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### A Literature Review of Depression and Anxiety in Breast Cancer Patient

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#### ABSTRACT

Breast cancer that is one of the most common cancers experienced by women (adult or elderly) has a great effect on the patient's psychology. The most common psychological problems found in breast cancer patients are depression and anxiety. Many factors affect the incidence of depression and anxiety, such as lack of family support, lack of social support, prolonged therapy, changes in body shape, divorce, income and age. There are several ways to diagnose depression and anxiety in cancer patients, such as a distress thermometer or Patient Health Questionnaire (PHQ)-4. Actually, depression and anxiety disorders have a poor impact on these patients. There are several alternative non-pharmacological therapies that can be chosen, like cognitive behavioral therapy, family support and social support.

#### 1. Introduction

The most common cancer that happens in women is breast cancer. There were more than 2 million new cases in over the world in 2018.<sup>1</sup> One in eight (1 in 8) women will be diagnosed with this cancer.<sup>2</sup> Breast cancer is also one of the main causes of cancer death in the world, which has 89% of the 5-year survival rate of breast cancer (if the patient is diagnosed and treated early). the highest rate of breast cancer occurrence happens in the middle ages.<sup>3</sup> There are several common symptoms that are experienced by breast cancer patients, such as depression, fatigue, or anxiety can last for months or years after a woman is diagnosed with breast cancer. These symptoms are linked to a higher level of disability and a lower quality of life.<sup>4</sup>

Among breast cancer patients, depression and anxiety are the most common psychiatric problems

that given big impacts physically, mentally, and socially.<sup>3</sup> According to several studies showed that the prevalence of depression is higher during the 1'st year after being diagnosed with breast cancer.<sup>5</sup> There are several risk factor that occurs in a breast cancer patient, such as a past history of anxiety or depression, young age, lack of social support, ongoing cancer treatment, and specific drug treatments.<sup>6</sup> Depression and anxiety are not only occurred when the woman has been diagnosed with breast cancer but also during long treatments like chemotherapy, long-term hormone therapy, and other treatment. Fear, worry, anger, uncertainty for the future, and body image concern are common responses.<sup>3</sup> Depression can result in a poorer outcome for breast cancer patients.<sup>2</sup> Long treatment of breast cancer naturally made a traumatic experience for patients. It is associated with sexual relationships, their image, and

a psychological reaction such as denial, anger, or intense fear toward their disease and treatment process.<sup>2</sup>

Breast cancer can occur at any age, like a girl, adolescents, young adults, and women. Due to advancements in cancer detection and treatment, two-thirds of patients diagnosed with invasive cancer today will live for more than five years, resulting in an increase in the number of long-term survivors.<sup>7</sup> There has been an increase in the visibility of survivors as a result of their increased visibility. Understanding that mental health issues are among breast cancer survivors, not only anxiety but also depression.

### **Prevalence of depression in the breast cancer patient.**

The prevalence of depression in a short-term patient with breast cancer (on average 3.9 years post-diagnosis) was studied in a comprehensive review, with prevalence rates ranging from 9% to 66% for any signs or symptoms of depression and a range of 3% to 42% for severe depression.<sup>10</sup> It's possible that the broad range is due to changes in the length of time since diagnosis, the depression scale, and other factors' level of severity.<sup>10</sup>

Wondimagegnehu et al. study found that the prevalence of depression among breast cancer patients was 25%.<sup>4</sup> Jian-an et al. study showed that the prevalence of major depressive disorder among breast cancer patients was 8.33%.<sup>3</sup> According to a study by Doege et al., long-term breast cancer patients under the age of 80 years have a much greater prevalence of depressive symptoms than controls, which could be explained by recurrence and individual characteristics. The data imply that depression is widespread among breast cancer survivors and even more so following a recurrence. Screening and normalization should become routine for clinicians.<sup>1</sup>

Depression and anxiety also were very common in our group of women undergoing chemotherapy for early breast cancer. During chemotherapy, the prevalence of patient-reported anxiety or depression nearly quadrupled compared to pre-treatment values,

with over 25% expressing at least a moderate to severe level of depression and over 40% reporting at least a moderate to severe level of anxiety.<sup>24</sup>

### **Risk factor of depression in breast cancer**

Doege et al. study reported that age, income, living independently, recurrence, and BMI were all significant risk factors for mild depression in breast cancer patients. Significant factors of severe depression included age, education, occupation, income, recurrence, and BMI.<sup>1</sup> Wondimagegnehu et al. study found that depression is associated with poor social support given by family, friends, and significant others.<sup>4</sup> Age, occupation, kind of health institution treated, pain severity, hormonal therapy, and having a dispute with an employer or family member were all identified as characteristics linked to depression.<sup>4</sup> Singleness, divorce, sleep disturbances, previous history of depression, pain, neuroticism, and stressful life events have all been linked to depression in breast cancer patients.<sup>11,12</sup> The effects of smoking, alcohol consumption, and exercise are largely unknown.

### **What are the symptoms of anxiety and depression in cancer patients?**

Usually, breast cancer patients who have undergone therapy will feel lonely and alone, especially if they are going to undergo a test for recurrence.<sup>8</sup> These common reactions are labeled as distress to avoid the negative stigma associated with mental health terms and because cancer survivors face various kinds of distress, increasing their risk of adjustment reactions. The National Comprehensive Cancer Network's distress guideline describes distress as a spectrum that includes everyday feelings of vulnerability, grief, and fear, as well as more serious sensations of despair.<sup>7</sup>

A generalized anxiety diagnosis, according to psychiatric diagnosis criteria<sup>9</sup>, necessitates extreme concern or difficulty in dealing with worry to regulate and hinders function. For the past 6 months, you've had at least three of the following symptoms, such as anxiety or a feeling of being on edge, susceptibility to

exhaustion, concentration problems, irritability is a term that refers to the ability to be irritable, the tension in muscles, or sleep disturbance.

