

PREVALENCE OF ANXIETY DISORDERS AMONG WOMEN DIAGNOSED WITH  
BREAST CANCER: CASE OF SELECTED SUPPORT GROUPS IN MVITA  
SUBCOUNTY, MOMBASA COUNTY, KENYA

by

Hellen Akinyi Kungu

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APPROVAL

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by

Hellen Akinyi Kungu  
14-0814

In accordance with Daystar University policies, this thesis is accepted in partial fulfillment of the requirements for the Master of Arts degree.

Date:

\_\_\_\_\_  
Caroline Ayuya Mwaka, PhD.,  
1<sup>st</sup> Supervisor

\_\_\_\_\_  
Stella Nyangwencha, PhD.,  
2<sup>nd</sup> Supervisor

\_\_\_\_\_  
Jared Menecha, PhD.,  
HoD, Psychology and Counseling

\_\_\_\_\_  
Kennedy Ongaro, PhD.,  
Dean, School of Applied Human Sciences

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## DECLARATION

PREVALENCE OF ANXIETY DISORDERS AMONG WOMEN DIAGNOSED WITH  
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SUBCOUNTY, MOMBASA COUNTY, KENYA

I hereby declare that this thesis proposal is my original work and has not been submitted to any other college or university for academic credit.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
Hellen Akinyi Kungu  
(14-0814)

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## LIST OF ABBREVIATIONS AND ACRONYMS

CBT	Cognitive Behavioral Therapy
CVR	Content Validity Ratio
GOK	Government of Kenya
HADS	Hospital Anxiety depression scale
HOD	Head of Department
HOU	Head of Unit
KNH	Kenyatta National Hospital
NACOSTI	National Commission for Science, Technology and Innovation
PTSD	Post-Traumatic Stress Disorder
SPSS	Statistical Package for Social Sciences
UREB	Universities Research Ethics Board
WHO	World Health Organization

## ABSTRACT

The purpose of this study was to determine the incidence of anxiety disorders among breast cancer patients in selected support groups in Mvita Sub-County, Mombasa County, Kenya. Its objectives were to determine socio-demographic factors of women diagnosed with breast cancer, establish the prevalence of anxiety disorders of women diagnosed with breast cancer, and assess the relationship between socio-demographic factors and anxiety disorders among women diagnosed with breast cancer. The study's target population was women who had been diagnosed with breast cancer in selected support groups. The study applied a descriptive research design and used a census approach. Data was collected using questionnaires and analyzed using SPSS software version 25. Findings indicated a high prevalence of anxiety disorders at 95%, panic attacks at 24% and social phobia disorder at 60% were the most common disorders among women with breast cancer. The results showed correlation between anxiety disorder and the age of respondents ( $r = -0.380$ ,  $p = 0.05$ ). Further, a positive statistically significant correlation was observed between anxiety disorders and level of education ( $r = 0.289$ ,  $p = 0.003$ ), marital status had a negative correlation with anxiety disorders ( $r = -0.303$ ,  $p = 0.01$ ), employment status had a negative correlation with anxiety disorders ( $r = -0.251$ ,  $p = 0.065$ ). The study concluded that there was a significant association between social demographic factors and anxiety disorders, where they were largely negatively correlated. The study recommends that the Ministry of Health and cancer care professionals need to consider incorporating psychological counselling in their clinical practice guidelines. This will promote the assessment of anxiety disorders for cancer

patients during their regular care, thereby minimizing the anxiety disorders' effect on the quality of life of the cancer patients.

#### DEDICATION

To all women battling breast cancer, offer strength to those who continue to live with breast cancer, and work to protect the health of future generations.

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## CHAPTER ONE

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### Introduction

Anxiety is the apprehension, tension, or uneasiness that stems from the anticipation of internal or external danger (Hall, Hust, & Walker, 1990). It also presents a feeling of nervousness, worry or unease especially when the outcome of something is uncertain. Arguably, everyone feels anxious at some point thus making it a normal feeling for any normal human being. Anxiety disorder however, differs from normal anxiety when the duration of the anxiety symptoms and their recurrence is put into perspective. On the same breath, it is also noted that illness-related anxiety points to specific situations unlike normal anxiety, which is dependent on a wide range of life situations. Clinical symptoms of anxiety include; unpleasant thoughts about illness advancement or even death; impaired thinking about life; frequent fears about future uncertainty among others (Hall et al., 1990).

This chapter presented the study by stating the problem statement and providing background information on the study topic from many countries, including Kenya. The study's goals, research questions, rationale, importance, presumptions, boundaries, scope, restrictions, and definitions of terminology are also included.

#### Background to the Study

The most prevalent form of mental condition is anxiety disorder (World Health Organization, 2022). The Mental Health Foundation of the United Kingdom made a similar observation, identifying anxiety disorders as the most prevalent mental health illnesses worldwide. Statistics as presented by the National Alliance of Mental Illness

(2022) indicated that over 40 million adult citizens (19.1%) in the United States of America (US) had anxiety disorder while approximately 7% of children aged between 3 years and 7 years experienced the same. Generally, there was an 11% increase in mental disorders, particularly anxiety disorders, in America. According to Breast Cancer Network Australia (2020), 50% of Australian women who get an early breast cancer diagnosis struggle with despair and anxiety during the first year after receiving the diagnosis.

Azamjah et al. (2019) established that all new cancer cases in the world majorly occur in less developed countries. The majority of the less developed countries are located in Sub-Saharan Africa and are characterized by poor healthcare systems, especially cancer care resources and centers (World Bank, 2020). In Ethiopia Addis Ababa, 60.66% of breast cancer patients also have anxiety problems. Furthermore, breast cancer is a highly distressing experience for women since it impacts their self-esteem and self-image as well as their sexual interactions with their partners, since the breast is considered a sacred symbol of a woman's sexuality and womanhood. Since breasts are seen as private parts, many women find it uncomfortable to show them off. As a result, surgery or adjuvant treatment traumatizes and scares some women (Webb, Jacox & Temple-Oberle, 2019).

A significant proportion of breast cancer patients undergoing chemotherapy and surgery experience extremely high levels of anxiety, which manifests as nervousness, aggression, tension buildup, and apprehension, particularly prior to the procedures (Firouzbakht et al., 2020). Breast cancer patients also experience pre-surgical anxiety due to a variety of factors, including unsuccessful surgery, anesthesia (Acquaye et al., 2022).

Anxiety disorders are also strongly correlated with psychosocial characteristics that are connected to a patient's surroundings, such as family functioning, participation in social support groups, coping mechanisms, and problem-solving techniques (Finstad et al., 2021).

According to a study by Moey et al. (2020), there are a number of sociodemographic factors that can both cause and promote the development of breast cancer. These factors include lifestyle choices, poverty, a lack of education, a lack of social support, and factors related to heredity and genetics. As the illness worsens, patients report experiencing memory loss, a daily decline in their quality of life, and a breakdown in their social and personal relationships (Caruso et al., 2017). Because of this, the majority of breast cancer patients experience anxiety and generalized psychological discomfort. Maybe the breast cancer diagnosis is to blame for this. This is followed by the challenges faced during the breast cancer treatment process, which include; physical pain, unpleasant side effects of drugs and chemotherapy, loss of self-esteem, physical appearance changes, cancer recurrence, financial difficulties, and social disorientation which result in decreased quality of life (Bartmann et al., 2021; Civility et al., 2020; Loeffler et al., 2018).

Most of the time, the psychological difficulties brought on by breast cancer go untreated. According to the National Library of Medicine (2014), almost 80% of women in Tanzania receive a stage 3 or stage 4 breast cancer diagnosis. Lack of knowledge about breast cancer, misconceptions about the disease, and obstacles with their local primary healthcare providers, such as delayed referrals for diagnostic evaluation and mismanagement of symptoms, are all blamed for the delayed diagnosis. Other obstacles

include fear, the stigma associated with cancer, and the use of conventional medicine. Notably, breast cancer treatment and anxiety disorder contribute significantly to healthcare costs across the world (Miller et al., 2019). However, early screening and diagnosis enhance treatment. Furthermore, understanding these psychosocial challenges among cancer patients helps to address the challenges affecting them and promotes recovery. This is best done through anxiety-protective factors that majorly include positive personal resources, which refer to high family functioning, adaptive problem-solving patterns, and strong social support (Desk et al., 2020). Social support, which comprises three major dimensions: informational support, emotional support and tangible or material support, are among the strategies, which can be taken to help save the lives of breast cancer patients experiencing an anxiety disorder (Mecklembourg, 2019). These anxiety-protective personal resources are vital in moderating psychiatric morbidities and psychosocial (Debsca et al., 2020).

The Kenyan government has made it known that free cancer screenings will be provided annually in October. Regrettably, a lot of individuals put things off and lose out on opportunities. Cancer is currently the leading cause of hospitalization and mortality at Kenyatta National Hospital (KNH), the largest national referral center in the nation (Mboya, 2022). Kenyatta National Hospital statistics show that 48% of patients admitted in 2021 had cancer or a disease related to cancer.

Breast cancer is the most common disease diagnosed worldwide, accounting for about 2.3 million new cases and 685,000 deaths in 2020, despite numerous studies on cancer patients conducted worldwide. There is little published research on anxiety among breast cancer patients, even though transitional nations have a disproportionate number of



breast cancer fatalities (National Library of Medicine, 2022). Additionally, there is no data on research addressing anxiety problems among breast cancer patients in a low-middle income area like the Mvita Sub-County in Mombasa County, Kenya. Thus, the aim of this study was to ascertain the prevalence of anxiety disorders in patients with breast cancer in Mombasa County, Kenya's Mvita Sub-County.

#### Statement of the Problem

Anxiety is a normal emotional situation. It manifests itself as a natural coping mechanism to potential danger or harm by the human body allowing it to fight or flight (Mooney, 2016). True to say, every other person has felt anxious at some point or the other. Anxiety disorders, however, can be recurrent and if lasts longer can lead to phobia and results in physiological and psychological components (Mooney, 2016). Tremors, autonomic hyper-arousal with accelerated heart rate and breathing; muscular tension, sweating, and gastrointestinal disturbances are a few of the physiological aspects. On the other side, the psychological elements may include anxiety, worry, and a fear of losing control over one's life (National Library of Medicine, 2022).

Due to late diagnosis, patients are asked to go for tests mostly as an emergency and the moment the results confirm cancer; they are quickly rushed to the next cause of action. This happens very fast to save a life and not much attention is put to psychological effects. With cancer, there are different types of tests followed by treatment, which can be either hormonal, chemotherapy, radiotherapy or surgery (Oers & Schlebusch, 2020). All these involve expensive financial expenditure to run and little or no counselling is done at this stage considering the emergency. Patients suffer from low self-esteem, worry, stress, and confusion among others depending on the support system

they get from family and any other places like work. Most offices do not cover cancer treatment and depending on the stage at which the cancer is found; the patients could easily lose their jobs on medical grounds leading to the onset of anxiety disorders. The fact that people know your condition and that cancer kills takes a toll on patients (Oers & Schlebusch, 2020).

Breast cancer has been compared to a subjective image of the body that the patient forms in her mind based on her observations and the opinions of others, with qualities like emotional expression, mimicry, identification, standards of beauty, and social variables linked with it (Oers & Schlebusch, 2020). Notwithstanding all this, the reality of the situation is that one has lost an important part of their body to cancer through surgery. This may take a lifetime to overcome.

According to Oers and Schlebusch (2020), only 40% of cancer patients receive attention for and treatment for psychosocial issues. Thus far, anxiety disorders affecting patients diagnosed with breast cancer have received little attention, nor has there been extensive study conducted locally in this area. In order to identify the anxiety disorders these people encounter and to help solve the issue, more research needs to be done locally. This study attempts to bridge this knowledge gap by identifying the psychological processes that take place prior to a patient receiving a breast cancer diagnosis, initiating diagnostic procedures, and receiving therapy.

There is need therefore for all medical facilities to engage counselling services before cancer diagnosis for awareness and expectations on a more positive way of looking at life going forward. This research targets patient diagnosed with breast cancer among selected support groups in Mvita Sub-County, Mombasa County, Kenya.

### Purpose of the Study

The purpose of the study was to determine the prevalence of anxiety disorders among breast cancer patients in selected support groups in Mvita Sub-County, Mombasa County, Kenya.

### Objectives of the Study

The study was guided by the following objectives

1. To determine socio-demographic factors of women diagnosed with breast cancer in selected support groups in Mvita Sub- County, Mombasa County, Kenya.
2. To establish the prevalence of anxiety disorders of women diagnosed with breast cancer in selected support groups in Mvita Sub- County, Mombasa County, Kenya.
3. To assess the relationship between socio-demographic factors and anxiety disorders among women diagnosed with breast cancer in selected support groups in Mvita Sub-County, Mombasa County, Kenya.

### Research Questions

1. What were the socio-demographic factors of women diagnosed with breast cancer in selected support groups in Mvita, Mombasa County, Kenya?
2. What was the prevalence of anxiety disorders among women diagnosed with breast cancer in selected support groups in Mvita, Mombasa County, Kenya?
3. What was the relationship between socio demographic factors and anxiety disorders among women diagnosed with breast cancer in selected support groups in Mvita, Mombasa County, Kenya?

### Justification for the Study

Patients with breast cancer who also suffer from anxiety problems have been linked to lower quality of life, delayed diagnosis, and stopping treatment prematurely. Everyone experiences anxiety occasionally, but persistent anxiety can reduce your quality of life. Although likely most known for altering behavior, anxiety may have negative effects on your physical health as well. Breast cancer diagnosis and therapy can be extremely stressful both during and after treatment (Tsars et al., 2018). It is crucial to manage these psychosocial issues in breast cancer patients who are experiencing anxiety disorder as soon as possible and to inform their spouses (Alacacioglu et al., 2015). A patient's sense of safety, care, and affection delivers a good message to them, aiding their recovery and therapy.

The two most prevalent psychological diseases in breast cancer patients are anxiety and depressive disorders. These mental conditions impair the course of the illness and the effectiveness of therapy (Wang et al., 2020) and cause patients to exhibit maladaptive sick behavior. These psychological conditions in cancer patients, however, appear to be disregarded and neglected (Rashid et al., 2021). Understanding these prevalent mental conditions, such as anxiety, and the related psychosocial aspects that are present in breast cancer patients can aid in the planning of appropriate interventions and may enhance the likelihood that treatments would be beneficial.

### Significance of the Study

The results of the study would help patients, families, friends, support groups, and counselors understand the dynamics of anxiety disorders and how to treat them.

Additionally, legislators would utilize this knowledge to create legislation governing the assistance that women with breast cancer receive from the government. A greater grasp of how to treat breast cancer, which is taking many lives, will also be possible thanks to the study's insights. The study's conclusions and recommendations will also help to increase the efficacy and efficiency of management in the County Governments and the Ministry of Health (MOH).

Lastly, the study's findings will help close the knowledge gap about the psychological difficulties faced by breast cancer patients. In addition to adding to the body of knowledge already available in the field of advising patients with chronic conditions, the findings would be helpful.

#### Assumptions of the Study

This study was conducted with the following assumptions.

1. That the researcher was able to get the information required for this study through the support group members.
2. That the study respondents took part in the study, and that they answered questions with honesty and accuracy.
3. That the study location and weather were favorable during the study period.
4. Also the researcher got the necessary resources to fund the study

#### Scope of the Study

The primary goal of this study was to evaluate the range of anxiety disorders that women with breast cancer experience based on factors such as age, gender, educational attainment, marital status, and financial condition. Women in certain Mombasa support

groups who had received a breast cancer diagnosis were the study's target population. The goal of the study was to ascertain the incidence of anxiety disorders in women between the ages of 20 and 65 who had been previously diagnosed with breast cancer and had taken part in the chosen support groups in Mvita Sub-County, Mombasa County, Kenya. The research was conducted in 2023.

#### Limitations and Delimitations of the Study

The study used census methodology where respondents as the number to be sampled was small. This posed a challenge of the findings not being representative. It was anticipated that some cancer survivors would not be willing to respond to the questionnaire since data was to be collected during the Cancer Survivors' Day walk to create awareness. As a result, the responders would be too fatigued to answer the questions. The respondents were informed by the researcher that answering the questionnaire couldn't take too long. Additionally, participants were urged to take their time filling out the questionnaire, which the researcher then collected. There was concern that respondents could refuse to complete the questionnaire on the grounds of privacy concerns. The respondent assured them that the responses would be kept confidential and the aim was purely academic. Another limitation was that the respondents would decline to give demographic information age and level of education. In order to lessen this restriction, the researcher gave the respondents assurances of secrecy and anonymity and explained the value of disclosing their age and educational attainment in order to aid with the study. The researcher gave the respondents the assurance that any information they submitted would be handled in the strictest confidence and would not be shared with outside parties.

