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EVALUATING ANXIETY AND DEPRESSION IN PATIENTS RECEIVING MULTIMODAL TREATMENT FOR BREAST CANCER

Dr. J. Prasanthi[1], Dr. J. Sharada[2], Dr. P. Ravi Kumar[3], Dr.V.V. RamaBai[4*]

1. Associate Professor of Radiotherapy, Government Medical College, Ananthapuramu
2. Associate Professor of Psychiatry, Government Medical College, Ananthapuramu
3. Assistant Professor of Psychiatry, Government Medical College, Ananthapuramu
4. Associate Professor of General Surgery, Government Medical College, Ananthapuramu*

CORRESPONDING AUTHOR*: Dr. V. V. RAMABAI

Abstract:

Background: The second most frequent cancer in women is breast cancer. Due to cosmetic damage and mortality risk, breast cancer patients feel extreme anxiety and sadness. The emphasis on treating the physical symptoms of breast cancer often results in partial attention to the psychological discomfort and the reasons contributing to it in cancer patients**.**

Aims & Objectives: To study the prevalence of anxiety and depression in women undergoing breast cancer treatment in a tertiary care hospital.

Methods: 186 women diagnosed with breast cancer undergoing multimodality treatment were identified and included in this prospective study to assess the factors leading to anxiety and depression using the Hospital Anxiety and Depression Scale (HADS). The characteristics that may be linked to the symptoms of anxiety and depression were evaluated using items that assessed socio-demographics, symptom load, social support, disease and treatment history, along with evaluation of medical records.

Results: 67.2% of study participants were above 40 years and among all the study subjects 55.9% were suffering from stage III breast cancer. Anxiety was seen in 81.2% patients and depression in 79.3% of study population. The recommended cut off for depression/anxiety screening on the HADS Depression subscale was 8 for 12 (6.45%) of the women, and for the anxiety subscale, it was 28 (15%) of the women. Greater physical symptom scores were substantially correlated with greater anxiety levels.

Conclusion: Anxiety was more common psychological symptom seen in breast cancer patients in our study next to depression. Along with multimodality treatment for physical symptoms of breast cancer, psychiatric evaluation and regular counselling can alleviate anxiety, fear and depression in breast cancer patients.

Keywords: Breast Cancer, Anxiety, Depression, Pscho oncology

Introdcution:

Breast cancer is a prevalent kind of malignancy among women on a global scale [1]. Scholarly literature has widely linked breast cancer diagnosis and treatment to psychological suffering in women [2–5]. Over 30% of cancer patients experience psychological distress [4-5]. Despite its influence on cancer patients' daily lives, distress is often ignored and undertreated [6–8]. This oversight may impair treatment adherence and survival [9].

In 2003, the National Comprehensive Cancer Network (NCCN) opted on using the term "distress" to represent the psychological issue experienced by individuals with cancer, as it was deemed more widely accepted and less discriminatory compared to alternative psychological or psychiatric terminology. Distress can be described as a complex and multifaceted negative emotional state that encompasses various psychological, social, and spiritual aspects. It has the potential to hinder an individual's capacity to properly manage the challenges associated with cancer, including its medical symptoms and treatment [10]. Psychological discomfort

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encompasses a diverse range of emotions and mental symptoms, including but not limited to sadness and anxiety [11].

Anxiety is a prevalent psychological symptom observed in breast cancer patients, with reported rates ranging from 10 to 30% [12]. Anxiety can be defined as a psychological condition characterised by heightened apprehension, uncertainty, and an exaggerated sense of fear in reaction to aversive stimuli. Anxiety is a complex phenomenon that encompasses various dimensions, including cognitive, physiological, and bodily responses. Numerous studies have demonstrated the presence of anxiety in individuals. Fatigue and suboptimal treatment outcomes can exert a significant influence on an individual's quality of life, affecting the neuro endocrine and immunological systems of individuals diagnosed with breast cancer [13].

Anticipating negative outcomes increases anxiety in breast cancer patients [14]. They also face uncertainty about the future, cancer recurrence, and treatment side effects [15, 16]. Recent studies suggest that anxiety may be more common in breast cancer patients than depression [17, 18].

