5*	0.37	
Educational level						

Un educated	0.42	0.15	0.259	2.3*	0.33	0.001
Elementary	0.41	0.14		2.2*	0.34	
Preparatory	0.37	0.14		2.5*	0.34	
Secondary	0.43	0.16		2.5*	0.33	
University graduate	0.39	0.12		2.5*	0.30	
Economic status (NIS)/ family monthly income						
No income	0.39	0.10	0.187	2.27	0.63	0.212
<1000	0.33	0.15		2.35	0.21	
1000 - <2000	0.43	0.15		2.37	0.32	
2000 - <3000	0.41	0.14		2.47	0.30	
3000 - <4000	0.41	0.14		2.42	0.36	
≥ 4000	0.48	0.15		2.51	0.25	
Marital status						
Single	0.41	0.16	0.79	2.36	0.21	0.033
Married	0.40	0.14		2.46*	0.32	
Divorced	0.43	0.15		2.47	0.29	
Widow	0.42	0.15		2.33*	0.33	
Separated	0.45	0.15		2.11*	0.64	

*p-value <0.05

In addition, table (5.8) showed the relationships between healths related variables and death anxiety and coping mechanisms.

There were significant relationships between death anxiety and the treatment type, breast cancer treatment complications, and the presence of psychological problems. For example, the higher mean scores of death anxiety were observed in patients who received biological treatment (mean: 0.46) at p- value (0.038), followed by the patients who received chemotherapy (mean: 0.39) at p-value (0.013), surgery (mean: 0.38) at p-value (0.000) and finally the patients who received radiation therapy (mean: 0.37) at p-value (0.020). Furthermore, the patients who had psychological problems had a higher mean score of death anxiety (mean: 0.46) at p-value (0.000) than the participants who did not have such these problems (mean: 38). Finally the participants

who had breast cancer treatment complication had more death anxiety (mean: 44) than the participants who did not have such these complications (mean: 38) at a P value of (0.001)

Examining the relationship between health related variables and the death anxiety revealed none significant relationships between death anxiety and health related variables including breast cancer onset, hormonal therapy, and family history of cancer).

Finally, no significant relationships were found between the use of coping mechanisms and all health related variables as seen in table (5.8)

Table (5.8): relationship betweenhealth related variables, death anxiety and coping mechanisms

Variable	Death anxiety			Coping mechanisms		
	Mean	SD	P-value	Mean	SD	P-value
BC onset (year)						
<1	0.41	0.14	0.250	2.48	0.32	0.401
1 - <3	0.39	0.14		2.39	0.30	
3 - <5	0.39	0.15		2.38	0.33	
≥ 5	0.44	0.16		2.38	0.44	
Treatment type						
Chemotherapy						
Yes	0.39	0.14	0.013	2.43	0.33	0.469
No	0.46	0.14		2.37	0.39	
Hormonal therapy						
Yes	0.44	0.14	0.183	2.48	0.47	0.395
No	0.40	0.40		2.41	0.32	
Biological treatment						
Yes	0.46	0.12	0.038	2.51	0.31	0.216
No	0.40	0.15		2.40	0.39	
Surgery						
Yes	0.38	0.14	0.000	2.42	0.31	0.817
No	0.46	0.14		2.41	0.39	
Radiation therapy						
Yes	0.37	0.15	0.020	2.44	0.31	0.450
No	0.42	0.14		2.40	0.36	
BC treatment complications						
Yes	0.44	0.15	0.001	2.39	0.37	0.352
No	0.38	0.14		2.44	0.31	
Psychological problems						

Yes	0.46	0.14	0.000	2.44	0.35	0.656
No	0.38	0.14		2.34	0.34	
Family history of cancer						
Uncle	0.50	0.13	0.101	2.47	0.30	0.134
Brother	0.38	0.11		2.39	0.40	
Mother	0.43	0.17		2.51	0.29	
Friends	0.51	0.12		2.37	0.40	
Daughters	0.53	0.19		1.95	0.22	
Husband	0.73	--		--	--	
Father	0.41	0.14		2.65	0.44	

Finally, Pearson correlation test was used to test the correlations between the use of coping strategies and death anxiety. Person's test showed a strong inversed statistically relationship between coping mechanism and death anxiety. The strongest relationship was for humor (Pearson Correlation=- 0.293) at p-value (0.000), religion (Pearson Correlation= -0.291) at p-value (0.000),denial (Pearson Correlation=- 0.258) at p-value (0.000), self-distraction (Pearson Correlation=-2.55)at p-value (0.000), active coping (Pearson Correlation=-0.200) at p-value (0.003), use of instrumental support p= (0.014), and the use of emotional support(Pearson Correlation=-0.162) at p-value (0.018).The behavioral disengagement was statistically significant with a person correlation = 0.344 at p- value (0.000). The weakest relationship was for the acceptance (Pearson Correlation=-0.147) at p-value (0.033).