In order to be diagnosed with serious depression, you must have had most of the time. At least 5 of the following symptoms are present. in the previous two weeks, like sadness; a sense of hopelessness, emptiness, or depression; lack of enjoyment or enthusiasm in most activities; significant amount of weight or appetite changes; disruptions in sleep, such as sleeping excessively or insufficiently; observable slowness or agitation of the psychomotor system; tiredness.<sup>9</sup>

### **How to diagnose anxiety and depression in cancer patients?**

Given the wide range of mental disorders that cancer survivors may face, clinicians require simple screening tools so that they can make appropriate recommendations as well as recommendations. There are numerous approaches for detecting and diagnosing mental illness. The health needs of survivors have been assessed, and solutions that combine ease of use with sensitivity, as well as clarity in establishing treatment requirements, have been produced. The distress thermometer or is known as DT, is a simple oral or written scale that asks patients to rate how distressed they are. When 0 for no distress, up to 10 for severe distress or extreme distress. The DT can be used to perform screening. Using a cutpoint of 5, this tool can be used to assess the necessity for further screening. In comparison to the DT, on the other hand, lacks sensitivity and specificity in structured clinical interviews.<sup>7</sup>

As a result, the distress thermometer should not be used as a screening tool on its own.; nonetheless, if a patient receives a score of 4 or higher, additional testing may be required. The Patient Health Questionnaire (PHQ)-4 is an alternative that includes the two core depression and anxiety items needed for diagnosis. A cutpoint of three (3) or more provides the best sensitivity and specificity for this measurement. It's critical to understand.<sup>7</sup>

For depression, posttraumatic stress disorder (PTSD), and anxiety, longer assessments provide more diagnostic information. In a randomized experiment, the PHQ-9 was used to assess survivors of hematopoietic cell transplants being screened; those with higher scores are being sought, the metric that will be used in future visits. Screening might help to start a conversation between two people.<sup>7</sup>

### **Quality of life breast cancer patient with depression and anxiety**

Breast cancer and its treatment alter mastectomized women's perceptions of their physical appearance, which can lead to despair and have a detrimental impact on their general quality of life. We might define depression as a profound sense of grief, hopelessness, and sadness that can occur as a reaction to a sad event (the death of a loved one), or it can occur for no apparent reason, as unknown and unexplainable to us, and is commonly accompanied by other psychological disorders.<sup>25</sup>

Depression and anxiety are widespread in breast cancer patients, and they're linked to poorer quality of life and treatment outcomes.<sup>22</sup> Breast cancer and its treatment, like mastectomy, chemotherapy, and radiation, has an impact on the patient's experience (perception) of the physical appearance, actually for the patient who has been mastectomized. It's possible that it'll have a bad impact on the environment and overall quality of life. The transformation of a woman's body as a result of breast cancer treatment (mastectomy, chemotherapy) is a source of psychosocial distress (depression).<sup>23</sup>

However, in oncology practice, these symptoms are frequently overlooked and undertreated. Many factors influence the quality of life in breast cancer patients who are depressed, but fatigue, pain, and appetite loss have the greatest impact on the overall quality of life.<sup>22</sup> Although they are related, weariness and pain contribute to a lower quality of life in their own right.<sup>22</sup> Regardless of the type of operation, there is no difference in the quality of life before and after surgery.<sup>23</sup> Depression affects all patients with breast

cancer, although it is more prevalent in those who have had a severe surgical operation.<sup>23</sup> Future research should look into this.

### **Non-pharmacological treatment options**

There are several therapeutic options for reducing symptoms of anxiety and depression in patients with cancer, such as:

#### **Cognitive behavioral therapy**

In cancer survivors, cognitive behavioral therapy is useful in lowering mood disorders.<sup>13</sup> Mindfulness-based techniques have also been shown to help with anxiety and depression symptoms.<sup>14-15</sup>

#### **Family Support**

In patients with breast cancer who suffer from depression, family support is vital, and our findings revealed that having more family support was linked to a lower likelihood of depression.<sup>3</sup> A 23-year prospective study found that higher levels of family support were linked to lower levels of depression at baseline and speedier recovery from depression.<sup>16</sup> Breast cancer patients who have great family support will have fewer depression or anxiety symptoms, according to Maly et al.<sup>17</sup> Mental support and empathy from the spouse have also been linked to fewer depression symptoms among elderly breast cancer survivors.<sup>18</sup> Another study, which focused on the younger age of breast cancer patients, highlighted the value of family support following a breast cancer diagnosis.<sup>19</sup> In Asia, however, there has been little research exploring the link between family support and depression.

#### **Social support**

According to certain research, patients with breast cancer who receive psychological and social support have a better chance of surviving.<sup>20</sup> Other studies have lately indicated that psychosocial support has a significant impact on enhancing the quality of life, in addition to its survival benefits,<sup>21</sup> and lowering the incidence of depression and other common mental

illnesses.<sup>21</sup> The association between social support and depression was statistically significant.<sup>4</sup> Evidence demonstrates that social support has a significant impact on breast cancer patients' depression scores. In developing countries, however, depression is rarely well-screened, and suitable social support is not provided for breast cancer patients.<sup>4</sup>

### **2. Conclusion**

The high prevalence of psychological problems in breast cancer patients needs further attention for better management, improving the patient's quality of life, and reducing suffering. This review confirms the higher level of depression and anxiety in breast cancer patients. The note for the future is the initial screening of psychological disorders, especially in cancer patients.

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