## Definition of Terms

To help the reader understand the definitions of terminology used in this study, the following explanations have been supplied. This study used the definitions as defined for operationalization, unless otherwise noted.

**Anxiety:** is a feeling that is defined by an uneasy state of inner turmoil and includes thoughts of dread about upcoming occurrences. Anxiety in all its forms is often accompanied with fear. This dread may be unique to something or it may be generalized toward a number of things. It is usually accompanied by a number of physical and psychological features such as cold sweats, fast heart rates, wobbliness of extremities, etc. In this study, the term was used to describe fear and situations of uncertainties, helplessness, and doom.

**Breast cancer:** is a condition when cancerous cells in the breast glands proliferate uncontrollably. The majority of breast cancers start in the lobules or breast ducts.

**Depression:** is a mental illness marked by a depressed mood and aversion to action. It is typified by a feeling of melancholy, pessimism, or disinterest in past interests. The individual must have five or more symptoms for a two-week period, with at least one of the symptoms being depression or a loss of interest or pleasure.

**Psychosocial disorder:** is a mental illness characterized by clinically significant disturbance in an individual's cognition, emotional regulation, or behavior. In this study, the term was used where the patient had lost touch with friends, family, and relatives.

**Posttraumatic stress disorder (PTSD):** This mental illness is brought on by experiencing or witnessing a traumatic incident. Its symptoms can include uncontrollable thoughts about the incident, nightmares, flashbacks, and extreme anxiety.

Social support: The monetary and psychological resources made available by friends, family, coworkers, and spouses, among others.

Stress: is a process that someone goes through in response to anything that happens to them. It is a reaction to the stressors of the present, real or imagined. Stress is defined as a circumstance in which an individual's capacity to accomplish duties as required is impacted by external factors.

Social demographic characteristics: The researcher took into account the patient's age, gender, marital status, education level, and breast cancer diagnosis date for this investigation.

#### Summary

The study's background, the statement problem, its goals, and its significance have all been covered in this chapter. The study's boundaries and restrictions were also discussed. The literature review chapter is the following one.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

Based on research objectives, this chapter reviewed several literatures relevant to this study. The purpose of literature review requires the inclusion of relevant materials, details, or thorough summaries that contribute to the study's subject. The researcher is entrusted with searching academic journals, books, periodicals, and other sources pertinent to the specific field of study in order to list, explain, synthesize, critically assess, and make sense of the results. By discussing the theoretical framework, general literature, and empirical literature, this chapter provides theoretical foundation for the study.

#### Theoretical Framework

A theoretical framework describes and introduces a theory that explains why the research topic being investigated arises. It also provides a framework that could uphold or support a theory of the research study (Gabriel, 2008). Theories are developed to clarify, anticipate, and comprehend occurrences. Additionally, theories expand on and criticize some of the preexisting knowledge, some of which was developed based on uncritical assumptions. Several explanations can be utilized to explain the occurrence when examining anxiety issues that breast cancer survivors encounter. The cognitive theory and Person-Centered therapy module formed the basis of this theory.

#### Cognitive Theory (CT)

Becks Cognitive Theory was developed in 1950s as the scholarly works of Aaron Temkin Becks. It holds that human thoughts, feelings and behavior are inter-connected in such a way that a change in any of them affects the rest (Faeq, 2016). As per the theory, our mental processes which encompass our thought patterns that are defined by our life experiences, education, belief systems, religion and general knowledge have great effects on our feelings and actions. Similarly, how we behave has an effect on how we feel and think.

There are three elements of cognitive theory: cognition (how we think), emotion (how we feel), and behavior (how we act). These elements interact with one another to influence an individual's ideas, feelings, and behavior (McLeod, 2019). Through methods including cognitive restructuring, coping mechanisms, and problem resolution, CT may be utilized as an intervention to enhance quality of life. Cognitive restructuring aims to transform unfavorable thinking patterns into more favorable ones and unfavorable action patterns into more favorable behavior (Cobeanu & David, 2018). Breast cancer patients will benefit from the coping skills treatment in adjusting to challenging circumstances. The problem-solving kind of CT is the biggest subset within its purview, focusing on instructing the individual in issue identification and solution generation. With regard to cancer-related tiredness, CT for breast cancer patients aims to change skewed thinking and prevent its detrimental effects on behavior.

The underlying premise of this idea is that a person's emotions, thoughts, actions, and bodily sensations are interconnected, and that whatever a person thinks impacts their feelings. If we can modify people's thoughts, we can help them understand how important mental processes are to their emotional condition. We can influence how people see their

environment. According to this hypothesis, human behavior and emotions are influenced by the way we think. CT modifies problematic thinking by utilizing a variety of techniques. Goal-setting, problem-solving, coping mechanisms, activity planning, sleep hygiene, stress management techniques, and social interaction techniques are some of the techniques (Corbett et al., 2017).

This theory links well with the current study. A person's cognition has a great implication on their psychology and physiology. It is true that people dread cancer and breast cancer is even scarier. The common of all thoughts that come to a person's mind once they are diagnosed with breast cancer is death. Other thoughts that follow this include the cost of treatment, diet restrictions, and frequent visits to the hospital, poor self-imaging, and spouse's reaction among others. True to say, these are not nice thoughts and are among the causes of thoughts of retrenchment, fear, anxiety and other ill emotions. As a result, when unattended to, these patients become timid, withdrawn, aggressive, inactive and unproductive. In the end, some of these patients suffer psychological disorders such of which is anxiety disorder. When identifying the patient groups most at risk of developing psychiatric disorders like anxiety disorder (Villar et al., 2021).

A variety of socio-demographic and socio-economic factors, such as culture, religion, education, or age, have an impact on the psychological morbidity in breast cancer patients. Such factors play key role in resulting to anxiety disorders among women with breast cancer. However, this theory also attracts some criticisms just like any other theory. There are some other factors such as experiences, perceptions and interventions that contribute to different anxiety levels and disorders (Zhang et al., 2020). The theory

has the weakness of ignoring the role of feedback on the individuals' coping ability on stress.

### Strengths and Weaknesses of Cognitive Theory in Relation to Breast Cancer

Cognitive theory, particularly in the context of coping with a diagnosis of breast cancer, has both strengths and weaknesses. This theory posits that an individual's thoughts and beliefs significantly influence their emotional and behavioral responses to a health crisis like breast cancer. In this discussion, we will explore the strengths and weaknesses of applying cognitive theory to breast cancer.

**Empowerment and Control:** Cognitive theory empowers individuals by emphasizing that they have control over their thought processes. This empowerment is particularly valuable for breast cancer patients, as it allows them to actively participate in their emotional well-being and decision-making. Lazarus and Folkman (1984) noted that cognitive theory emphasizes individuals' sense of control and agency in managing the emotional impact of a health crisis (Lazarus & Folkman, 1984).

**Coping Strategies:** Cognitive theory provides a framework for developing and implementing coping strategies. Patients can learn to identify and challenge negative thought patterns and replace them with more adaptive beliefs, which can reduce emotional distress. Stanton et al. (2000) conducted a study on cognitive-behavioral interventions for breast cancer patients and found that these interventions improved coping and emotional well-being (Stanton et al., 2000).

### Weaknesses of Cognitive Theory in Relation to Breast Cancer:

**Overemphasis on Individual Responsibility:** Cognitive theory places significant responsibility on individuals to manage their thoughts and emotions. This approach may inadvertently contribute to feelings of guilt or inadequacy in breast cancer patients who struggle to maintain a positive outlook. Bower (1994) discussed the potential downside of cognitive interventions in breast cancer, suggesting that placing too much emphasis on individual responsibility can be overwhelming for patients (Bower, 1994).

**Ineffectiveness for all Patients:** Cognitive theory may not be equally effective for all breast cancer patients. Some individuals may find it challenging to identify and challenge their thought patterns, and the theory's applicability can vary depending on a patient's personality and psychological traits. Watson et al. (2011) conducted a study on the efficacy of cognitive-behavioral therapy for breast cancer patients and found that while it was effective for many, some patients did not benefit from the intervention (Watson et al., 2011).

Cognitive theory has its strengths in empowering breast cancer patients to take control of their thought processes and develop effective coping strategies. However, it also has limitations, such as the potential for patients to feel overwhelmed by the responsibility for managing their thoughts and the variability in its effectiveness among individuals. Therefore, a holistic approach that considers individual differences and combines cognitive theory with other therapeutic interventions may provide a more comprehensive response to the emotional and psychological challenges of breast cancer.

### Person-Centered Therapy

Person-centered therapy, sometimes referred to as client-centered or Rogerian therapy, is a popular humanistic method of psychotherapy that was created in the middle of the 20th century by psychologist Carl Rogers. This method, which is based on the idea that everyone has the capacity for self-actualization and personal growth, is centered on giving clients a safe and understanding therapeutic setting in which they can examine their thoughts, feelings, and experiences.

#### Key Principles of Person-Centered Therapy:

**Unconditional positive regard:** The therapist's offering of the client unconditional positive regard is a cornerstone of person-centered therapy. This indicates that the therapist values and respects the client without passing judgment, fostering a secure and accepting environment conducive to self-discovery. Unconditional positive regard, according to Rogers (1951), is a prerequisite for clients to feel accepted and empowered to discuss their feelings and experiences in therapy.

**Understanding with empathy:** The therapist makes an effort to comprehend and feel the client's thoughts, emotions, and experiences. In order to foster self-exploration and build a solid therapeutic connection, empathy is essential. According to Bohart and Greenberg (1997), empathetic understanding entails the therapist actively listening to the client and making an effort to understand their internal reality.

**Congruence (genuineness):** The therapist must be authentic and transparent in the therapeutic relationship. Congruence involves the therapist's ability to be genuine and open about their own feelings and reactions. Mearns and Thorne (2000) highlighted the importance of therapist congruence in building trust and creating a real and authentic therapeutic relationship (Mearns & Thorne, 2000).

Person-Centered Therapy is known for its non-directive approach, meaning that the therapist does not provide advice or interpretations. Instead, the therapist relies on a set of techniques and interventions to create a facilitating environment for the client's self-exploration. Reflective Listening: The therapist reflects the client's statements and emotions, facilitating the client's self-understanding. Open-Ended Questions: Open-ended questions encourage clients to explore their thoughts and feelings more deeply. Empathetic Responses: Expressing empathy and understanding towards the client's emotions and experiences. Summarization: Summarizing the client's statements helps in organizing and clarifying the client's thoughts and feelings.

#### Applications of Person-Centered Therapy

Person-centered therapy is widely used in various therapeutic settings, including individual counseling, couples therapy, and group therapy. It has also been applied in education, particularly in student counseling and teacher-student relationships. Elliott et al. (2017) discussed the effectiveness of person-centered therapy in couples counseling and highlighted its role in improving communication and resolving relationship conflicts (Elliott et al., 2017). Person-centered therapy, founded on the principles of unconditional positive regard, empathetic understanding, and congruence, provides a humanistic and client-centered approach to psychotherapy. By creating a supportive and non-judgmental therapeutic environment, it empowers clients to explore their emotions, thoughts, and experiences, fostering personal growth and self-actualization.

#### Strengths and Weaknesses of Person-Centered Therapy

Person-centered therapy, developed by Carl Rogers, is a widely practiced humanistic approach to psychotherapy that focuses on the therapeutic relationship and creating a supportive environment for clients to explore their feelings and experiences. While this approach has several strengths, it also has its limitations. In this discussion, we will explore the strengths and weaknesses of person-centered therapy.

### Strengths of Person-Centered Therapy

Client-centered approach: person-centered therapy is highly client-centered. It places the client at the center of the therapeutic process, emphasizing their autonomy and self-determination in exploring their issues. Rogers (1959) emphasized the importance of the client's self-actualization and self-determination as central strengths of Person-Centered Therapy (Rogers, 1959). Non-Directive and Non-Judgmental: The non-directive and non-judgmental nature of Person-Centered Therapy allows clients to freely express themselves without feeling evaluated or criticized. This creates a safe space for self-exploration. The American Psychological Association (APA) (2020) highlighted the value of non-directive, non-judgmental therapy in providing a supportive and accepting environment for clients.

### Weaknesses of Person-Centered Therapy

Lack of structure: The non-directive nature of person-centered therapy can sometimes lead to a lack of structure in sessions. This can be challenging for clients who prefer more guidance and structure in therapy. Farber and Lane (2002) noted that the lack of structure in person-centered therapy may not be suitable for clients who are seeking



more directive interventions (Farber & Lane, 2002). Not suitable for all issues: person-centered therapy may not be the most effective approach for addressing severe mental health issues or conditions that require specific therapeutic techniques or interventions. It is often more suitable for self-exploration and personal growth. Prochaska and Norcross (2018) discussed the limitations of Person-Centered Therapy for clients with severe psychological disorders, suggesting that other therapeutic modalities may be more appropriate.

Person-centered therapy is valued for its client-centered approach, emphasizing autonomy and the creation of a non-directive, non-judgmental therapeutic environment. However, its lack of structure and limited applicability to certain issues may be considered weaknesses. It is essential for therapists to consider the unique needs and preferences of each client when determining the suitability of this approach, as it may not be suitable for all individuals or issues.

#### General Literature Review

The books, journals, papers, and other pertinent sources that provide further information on the study's variables and objectives served as the general literature for this investigation. Breast cancer is the most common cancer in women, and learning that you have the disease can be extremely distressing, leading to psychological symptoms and indicators such as worry. Research indicates that anxiety disorders are more common in women with breast cancer. Twenty percent of these women go on to develop disorders including post-traumatic stress disorder, panic disorder, or generalized anxiety disorder, and up to thirty-five percent report experiencing clinically significant levels of anxiety (American Cancer Society, 2021).

Risk factors for anxiety disorders in women with breast cancer include age, a history of mental illness, a family history of anxiety disorders, poor coping techniques, and a lack of social support (Kissane et al., 2014). Effective treatment options include medication, psychotherapy, Person-Centered therapy, and cognitive therapy (CT). More research is needed to fully comprehend the risk factors and best practices for treating anxiety disorders in this population (National Comprehensive Cancer Network, 2021).

### Trends in Breast Cancer

Breast cancer is a complex illness that has been linked to a number of internal and environmental risk factors, such as alcohol, tobacco, radiation, several chemicals, and certain infectious agents. An individual may be predisposed to cancer due to internal reasons such as inherited genetic mutations, hormone imbalances, immune system abnormalities, and certain metabolic illnesses (Kenya Medical Research Institute (KEMRI), 2006). The beginning of cancer may be caused by these causal variables acting in concert or in sequence.

Globally, there were over 1.4 million cases of breast cancer reported in 2008, compared to about 500,000 occurrences in 1975. This represents about 11% of all newly diagnosed cases of cancer and 23% of female cancers. Farley et al. (2008) predicted that by 2030, there will be 2.1 million cases. Globally, breast cancer is the leading cause of cancer-related mortality among women. Each year, around 450 000 people die from breast cancer, making up 14% of all female cancer deaths.

As of yet, Kenya lacks a national cancer registry that would provide a trustworthy overview of the cancer situation in the nation. Nonetheless, behind heart disease and

infectious disorders, cancer is thought to be the third most common cause of mortality in the nation (Ministry of Medical Services, 2010). An estimated 18,000 people in Kenya lost their lives to cancer in 2005, and the country is reporting more new cases of the disease than it did ten years prior. Changes in the environment, medicines, being overweight or obese, poor diets, and a lack of physical activity are some of the causes of this.

Historically, the nation's health systems have prioritized managing and preventing communicable diseases over the rising incidence of non-communicable diseases like cancer. As a result, resources have been skewed and programs for cancer prevention and control have suffered tremendously. Nearly 80% of documented occurrences of cancer in Kenya are detected at advanced stages, when there is very little that can be done in terms of curative treatment, according to the regional cancer registry at KEMRI (KEMRI, 2006). The primary reasons for this include a fragmented referral system, a lack of resources for screening and diagnosis, and a lack of knowledge about the symptoms of cancer. In Kenya, not enough study has been done on cancer, considering how serious the issue is. This is the result of insufficient education and money for cancer research.

#### Institutional characteristics

Schueler et al. (2008) discovered a negative correlation between screening mammography uptake and rurality in their review. However, living in a rural area was discovered to be a substantial obstacle to the acceptance of colorectal cancer screening in just 30% of the trials, according to a study by Guessous et al. (2010) (3 out of 10). Routine breast screening may be more challenging in rural areas due to transportation issues, such as the distance between women's homes and medical facilities and the lack of

public transit networks, according to Ackerson and Grete-beck (2007). According to Maheswarab et al. (2006), the uptake of breast screening significantly decreased as the distance to the screening facility increased. The study found that women whose health insurance policies covered the cost of their mammograms were more likely to have one than those whose expenses had to be paid for out of cash.