Table (5.9): Correlation between coping mechanisms and death anxiety

Coping mechanism	Correlation value with Death Anxiety	P-value
Self-distraction	-0.255*	0.000
Active coping	-0.200*	0.003
Denial	0.258*	0.000
Substance use	0.011	0.876
Use of emotional support	-0.162*	0.018
Use of instrumental support	-0.169*	0.014
Behavioral disengagement	0.344*	0.000
Venting	0.111	0.108
Positive reframing	0.021	0.758
Planning	0.041	0.549

Humor	-0.293*	0.000
Acceptance	-0.147*	0.033
Religion	-0.291*	0.000
Self-blame	0.082	0.234

*p-value <0.05

5.6. Summary:

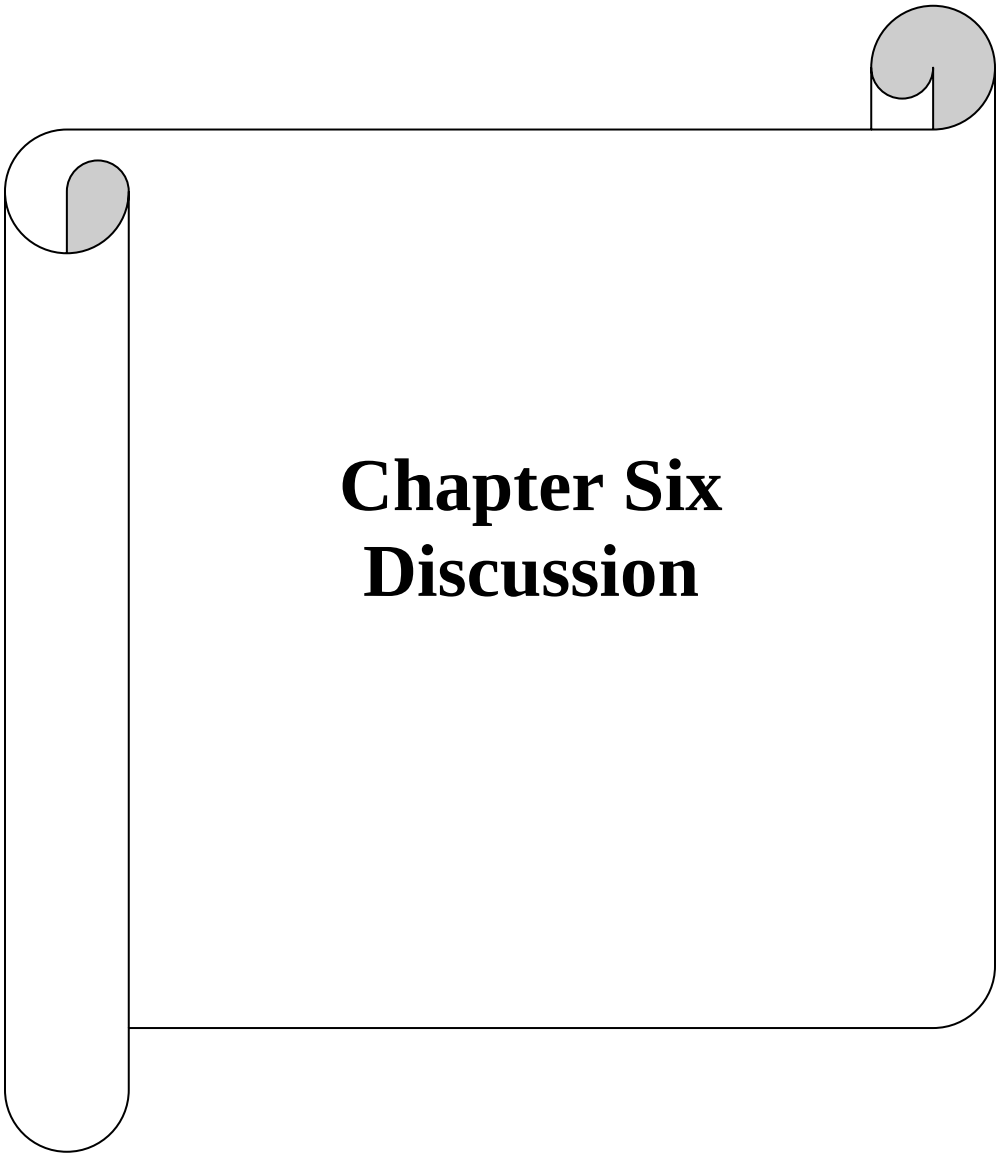
- The current study showed in general that anxiety death among women with breast cancer indicated that the concern of death was on average 59.8% which mean it's on average.

- Five themes of death anxiety scale were identified: absolute death anxiety, fear of patience and pain, death related thoughts, time passing and short life and fear of future. Analyzing the mean scores of each theme revealed the highest mean scores of the absolute death anxiety theme (mean 0.6 ± 0.22), fear of future (mean 0.6 ± 0.35),

- The highest percentages of 'yes' answer was for the statements "I often think about how short life really is." (88.7%, a mean of 0.11). The lowest percentages of 'yes' answer were for the statements: "the sight of a dead body is horrifying to me." (43.4%, with a mean of 0.57).

- The most frequent coping strategies that were used by the patients with breast cancer in the current study were "finding comfort in religion or spiritual beliefs" (81% answered doing it a lot).

- Person's test showed a strong inversed statistically relationship between coping mechanism and death anxiety. The strongest relationship was for humor.



Chapter Six
Discussion

Chapter Six

6.1. Introduction

This chapter discusses the major findings of the current study and the interpretation of its findings in relation to previously conducted studies found in literature review. The participants' characteristics and their responses to the scales items are discussed. Also, the relationship between dependent and independent variables are highlighted by using many statistical analyses tests such as ANOVA test, and T-test. The results of these statistical tests are discussed in each of the following sections:

- Section one: The characteristics of the participants and the medical and psychological history.
- Section two: death anxiety, coping mechanism and the relationship between dependent and independent variables.
- Section three: limitations and recommendations.