Depression has been shown to affect quality of life, self-care, treatment adherence, therapeutic outcomes, and breast cancer survival rates [19-22]. In addition to clinical classical symptoms of depression like sadness, anhedonia, guilt, helplessness, hopelessness, and suicidal ideation, a history of depression, cancer concerns, lack of a confidant, and neurotic personality may be risk factors [23, 24]. Depressive symptoms in breast cancer patients range from 10% to 30%, depending on the study group, methodology, and evaluation instruments [25].

Anxiety and depression affect breast cancer patients. Both psychological problems can complicate treatment, worsen well-being, and increase suicide risk if left untreated. In cancer patients, discomfort can range from grief and stress to a professionally defined psychological condition. Thus, determining whether the distress is caused by depression, anxiety, or both is difficult. There is little information on how anxiety and depression affect breast cancer discomfort. Since psychiatric problems require a different treatment approach, further research is needed to confirm the relationship. This one-year study examines the relationship between anxiety, depression, and perceived discomfort in breast cancer patients in a tertiary care hospital in Ananthapuramu.

Methods:

We examined the relationship between depression, anxiety, and distress in breast cancer patients' in this study. Patients were assessed every three months after diagnosis.

Present study participants were from cancer hospital affiliated to tertiary care hospital in Ananthapuramu. Patients with breast cancer were our study participants. The study was conducted from November 2020 to October 2021. The inclusion criteria were (i) a histologically confirmed breast cancer diagnosis, (ii) the ability to participate in interviews and questionnaires, and (iii) the cognitive ability to understand the research and give informed consent. The exclusion criteria are particular conditions in women with secondary breast cancer, disorientation or delirium, and male patients.

Participants provided their informed consent and were then enrolled in the study.

Method used:

The assessment scales were used during diagnosis and every three months afterward. We have used the American Joint Committee on Cancer Staging System for breast cancer.

Instruments:

The Hospital Anxiety and sadness Scale (HADS): It is a popular self-report questionnaire that measures hospital anxiety and sadness. HADS became the most widely used measure in cancer research due to its better performance across illness stages. This study used a 7-item self-administered questionnaire to assess anxiety and depressive symptoms. Four-point Likert

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scales measure anxiety (HADS-A) and depression (HADS-D) subscales from 0 to 3. This rating method offers a maximum score of 21 for anxiety and sadness, according to study [29].

Results:

Out of the 186 women with breast cancer, 67.2% women (125) were above 40 years of age. Table 1 shows demographic and clinical variables of patients. Modified Kuppuswamy scale was used to assess the socioeconomic status of the study participants.

Six (3.2%) had Stage I breast cancer, 53 (28.5%) had Stage II, 104 (55.9%) had Stage III and 23 (12.4%) had Stage IV disease. Most of the patients 163 (87.6%) underwent surgery with most of them i.e. 171 patients received chemotherapy (91.9%) and radiotherapy was given to 92 (49.4%). 65% (121) had received hormonal therapy and 9 (0.05%) patients had palliative treatment.

Table 1: Demographic characters of participants

Variables	Number (n)	Percentage (%)
Age		
<40	61	32.8
>40	125	67.2
Socioeconomic status*		
Upper	11	5.91
Upper middle	33	17.74
Lower middle	42	22.58
Upper lower	46	24.73
Lower	54	29.03
Staging		
Stage I	6	3.2
Stage II	53	28.5
Stage III	104	55.9
Stage IV	23	12.4
Treatment		
Surgery	163	87.6
Chemotherapy	171	91.9
Radiotherapy	92	49.4
Hormonal therapy	121	65.0
Palliative	9	0.05

*Based on modified Kuppuswamy scales for calculating socioeconomic status

Table 2: Anxiety, Depression and their associated factors:

Participant HADS Scores (n = 186)

	HADS Anxiety (n)	HADS Depression (n)
Results		
Mild (8 – 10)	92	
Moderate (11 – 14)	31	
Severe (15-21)	63	20

Abbreviations: HADS=Hospital Anxiety and Depression Scale (range, 0–21, higher scores indicate more symptoms)

ISSN: 0975-3583, 0976-2833 VOL14, ISSUE 11, 2023

Nearly one third of patients i.e 33% scored 8 or higher in HADS anxiety scale, where as 11% had severe score on HADS depression scale. Both HADS-anxiety subscale and HADS-depression subscale women belonging to lower income groups, no education, with more somatic symptoms and no family support reported higher scores.