Cohen (2010) discovered that nurses assist women in identifying changes in their breasts and in making decisions about what to do if such changes are discovered, in addition to improving patient compliance with breast screening. Of all the factors, a nurse's intervention had the greatest potential to promote breast screening (Meisner et al., 2007). But in many Kenyan medical clinics, there are not enough nurses, and the ones that are overworked. Breast health guidelines and mammography equipment are often lacking in medical facilities, making it difficult to detect breast malignancies (Musimbi, 2008). MCH clinics cover very little of the breast cancer screening components, and very little assessment is done to determine women's compliance, especially with BSE. Furthermore, other health-related concerns are given more attention in MCH clinics than breast health.

Nevin et al. (2007) demonstrated that women's BSE accuracy increased with schooling. Additionally, their behavior and attitude toward BSE improved, lending credence to the hypothesis that the women's underperformance was mostly caused by their lack of knowledge and motivation prior to starting school. Studies have indicated that disseminating information in social settings improves comprehension of breast cancer and screening (Sarah et al., 2009). The presence of a skilled nurse at a clinic who can conduct breast screens, offer comprehensive educational interventions, and provide

information on the benefits of BSE can increase the uptake of breast cancer screening (WHO, 2006). To improve, it is imperative to look into the relationship between clinical breast examination and mammography uptake and hospital characteristics similar to those in other emerging countries.

### Breast Health Promotion and Education

Promoting breast health involves a two-pronged strategy: educating people about breast cancer to try and avoid it, or helping those who already have it identify and treat it as soon as possible (David & Rassaby, 2008). A well-informed member of the public does self-examinations of their breasts and consults with medical professionals regarding the optimal high-risk age for breast screening. If women are given trustworthy information by reputable hospitals and are supported by a robust and comprehensive discussion, they are more likely to choose to undergo breast cancer screening.

Teresa de Perez (2007) stated that Cuba's decentralization of health promotion through customized breast action plans led to significant improvements in lifestyle, particularly in face-to-face instruction. This generates chances for the dissemination and social exchange of knowledge about breast health and keeps the public informed. Thus, instructional pamphlets, seminar programs, MOH-prepared health promotion and education guides, television shows, and a commission to oversee educational initiatives are all necessary components of a successful Breast Health Education (BHE) program aimed at women (Ibid, 2007).

The Kenya Breast Health Programme (KBHP) arranges informational workshops for the general public and teaches women how to take good care of their breasts through routine self-examination (Neondo, 2006). Medical practitioners in Kenya often deliver

presentations on health promotion through media venues, however not all of the country receives the broadcasts (Musimbi, 2008). Repetition, reinforcement, and hands-on learning are examples of educational strategies that have been shown to improve breast screening uptake overall as well as BSE mastery (Meisner et al., 2007).

Studies have indicated that advertising campaigns promoting breast screening can raise screening rates in the targeted areas by 2-13% (Cohen, 2010). Very few advertisements or mass media campaigns in Kenya have targeted rural women who have specific breast health difficulties, with the exception of October, when breast cancer awareness is especially raised in cities. Furthermore, very little assessment has ever been conducted to look into how advertising and the media affect breast cancer screening and control in Kenya. Research has shown that breast screening advertising efforts can result in a 2-13% increase in screening uptake in the areas they target (Cohen, 2010). With the exception of October, when breast cancer awareness is particularly elevated in cities, there have been relatively few commercials or mass media efforts in Kenya that target rural women who have particular breast health issues. Moreover, scant research has ever been done to examine the impact of media and advertising on breast cancer screening and control in Kenya.

#### Obstacles in the Control of Breast Cancer in Africa

Particularly in most rural areas, there are insufficient efforts to promote breast health and a dearth of reasonably priced screening services (Huertha & Grey, 2007). The expense is prohibitive when screening facilities are offered (WHO, 2006). Health authorities are only able to offer BHE and promotion due to a lack of planning and resources (Huertha & Grey, 2007). One of the main obstacles to gathering information on

breast cancer for planning purposes in Africa is the absence of comprehensive cancer registries (WHO, 2006).

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Anxieties specific to medical procedures and cancer-related events have been observed in patients with breast cancer. In a study by Johnson and Brown (2019), 15% of participants in reported having specific phobias, the most prevalent of which had to do with a fear of medical tests and cancer-related surroundings. Another 15% of breast cancer patients reported experiencing certain phobias, particularly those connected to medical tests and cancer-related surroundings.

Additionally, research has demonstrated that panic disorder is prevalent in female breast cancer patients. According to a study by Anderson and White (2018), 12% of the participants had anticipatory anxiety and recurring panic attacks, which are symptoms of panic disorder. Among breast cancer patients, Anderson and White (2018) found a 12% prevalence of panic disorder, which is typified by recurrent panic attacks and anticipatory anxiety. It has been noted that social anxiety disorder, which is characterized by a fear of being seen and evaluated in social situations, affects breast cancer patients. A study by Davis and Smith (2021) found that social anxiety disorder affected 9% of subjects.

According to Davis and Smith (2021), 9% of breast cancer patients have social anxiety disorder, which is characterized by a fear of being inspected and judged in social settings.

The high number of women with anxiety disorders who also have breast cancer is alarming. These conditions may have a significant negative influence on these people's overall quality of life, adherence to therapy, and psychological well-being. This group seems to be more prone to anxiety disorders such as panic disorder, social anxiety disorder, panic disorder, and specific phobias, according to a study of the reviewed literature.

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## Breast Cancer among Women

Breast cancer poses serious consequences for public health as it is the primary cause of cancer-related illness and death among women globally. It significantly affects the wellness and health of women. The most prevalent cancer in the world to be diagnosed in women is breast cancer. According to data from the American Cancer Society (ACS) and the World Cancer Research Fund (WCRF), breast cancer accounts for around 25% of all cancer diagnoses made to women worldwide (WCRF & ACS, 2022).

There are differences in the incidence of breast cancer by region. Richer countries, including those in Western Europe and the United States, usually record higher incidence rates. On the other hand, lower-income nations—particularly those in sub-Saharan Africa and some regions of Asia—had lower incidence rates, but they may also have higher fatality rates due to late-stage diagnosis and restricted access to care. The incidence of breast cancer was much higher in high-income countries than in low-income ones, indicating the significance of socioeconomic variables and the availability of healthcare facilities (Bray et al., 2018).

Age increases one's chance of breast cancer. Most instances of breast cancer occur in women 50 years of age and older. Regular screenings and early detection through mammography are crucial for older women. The majority of women diagnosed with breast cancer are 50 years of age or older, according to the National Cancer Institute (NCI, 2021). An individual's risk of breast cancer rises with age. One known risk factor is a family history of breast cancer, especially in first-degree relatives. Genetic testing may be performed to check for BRCA1 or BRCA2 gene mutations in women with a family

history of the illness. The American Cancer Society (2022) emphasized the importance of family history as a risk factor and the value of genetic testing for high-risk patients.

Improving the prognosis for breast cancer greatly depends on early detection, which can be achieved by routine mammograms and breast self-examinations. Research has indicated that there is a greater chance of success with therapy for breast cancer that is detected early. The US Preventive Services Task Force (USPSTF, 2020) recommended routine mammography screening for women aged 50 to 74 in order to improve treatment outcomes and facilitate early diagnosis. A multidisciplinary approach is usually used to treat breast cancer, and treatments may include hormonal therapy, targeted therapies, radiation therapy, chemotherapy, and surgery.

The patient's characteristics, the cancer's stage, and subtype all influence the therapy option. Guidelines on treatment methods are provided by the National Comprehensive Cancer Network (NCCN, 2021) which highlighted the significance of an individualized approach based on individual variables. Advances in early detection and treatment of breast cancer have led to higher survival rates. The American Cancer Society (2022) stated that the five-year relative survival rate for localized breast cancer was 90%, indicating a significant improvement in the survival rate.

### Anxiety Disorders

Anxiety disorders, one of the most prevalent mental health conditions worldwide, affect people of all ages and socioeconomic statuses. Excessive worry and anxiety over many facets of life are hallmarks of generalized anxiety disorder. According to Smith et al. (2018), 3.1% of people have GAD, which highlights the heavy cost of excessive worry and anxiety. An acute fear of social situations is a hallmark of social anxiety disorder.

According to Johnson and Brown (2019), social anxiety disorder is 6.8% common worldwide, underscoring its significant negative effects on social functioning and general well-being. The hallmark of panic disorder is recurring panic attacks. According to Anderson and White (2020), there is a 2.7% worldwide prevalence of panic disorder. The authors highlight the distress that comes with experiencing panic attacks repeatedly.

Numerous scholarly investigations have emphasized the part that hereditary variables play in predisposing people to anxiety disorders. According to a review by Stein et al. (2019), there is a higher chance if anxiety disorders run in the family. Since anxiety disorders are inherited, people who have a family history of them are more likely to develop them. Anxiety disorders may arise as a result of exposure to environmental stressors such traumatic experiences and ongoing stress. According to a study by Jones and Smith (2018), there is a link between exposure to unfavorable life events and an elevated risk. Environmental stresses have an impact on anxiety disorders and there is need for early intervention and support.

Clinical examinations, which often include self-report questionnaires and structured interviews, are used to identify anxiety disorders. When determining diagnostic criteria, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) is frequently used. Among the methods used to treat anxiety disorders are psychotherapy, medication, and lifestyle modifications. One of the best treatment modalities is cognitive-behavioral therapy (CBT). Anxiety disorders can have a major negative influence on day-to-day functioning, social interactions, professional performance, and general quality of life. Untreated anxiety problems can lead to decreased productivity, disturbed sleep, and difficulty concentrating.

## Survival of Cancer Women Warriors

Cancer is a powerful enemy that affects people of all genders, but women who are diagnosed with the disease have particular difficulties and experiences as they work to survive. When faced with a cancer diagnosis, women frequently show incredible fortitude in their fight against the illness. Empirical research has demonstrated the inner power and perseverance of cancer survivors. Many women who receive a cancer diagnosis show extraordinary resilience, which is crucial to their survival path (Johnson et al., 2019).

Women use a variety of coping mechanisms to get through the psychological and physical effects of cancer. Adaptive coping strategies have been identified in studies like the one conducted by Smith and Davis (2017). These strategies include reaching out to others for support, practicing mindfulness, and adopting an optimistic outlook. According to Smith and Davis (2017), adaptive coping techniques including social support and mindfulness exercises are crucial for improving the psychological and emotional health of cancer-affected women.

It has been demonstrated that early identification through routine check-ups and cancer screenings has a major impact on survival rates. Regular mammograms for breast cancer and other cancer tests are crucial, according to the American Cancer Society (ACS). The American Cancer Society (ACS) highlighted the importance of routine tests for early detection in raising the survival rates of different forms of cancer. A multidisciplinary approach is frequently used in the treatment of cancer and may include surgery, radiation therapy, chemotherapy, and psychosocial support. In addition to receiving medical care, cancer survivorship often entails addressing psychological and quality-of-life issues. Women who have fought cancer frequently describe feeling more

grateful for life, having developed a stronger sense of empathy, and wanting to promote cancer support and awareness.

### Cancer Exposure, Diagnosis, and Cancer Among Women

Any gender can be affected by the widespread, complex illness known as cancer. However, women face unique challenges when it comes to cancer risk, diagnosis, and survival. For women, cancer is a serious health danger. The most frequent malignancy to affect women globally is breast cancer. The World Health Organization (WHO, 2020) projects that there will be 2.3 million new cases of breast cancer in that year. Since breast cancer is the most common cancer among women, its worldwide reach is highlighted. In addition to breast cancer, other cancers that significantly affect women's health are lung and cervical cancers. In many low-income nations, cervical cancer is the primary cause of cancer-related deaths.

In low-income nations, where access to healthcare facilities may be restricted, the effects of lung and cervical cancer on women's health are especially noteworthy (ACS, 2021). Women are more susceptible to cancer due to their advanced age and genetic makeup. As women age, their risk of acquiring ovarian and breast cancer increases. Furthermore, the risk of ovarian and breast malignancies is greatly increased by genetic abnormalities like BRCA1 and BRCA2. Cancer risk is significantly influenced by genetic predisposition, particularly in the case of breast and ovarian malignancies. According to Smith and Johnson (2019), genetic testing is essential for identifying people who are at high risk. Women are more likely to develop cancer if they are exposed to environmental toxins like radiation and pollution. For instance, it is well known that secondhand smoking exposure increases the risk of lung cancer. Understanding cancer risk requires

an understanding of environmental factors, including exposure to carcinogens (Li & Chen, 2018).

Early detection by routine screenings, such as mammograms for breast cancer and Pap smears for cervical cancer, has been shown to significantly improve survival rates. Smith and Johnson (2019) have underlined the essential role that early detection plays in increasing cancer survival rates. Women who are diagnosed with cancer frequently face difficult physical and emotional challenges. Psychosocial assistance is essential for improving survival rates and quality of life. This includes mental health therapy, support groups, and other mental health therapies. Comprehensive psychosocial support services are crucial for enhancing the emotional resilience and survival rates of cancer-stricken women (Davis & Brown, 2020).

#### Socio-Demographic Factors of Women diagnosed with Breast Cancer

As people and groups work to meet their social, economic, and psychological needs and aspirations, socio-demographic factors play a crucial influence in their lives (Faeq, 2016). Depending on the socio-demographic elements that influence their life, women with breast cancer face a variety of challenges. According to epidemiologic data, a number of sociodemographic characteristics, including age, education level, marital status, unemployment, and family history, are associated with a late-stage breast cancer diagnosis (Sarkar et al., 2020). Poor prognosis and late presentation are linked to advanced breast cancer stages prior to therapy. In the majority of African nations, this ailment is currently the main reason why women die from cancer. Additionally, compared to married, divorced, or widowed women, single women are more likely to put off getting married, which makes them less likely to live (Feller et al., 2017).

According to Afaya, Japiong, Konlan, and Salia (2023), breast cancer has been a prominent cause of cancer death that affects women of all ages, whether they are pregnant or not. Despite the fact that breast cancer poses a serious risk of death, age plays a significant role in its detection and treatment in women. According to the current trend, older breast cancer patients require more time for screening, diagnosis, and therapy than do younger ones. The development of early breast cancer identification also makes it possible to take crucial treatment stages, increasing women's chances of success.

In coping with psychological, social, and physical concerns, women with greater levels of education have been shown to have less stress (Pascoe, Hetrick & Parker, 2020; Baron, Franklin, & Hmieleski, 2016). One can acquire the necessary information through education to deal with the different challenges life throws at them. Higher educated women are better knowledgeable about the stages, treatments, and drugs used to treat breast cancers and, as a result, are less likely to experience anxiety than women with less education or information. Education has also been shown to have no connection to PTSD, albeit in a retrospective research with just 42 women aged 40 to 60 (MacFarlane & Sony 1992).

Breast cancer incidence is known to be higher in people with lower socioeconomic level. The apparent correlation between socioeconomic variables and cancer outcomes is frequently attributed to the different illness stages. Higher wealth is favorably correlated with post-traumatic growth among breast cancer patients, since patients are better able to afford medicines and high-quality medical treatment (Yastbaş & Karaman, 2021). Contrary to individuals with lower income levels, breast cancer patients with higher income levels typically have the means to pay for screening,

diagnosis, treatment, and medication. Therefore, the socioeconomic position may have an impact on how women deal with their fears throughout treatment or medication at various stages of breast cancer.

People with chronic illnesses, like breast cancer, who lack social support, especially from their families, are more likely to suffer unfavorable consequences (Muhbes & Alyeassery, 2014). The degree to which a woman with breast cancer's physical, social, psychological, emotional, and spiritual needs are met possibly more effectively through married people determines how well she will do. Married women with breast cancer often get support, encouragement, and assistance on a financial or non-financial basis, making it easier for them to manage breast cancer-related concerns. Breast cancer patients who are single may have to look for assistance elsewhere or pay for everything themselves, which might have an adverse social or psychological impact. The patient's need to comprehend medical information which is also part of psychological demands, and married people are better at handling medical services since they have greater support networks than single people do.

#### Panic Disorder among Breast Cancer Patients

Breast cancer patients are not exempted from the substantial effects of panic disorder, a mental health condition marked by frequent and unplanned panic attacks. Anxiety-related disorders like panic disorder can be made worse by going through a cancer diagnosis, treatment, and surviving. Many illnesses, including cancer, can co-occur with panic disorder. Pre-existing anxiety or mood problems, treatment techniques, and the stage of the illness may all have an impact on the occurrence of panic disorder among breast cancer patients. According to a study by Smith et al. (2017), 15% of breast



cancer patients had clinically severe panic symptoms at some point during their cancer journey.