6.2. Section one: The characteristics of the participants and medical and psychological history.

As mentioned in chapter two, in Palestine, breast cancer is the most common cancer among Palestinian women. There is a significant difference in death anxiety scores between genders, with women scoring significantly higher on death anxiety than men (Abdel-Khalek, 1998, 2000-2001; Aday, 1984-1985; Devins, 1980-1981; Koob& Davis, 1977; Lonetto&Templer, 1986; McDonald, 1976; Rasmussen & Johnson, 1994; Templer, Ruff, & Franks, 1971; Young & Daniels, 1980).

Age is believed to be a strong risk factor after gender for developing breast cancer. The incidence and death rates of breast cancer generally increase with age, ranging between 45-50 years. In the current study, 100% of the participants were females and the study targeted age group ranged from 18 years old and over. The findings showed that cancer prevalence was higher among the age groups above the age of 30 years old and over (89.7%) than the age group between 18 years old to less than 30 years old (10.3%) and itmost occurred among the

age group of 30 years old to less than 50 years old (60.3%). For example, (36%) were from the age group of 30 years old to less than 40 years old, 25% were from 40 years old to less than 50 years old and 29% were more than 50 years old. In Arab world, the average age of diagnosis was 48 years, which is considered as a young age (Najjar and Easson, 2010). These findings were inconsistent with Najjar and Easson, (2010) study who found that two thirds of breast cancer cases occur after the age of 55. In addition, WHO reported that breast cancer is strongly related to age and only 5% of all breast cancers occurring in women under 40 years old. Finally, there were more than 41,000 newly diagnosed cases of breast cancer registered in England in 2011; and around 80% of these cases were in women age 50 or older (WHO, 2014). Late menopause after the age of 55 years has been associated with slightly higher risk of breast cancer among women so further studies might be required to investigate the causes of high prevalence of breast cancer among young Palestinian women.

For place of residence, the high prevalence was among the participants who lived in the city (46 %, n=99) , then the villages (38 %, n=80), and the refugee camps (16%, n=35). This finding is consistent with one study which found that the residents of the rural areas had significantly a higher incidence and mortality rates than urban residents (Chen et al, 2016). Ziegler (1993) reported that the urban areas had a risk of 30% of cancer higher than the rural areas. Wright et al. (1996) stated that inner-city residents might live close to hospitals and other health-care providers so they have more access to see their doctors and other health-care professionals than women who lived in the villages or camps. In addition, in Palestine, the majority of the women with breast cancer who live in the refugee camps are treated in the health services that belong to UNRWA and they are referred to Augusta Victoria Hospital in Jerusalem to receive their treatment.

Furthermore, the vast majority of the participants were married as more than half of the participants (70%) were married, (6.6 %) were single, (3.3%) were divorced and (2.3%) were separated. This in consistent with the fact that the average age of marriage for the Palestinian women is 20 years old (Palestinian Central Bureau of Statistics, 2013). In addition, it was found that married couples were more likely to resist and survive from cancer, while those who were separated or divorced were less able to resist and cope (kheel, 2010). Osborne (2005)

indicated that married women have a better prognosis of cancer treatment because of the increasing sources of their social support and social networks. Goodwin et al (1987) found that unmarried patients with cancer had poor overall survival rate because they were more likely to be diagnosed at a late stage, and were more likely to be untreated for cancer

On other hand, 29% (n=62) of the participants had a university degree, 27% (n=57) had completed secondary school education, 15%(n=33) preparatory, and 15% (n=32) elementary. The uneducated women constituted of 14 % (n=30). According to the Palestinian Central Bureau of Statistics (2015), the illiteracy rate among the Palestinians was considered low (3.3%) and it was a higher among females (5.1 %) than males (1.5%). These results were consistent with previous studies of increased risk of invasive breast cancer among highly educated women. (Heck et al, 1997, Bratten, 2004, Gordon, 1995). Hussain et al, (2008) found in their study that compared to women completing less than 9 years of education, university graduates were more likely to be diagnosed with in situ and invasive breast cancer, but university graduates were associated with the highest survival following a breast cancer diagnosis. On other hand one study found no association between education and breast cancer survival (Lund et al, 1991)

Also, most of the participants were from middle to poor socioeconomic class as nearly 50% of them reported earning less than 3000 NIS per month. For example, 18% had no income, 17% of them had less than 1000, 7% earned 1000 to less than 2000 NIS, 7% earned 2000 to 3000, whereas only 1% earned more than 4000 NIS. These findings might indicate that 42% of the participants were under the Palestinian poverty line, which was defined by the Palestinian Center Bureau of Statistics (PCBS) as a monthly income of less than 2,293 NIS (PCBS, 2016). Ansell et al (1993) stated that income influences breast cancer survival differences between blacks and whites in USA

As the participants in the current study (100%) had breast cancer, the findings showed that nearly 71.2 % of the participants had their diagnosis for less than 3 years. For example, 36% (n=77) of the participants reported that their cancer onset was less than one years, 35% (n=74) reported from one year to less than three years, 14% (n=30) reported from three years to less than five years, and 15% (n=31) stated more than five years. Rebate (2007) indicated that around