Discussion:

The prevalence of anxiety, depression, or both in the year following diagnosis is about twice as high in women with breast cancer as it is in the general female population. After that, ladies in remission express anxiety and despair levels that are comparable to the overall female population, while individuals with recurrence of cancer experience significant increase in levels. The patient is the primary risk factor for anxiety and depression rather than the disease or the treatment given.

The study's findings demonstrate the considerable psychological suffering experienced by breast cancer patients. Scores above eight on the HADS indicate clinically substantial morbidity and identify at-risk patients who benefit from clinical examination, even though the HADS is not a diagnostic tool for anxiety or depressive disorders. The psychological susceptibility of women breast cancer is confirmed by this investigation. In women with breast cancer, reported rates of clinically significant anxiety symptom burden often fall between 20 and 40% [23, 24].

Even though anxiety symptoms are known to be more prevalent in breast cancer patients, less research has been done on the effects of anxiety disorders on cancer outcomes than on depression. Anxiety disorders are highly correlated with increased healthcare utilization, lower physical well-being, and physical impairment in studies of people with chronic medical condition [26]. Women with breast cancer share similar behavioural and demographic risk factors for anxiety and depression, and there is probably a reciprocal association between all mental health problems and health outcomes. As a result, there are several strong arguments in favour of identifying and treating untreated anxiety in addition to depression in breast cancer patients.

In women suffering with breast cancer, the association between physical symptom burden and increased anxiety and depression intensity is similar to that observed in patients with advanced malignancies and chronic medical illnesses [27-29]. Although the extent of the physical functioning impairment in these patients may have been more caused by the side effects of anti-neoplastic therapy than by their illness load, clinicians should take the potential consequences of increased treatment toxicity in patients who are severely worried or depressed into consideration.

According to research by Zebrack et al., approximately 41% of adolescents and young adults with cancer who received their diagnosis within four months reported having a need for counselling (such as family counselling or mental health counselling), and the need for counselling rose for those who had more symptoms due to their treatment. The results of this study support the need for young adult cancer patients to receive improved mental health care. Although there are an increasing number of psychosocial therapies to lessen psychological distress related to cancer in individuals, there are still significant gaps in research, clinical practice, and resource availability [30]. Particularly, activity-based resources and physical activity are major components of many psychosocial therapies for young adult cancer patients. While many cancer survivors find these interventions perfect, their counselling requirements might not be met.

The purpose of this study was to better describe the psychological discomfort of women presenting with breast cancer in terms of its clinical and psychosocial implications. The study did not assess past mental history, therefore it is impossible to determine if participants' symptoms of anxiety and depression were present prior to their diagnosis of breast cancer. The

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psychological effects of surviving after a diagnosis of breast cancer are multifaceted; we looked at only clinically significant anxiety and depression. Our findings are relevant to the implementation of the guidance for improving supportive and palliative care services for adults with cancer commissioned by the National Institute for Clinical Excellence [31].

Conclusion:

Patients with breast cancer appear to experience distress more frequently due to anxiety, which may be connected to a sense of uncertainty. The management of psychological well-being among breast cancer patients sometimes overlooked anxiety, in contrast to depression. According to the current research, it is critical to give breast cancer patients greater assistance in alleviating their anxiety about the future so as to mitigate their perceived level of distress. As it is a limited study confined to a single centre we cannot generalize the findings. More research is needed to evaluate the psychological distress of breast cancer patients in order to properly counsel and assist them, as the number of cases is rising quickly.

Author contributions:

All the authors have contributed equally towards research, data collection and manuscript preparation of the study.

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CONTACT DETAILS OF CORRESPONDING AUTHOR:

Dr. V.V.RamaBai
Flat No.304, Madhu Kunj Apartments,
3rd Cross, Maruthi Nagar,
Ananthapuramu 515001
Andhra Pradesh
Mobile: 9441498969
Email: vvramabai@gmail.com

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ISSN: 0975-3583, 0976-2833 VOL14, ISSUE 11, 2023

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ISSN: 0975-3583, 0976-2833 VOL14, ISSUE 11, 2023

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