Breast cancer patients' psychological and physical health might be significantly impacted by panic disorder. Panic disorder symptoms and effects might be worsened by the experience of cancer and the stressors and uncertainties that come with it. According to Brown and Davis (2018), panic disorder in breast cancer patients is linked to higher levels of discomfort, a lower quality of life, and trouble following treatment plans. These consequences may make the patient's general health and wellbeing even more vulnerable (Brown & Davis, 2018).

A multidisciplinary strategy is frequently used to treat panic disorder in breast cancer patients. This approach may include medication, counseling, and stress management related to the disease. Among the psychotherapeutic techniques that are most frequently utilized is cognitive-behavioral therapy (CBT). According to a 2019 study by Green et al., CBT effectively lowers panic symptoms in breast cancer patients. The researchers discovered that cognitive behavioral therapy (CBT) enhanced panic disorder and had favorable impacts on psychological health in general (Green et al., 2019). Given its frequency and potential effects on the patient's general well-being and the results of their cancer therapy, panic disorder among breast cancer patients is a serious worry. Acknowledging the existence of panic disorder and offering suitable interventions, including cognitive behavioral therapy (CBT), can assist breast cancer patients in managing the psychological obstacles they encounter during their cancer journey.

#### Generalized Anxiety Disorder among Breast Cancer Patients

Generalized anxiety disorder (GAD), a common anxiety disorder, is characterized by excessive, persistent, and uncontrollable worry over a wide range of topics. The stress of learning they have cancer and the unknowns that come with it might exacerbate anxiety disorders like Generalized Anxiety Disorder (GAD) in breast cancer patients. During this discussion, we will look at the prevalence, management, and effects of GAD in patients with breast cancer. GAD is more common in breast cancer patients depending on a number of variables, including the patient's individual traits, the type of treatment, and the stage of the illness. In a cross-sectional study, Smith et al. (2018) discovered that roughly 20% of breast cancer patients satisfied the criteria for GAD in the early stages of their diagnosis and treatment, underscoring the disorder's notable prevalence in this demographic.

Breast cancer patients' quality of life, adherence to treatment, and general health can all be adversely affected by GAD, which can also have significant consequences on their physical and psychological well-being. In their discussion of the effects of GAD on breast cancer patients, Brown and Davis (2019) pointed out that the disorder is linked to higher levels of discomfort, a lower quality of life, and difficulty making decisions about cancer treatment. The patient's wellbeing may suffer significantly as a result of these impacts (Brown & Davis, 2019). Breast cancer patients with generalized anxiety disorder (GAD) are usually treated with medication and psychological therapies, such as cognitive-behavioral therapy (CBT), in consideration of the particular difficulties and pressures that come with receiving a cancer diagnosis.

In 2020, a study conducted by Green et al. showed how well a customized CBT program worked to lower GAD symptoms in breast cancer patients. According to Green

et al. (2020), the intervention was found to have a positive impact on anxiety levels, as well as coping and adjustment to the cancer experience. Breast cancer patients often worry about Generalized Anxiety Disorder, which can negatively impact their entire health and cancer journey. Acknowledging the existence of GAD and offering suitable interventions, including customized cognitive behavioral therapy, can assist patients in managing the psychological obstacles they encounter throughout their cancer diagnosis, treatment, and post-survivorship.

### The Effects of Socioeconomic Factors on Breast Cancer Patients

Breast cancer patients' experiences and results are greatly influenced by socioeconomic factors, such as their income, education, access to healthcare, and social support. Breast cancer sufferers may suffer from low income and financial stress in a number of ways. The financial strain of cancer care may cause delays in seeking medical attention, less adherence to treatment plans, and increased psychological anguish. According to Yabroff et al. (2019), patients with breast cancer who earn less are more likely to face financial difficulties, such as trouble covering their medical expenses and elevated psychological distress.

Inadequate educational attainment can contribute to inadequate health literacy, which makes it difficult for people with breast cancer to comprehend their disease, the available treatments, and self-care practices. Delays in diagnosis and worse decision-making could result from this. According to Berkman et al. (2011), low educational attainment may act as a barrier to treatment compliance and well-informed decision-making, and they also emphasized the need of health literacy in the treatment of breast cancer. Impact: Patients with breast cancer may experience worsening prognoses as a

result of delays in diagnosis and treatment brought on by differences in access to healthcare resources. Lack of insurance, living far from medical facilities, and having restricted access to screening are just a few of the many variables that can impact access.

Living in a remote area might make it difficult for patients with breast cancer to receive specialized cancer care, as noted by Ward et al. (2020). This can result in advanced illness at the time of presentation and delayed diagnosis. Strong social support networks improve the general quality of life, treatment compliance, and mental health of people with breast cancer. Conversely, a lack of social support could increase a person's sense of isolation and suffering.

The importance of social support for breast cancer patients' psychological adjustment was emphasized by Hagedoorn et al. (2011), who also showed a correlation between increased support and better emotional well-being and decreased distress. It's critical to keep in mind that a patient's emotional support network, health literacy, financial stability, and access to care are all significantly impacted by their socioeconomic status in the case of breast cancer. It is critical to recognize and address these factors in order to ensure that every breast cancer patient has fair access to high-quality care and support throughout their cancer experience.

#### The Effects of Socio-Demographic Factors on Breast Cancer Patients

Age, gender, marital status, and other sociodemographic characteristics can have a big impact on how breast cancer patients view their disease and how their treatment goes.

One important sociodemographic component in breast cancer is age. Younger patients, who are frequently diagnosed with more aggressive forms of breast cancer, may experience particular difficulties with regard to body image, psychosocial distress, and fertility preservation. Elderly people may need specialized treatment methods due to comorbidities. Smith et al. (2017) discovered that older patients (above 70) had greater rates of comorbid diseases that affected treatment decisions, while younger patients (under 40) were more likely to feel distress related to fertility and concerns about body image.

#### Gender

Although it is more frequently linked to women, men can also develop breast cancer. Male patients with breast cancer may face particular difficulties with diagnosis, choosing a course of therapy, and dealing with the psychological effects of being a minority patient. In their discussion of the experiences of male breast cancer patients, Johnson and Anderson (2019) emphasized the necessity for specialized care and psychosocial interventions to meet the particular difficulties that these patients confront.

#### Race/Ethnicity

There are differences in screening rates, access to care, and treatment outcomes for breast cancer depending on a person's race or ethnicity. Women who identify as African American or Hispanic in particular may have obstacles to receiving the best care and a prompt diagnosis. African American women are more likely to face delays in diagnosis and treatment, which can result in advanced-stage disease and lower survival rates (Hunt et al., 2020).

## Marital Status

The support and care that breast cancer patients receive can vary depending on their marital status. Patients who are single or divorced may experience more emotional and practical difficulties than married or partnered patients, who frequently have an established support network. According to research by O'Reilly and Peterson (2018) on the impact of marital status on breast cancer outcomes, married patients typically have greater emotional well-being and adherence to treatment regimens.

## Effects of Social Support Factors, Culture, and Religion on Breast Cancer Patients

Cultural and religious beliefs are examples of social support elements that can have a significant impact on the experiences and results of breast cancer patients.

### Culture

Patients with breast cancer may have different perspectives on the illness, choose different courses of therapy, and manage their emotions depending on their cultural customs and beliefs. Attitudes on body image, stigma, and conventional therapeutic methods can all be influenced by culture. In their discussion of the influence of cultural variables on breast cancer experiences, Ashing-Giwa et al. (2018) pointed out that certain cultural groups can see cancer as a taboo subject, which could delay diagnosis and treatment.

### Religion

Breast cancer sufferers can benefit greatly from the emotional and psychological support that their religious beliefs and practices can offer. Throughout the cancer experience, prayer, faith, and religious communities can be sources of solace, hope, and

coping mechanisms. In their study, Pargament et al. (2019) examined the function of religion in breast cancer survivorship, noting that religious practices and beliefs might improve a patient's general health and give their life meaning and purpose.

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### Cultural Competence in Healthcare

Patients with breast cancer from a variety of cultural backgrounds can benefit from the experiences of healthcare professionals who are culturally competent. Understanding and honoring cultural ideas, overcoming language difficulties, and offering individualized support are all components of culturally competent care. The significance of cultural competence in healthcare and its ability to lessen health disparities among patients with breast cancer from diverse cultural origins were highlighted by Betancourt et al. (2017).

### Religious Coping Interventions

Religious coping strategies that are in line with their spiritual views may be helpful for certain breast cancer sufferers. These therapies can improve patients' general well-being, lessen distress, and help them discover purpose in their lives. In a study on the efficacy of religious coping therapies, Tarakeshwar et al. (2015) found that patients with breast cancer who cherish their religious beliefs can benefit emotionally and psychologically from them. Patients with breast cancer may have significant impacts from culture and religion, which may shape their treatment choices, coping mechanisms, and general well-being. Addressing the many needs of breast cancer patients requires an understanding of the influence of these social support components as well as the provision of care that is spiritually and culturally sensitive.

### Anxiety Disorder among Women with Breast Cancer

Anxiety disorders because of medical conditions encompasses severe anxiety or panic that directly caused by physical problems (Bruce & Blonigen, 2022). Women with



breast cancer undergo through various challenges as they undergo through treatments or medications. This then affect their level of anxieties that may range from mild, moderate to severe depending on the circumstances they are. According to Simunovic and Ljubotina (2020), almost 50% of the cancer patients suffer from psychiatric disorder, panic, depression and specific or general anxieties that are considered as psychopathological commodities. Women with breast cancers endure mental, physical and psychological stresses and anxiety that then affect the way they respond to treatment or medication.

Breast Cancer patients periodically suffer from panic anxiety disorder especially when the treatments or medications hardly respond as required. Panic disorder refers to an anxiety disorder categorized by unexpected and recurrent episodes of strong fear linked with physical symptoms such as chest pains, shortness of breath, dizziness or abnormal distress (Gouveia, 2019). When under medication or treatment, breast cancers patients face various difficulties and worries concerning their well-being and recovery. In the event that the breast cancer patients have trouble, then they end up suffering from panic anxiety due to fear of fatigue, intense illness, social isolation or deaths.

Cancer is threatening and understandably, many patients are generally anxious in response to the threat (Ahmed, 2019). Unfortunately, sometimes the general anxiety disorders become a clinical matter that requires cancer professionals to help or salvage the situation. Breast cancer patients undergo through general anxiety disorder due to the existing fear of eventualities that may come up with the different stages of cancer. Breast cancer patients suffer from restlessness, fear, anxiety and in other extents depression that generally affects their lives (Gouveia, 2019).

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### Prevalence of Anxiety Disorders among Women Diagnosed with Breast Cancer

Breast cancer is the most common cancer diagnosed, the leading cause of cancer-related deaths among women worldwide, and accounts for 30% (or 1 in 3) of all newly diagnosed female cancers annually. According to American Cancer Society estimates, there will be 55,720 new cases of ductal carcinoma in situ (DCIS) and 297,790 new cases of invasive breast cancer in women in 2020. In women in Africa, breast cancer is responsible for 20% of cancer-related fatalities and 28% of all cancer incidences. The sub-Saharan region leads the way, with incidence rates expected to be less than 35 per 100,000 women in the majority of African countries (GLOBOCAN, 2018). In Kenya, breast cancer accounts for 23% of all instances of cancer in women. Despite the importance of breast cancer screening, not much is known about Kenyan women's screening habits. According to Peng, Huang, and Kao (2019), in addition to their physical symptoms, cancer patients' adverse effects also include psychological distress and issues with social integration. Assessing and meeting the psychological needs of patients with breast cancer as part of palliative care and hospice care can assist to improve their quality of life.

### Socio-demographic Factors and Anxiety Disorders among Women Diagnosed with Breast Cancer

Certain factors influence cancer screening programs, which in turn affects how patients are treated, diagnosed, and proceed with their medications (Gratzer & Khalid-Khan, 2013). Women who have breast cancer are significantly impacted by sociodemographic variables. Previous studies have suggested that there may be a connection between mental illness and aging. Younger persons are more likely to

experience depressive symptoms than older people (Akhtar & Landeen, 2007). Because of this, younger individuals with breast cancer usually feel less anxious during cancer treatments. Additionally, Akhtar-Danesh et al. (2007) found that females above the age of 50 had a higher likelihood of depression and other mental health problems.

Education level and mental problem are negatively correlated, claim Cheah et al. (2020). This could be because more individuals are becoming educated and aware of the impact of illnesses and ways to improve health. The study also discovered that married women had lower rates of depression and PTSD. People who are ill have a reduced quality of life and endure more stress since mental health disorders and poor health frequently co-occur. Indicators of the quality of life include bodily symptoms, physical health, psychological health, existential health, and support issues. Maintaining a regular routine that combines exercise and an hour or less of information searching each day lowers anxiety and despair, claim Zhang et al. (2020).

#### Support System for Women with Breast Cancer

Support system for patients of breast cancers is crucial as it helps offset the impact of stress caused by illness or other negative outcomes (Adam, 2020). Breast cancer is chronic and dreaded illness that put the patients under lots of stress or anxiety. Support system is critical for a patient suffering from chronic illness such as breast cancer as it plays a vital role in their survival and response to treatment. Support system maybe obtained from family, friends, wellwishers, or any other source that then helps the breast cancer patients. The availability and accessibility of support system or otherwise significantly determines the prognosis and quality of life of breast cancer patients (Mazo et al., 2020).

Support systems may come in the form of monetary term, social spectrum or any other form that helpful to the breast cancer patients. People with chronic illnesses, such as breast cancer, who lack social support, especially from their families, are more likely to have unfavorable effects (Muhbes & Aleyassery, 2014). Through an effective support system, a cancer patient is able to address and meet socio-demographic demands that then affects their anxiety levels. Lack of proper support systems, breast cancer patients are able to undergo difficulties and stress that then affects their mental, social and economic wellbeing as they handle the expenses of treatment and medication. When such situations exceed, the breast cancer patients may experience severe anxiety disorders as a result of increased stress and panic.

#### Empirical Literature Review

An empirical literature review offers a foundation of knowledge on the subject, aids in avoiding plagiarism, acknowledges prior work, and identifies discrepancies and research gaps (Bruce & Blonigen, 2022). This theory increases the likelihood that women with breast cancer may experience anxiety issues because the disease can be lethal if it is not detected and treated appropriately. Surveys were used to measure and report a wide range of values for the prevalence of anxiety (20–50%) and depression (30–50%). It has been shown that anxiety and depression are more common in breast cancer patients than in general population women (National Library of Medicine, 2022)

From January 2000 to March 2019, three electronic databases (PubMed, Web of Science, and Scopus) were searched. The following key terms were also mentioned: anxiety, prevalence, and breast neoplasm. The study enrolled a total of 36 trials with 16,298 breast cancer patients between 2000 and 2018. Anxiety was seen in 41.9% of

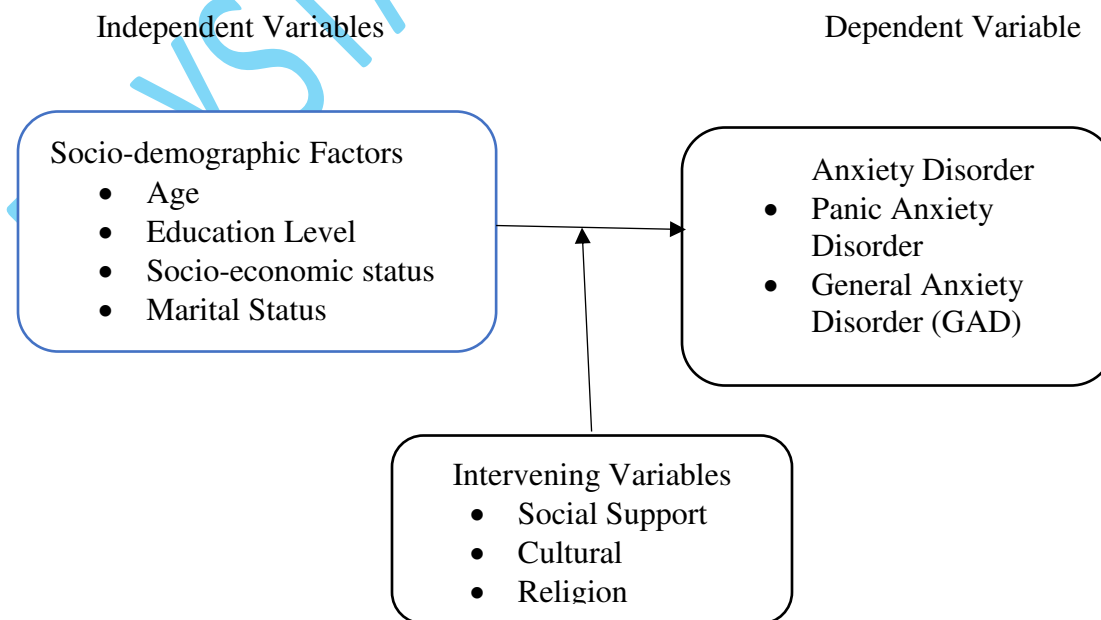
breast cancer patients. Patients in Mediterranean nations were more likely to experience anxiety. The study revealed that breast cancer patients experienced significant levels of anxiety, highlighting the significance of both psychological and physical variables in these patients, (Hosein et al., 2019). Anxiety (40%) and sadness (20%) were indicated as clinically significant symptoms by a sample of breast cancer survivors among black women. Anxiety ( $r = 0.14$ ,  $p = 0.01$ ) and sadness ( $r = 0.10$ ,  $p = 0.04$ ) were linked to poor communication. Women who reported better communication skills and confidence also had lower levels of anxiety and despair. Cultural values and depression showed a tendency to be significantly correlated ( $r = 0.09$ ,  $p = 0.06$ ) (Patient Education and Counseling, 2022).