10% of the female population will be diagnosed with breast cancer at some point of their life. Also, according to the American Cancer Society, about 1 out of 8 invasive breast cancers develop in women younger than 45 and about 2 out of 3 invasive breast cancers are found in women 55 or older. (American Cancer Society, 2015). This finding might be explained by the fact that most of the participants in this study were young and 60.3% were aged from 30 years old to less than 50 years old. Dent et al (2007) indicated that the survival rate of patients with breast cancer depends on the type of breast cancer. For the women with triple-negative breast cancer, the risk of recurrence peaked at 3 years and declined rapidly thereafter. While for the other types, the recurrence risk is constant over the period of follow-up. Also, it was found that women who were diagnosed with breast cancer after the age of 50 years old were at a risk to developed contralateral breast cancer (40%) compared to the women who were diagnosed before the age of 50 years old (12%) (Verhoog, 2000)

Further, the participant reported different medical complication. Most of them reported bone problems followed by other problems such heart and lungs, arm and lymph nodes, uterus and reproductive system, skin burns, irritation or discoloration, osteoporosis, fatigue, and menstrual menopause or the menstrual become irregular. These complications might be occur as a result of their treatment by chemotherapy and radiotherapy which induce side effects, both acute, such as erythema of the skin and pneumonitis, and late side effects, including neuropathy of the affected brachial plexus, lymphedema of the upper extremity and increased mortality from cardiac disease (Clarke et al., 2005). In addition, the skeletal system including the bones are the most common organ to be affected by metastatic cancer particularly breast cancer which reflect the long clinical courses of tumors. 80% of cases have metastatic bone disease, which may cause pain, impaired mobility, hypercalcemia, pathologic fracture, spinal cord or nerve root compression, and bone marrow infiltration. (Coleman, 1997)

Moreover, the participants were asked if they suffered from any psychological problems in addition to breast cancer and the findings showed that 69.2% (n=148) reported that did not have any psychological problems and 30.8% (n=66) of them reported that they suffered from psychological problems particularly depression (97 %) and anxiety and fears (3.0 %, n= 2). Also, 91.3% of the participants reported that they did not seek psychotherapy to treat their psychological problems and only 8.7% of the responders tried psychotherapy and counseling

services. Other studies reported lower level of depression than the current study. For example, a cross sectional study included 472 women receiving medical care for breast cancer or gynecologic cancer was conducted by Ell et al (2005) in USA and found that 24% of women reported moderate to severe levels of depressive disorder (30% of patients with breast cancer and 17% of patients with gynecologic cancer). Only 12% of women who had major depression reported receiving medications for depression, and only 5% of women reported seeing a counselor or participating in a cancer support group.

Burgess at el (2005) indicated that nearly 50% of the women with early breast cancer had depression, anxiety, or both in the year after diagnosis, 25% in the second, third, and fourth years, and 15% in the fifth year. Point prevalence was 33% at diagnosis, falling to 15% after one year. Further, 45% of those with recurrence experienced depression, anxiety, or both within three months of the diagnosis. Longer term depression and anxiety, were associated with previous psychological treatment, lack of an intimate confiding relationship, younger age, and severely stressful non-cancer life experiences.

This findings may indicate the need to for routine screening and evaluation of depression and other mental disorders and treatment among women with breast cancer in Palestine particularly in the first year after diagnosis because chronic psychological stress may represent a considerable risk factor the development of aggressive tumors in women diagnosed with breast cancer (Einstein, 2015)

The main obstacles for not seeking psychotherapy as reported by the participants in the current study were the economic situation to their family (40.0%), lack of knowledge about places that offer such services (24%), 12% of them thought that psychotherapy is not effective, and few participants did not seek psychotherapy services to avoid stigma (9 %). Iskandarsyah et al (2014) revealed similar eight main themes concerning reasons for delay in seeking help and treatment such as: lack of awareness and knowledge, cancer beliefs, treatment beliefs, financial problems, emotional burden, severe side effects, paternalistic style of communication, and unmet information needs. Straker (1998) stated that psychotherapy is effective as an approach to understanding the psychological conflicts and the psychiatric symptoms of cancer patients as well as to planning useful psychological interventions. These findings may indicate the

importance of providing counseling and psychotherapy for free for patients with cancer in the Palestinian hospitals and centers that provide cancer treatment and palliative care and to spread awareness about the needs of counseling for cancer patients.

When the participant were asked if anyone of their family members or acquaintances had been diagnosed with cancer, 62% of them reported no, and 38% of them said yes (such as their uncles (31%) , their mothers (26%), their brothers (21%), their fathers (10%), their daughters (2%). It is known that about 5% to 10% of breast cancers are thought to be hereditary, caused by abnormal genes passed from parent to child and women who are diagnosed with breast cancer and have an abnormal gene often have a family history of breast cancer, ovarian cancer, and other cancers. (Breastcancer.org, 2016) ; Further, it was found that only about 13 % of women diagnosed with breast cancer have a first-degree female relative (mother, sister or daughter) with breast cancer(Lancet, 2001).

Interestingly, the findings of the current showed that low percentages of husband were the source of social support for the patients with breast cancer which is inconsistent with the findings in literature review. Emotional support from family particularly the spouse was ranked as the highest support required by patient as compared to other sources, such as friends and health care providers (Aron et al 2007). Husbands were considered as the most required source of social support and help seeking for women with breast cancer (Pistrang and Barker, 1992, Barker, 1990). It was found that 60% of the breast cancer patients chose their spouse as a source of emotional support (Sandgren, 2004). Kornblith et al (2001) indicted that without an intimate, loving relationship, patients would not be able to maintain self-esteem, to obtain help and advice, or to have access to meaningful reassurance from someone they felt cared deeply about them.