In this cross-sectional study, 389 adult cancer patients receiving treatment in a cancer clinic at a public referral hospital in Kenya were assessed for mental health, overall well-being, and social functioning. The presence of cancer was found to have a detrimental impact on psychological health, as well as social and occupational performance. The conclusion was that a person's chance of impairment and mental discomfort rose with the severity of their cancer illness. To reduce this risk, routine care addressing mental health was suggested along the cancer continuum. The lack of data on the prevalence of depression in breast cancer patients at Moi Teaching and Referral Hospital inspired Saina et al. (2021) to look into the reasons of depression at their institution. A cross-sectional study was carried out on 79 patients who completed a demographic profile, a series of questionnaires, and the HADS scale to gauge the intensity of their depression. In % of cases of anxiety, depression was found.

A statistically significant correlation was seen with elements including employment, cancer patients in their latter stages, and chemotherapy patients. Age, marital status, education level, hormone therapy, and surgical intervention are some significant variables that have been examined in relation to the occurrence of depression (Kulkarni, 2019). It is evident from the empirical literature evaluation that little has been written regarding the incidence of anxiety disorders among women with breast cancer in Mvita Sub-County, Mombasa County, Kenya. Due to the fact that it would solve a local need in the Mvita Sub County, the current study is pertinent in Mombasa County, Kenya.

### Conceptual Framework

A conceptual framework is an illustration that is connected to a study's aims and depicts the study's ultimate goal in relation to addressing the research questions (Green, 2014). It aids the researcher's comprehension of the topics under investigation. The conceptual framework showing the relationships between the variables is shown in Figure 2.1.



*Figure 2.1: Conceptual Framework*

Source: Kungu (2023)

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## Discussion

Socio-demographic characteristics are the study's independent variable, whilst anxiety disorders including panic disorder and general anxiety disorder (GAD) are its dependent variable. Age, educational attainment, socioeconomic standing, and marital status all play key factors in determining how breast cancer patients manage and experience anxiety disorders such as panic disorder and general anxiety disorder (GAD). The support system is one of the study's intervening factors, and it mostly affects how this independent variable influences the dependent variable. In order to build resilience and offer breast cancer patients the confidence to confront hardship, social support, which is a subjective perception of meaningful care and concern for others, is encouraged. This increases adaptation and quality of life.

## Summary

This chapter presented general, theoretical, and empirical literature from numerous publications pertinent to this current study. Literature review was guided by research objectives. The study also presented conceptual framework, which demonstrated the relationship between independent and dependent variables of the study. The next chapter presents research methodology.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### Introduction

Finding out how common anxiety disorders are among women with breast cancer diagnoses was the study's main objective. The study design to be used, study variables, study location, study population, study sample size, study tools, study methodology, pilot study, data collecting and analysis procedures, and lastly data management and ethical issues were all covered in this chapter.

#### Research Design

A research design dictates how study is to be conducted. A descriptive research design was used for the investigation. The typical form and intent of a descriptive correlational design is to precisely measure the characteristics described in a research question. According to Omair (2015), a descriptive design gathers information on existing phenomena through enquiring into people's views, outlooks, behaviors, or values. Additionally, the approach is perfect for this study since a large population of data may be gathered. In other places, Siedlecki (2020) says that descriptive designs gather information to test hypotheses and provide information about the status of the persons being studied, which is relevant to the research at hand. According to Pandey & Pandey (2021), the consequence is that this particular design is applied to research a large population in order to show the distribution and interventions of sociological and psychological factors. In Mvita Sub-County, Mombasa County, Kenya, the researcher utilized a descriptive study design to characterize anxiety problems among breast cancer patients in selected support groups.

### Target Population

A population is a collection of individuals, occasions, or objects that have quantifiable characteristics (Acharyya & Bhattacharya, 2019). A population is a group of events that an investigator is interested in and wants to extrapolate, according to Lawes et al. (2021). Women in selected support groups in Mvita Sub-County, Kenya's Mombasa County, Kenya who have been diagnosed with breast cancer will make up the study's target population. 1827 women have received a breast cancer diagnosis, according to data at Coast General Teaching and Referral Hospital. These women are treated at the hospital, and they participate in a variety of county-based support organizations (CGTRH, 2022).

### Sample Size

A total of 270 respondents made up the sample size for the study drawn from the two support groups. Choosing a portion of a population to represent that population is the process of sampling (Andrade, 2020). The requirement that a sample be inclusive and representative of the population from which it was drawn is the most crucial one. If the results of the analyses conducted using the investigator's sampling units are equivalent to those discovered if the investigator examined the entire population, the sample is said to be representative. The census approach was employed because of the magnitude of the sample size. The census approach was economically viable and was thus strongly advised since it produces reliable results for a small population and minimizes potential sampling-related mistakes. Since the population is so tiny, the census method is preferred.

*Table 3.1: Sample Size*

Name of Support Group	Sample Size
Breast Cancer Support Coast (BRECASCO)	150
Cancer Survivors Coast	120
TOTAL	270

### Sampling Techniques

The method used in a study to choose sample items is called a sampling methodology. Through this approach, a very small number of people are chosen and studied. This is done in order to ascertain some information on the entire population (O'Connor & Kleyner, 2011).

To be more precise, the census technique was used to choose the study's participants. I discovered the assistance of organizations BRECASCO and Cancer Survivor Coast on a recent trip to Mombasa. BRECASCO met at Aga Khan Hospital, Mombasa and Cancer Survivors Coast met at the HOSPICE, Mombasa on separate days, so I decided to check out the area.

The woman I saw in Mombasa was given a positive breast cancer diagnosis on one of my visits. Later on, she joined BRECASCO and they have their monthly meetings at Aga Khan Hospital, Mombasa. The other group, known as Cancer Survivors Coast, meet monthly at the HOSPICE in Mombasa. Since all of the research's target individuals were included, sampling procedures were not be employed in this study; instead, a census was conducted. All 270 women with breast cancer in the selected support groups in the Mvita Sub-County would participate in the study as responders.

## Types of Data

Primary data and secondary data were the two main categories into which data is divided (Kabir, 2016). While secondary data is taken from already-existing sources like books, journals, or articles, primary data is material that has been collected, gathered, or found for the first time. A researcher must choose a form of data that is consistent with the goals and nature of their research.

Sometimes the type of data obtained from the field or linked institution might be determined by the different data collection technologies utilized. The researcher employed first-ever primary data from diverse women who were diagnosed with breast cancer in selected support groups, Mombasa County, for the analysis of this study. Primary data added fresh knowledge to current analogies about specific factors or findings or confirmed them (Institute for Work & Health, 2015). Because the researcher gathering data for this study utilized a questionnaire for the first time, primary data was desired.

## Data Collection Instruments

Data collection was done via the questionnaire. The questionnaire was divided into the following categories: The socio-demographic factors were covered in Section I, and the Screen for Adult Anxiety Related Disorders (SCAARED) was used in Section II. Questionnaires were used because they can quickly collect data from a large population.

The researcher had created Social Demographic Questionnaires (SDQ) for Section A, which was used to collect data from respondents on things like age, gender, education levels, marital status, and the date of breast cancer diagnosis.

Adult Anxiety Related Disorders Screen (SCAARED), was filled by the respondents completed by the patient. The phrases express how individuals are feeling. The patient responds with one of the following statements: "Not True or Hardly Ever True," "Somewhat True or Sometimes True," or "Very True or Often True." The patient must check the box next to everything that appears to apply to their current or previous three-month circumstance (Angulo et al., 2017).

The clinician evaluates the SCAARED results in the following manner:

#### SCORING

##### Anxiety Disorder

A total score of greater or equal to 23 may indicate the presence of an Anxiety disorder

##### Panic Disorder

A score of 5 for items 1,2,6,9,11,12,15,17,18,19,22,25,28,32,36,38,40 may indicate Panic Disorder

##### Generalized Anxiety Disorder

A score of 12 for items 5,7,8,14,,21,23,24,29,31,35,37,39,44 may indicate

##### Social Phobia Disorder

A score of 7 items 3,10,27,34,41,42,43 may indicate Social Phobia Disorder

Where persons have the ability to read and write, they can also be managed directly or through representatives (Sahaya, 2017). The questionnaire was structured such that it included both open-ended and close-ended questions. This was good to collect both quantitative and qualitative data.

#### Data Collection Procedures

The researcher and research assistants collected data using questionnaires. This was done using the drop and pick method. The researcher also met the participants on the day they held their meetings. This was on a first Thursday of the month for BREASCO members who held monthly meetings. For Cancer Survivors Coast, they were met on their meeting day which was usually communicated by the group officials.

### Validity and Reliability of Data

Reliability is the capability of a measurement device to deliver the same response in the same surroundings repeatedly (Taherdoost, 2016). It means that if people respond to a questionnaire in the very same way, on numerous occasions, the instrument is considered dependable. The dependability of the survey questions is assessed using running frequencies and editing errors. The pretest was also be used to estimate how long it would take respondents to complete the questionnaire within a two-week window. To determine the extent to which similar responses are elicited, the researcher will utilize correlation to determine the efficiency of data. The degree to that the tools provide persistent results be referred to as reliability (Cypress, 2017). The dependability of the questions was evaluated using the Cronbach's coefficient. The reliability coefficient of Cronbach's alpha ranges from 0 to 1. According to Taber (2018), a value larger than 0.70 indicates that the study is consistent.

According to Kothari (2007), validity relates to the reliability and significance of conclusions drawn from study findings. If the data evaluate what they are designed to measure, they are valid. Face and content validity was evaluated in this study. The research tools were given to university supervisors for constructive critique to determine face validity. Following that, the research tool were amended based on their suggestions.

Validity is the degree of accuracy in collecting the needed data. The researcher will also evaluate the questionnaire's construct validity. This experiment provides a link between the measurement and the underlying theories. Construct validity is eliminated by the presence of a connection between the evaluations and connected domains. The term for calculating content validity may be stated as follows:

$$CVR = (n_e - N/2)/(N/2)$$

Where CVR: Content Validity Ratio

$n_e$ : number of experts indicating the question is essential.

$N$ : Total number of experts presented to rate the tool

The CVR is in the +1 to -1 range. A positive figure shows that at least half of the professionals deemed the question important. Evaluating the average CVR across all queries in the questionnaire by specialists in the topic of the research establishes the content validity of the queries.

#### Pretesting

Pretesting in data collection is necessary because it examines if the collection tool speaks to the respondents as expected (DeMaio et al., 1998). Running a pretest utilizing the questionnaires or interview guide to identify any potential issues (Lowe, 2019). Pretesting exposes parts of the questionnaire that are not clearly communicated and shows if there are any difficulties experienced in the administration procedures (Mugenda & Mugenda, 2003). The questionnaires should be tested at a different location from that in which the actual participants are at though with similar inclusion criteria. (Kumar, 2012).



A pretest helps identify questionnaire errors that might cause participants to provide wrong replies or ask questions that do not make sense. It also helps increase the internal consistency of the inquiry tool. A pretest might help with the design of a bigger research. Additionally, it may forecast areas of the primary study that will not be successful, as well as the possibility that research protocols will not be followed and the applicability of chosen methodology. It also demonstrated what was effective and ineffective, such as unclear recommendations and questions (Kumar, 2012).

Researchers may also discover how the tool might assist them in developing coding solutions for open-ended queries through testing (Hazzi & Maldaon, 2015). A pretest study with a 10% sample size is appropriate for the pretest study. The researcher conducted a pretest study among 27 breast cancer patients who did not form part of the final sample but presented with anxiety. The pretest was used to determine whether there were difficult or ambiguous items in the research tools which would be corrected before main data collection.

#### Data Analysis Plan

For data collected to make sense and draw a conclusion, it is first cleaned. All the filled and returned questionnaire went through a comprehensive data inspection. They were examined to ascertain adherence to instructions such as completeness of responses and ticking or putting an x single response in necessary item answer boxes. The study generated quantitative data, which was coded, entered and cleaned before being statistically analysed.

Exploratory data analysis techniques were used to reveal the model's representation and find outliers. Statistical measurements were summarized using

percentages, while longitudinal data was presented using descriptive statistics like mean and standard deviation.

### Ethical Considerations

A letter of introduction was sent to the researcher by the Department of Psychology and Counseling. This made it possible for the researcher to identify herself to the respondents during the data collection procedure and reassure them that the information would only be utilized for scholarly purposes. In order to guarantee that the researcher followed all ethical guidelines and completed the study with appropriate process, the Daystar University Ethics and Research Board (ERB) also granted ethical clearance. Additionally, the National Commission for Science, Technology, and Innovation granted a research authorization (NACOSTI). The respondents gave their informed consent for the study. This gave the respondents the opportunity to assess whether they intended to continue the study or not. During the distribution and collection of the questionnaires, there was no coercion.

By telling the participants that their names were not necessary for the information supplied and that the data collected would only be used for academic purposes, the researcher gave them confidence that their privacy would be protected. With the promise of privacy, the participants provided their informed consent. Participants were given the option to accept or decline being a part of the study by the researcher, and those who want to withdraw were allowed to do so. After the walk, some responders said they were too tired to participate. Confidentiality assurance was essential because the study involved human volunteers with health issues. The researcher made sure that the

respondent's information was kept private and that responses that could be traced back to a responder were not included in the study's results.

#### Summary

The study's research technique was given in this chapter. Target demographic, study population, sample size and technique, data collection tools, validity and reliability, process, pretesting, data analysis strategy, and ethical considerations were all covered. The results, data analysis, and interpretation were reported in the next chapter.

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## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

#### Introduction

The study's findings are presented in this chapter in accordance with its goals. In data analysis, descriptive and inferential statistics were employed. The study's goal was to find out how common anxiety disorders were among breast cancer patients in a select few Mvita Sub-County, Mombasa County, Kenya support groups. Its goals were to ascertain the sociodemographic characteristics of women who were diagnosed with breast cancer, to ascertain the frequency of anxiety disorders in these women, and to evaluate the association between these variables and anxiety disorders in women who were diagnosed with breast cancer.

#### Presentation, Analysis and Interpretation

##### Response Rate

A total of 270 questionnaires were administered to the respondents out of which 250 were filled and returned resulting in a response rate of 93%. Oladipo et al. (2015) noted that a response rate of 80% and above is excellent for data analysis and reporting. Table 4.1 shows the response rate.

*Table 4.1: Response Rate*

Response	Frequency	Percentage
Returned	250	93%
Unreturned	20	7%
Total	270	100%

## Background Information

## Respondents' Age

The study sought to determine the respondents' age bracket and the results are presented in Table 4.2.

*Table 4.2: Respondents' Age*

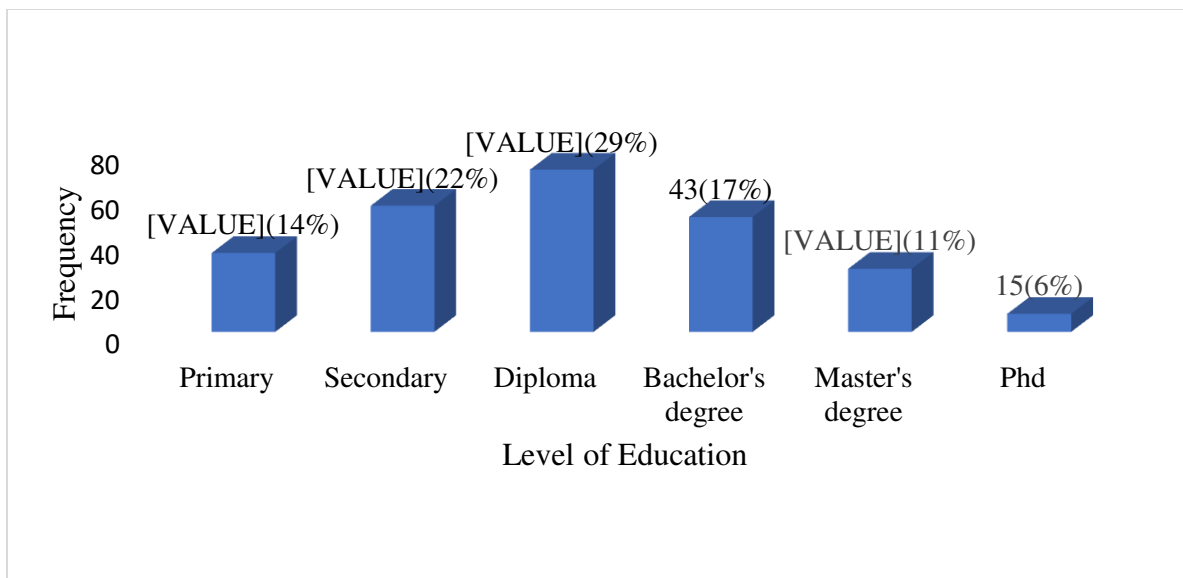
Age Bracket	Frequency	Percent
20-25 years	18	7
26-30 years	24	9
31-35 years	25	10
36-40 years	28	11
41-45 years	44	18
46-50 years	55	22
51 years and above	56	23
Total	250	100

The findings show that 56(23%) of the respondents were 51 years and above, 55(22%) were in the 46–50 years age bracket, 44(18%) were between 41-45 years, 28(11%) were between 36-40 years, 25(10%) were between 31-35 years, while 24(9%) were between 26-30 years. The findings imply that cancer affected women across all productive years with the numbers increasing with age. In this regard, the findings imply that women of reproductive age were at risk of getting breast cancer and hence the need for frequently or yearly screening for early detection and treatment.

## Level of Education

The respondents were asked to indicate their level of education. Education level was critical in this study in helping the respondents to understand the subject under study.

Figure 4.1 illustrates the results.

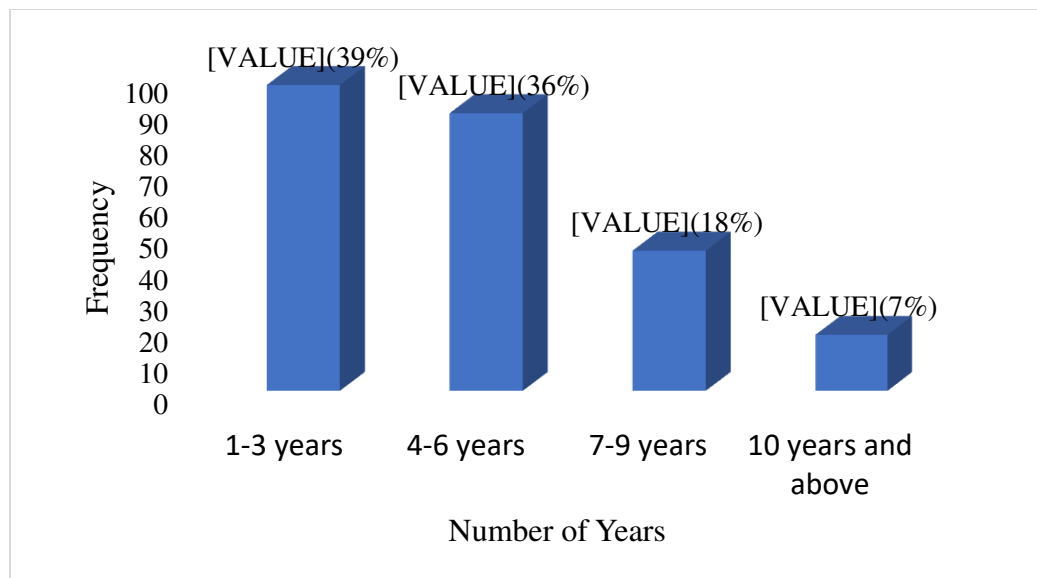


*Figure 4.1: Level of Education*

Results presented in Figure 4.1 show that 72(29%) of the study participants had diploma level of education, 56(22%) had secondary education, 43(17%) had a bachelor's degree, 35(14%) had primary education, while 28(11%) had a master's degree and 15(6%) had a PhD. The findings imply that cancer affected all women irrespective of their educational levels. Further, the fact that all the women were literate means that they could and respond to the research tool without external influence.

#### Length of Gone Since Cancer Diagnosis

This section sought to understand the years that have elapsed since the respondents were diagnosed with breast cancer. Figure 4.2 presents the findings.



*Figure 4.2: Time Lapse Since Diagnosis*

From the results depicted in Figure 4.1, 98(39%) of the respondents indicated that 1-3 years had gone since their cancer diagnosis, 89(36%) indicated that it was 4-6 years since their diagnosis, 45(18%) 7-9 years since their diagnosis 45(18%) and above 10 years for 18(7%) of the respondents. The findings imply that there were more women diagnosed from breast cancer in the recent years, a fact that the incidence rates of the disease in increasing or the survival rate is low with time.

#### Marital Status of Respondents

This study sought to determine the marital status of respondents. The results are illustrated in Figure 4.3.

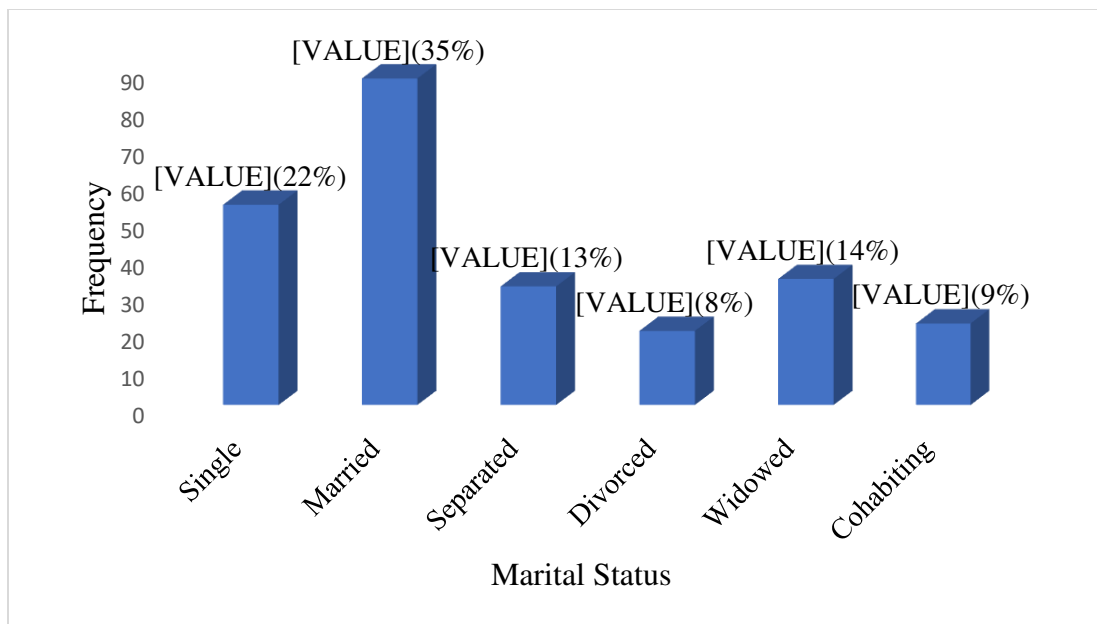


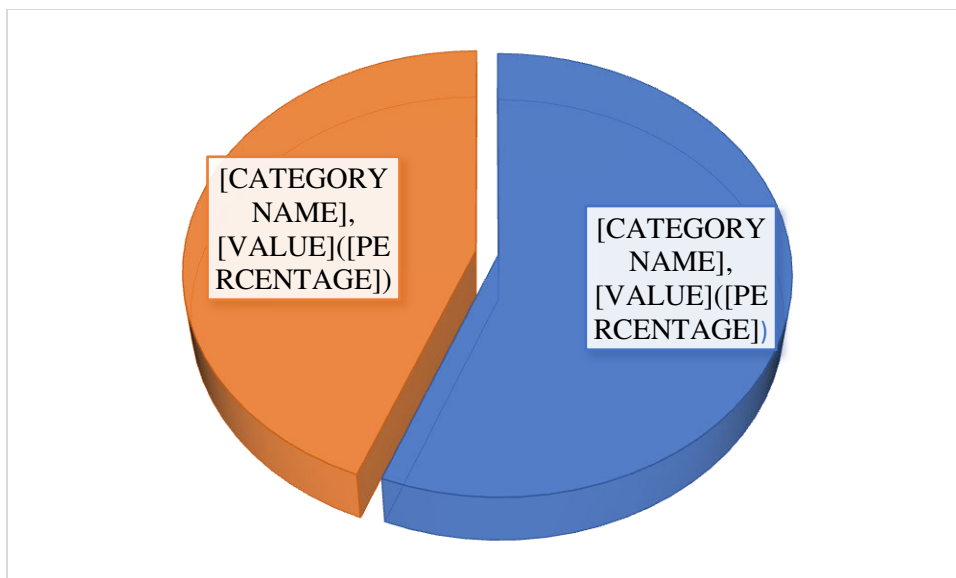
Figure 4. 3: Marital Status of Respondents

Findings in Figure 4.3 indicate that 88(35%) of the respondents were married, 54 (22%) were single, 32(13%) were separated, 20(8%) were divorced, while 34(14%) were widowed, 22(9%) were cohabiting. The finding demonstrate that most of the respondents lived without a spouse, a fact that could predispose them to or heighten anxiety disorders due to lack of spousal support.

#### Employment Status

Here, the researcher inquired into the respondents' employment status, results of which are illustrated in Figure 4.4.





*Figure 4.4: Employment Status of Respondents*

The findings indicate that 140(56%) of the respondents were employed and 110 (44%) were unemployed. This implies that the sample size of the study comprised both the employed and unemployed respondents and this was critical in assessing the anxiety prevalence rates between the two groups.

#### Prevalence of Anxiety Disorders of Women Diagnosed with Breast Cancer

The study sought to assess the prevalence of anxiety disorders among women diagnosed with breast cancer. Screen for Adult Anxiety Related Disorders (SCAARED) was used as a tool for assessing the prevalence where a list of statements was presented to the respondents to indicate the degree to which they applied to them. Table 4.3 presents the outcome.

*Table 4.3: Prevalence of Anxiety Disorders (SCAARED)*

Types of Anxiety disorders (SCAARED)	Frequency	Percent
Anxiety Disorder	95	38
Panic Disorder	55	22
Generalized Anxiety Disorder	60	24
Social Phobia Disorder	40	16
Descriptive Statistics		
Mean	2.093	
Std. Deviation	1.213	

Analysis findings in Table 4.3 indicate that 95(38%) of the respondents had anxiety disorder, 55(22%) had panic disorder, 60(24%) had generalized anxiety disorder and 40(16%) had social phobia disorder. The mean score for was 2.093 with a standard deviation  $SD=1.213$ . The findings confirm presence of anxiety disorder among the respondents. These findings are consistent with Stacevic (2009) who noted that stress associated with cancer diagnosis can trigger the onset of anxiety disorder in a breast cancer patient characterized by social phobia, panic disorder, and generalized anxiety disorder.

#### Socio-demographic Characteristics and Anxiety Disorders

The study sought to assess the relationship between socio-demographic factors and anxiety disorders among women diagnosed with breast cancer. The results of the analysis are illustrated in Table 4.4.

*Table 4.4: Social-Demographic Characteristics and Anxiety Disorders*

Demographics		Anxiety Disorder	Panic Disorder	Generalized Anxiety Disorder	Social Phobia Disorder
Respondents age	Pearson Correlation	.380**	-.232**	-.352**	-.384**
	Sig. (2-tailed)	0.05	0.046	0.003	0.038
	N	95	55	60	40
Length of time since cancer diagnosis	Pearson Correlation	-.355**	-.362**	-.301**	-.299**
	Sig. (2-tailed)	0.047	0.026	0.038	0.045
	N	95	55	60	40
Education Level	Pearson Correlation	.289**	.321**	.352**	.295**
	Sig. (2-tailed)	0.003	0.038	0.026	0.036
	N	95	55	60	40
Marital Status	Pearson Correlation	-.303**	-.297**	-.277**	-.268**
	Sig. (2-tailed)	0.012	0.018	0.019	0.035
	N	95	55	60	40
Employment status	Pearson Correlation	-.251**	-.316**	-.292**	-.245**
	Sig. (2-tailed)	0.065	0.056	0.048	0.046
	N	95	55	60	40

\*\* Correlation is significant at the 0.05 level (2-tailed).

The results of the correlation indicated a negative statistically significant correlation between anxiety disorder and age of respondents ( $r = -0.380$ ,  $p = 0.05$ ), panic disorder and age of respondents ( $r = -0.232$ ,  $p = 0.046$ ), generalized anxiety and age ( $r = -0.352$ ,  $p = 0.003$ ) and also social phobia disorder and age ( $r = -0.384$ ,  $p = 0.038$ ). The study results imply that the age of respondents was negatively correlated with anxiety disorders. In other words, the younger the respondents were, the more anxious they were. The length of time gone since diagnosis had a negative statistically significant correlation

with anxiety disorder ( $r = -0.355$ ,  $p = 0.047$ ), panic disorder ( $r = -0.362$ ,  $p = 0.026$ ), generalized anxiety ( $r = -0.301$ ,  $p = 0.038$ ) and social phobia disorder ( $r = -0.299$ ,  $p = 0.045$ ). In overall, the findings demonstrate that the length of time gone since diagnosis was negatively correlated with anxiety disorders. In other words, women who were recently diagnosed with breast cancer were more anxious.

Further, the results of the correlation indicated a positive statistically significant correlation between anxiety disorders and level of education ( $r = 0.289$ ,  $p = 0.003$ ), panic disorder and education level ( $r = 0.321$ ,  $p = 0.038$ ), generalized anxiety and education level ( $r = 0.352$ ,  $p = 0.026$ ) and also social phobia disorder and education level ( $r = 0.295$ ,  $p = 0.036$ ). The findings demonstrate that the level of education of respondents was positively correlated with anxiety disorders, meaning that breast cancer patients with high education achievements were more anxious than those with no or low education achievements. Marital status had a negative correlation with anxiety disorders ( $r = -0.303$ ,  $p = 0.012$ ), panic disorder ( $r = -0.297$ ,  $p = 0.018$ ), generalized anxiety ( $r = -0.277$ ,  $p = 0.019$ ) and social phobia disorder ( $r = -0.268$ ,  $p = 0.035$ ). In overall, the findings demonstrate that marital status was negatively correlated with anxiety disorders. In other words, the single, divorced and widowed women were more anxious.

Employment status had a negative correlation with anxiety disorders ( $r = -0.251$ ,  $p = 0.065$ ), panic disorder ( $r = -0.316$ ,  $p = 0.056$ ), generalized anxiety ( $r = -0.292$ ,  $p = 0.048$ ) and social phobia disorder ( $r = -0.245$ ,  $p = 0.046$ ). In overall, the findings show that employment status was negatively correlated with anxiety disorders. In other words, the unemployed women had greater anxiety levels compared to the employed.

### Summary of Key Findings

The first objective was to determine socio-demographic factors of women diagnosed with breast cancer. In regards to the distribution of respondents according to age, the study found that 56(23%) of the respondents were 51 years and above, 55(22%) were in the 46– 50 years age bracket, 44(18%) were between 41-45 years, 28(11%) were between 36-40 years, 25(10%) were between 31-35 years, while 24(9%) were between 26-30 years. In regard to the level of education, 72(29%) of the study participants had diplomas, 56(22%) had secondary education, 43(17%) had a bachelor's degree, 35(14%) had primary education, while 28(11%) had a master's degree and 15(%) had a PhD.

In regards to the length of time that had gone since cancer diagnosis, 98(39%) of the respondents indicated that 1-3 years, 89(36%) indicated that it was 4-6 years and 45(18%) 7-9 years while 18(7%) of the respondents indicate more than 10 years. Regarding the respondents' marital status, 88(35%) of the respondents were married, 54 (22%) were single, 32(13%) were separated, 20(8%) were divorced, while 34(14%) were widowed and 22(9%) were cohabiting. On their employment status, 140(56%) of the respondents were employed while 110 (44%) were unemployed.

The second objective was to assess the prevalence of anxiety disorders among women diagnosed with breast cancer. Findings indicated a high prevalence of anxiety disorders, where 95(38%) of the respondents had anxiety disorder, 55(22%) had panic disorder, 60(24%) had generalized anxiety disorder and 40(16%) had social phobia disorder. The mean score for was 2.093 with a standard deviation  $SD=1.213$ .