Finally, findings showed that family members diagnosis with a cancer affected the psychological status of the participants negatively in the current study as 49% of participant answered yes when they were asked if the diagnosis of their family or acquaintances with cancer had increased their anxiety and stress, and 51% answered no . This might be explained by the fact that the risk of breast cancer is two or more greater if women has a first degree relative (mother ,

sister, daughter, father , or brother)who have the disease , and the risk increased about 3 fold if two or more relatives are affected (Kharazmi et al., 2014, ACS, 2012).

6.3. Section two: death anxiety and coping mechanism and the relationship between dependent and independent variables

For death anxiety, the findings revealed a high level of death anxiety in general and it showed discrepancy between how the participants rated their death anxiety and the findings of statistical analysis of Templer Death Anxiety Scale. For example, the participants in the current study were asked directly if they had a fear of death due to their cancer diagnosis and 45% said "yes" while 55% said "no". On the other hand, when the participants were asked by question number five in Templer Test if "they are not at all afraid to die." the majority (74.2%) answered yes with a mean of (0.26).

Further statistical analysis was done for the 15 items of Templar Death Anxiety Scale in this study and the participants' answers were grouped as the follow: 0-6= absence level of anxiety, 7-8= average level of anxiety, and 9-15= high concern of anxiety.

In general, the findings showed that the mean scores of death anxiety among breast cancer patients on the TDAS was 7.0 ± 1.6 indicating that the concern of death among the study participants was on the average. The analysis revealed that 40.6% of the participants had an average level of death anxiety (mean scores: 7-8), and 40.2% had an absence level (0-6). High concern of death anxiety (9-15) was only found in 19.2% of the patients. In summary, findings showed that 59.5% of the participants in the current study had death anxiety.

The discrepancy between the participants' answers in the current study might be due the nature of the questions in the questionnaire as the patients were asked directly about their feeling about their fear of death which is considered subjective while Templer Scale measures death anxiety which is considered unconscious . Even though, the terms are mostly used synonymously, the concepts "death anxiety" and "fear of death" have also been distinguished. Death anxiety refers to a dread of complete annihilation, whereas fear of death is a more concrete belief that death is frightening (Momeyer, 1988). Cicirelli (2006) identified that dread of

annihilation is related more broadly to a mental or spiritual awareness of the loss of existence, whereas fear of death is related to the physical awareness of loss of existence. Therefore, qualitative research is needed to explain women experiences more closely.

Muhbesal (2010) reported nearly lower percentage of death anxiety than the current study. He assessed the fear of death among 100 patients with breast cancer and the findings showed that death anxiety was 43% (always), 43% (sometimes) and 14% never. Further, a cross-sectional study was conducted by Tang et.al (2011) including 219 patients with cancer who were aware of their advanced cancer conditions demonstrated that average score of death anxiety was 44.79 and people who were newly diagnosed with cancer had greater fear of death than other cancer patients. In addition, a cross-sectional analysis was conducted by Neel et al., (2012); found that 32% per cent of the sample reported death anxiety of at least moderate severity. On other hand, other studies reported higher level of death anxiety among patients with breast cancer than the current study. For example, a cross-sectional study was conducted by Salehi et al, (2017) to measure the relationship between religious orientation and death anxiety in 48 patients with breast cancer who were referred to the Oncology Department of Imam Reza (PBUH) Hospital by using Templer Death Anxiety. The findings revealed that 72.9% of the patients had high levels of death anxiety. Also, Vilhauer (2008) study showed that 71% of patients had a fear of death. The women's fear came from the stress of worrying about dying, the fear of the disease progression, the loss of their future, and practical concerns such as fear of being dependent, and not able to do normal daily activity.

Moreover, Templar Death Anxiety Scale items were grouped into five themes of death anxiety scale: absolute death anxiety, fear of patience and pain, death related thoughts, time passing and short life and fear of future. Analyzing the mean scores of each theme revealed the highest mean scores of the absolute death anxiety theme (mean 0.6 ± 0.22), fear of future (mean 0.6 ± 0.35), and fear of patience and pain (mean 0.5 ± 0.25). The lowest mean scores of death anxiety were found for the death related thoughts theme (mean 0.4 ± 0.24), and for the time passing and short life theme (mean 0.3 ± 0.26).

These findings were supported by a study was conducted by Gonen at el. (2012), who revealed that Axis I psychiatric diagnosis, pain scores, and negative believes about what will happen after death were found to be higher in patients having death anxiety than patients not having death anxiety. Also, life expectancy was perceived as shortened in patients with death anxiety. Death anxiety was associated with anxiety, depressive symptoms, and beliefs about what will happen after death. (Gonen at el., (2012). Patients who have death anxiety may try to avoid painful and intrusive thoughts related to death, and a situation that can perpetuate feelings of alienation (Neimeyer, 2011). They may think that discussing these issues may bring additional stress to family members, or they may want to appear strong. (Lehto andTherrien, 2010) Neel et al., (2012), showed that the most distressing concern for patients with cancer involved fears about the impact of one's death on others, and the least distressing concerns were related to dying alone or suddenly. The physical symptoms most strongly associated with death anxiety were changes in physical appearance, and pain.

Coping with the diagnosis and treatment is a stressful journey and require lots of adjustment and changes (Williams&Jeanetta, 2016). In summary, the analysis of findings in the current study indicated that the most commonly used strategies were religion (mean 3.6 ± 0.82), the use of emotional support (mean 3.4 ± 0.9), the use of instrumental support (mean 3.3 ± 0.9) and self-distraction (mean 3.2 ± 0.79). Followed by active coping (mean 2.9 ± 0.66), acceptance (mean 2.7 ± 0.87), humor (mean 2.5 ± 0.96), and planning and positive reframing (mean 2.4 ± 0.66 vs. 2.4 ± 0.81, respectively). The lowest scores were for venting (mean 1.9 ± 0.94), denial and self-blame (mean 1.7 ± 0.91 vs. 1.7 ± 0.76, respectively), behavioral disengagement (mean 1.5 ± 0.61) and substance use (mean 1.2 ± 0.49).

These results were supported by Harriett &Lawlis (2012) who found that patients with cancer depend strongly on perceived strength of religious beliefs and integral religious values in their coping with imminent death. Minimal or low fear of death was highly associated with previous experience with a dying person with whom one had a close relationship. Similarly, Henderson et al. (2003) found that relying on prayer, avoiding negative people, developing a positive attitude, having a will to live, and receiving support from family, friends, and support groups were the major coping strategies, which were used by patients with breast cancer. Furthermore, Taleghani et al.

(2006) revealed that the most common coping strategies that were used by the patients with breast cancer were religious. Meravigilia stated that breast cancer survivors who reported high prayer scale scores had high psychological well-being despite having low education levels and less income to meet their needs. Other frequently used coping strategies are positive cognitive restructuring, wishful thinking, making changes, engaging in 12 physical activities, using medication and resting (Meravigilia, 2007).

On other hand, Yoo et al., (2017) found that moving from managing the emotions of others to expressing emotional vulnerability, moving from work and productivity to work-life balance, and moving beyond the family and reaching out to breast cancer survivors, maintaining normalcy including caring for others and working during treatment were the major coping mechanism that were used by women with breast cancer. Williams&Jeanetta (2016) reported different coping mechanism such as journaling their activities which provided comfort, and the support from family was the key which gave them strength and courage through the different stages of treatment. Culver et al (2010) reported four main coping responses: use of humor, religious coping, self-distraction and venting. The investigators compared the coping responses among women from three ethnic groups; non-Hispanic Whites, Hispanic and African Americans and found that Non-Hispanic Whites reported more use of humor; Hispanic women used more venting and self-distraction while religious coping was the common strategy among African Americans (Culver, J.L., 2010).

The least frequent coping strategies used by the participants in the current study were, "using smoking to feel better", "using alcohol or other drugs to help them get through it"and "giving up trying to deal with it", "using alcohol or other drugs to make myself feel better". This finding might be explained by the fact that most of the participants in the current study used religion as a coping mechanism which might prevent them from using alcohol or smoking.

Also, Pearson correlation test was used to test correlations between coping strategies and death anxiety. Person's test showed a strong inversed statistically relationship between coping mechanism and death anxiety. The strongest relationship was for humor (Pearson Correlation=-

0.293) at p-value (0.000), religion (Pearson Correlation= -0.291) at p- value (0.000), denial (Pearson Correlation=- 0.258) at p-value (0.000), self-distraction (Pearson Correlation=-2.55)at p-value (0.000), ,active coping (Pearson Correlation=-0.200) at p-value (0.003), use of instrumental support p= (0.014), use of emotional support(Pearson Correlation=-0.162) at p-value (0.018) , and the weakest relationship was the acceptance (Pearson Correlation=-0.147)at p-value (0.033). Finally, behavioral disengagement was statistically significant with a person correlation = 0.344 at p- value (0.000).

Culver et al found that Non-Hispanic Whites reported more use of humour; Hispanic women used more venting and self-distraction while religious coping was the common strategy among African Americans (Culver, J.L., 2010). In addition, denial is a coping strategy which is used significantly higher by patients with breast cancer. (Gupta at el., 2012) Saniah& Zainal, (2010) found that behavioral escape avoidance and cognitive escape-avoidance as the most important coping mechanisms which contribute to the psychological distress of the cancer patients receiving chemotherapy.

T-test and one way analysis of variance (One Way ANOVA revealed a significant relationship between coping mechanisms and marital status, place of residence and education.The findings revealed no significant relationship between death anxiety and dependent variables such as age; marital status and place of residence, economic status and health related variables (breast cancer onset, treatment type, BC treatment complications, and the family history of cancer). Other studies in literature showed different results. for example, a cross-sectional study conducted by Tang et.al (2011) including 219 patients with cancer found a significant relationship between stage of initial diagnoses and death anxiety and revealed that people who were newly diagnosed with cancer had greater fear of death than other cancer patients (Tang et al., 2011). In addition, a cross-sectional study conducted by Salehi et al, (2017) found a significant relationship between age and death anxiety.

Further studies is required to assess the relationships between these variables and death anxiety and coping mechanisms among Palestinian women with breast cancer

6.4 Limitations and recommendations

6.4.1. Limitations:

There are many limitations in the current study. For example, this study utilized a cross sectional design, due to the limitation of the available time and scarcity of resources. This makes it difficult to assess accurately the magnitude of effect exerted by each factor or to differentiate precisely whether the interaction between these factors would be advised or antagonistic. Also, this type of design may have limitations in the generalization of the results to a wider population since it measures both the prevalence of the outcomes and the determinants in a population at a point in time or over a short period of time (Horn et al. 2008). Nevertheless, the cross sectional studies are highly useful for descriptive purposes and it is relatively quick, cheap and easy to undertake (Grove & Burns, 2005; Monsen& Horn, 2008).