The third objective was to assess the relationship between socio-demographic factors and anxiety disorders among women diagnosed with breast cancer. The results

indicated a negative statistically significant correlation between anxiety disorder and age of respondents ( $r = -0.380$ ,  $p = 0.05$ ), panic disorder and age of respondents ( $r = -0.232$ ,  $p = 0.046$ ), generalized anxiety and age ( $r = -0.352$ ,  $p = 0.003$ ) and also social phobia disorder and age ( $r = -0.384$ ,  $p = 0.038$ ). The length of time gone since diagnosis had a negative statistically significant correlation with anxiety disorder ( $r = -0.355$ ,  $p = 0.047$ ), panic disorder ( $r = -0.362$ ,  $p = 0.026$ ), generalized anxiety ( $r = -0.301$ ,  $p = 0.038$ ) and social phobia disorder ( $r = -0.299$ ,  $p = 0.045$ ). Further, a positive statistically significant correlation was observed between anxiety disorders and level of education ( $r = 0.289$ ,  $p = 0.003$ ), panic disorder and education level ( $r = 0.321$ ,  $p = 0.038$ ), generalized anxiety and education level ( $r = 0.352$ ,  $p = 0.026$ ) and also social phobia disorder and education level ( $r = 0.295$ ,  $p = 0.036$ ).

Marital status had a negative correlation with anxiety disorders ( $r = -0.303$ ,  $p = 0.012$ ), panic disorder ( $r = -0.297$ ,  $p = 0.018$ ), generalized anxiety ( $r = -0.277$ ,  $p = 0.019$ ) and social phobia disorder ( $r = -0.268$ ,  $p = 0.035$ ). Employment status had a negative correlation with anxiety disorders ( $r = -0.251$ ,  $p = 0.065$ ), panic disorder ( $r = -0.316$ ,  $p = 0.056$ ), generalized anxiety ( $r = -0.292$ ,  $p = 0.048$ ) and social phobia disorder ( $r = -0.245$ ,  $p = 0.046$ ). In overall, the findings show that all the social demographic factors were negatively correlated with anxiety disorders with the exception of the level of education which was positively correlated with anxiety disorders.

### Summary

Chapter four has presented the study findings, presenting the data in a manner that is easy to understand. Descriptive statistics in form of frequencies and percentages were

applied in presenting the data and results which were further illustrated in tables and figures consistent with the objectives of the research. Inferential statistics in form of Pearson correlation were done to determine the prevalence of anxiety disorders among respondents and also to analyze the association between social-demographic factors of respondents and anxiety disorders. The chapter culminated with the presentation of a summary of key findings. Chapter five is presented on the basis of the key findings carrying out a discussion on the findings, making study conclusions, recommendations and suggestions for further studies.

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## CHAPTER FIVE

### DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

#### Introduction

This chapter discusses the study results consistent with the objectives of the study. This chapter draws conclusions and makes recommendations on the basis of the study findings. The purpose of the study was to determine the incidence of anxiety disorders among breast cancer patients in a few chosen support groups in Mombasa County, Kenya's Mvita Sub-County. Its objectives were to determine socio-demographic factors of women diagnosed with breast cancer, establish the prevalence of anxiety disorders of women diagnosed with breast cancer and to assess the relationship between socio-demographic factors and anxiety disorders among women diagnosed with breast cancer. The chapter also makes suggestions of areas for further studies.

#### Discussion of Key Findings

##### Socio-Demographic Factors of Women Diagnosed with Breast Cancer

The study found that 56(23%) of the respondents were 51 years and above, 55(22%) were in the 46– 50 years age bracket, 44(18%) were between 41-45 years, 28(11%) were between 36-40 years, 25(10%) were between 31-35 years, while 24(9%) were between 26-30 years. In regard to the level of education, 72(29%) of the study participants had diplomas, 56(22%) had secondary education, 43(17%) had a bachelor's degree, 35(14%) had primary education, while 28(11%) had a master's degree and 15(%) had a PhD.



In regard to the length of time that had gone since cancer diagnosis, 98(39%) of the respondents indicated that 1-3 years, 89(36%) indicated that it was 4-6 years and 45(18%) 7-9 years while 18(7%) of the respondents indicate more than 10 years. Regarding the respondents' marital status, 88(35%) of the respondents were married, 54 (22%) were single, 32(13%) were separated, 20(8%) were divorced, while 34(14%) were widowed and 22(9%) were cohabiting. On their employment status, 140(56%) of the respondents were employed while 110 (44%) were unemployed.

Depending on the sociodemographic elements that influence their life, women with breast cancer face a variety of challenges (Faeq, 2016). A number of sociodemographic characteristics, including age, education level, marital status, unemployment, and family history, are associated with a late-stage breast cancer diagnosis (Sarkar et al., 2020). Poor prognosis and late presentation are linked to advanced breast cancer stages prior to therapy. In the majority of African nations, this ailment is currently the main reason why women die from cancer. Additionally, compared to married, divorced, or widowed women, single women are more likely to put off getting married, which makes them less likely to live (Feller et al., 2017).

According to Afaya et al. (2023), breast cancer has been a prominent cause of cancer death that affects women of all ages, whether they are pregnant or not. Despite the fact that breast cancer poses a serious risk of death, age plays a significant role in its detection and treatment in women. According to the current trend, older breast cancer patients require more time for screening, diagnosis, and therapy than do younger ones. The development of early breast cancer identification also makes it possible to take crucial treatment stages, increasing women's chances of success.

In coping with psychological, social, and physical concerns, women with greater levels of education have been shown to have less stress (Pascoe et al., 2020). One can acquire the necessary information through education to deal with the different challenges life throws at them. Higher educated women are better knowledgeable about the stages, treatments, and drugs used to treat breast cancers and, as a result, are less likely to experience anxiety than women with less education or information. Education has also been shown to have no connection to PTSD, albeit in a retrospective research with just 42 women aged 40 to 60 (MacFarlane & Sony 1992).

Breast cancer incidence is known to be higher in people with lower socioeconomic level. The apparent correlation between socioeconomic variables and cancer outcomes is frequently attributed to the different illness stages. Higher wealth is favorably correlated with post-traumatic growth among breast cancer patients since patients are better able to afford medicines and high-quality medical treatment (Yastbaş & Karaman, 2021). Contrary to individuals with lower income levels, breast cancer patients with higher income levels typically have the means to pay for screening, diagnosis, treatment, and medication. Therefore, the socioeconomic position may have an impact on how women deal with their fears throughout treatment or medication at various stages of breast cancer.

People with chronic illnesses, such breast cancer, who lack social support, especially from their families, are more likely to suffer unfavorable consequences (Muhbes & Alyeassery, 2014). The degree to which a woman with breast cancer's physical, social, psychological, emotional, and spiritual needs are met possibly more effectively through married people determines how well she will do. Married women

with breast cancer often get support, encouragement, and assistance on a financial or non-financial basis, making it easier for them to manage breast cancer-related concerns. Breast cancer patients who are single may have to look for assistance elsewhere or pay for everything themselves, which might have an adverse social or psychological impact. The patient's need to comprehend medical information is also part of psychological demands, and married people are better at handling medical services since they have greater support networks than single people do.

#### Prevalence of Anxiety Disorders among Women Diagnosed with Breast Cancer

Findings indicated that 95(38%) of the respondents had anxiety disorder, 55(22%) had panic disorder, 60(24%) had generalized anxiety disorder and 40(16%) had social phobia disorder. The mean score for was 2.093 with a standard deviation  $SD=1.213$ . In a similar study conducted in Egypt, Alagizy et al. (2020) found a 73.3% anxiety disorder prevalence among breast cancer patients. Similarly, a prevalence of 33.3% for anxiety was obtained in a study conducted by Asiagi (2019) among cancer patients. Further, Asuzu and Adenipekun (2015) found a prevalence of 39.9% for anxiety in their study among cancer patients in a radiotherapy clinic in Uch, Nigeria. In Ethiopia, Berihun et al. (2017) found that the prevalence of anxiety was 51.00%. Interestingly, study conducted by Ndetei et al. (2011) among cancer patients at Kenyatta National Hospital, Nairobi found a higher prevalence of 69.2 % for anxiety. The difference in prevalence can be attributed to differences in cancer populations with regards to cancer type, phase and treatment techniques (Peng et al., 2019).

For most cancer patients, several treatment sessions, scans and laboratory tests are required with most patients paying out of their pockets and those who are insured are not

fully covered to cater for comprehensive cancer treatment. This huge financial burden posed to patients who spend most of their finances on cancer treatment may be contributing to anxiety. For this reason, patients may not be able to pay for expensive chemotherapy, surgical and radiotherapy procedures, and may not attend on their treatment, negatively impacting on their disease outcome (Makau-Barasa et al., 2017). Further, availability of cancer care facilities is limited for most cancer patients especially those residing in rural areas with many of them spending a lot of money to travel long distances to urban areas to receive proper care. This could be a contributing aspect to anxiety among cancer patients.

Anxiety associated with poor treatment adherence, poor cancer survival and increased risk of suicide in patients with cancer. If left untreated, anxiety may lead to other psychological challenges like depression which further result in significant morbidity and mortality (Jimenez-Fonseca et al., 2018). It has been found that a cancer diagnosis and its treatment present psychological suffering, increased risk of anxiety and depression to cancer patients (Vyas et al., 2017). Feelings of anxiety, stress and depression are common to this life- changing experience (Pitman et al., 2018). Evidence suggest that anxiety leading to depression may interfere with patient's ability to cope effectively with cancer, its physical symptoms and treatments (Davis et al., 2011).

According to Hasanpoor et al. (2014), when loss of fertility is a probable consequence of treatment, women usually experience a sense of loss, feelings of solitude, anxiety, and depression. Chemotherapy entails considerable periods of treatment, frequent hospitalization, and side effects including nausea, vomiting, weakness, loss of urge for food, and alopecia all of which are triggers of anxiety disorders among cancer

patients (Wise, 2016). Among side effects, loss of hair is regarded one of the most traumatizing and disturbing experiences that brings about anxiety disorders especially for women suffering from breast cancer (Dmytriw et al., 2015). Often, shedding hair has been explained as a harder encounter than dropping breasts and some patients reject chemotherapy because of the anticipated hair loss (Kim et al., 2017). Considering that hair is an essential indicator of femininity, sexuality, beauty, and individuality for women, loss of hair can lead to body discontentment and poor post treatment adjustment and hence anxiety disorders (Trusson & Pilnick, 2016).

Further, cancer patients often encounter headache and pain on scalp when they are faced with chemotherapy induced alopecia or hair loss, and they suffer a loss of self-confidence whenever they look at themselves on the mirror (van den Hurk et al., 2013). Moreover, patients feel uneasy being in public places because they are worried that people might identify them as cancer patients (Wang et al., 2018). Cancer patients going through severe pain may link it with the advancement of disease or a poor prognosis, and this may increase their anxiety, doubt and depression (de Heer et al., 2014).

Cancer victims are often hesitant to raise concerns about their pain or to mention discomfort that is limiting their functionality. Similar observations were made by Xiao-Mei Li., (2017) in their cross-sectional study where it was observed that cancer patients who reported severe pain were more prone to anxiety and depression, with pain severity being a strong predictor of anxiety. Pain and anxiety disorders worsen the clinical situation of a patient and there is strong connection between the two (Ko et al., 2013). Pain is frequently reported among patients with despair (Ovayolu et al., 2015). This pain often is not fully eradicated despite the administration of analgesics and other treatments,

in part because it is often undertreated (Shen et al., 2017). Severe cancer pain is frequent, and it is approximated that 70–80 % of cancer patients (Harris, 2014).

#### Relationship between Socio-Demographic Factors and Anxiety Disorders

The results indicated a negative statistically significant correlation between anxiety disorder and age of respondents ( $r = -0.380$ ,  $p = 0.05$ ), panic disorder and age of respondents ( $r = -0.232$ ,  $p = 0.046$ ), generalized anxiety and age ( $r = -0.352$ ,  $p = 0.003$ ) and also social phobia disorder and age ( $r = -0.384$ ,  $p = 0.038$ ). The length of time gone since diagnosis had a negative statistically significant correlation with anxiety disorder ( $r = -0.355$ ,  $p = 0.047$ ), panic disorder ( $r = -0.362$ ,  $p = 0.026$ ), generalized anxiety ( $r = -0.301$ ,  $p = 0.038$ ) and social phobia disorder ( $r = -0.299$ ,  $p = 0.045$ ). Further, a positive statistically significant correlation was observed between anxiety disorders and level of education ( $r = 0.289$ ,  $p = 0.003$ ), panic disorder and education level ( $r = 0.321$ ,  $p = 0.038$ ), generalized anxiety and education level ( $r = 0.352$ ,  $p = 0.026$ ) and also social phobia disorder and education level ( $r = 0.295$ ,  $p = 0.036$ ).

These findings are in agreement with those of a study by Kulkarni (2019), where a significant association was found between social demographic factors and anxiety disorders. In the study, age of cancer patients was negatively correlated with anxiety disorder at 42.8%, 53% of the cancer patients who were single or lived alone showed high anxiety levels compared to 36% of the patients who were who lived with others. Also, high levels of anxiety was noted among cancer patients who were single (43%), were separated or divorced (45%) from their spouse, compared to those who were

married (32.5%). Patients with low or no formal education (50%) and those with primary level education (40%) showed higher anxiety prevalence. Further, high anxiety levels were found among 45.1% of unemployed cancer patients compared to 36.2% of the employed patients. Also, anxiety levels were high among those patients who were recently diagnosed (83%). In Kulkarni's (2017) study, marital status had a negative correlation with anxiety disorders ( $r = -0.303$ ,  $p = 0.012$ ), panic disorder ( $r = -.297$ ,  $p = 0.018$ ), generalized anxiety ( $-0.277$ ,  $p = 0.019$ ) and social phobia disorder ( $r = -0.268$ ,  $p = 0.035$ ). Employment status had a negative correlation with anxiety disorders ( $r = -0.251$ ,  $p = 0.065$ ), panic disorder ( $r = -.316$ ,  $p = 0.056$ ), generalized anxiety ( $-0.292$ ,  $p = 0.048$ ) and social phobia disorder ( $r = -0.245$ ,  $p = 0.046$ ). In overall, the findings show that all the social demographic factors were negatively correlated with anxiety disorders with the exception of the level of education which was positively correlated with anxiety disorders.

According to Hulbert-Williams et al. (2012), factors that have been found to be associated with anxiety disorder include female gender, younger age, lower socioeconomic state, and being divorced or widowed. The authors found that anxiety often occurring with other symptoms such as depression. Similarly, Massie et al. (2010) established that factors which predispose an individual to the risk of developing anxiety disorders in cancer patients to be female gender, younger age. Age and gender have constantly been established to be associated with anxiety disorders among cancer patients (Bergerot et al., 2017). Ages of between 18 to 40 years have reported higher levels of anxiety and substantially increased challenges in maintaining focus or concentration, pain, sleep disorders, sadness and worry (Cataldo et al., 2013). Low levels of anxiety

disorders have been established in old cancer patients and this is associated to the rich experience they have in coping and adapting to various life circumstances acquired over the years (Kim et al., 2011).

Female cancer patients indicated higher degrees of anxiety disorders (Kim et al., 2015) and heightened emotional and physical challenges (Enns et al., 2013). Younger female cancer patients suffers increased levels of anxiety disorders compared to the middle-aged and older women, and a majority report higher feelings of isolation with their friends and peers while having to encounter the issues of cancer diagnosis and treatment (Masseti et al., 2017). Family disruption and marital tasks, concerns about the care for the children, work-related challenges, insurance and economic hardships aggravate to the issues that younger cancer patients deal with (Naughton & Weaver, 2014). On their part, Bergerot et al. (2017) noted that it is not known if age and gender are equally significant predictors of changes in anxiety beyond the natural tendency to come to terms with the disease over a period.

Marital support plays a critical role in cancer care and this is associated with effective compliance to therapeutic interventions (Nieder & Kämpe, 2018). This means that marital status and optimism are considered as determinants of effective physical and emotional well-being and adjustment among cancer patients (Ben-Zur, 2012). The absence of marital and other forms of social support network and help may lead to negative health outcomes such as disparities regarding compliance to medication, commitment to supportive interventions and quality of life among cancer patients (Croft, et al., 2014). While marital status and optimism are often considered as determinants of



the quality of life in the general populace, many studies have failed to indicate how marital status related to anxiety disorders among cancer patients (Croft et al., 2014).

Socio-economic status, which is a measure of income, education, and stature, with low socio-economic status being linked with high anxiety disorders and depressive symptoms leading to increased illnesses and death, and higher socio-economic status typically being linked with a lower incidence anxiety and depressive symptoms and disease, lower mortality rates, and better physical and mental wellbeing (Stringhini et al., 2017). Low socio-economic state is associated with lower access to health and poor health care, factors which are known to increase anxiety disorders among cancer patients (Sharp et al., 2013). The socioeconomic condition can decrease even further particularly when a cancer patient is compelled to stop working because of the disability occasioned by cancer and lose health insurance premium payments (American Society of Clinical Oncology, 2016).