The data collection for this study was done by using a self- administered questionnaire. So, the reliability of the results may be affected, since the participants may hesitate to express their points of view or they may describe their own thoughts, feelings or behaviors in spurious way to please the researcher (Mitchell, 2000). Further, the sample included patients who attending Beth-Jala Governmental Hospital which may limit the generalization of findings to other groups who attending private and hospitals.

6.4.2. Recommendations

6.4.2.1. Recommendations for policy makers:

- Increase the knowledge and awareness of mental health professional and other medical team “about the death anxiety and coping mechanism” among women with breast cancer.
- Employ full-time mental health professional or therapist in the Oncology Department at Beit-Jala Governmental Hospital to help these patients to overcome their psychological problems particularly death anxiety and depression.

6.4.2.3. Recommendations for health and mental health professional:

- There is a need to for routine screening and evaluation of death anxiety depression and other mental disorders among women with breast cancer in Palestine particularly in the first year after diagnosis.

- The community mental health professionals should focus on the negative thoughts associated with breast cancer in order to help to reduce their death anxiety and others fears and to help them coping by providing psychotherapy such as cognitive behavior therapy.

- The mental health professionals should do regular activities for patients with breast cancer to spend leisure time inside the oncology department in the hospital while taking their treatment such as reading, hearing music, and expressive art.

- Mental health professional should focus on death anxiety among high risk groups such, age group 30 to less than 40 years old, separated patients, women who live in city, and patients with psychological problems.

- To guide the family of the patients, especially the husband and children on how to deal with the patients at different stages of the disease and to encourage her to express her feelings and emotions.

6.4.2.4. Recommended research in the future:

- There is a need for further quantitative study to assess death anxiety and coping mechanism in other hospitals and centers that provide treatment for women with breast cancer in Palestine.

- There is a need for qualitative study to explore death anxiety and coping strategies among breast cancer women and its causes in more depth.

- Further studies might be required to investigate the causes of high prevalence of breast cancer among young Palestinian women.

- Further studies is required to assess the relationships between coping strategies and death anxiety and other variables including as age; marital status and place of residence, economic status and health related variables (breast cancer onset, treatment type, BC treatment complications, and the family history of cancer). among Palestinian women with breast cancer

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Appendix (A)

البيانات الشخصية:

يتناول هذا القسم بيانات شخصية الرجاء وضع إشارة (X) في مكان الإجابة الملائمة للأسئلة:

1) العمر:

( ) 18سنة – أقل من 30 سنة ( ) 30 سنة – أقل من40 سنة

( ) 40 سنة –أقل من 50 سنة ( ) أكثر من 50 سنة

2) مكان السكن:

( ) قرية ( ) مخيم ( ) مدينة

3) الحالة الاجتماعية:

( ) عزباء ( ) متزوجة

( ) مطلقة ( ) أرملة

( ) منفصلة ( ) غير ذلك اذكريه.....

5) المستوى التعليمي :

( ) غير متعلمة ( ) ابتدائي (1–6 سنوات دراسية).

( ) إعدادي (6–9 سنوات دراسية). ( ) ثانوي (10–12 سنة دراسية).

( ) جامعي

6)اختاري نوع العلاج الدي تأخدينه من القائمة التالية(يمكن أن تختاري أكثر من إجابة):

( ) علاج كيماوي ( ) علاج هرموني

( ) علاج بيلوجي ( ) عملية جراحية

( ) علاج اشعاعي

7) الوضع الاقتصادي (حسب دخل الأسرة شهرياً):

( ) لا يوجد دخل. ( ) أقل من 1000 شيكل.

( ) من 1000 – أقل من 2000 شيكل. ( ) من 2000 – أقل من 3000 شيكل

( ) من 3000 شيكل–4000أقل من شيكل ( ) أكثر من 4000 شيكل

8) منذ متى أصبت بسرطان الثدي :

( ) أقل من سنة ( ) سنة – أقل من ثلاث سنوات

( ) ثلاث سنوات – خمس سنوات ( ) أكثر من خمس سنوات

9) هل أصبت بأية مضاعفات لعلاج مرض السرطان؟ ( ) نعم ( ) لا

إذا كانت الإجابة نعم، أرجو تحديدها من القائمة التالية:

( ) مشاكل في العظام . ( ) مشاكل في القلب والرئتين.

( ) مشاكل في الذراع والغدد اللمفية . ( ) مشاكل في الرحم والجهاز التناسلي.

( ) مشاكل أخرى . ( ) أذكريها _____

10) هل تعاني من مشاكل نفسية بسبب مرض السرطان ؟

( ) نعم ( ) لا

إذا كانت الإجابة نعم، أذكريها: _____

11) هل توجهت في الماضي لتلقي خدمة الإرشاد أو العلاج النفسي للمساعدة في حل مشاكلك النفسية؟

( ) نعم ( ) لا

إذا كانت الإجابة نعم:

أين: _____

نوع العلاج: _____

المدة الزمنية: _____

12) إذا كانت الإجابة لا ما الذي منعك من التوجه لطلب خدمة الإرشاد أو العلاج النفسي؟

( ) لأن العلاج النفسي غير فعال لحل مشاكلي النفسية.

( ) الوضع الاقتصادي لعائلتي.

( ) لتجنب وصمة المجتمع بأنني مريض نفسي.

( ) عدم معرفتي بالأماكن التي تقدم مثل هذه الخدمات.

( ) أسباب دينية.

( ) أسباب أخرى، أذكريها _____

13) هل أصيب أحد من أفراد عائلتك بالسرطان ؟

( ) نعم ( ) لا

إذا كان أذكري من ----------

هل إصابته بهذا المرض زاد القلق والتوتر لديك ؟

( ) نعم ( ) لا

14) هل تتلقين الدعم النفسي من اي شخص ؟

( ) نعم ( ) لا

اذا كانت الاجابة نعم أذكري صلة القرابة:

( ) أ ب ( ) أم ( ) أخ ( ) أخت

( ) زوج ( ) صديق ( ) غير ذلك (إذكريه).....

15) ما الذي تقومين به من أجل التخفيف من الشعور بالقلق او التوتر نتيجة الاصابه بالسرطان؟

.....

.....

.....

.....

16) هل تشعرين بالخوف نتيجة الإصابة بالسرطان ؟

( ) نعم ( ) لا

Appendix (B)

مقياس قلق الموت

التعليمات:

إذا كانت العبارة صحيحة أو تنطبق عليك ضعي دائرة حول (ص)،

إذا كانت العبارة خاطئة أولا تنطبق عليك ضعي دائرة حول (خ)،

1-	**أخاف كثيرا من أن أموت.**	**ص**	**خ**
2-	**فكرة الموت نادرا ما أفكر بها.**	**ص**	**خ**
3-	**لا يضايقني الآخرون عندما يتحدثون عن الموت أمامي.**	**ص**	**خ**
4-	**أخاف كثيرا من التفكير في إجراء عملية جراحية .**	**ص**	**خ**
5-	**أنا لا أخاف مطلقا من الموت.**	**ص**	**خ**
6-	**لا أخاف انا بالذات من إصابتي بالسرطان.**	**ص**	**خ**
7-	**لا يزعجني التفكير في الموت إطلاقا.**	**ص**	**خ**

8-	أتضايق كثيرا من مرور الوقت بسرعة.	ص	خ
9-	أخشي أن أموت موتا مؤلما.	ص	خ
10-	إن موضوع الحياة بعد الموت يثير اضطرابي كثيرا .	ص	خ
11-	أخشى فعلا أن تصيبني سكتة قلبية.	ص	خ
12-	كثيرا ما أفكر كم هي قصيرة هذه الحياة.	ص	خ
13-	يقشعر بدني عندما أسمع الناس يتكلمون عن الحرب العالمية الثالثة او اي حرب اخرى.	ص	خ
14-	رؤية جسد ميت يخيفني .	ص	خ
15-	أرى أن المستقبل يحمل شيئا يخيفني .	ص	خ

Appendix (C)

مقياس التكيف

يرجى وضع (√) في المكان الذي يتناسب مع مشاعرك :

المجال الأول : مقياس التكيف

الرقم	البند	لا أفعل هذا على الإطلاق	أقوم بفعل ذلك قليلاً	أقوم بفعل ذلك بشكل متوسط	أقوم بفعل هذا كثيراً
1-	أستعين بالعمل أو القيام بأنشطة بديلة لصرف تفكيري عن ما مررت به .				
2-	أركز جهودي من أجل القيام بأشياء للتعامل مع وضعي الحالي.				
3-	أنا أقول لنفسي "هذا ليس حقيقياً ".				
4-	أستعمل الكحول أو المخدرات لمساعدتي في التعامل مع مرضي.				
5-	أستعمل الدخان لمساعدتي في التعامل مع مرضي .				
6-	أحصل على الدعم العاطفي من الآخرين.				

7-	أستسلم ولا أحاول التعامل مع ما مررت به .				
8-	أتخذ خطوات من أجل جعل وضعي أفضل.				
9-	أرفض التصديق أن هذا المرض حدث معي .				
10-	أقول أشياء من أجل الهروب من مشاعري الغير جيدة.				
11-	أحصل على المساعدة والمشورة من الآخرين.				
12-	أستعمل الكحول او المخدرات لمساعدتي بالشعور على نحو أفضل.				
13-	أحاول أن أرى مرضي من جهة أخرى، حتى اجعله يبدو أكثر إيجابية.				
14-	أنا أنتقد نفسي .				
15-	أقوم بمحاولة للتوصل إلى إستراتيجية حول ما يجب القيام به.				
16-	أحصل على الدعم والتفهم من شخص ما .				
17-	لقد تخليت عن المحاولة لتأقلم مع مرضي .				
18-	أبحث عن شيء إيجابي في تجربتي بالإصابة بمرض السرطان .				
19-	أقوم أعمل نكت حول إصابتي بمرض السرطان.				
20-	أحاول القيام بأشياء أخرى من أجل التقليل من التفكير بمرضي مثل مشاهدة الافلام – مشاهدة التلفاز- القراءة – أحلام اليقظة- النوم – التسوق.				
21-	أتقبل حقيقة ان هدا المرض حدث معي.				

22-	أعبر عن مشاعري السلبية.				
23-	أحاول العثور على الراحة في ديني وعباداتي أو المعتقدات الروحانية.				
24-	أحاول الحصول على النصيحة والمساعدة .				
25-	تعلمت أن أعيش مع مرض السرطان.				
26-	أفكر بصعوبة ما هي الخطوة التي يجب إتخادها .				
27-	أنا ألوم نفسي.				
28-	ألجئ للصلاة او أستعمل التأمل او الاسترخاء للتعامل مع مرضي .				
29-	أتعامل مع إصابتي بالسرطان بمرح .				