De Moor et al. (2010) found that women diagnosed with breast cancer suffer financial challenges, report increased levels of anxiety disorders and depression compared to cancer women that do not have financial challenges. Further, a study by Stump et al. (2013) on cancer patients revealed that medical expenses were a significant setback to comprehensive cancer care assessment. In Kenya, O'Brian et al. (2013) established that cancer patients covered by NHIF health insurance had a high chance of completing cancer treatment as opposed to the cancer patients that are not covered by a health insurance. This explains why socio-economic factor is a predictor of the anxiety disorders experienced by cancer patients. Even though cancer patients continue to work during and after cancer treatment, reduction of hours of working or work discontinuation

is always witnessed (Kettaneh et al., 2018). A research by Inhestern et al. (2017) reported that loss of work occasioned by cancer is a trigger of significant levels of anxiety disorders among cancer patients.

Education provides heightened levels of knowledge and understanding that is associated with problem-solving, resilience and self-efficacy (Walsh, 2013). Highly educated people appear to be better informed and make a better decisions on health-related matters (Adams, 2010). In the context of cancer, Kugbey et al., (2019) revealed that knowledge increases health information access among breast cancer patients. Conversely, Fors et al. (2011) however established that education is not enough to improve the cancer patients functioning and quality of life. A research by Wen et al. (2017) revealed that highly educated cancer patients were at risk of anxiety and depressive symptoms and this was associated to the increased awareness of what awaits them in their cancer status in terms of painful and costly treatment regimen which drains the financial savings and the likely potential of not healing and the ultimate fate of dying (Wen et al., 2017).

### Conclusions

The study made the following conclusions;

- i. The prevalence of anxiety disorders amongst breast cancer patients was high showing that emphasis should be directed to screening and counseling cancer patients for anxiety to help them cope with cancer and its effect on their mental health.
- ii. There is a significant association between social demographic factors and anxiety disorders, where they were largely negatively correlated. Therefore, younger

cancer patients had high levels of anxiety disorders compared to older patients, the single widowed, divorced or separated patients had high anxiety levels compared to those that had spouses. Patients with low or no formal education had higher anxiety prevalence. Similarly, the unemployed cancer patients high had higher anxiety levels compared to the employed.

- iii. Personal resources including family support network, income levels, level of education and high family functioning and structure are critical in managing and adapting to the anxiety disorder occasioned by a cancer diagnosis and treatment.
- iv. Social support which includes informational support, emotional support and tangible or material support are key in helping to improve the quality of life of breast cancer patients suffering from anxiety disorders. These anxiety-protective personal resources are important in delimiting psychological morbidities including depression and stress.

#### Recommendations

The study makes the following suggestions as recommendations;

- i. The Ministry of Health and cancer care professionals should consider incorporating psychological counselling in their clinical practice guidelines. This will promote assessment of anxiety disorders for cancer patients during their regular care and thereby minimizing the effect of the anxiety disorders on the quality of life of the cancer patients.
- ii. Cancer care providers should ensure that cancer patients get screened for anxiety issues early in the course of treatment and also receive psychological counselling.

- iii. The cancer patients should also be helped to identify and join support groups for cancer patients so as to limit the effects of the high anxiety disorders that they encounter.
- iv. The counselling intervention should be intense especially in stages where increased anxiety disorders are expected for instance for the recently diagnosed patients, younger patients, the lowly schooled, the single, divorced or widowed and those that are not employed or don't have an income generating occupation. The counselling should help the patients manage the anxiety disorders and make adjustments on issues surrounding the cancer diagnosis. As the radiotherapy and chemotherapy treatments manage the physical aspects of cancer, counselling would be helpful with the emotional aspect of the disease.
- v. Since the level of anxiety disorders are also strongly correlated with the cancer patient's surrounding including the family functioning and structure, the counselling care need to include household members to provide the protective benefits of social support. Including family members in counselling interventions generated greater positive impact in anxiety disorders compared to counselling cancer patients alone.
- vi. The government and healthcare stakeholders need to hold sensitization campaigns among the community members against the cancer menace so as to promote and increase early screening and routine checkup to help in early detection of the disease that may enable its eradication and successful management.

### Recommendation for Further Studies

This study focused on the incidence of anxiety disorders among breast cancer patients. A similar study need to focus on other psychological challenges that the breast cancer patients face including stress and depression. The same study can also be conducted focusing on patients diagnosed with other types of cancer including men with prostate cancer. Studies need to focus on the psychological and social interventions that need to be implemented to enhance the quality of cancer patient care, improve access to psychosocial care.

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DAYSTAR UNIVERSITY

## APPENDICES

## Appendix A: Questionnaire

## Informed Consent

Dear Respondent,

I am a postgraduate student pursuing a Master's degree in counseling psychology at Daystar University. This is a study on Prevalence of anxiety disorder among women diagnosed with breast: A case of selected support groups in Mvita sub-county, Mombasa County.

Please take time to go through the instructions carefully and to answer each of the questions as honestly as you can. Should you have trouble in interpreting any questions, please feel free to seek any help. There is no right or wrong answer. All answers are correct. Your answers will be treated confidentially and will only be used for the purpose of the study. Please tick or write down the response that reflects to your answer. Answer All Questions. Do not write your Name anywhere on this Questionnaire.

Kindly note that being a participant in this study is voluntary. Please confirm that you have read the above information and accepted to participate in the study voluntarily by putting your signature on the consent form below.

Thank you very much for your cooperation.

Sincerely

Hellen A. Kungu

Consent

I have read the above information and understood that this study is voluntary and that confidentiality and anonymity are guaranteed. I do accept to participate in this study.

Participant's signature \_\_\_\_\_

Date \_\_\_\_\_



Dear Respondent,

Greetings,

My name is Hellen Akinyi Kungu. a student at Daystar University pursuing a Master's degree in Counseling Psychology. As part of my course, am required to undertake a research study in my area of specialization. To fulfill this requirement, I am undertaking a study on anxiety disorders among women diagnosed with breast cancer in selected support groups, in Mvita Sub-County, Mombasa County. I hereby request you to be part of the study by filling in the questionnaire below. Be assured that all information obtained will be solely used for academic purposes and will be treated with the utmost confidentiality.

Your participation in this research is highly appreciated.

Regards,

Hellen Akinyi Kungu.

You are kindly requested to complete the questionnaire honestly and provide your best option. It is general information on who you are. Your honest response on the following questionnaire will greatly assist in the quest to establish the prevalence of anxiety disorders among women diagnosed with breast cancer.

### SECTION A: DEMOGRAPHIC INFORMATION

1. What is your age bracket?  
A. 0-10 ( ) B. 11-20 ( ) C. 21-30 ( ) D. 30-40 ( ) D. 40- 50 ( ) E. Above 50 ( )
2. What is the level of your education?  
A. Primary ( ) B. Secondary ( ) C. Diploma ( ) D. Bachelor ( ) E. Masters ( )
3. How many years have gone since diagnosed with cancer?  
A. 1-3 ( ) B. 4-6 ( )  
C. 7- 9 ( ) D. 10 years and above ( )
4. What is your marital status?  
A. Single ( ) B. Married ( ) C. Separated ( )  
D. Divorced ( ) E. Windowed ( ) F. Cohabiting ( )
5. What is your employment status?

A. Employed ( ) B. Unemployed ( )

Appendix B: Research Permit




**REPUBLIC OF KENYA**  
**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **284763** Date of Issue: **10/October/2023**

**RESEARCH LICENSE**



**This is to Certify that Ms. Hellen Akinyi Kungu of Daystar University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Mombasa on the topic: PREVALENCE OF ANXIETY DISORDERS AMONG WOMEN DIAGNOSED WITH BREAST CANCER: CASE OF SELECTED SUPPORT GROUPS IN MIVITA SUBCOUNTY, MOMBASA COUNTY, KENYA for the period ending : 10/October/2024.**

License No: **NACOSTI/P/23/30478**

Applicant Identification Number: **284763**

  
 Director General  
**NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION**

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See overleaf for conditions

DAYSTAR UNIVERSITY

## Appendix C: Ethics Clearance

**VERDICT: APPROVED WITH COMMENTS**

Daystar University Institutional Scientific and Ethics Review Committee (DU-ISERC)

Our Ref: **DU-ISERC/12 /10/2023/0001027**Date: 12<sup>th</sup> October 2023

To: Hellen Akinyi Kungu,

Dear Hellen,

**PREVALENCE OF ANXIETY DISORDERS AMONG WOMEN DIAGNOSED WITH BREAST CANCER: CASE OF SELECTED SUPPORT GROUPS IN MVITA SUBCOUNTY, MOMBASA COUNTY, KENYA**

Reference is made to your ISERC application reference No. **091023-01** dated **9th October 2023** in which you requested for ethical approval of your proposal by Daystar University Ethics Review Board. We are pleased to inform you that ethical review has been done and the verdict is to **Revise as per the attached comments and then proceed to the next stage**. As guidance, ensure that the attached comments are addressed. Please be advised that it is an offence to proceed to collect data without addressing the concerns of Ethics Review board. Your application approval number is **DU-ISERC-0001027**. The approval period for the research is **between 12<sup>th</sup> October 2023 to 11<sup>th</sup> October 2024** after which the ethical approval lapses. Should you wish to continue with the research after the lapse you will be required to apply for an extension from DU-ERB at half the review charges.

This approval is subject to compliance with the following requirements.

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review approval by Daystar University Ethics Review Board.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to Daystar University Ethics Review Board within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to Daystar University Ethics Review Board within 72 hours.
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of a signed one-page executive summary report and a closure report within 90 days upon completion of the study to Daystar University Ethics Review Board via email [duerb@daystar.ac.ke].

**Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://oris.nacosti.go.ke> and other clearances needed.**

Yours sincerely



Dr. Susan Muriungi PhD  
 Ag. Chair, Daystar University Institutional Scientific and Ethics Review Committee

Encl. Review Report



"...until the day dawn and the  
**DAYSTAR** arise in your hearts"  
 2 Peter 1:19 KJV

## Appendix D : Plagiarism Report

hellenakungu@daystar.ac.ke

## ORIGINALITY REPORT

<b>11</b> %	<b>9</b> %	<b>4</b> %	<b>4</b> %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

## PRIMARY SOURCES

<b>1</b>	<a href="http://www.researchgate.net">www.researchgate.net</a> Internet Source	<b>1</b> %
<b>2</b>	<a href="http://erepository.uonbi.ac.ke:8080">erepository.uonbi.ac.ke:8080</a> Internet Source	<b>1</b> %
<b>3</b>	<a href="http://worldwidescience.org">worldwidescience.org</a> Internet Source	<b>&lt;1</b> %
<b>4</b>	<a href="http://link.springer.com">link.springer.com</a> Internet Source	<b>&lt;1</b> %
<b>5</b>	Submitted to Kenyatta University Student Paper	<b>&lt;1</b> %
<b>6</b>	<a href="http://ir-library.ku.ac.ke">ir-library.ku.ac.ke</a> Internet Source	<b>&lt;1</b> %
<b>7</b>	<a href="http://scholarcommons.sc.edu">scholarcommons.sc.edu</a> Internet Source	<b>&lt;1</b> %
<b>8</b>	<a href="http://www.science.gov">www.science.gov</a> Internet Source	<b>&lt;1</b> %
<b>9</b>	Submitted to Mount Kenya University Student Paper	<b>&lt;1</b> %

# hellenakungu@daystar.ac.ke

*by* Hellen Kungu

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**Submission date:** 25-Oct-2023 04:43PM (UTC+0300)

**Submission ID:** 2202588176

**File name:** Hellen\_Akinnyi\_Kungu\_25.10.2023\_FINAL\_F.docx (234.02K)

**Word count:** 20273

**Character count:** 116005



## Appendix E: Introduction Letter

06<sup>th</sup> October 2023

National Commission for Science, Technology and Innovation  
P. O. Box 30623-00100 Nairobi  
KENYA

Dear Sir/Madam,

**RE: HELLEN AKINYI KUNGU STD NO: 14-0814.**

The above-named is a student in the Master of Arts in Counselling Psychology program at Daystar University, Nairobi Campus.

She has completed her coursework for her Masters, defended her Master's proposal, done corrections as recommended by examiners, and is now ready to go to the field to collect data.

Her topic of study is

*"Prevalence of anxiety disorder among women diagnosed with breast cancer: A case of selected Support Groups in Mvita Sub-County, Mombasa County, Kenya."*

She is hereby authorized by the University to carry out her study by collecting data from the field. She requires your authorization such that she can be able to access and identify her target population.

Thank you in advance for your willingness to give this opportunity. We are truly grateful for your partnership and for your organization's contribution to the education of Daystar University students.

If you have any queries, please do not hesitate to contact me.

Yours faithfully,



FOR: Dr Jared Menecha  
HOD Psychology & Counselling



## Appendix F: Screen for Adult Anxiety Related Disorders (SCAARED)

TO BE COMPLETED BY THE PATIENT

**Directions:**

Below is a list of sentences that describe how people feel. Read each phrase and decide if it is “Not True or Hardly Ever True” or “Somewhat True or Sometimes True” or “Very True or Often True” for you. Then, for each sentence, check  the box that corresponds to the response that seems to describe you now *or within the past 3 months*.

	<b>0</b>	<b>1</b>	<b>2</b>	
	<b>Not True or Hardly Ever True</b>	<b>Somewhat True or Sometimes True</b>	<b>Very True or Often True</b>	
1. When I feel nervous, it is hard for me to breathe.				P/A/S O
2. I get headaches when I am at school, at work or in public places.				P/A/S O
3. I don't like to be with people I don't know well.				SOC
4. I get nervous if I sleep away from home.				SEP
5. I worry about people liking me.				GA
6. When I get anxious, I feel like passing out.				P/A/S O
7. I am nervous.				GA
8. It is hard for me to stop worrying.				GA
9. People tell me that I look nervous.				P/A/S O
10. I feel nervous with people I don't know well.				SOC
11. I get stomachaches at school, at work, or in public places.				P/A/S O
12. When I get anxious, I feel like I'm going crazy.				P/A/S O
13. I worry about sleeping alone.				SEP
14. I worry about being as good as other people.				GA
15. When I get anxious, I feel like things are not real.				P/A/S O
16. I have nightmares about something bad happening to my family.				SEP
17. I worry about going to work or school, or to public places.				P/A/S O
18. When I get anxious, my heart beats fast.				P/A/S O
19. I get shaky.				P/A/S O
20. I have nightmares about something bad happening to me.				SEP



	<b>0</b> <b>Not True or Hardly Ever True</b>	<b>1</b> <b>Somewhat True or Sometimes True</b>	<b>2</b> <b>Very True or Often True</b>	
21. I worry about things working out for me.				GA
22. When I get anxious, I sweat a lot.				PA/SO
23. I am a worrier.				GA
24. When I worry a lot, I have trouble sleeping.				GA
25. I get really frightened for no reason at all.				PA/SO
26. I am afraid to be alone in the house.				SEP
27. It is hard for me to talk with people I don't know well.				SOC
28. When I get anxious, I feel like I'm choking.				PA/SO
29. People tell me that I worry too much.				GA
30. I don't like to be away from my family.				SEP
31. When I worry a lot, I feel restless.				GA
32. I am afraid of having anxiety (or panic) attacks.				PA/SO
33. I worry that something bad might happen to my family.				SEP
34. I feel shy with people I don't know well.				SOC
35. I worry about what is going to happen in the future.				GA
36. When I get anxious, I feel like throwing up.				PA/SO
37. I worry about how well I do things.				GA
38. I am afraid to go outside or to crowded places by myself.				PA/SO
39. I worry about things that have already happened.				GA
40. When I get anxious, I feel dizzy.				PA/SO
41. I feel nervous when I am with other people and I have to do something while they watch me (for example: speak, play a sport.)				SOC
42. I feel nervous when I go to parties, dances, or any place where there will be people that I don't know well.				SOC
43. I am shy.				SOC
44. When I worry a lot, I feel irritable.				GA

TO BE COMPLETED BY CLINICIAN

**SCORING:**

A total score of  $\geq 23$  may indicate the presence of an **Anxiety Disorder**. TOTAL =

A score of **5** for items 1, 2, 6, ~~7, 11, 12~~ PA/SO =  15, 17, 18, 19, 22, 25, 28, 32, 36, 38, 40 may indicate **Panic Disorder** or

**Significant Somatic Symptoms.**

SEP =

A score of **12** for items 5, 7, 8, 14, 21, 23, 24, 29, 31, 35, 37, 39, 44 may indicate **Generalized Anxiety** SOC =

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