Indian Journal of Clinical Psychiatry
An Official Journal of **Association of Clinical Psychiatry**
(Indian Psychiatric Society- Uttar Pradesh State Branch (IPS-UPSB))

**REVIEW ARTICLE**
doi: 10.54169/ijocp.v5i02.12

# Anxiety in Cancer Survivors

**Simhachalam Gurugubelli[1], Prasad Rao[2*], Nitesh Mutyala, Arvind Kunadi[3], Uma Devi Avasarala[4], Shivangini Singh[4]**

[1]*Clinical Assistant, Professor of Medicine, Indiana University School of Medicine*
[2]*Director of Schizophrenia Clinic and Psychopharmacology, Dean of Academic Affairs, Asha Hospital*
[3]*Assistant Program Director, McLaren Health Care*
[4]*Junior Research Officer, Asha Hospital*

## Abstract

People suffering from cancer often suffer from anxiety, which is fuelled by worries about the future, side effects from therapy, and fear of recurrence. Through molecular mechanisms linked to stress, these psychological difficulties may affect cancer outcomes and lower quality of life. Although overlapping physical symptoms might make diagnosing anxiety difficult, validated instruments like the HADS and GAD-7 help in early detection. Younger age, unemployment, comorbidities, adverse effects from therapy, a lack of social support, financial distress and type of cancer are important risk factors. Effective strategies for reducing anxiety and enhancing emotional health include mindfulness-based exercises, cognitive behavioural therapy (CBT), acceptance and commitment therapy (ACT), and alternative therapies like yoga and tai chi. In severe situations, pharmacotherapy may be necessary. It's critical to address obstacles like stigma, a lack of knowledge about mental health, and restricted access to care. Cancer survivors' psychological resilience and general health outcomes can be improved by incorporating mental health management into survivorship care.

**ARTICLE INFO**

***Correspondence:**
*Prasad Rao*
*prasad40@gmail.com*
*Director of Schizophrenia Clinic and Psychopharmacology, Dean of Academic Affairs, Asha Hospital*

***Dates:***
*Received: 25-10-2025*
*Accepted: 12-11-2025*
*Published: 20-12-2025*

***Keywords:***
*Anxiety, Cancer, Cancer survivors, Psychological stress.*

***How to Cite:***
*Gurugubelli S, Rao P, Mutyala N, Kunadi A, Avasarala UD, Singh S. Anxiety in Cancer Survivors. Indian Journal of Clinical Psychiatry. 2025;5(2): 87-92.*

doi: 10.54169/ijocp.v5i02.12

## Introduction

Psychological stress is a common occurrence in patients diagnosed with cancer.[1] Cancer diagnosis is often accompanied by a whirlwind of emotions—shock, disbelief, fear, and uncertainty about the future. These feelings can overwhelm patients and persist even after the initial stages of diagnosis and treatment. Anxiety and depression, in particular, are frequently reported in cancer survivors, often stemming from concerns about their future health, treatment side effects, and changes in their physical and emotional well-being.[2]

The emotional toll of cancer can be far-reaching, as survivors must often cope with the fear of cancer recurrence (FCR), a prevalent and significant contributor to psychological stress. This fear, which is deeply rooted in the unpredictability of cancer, can persist long after treatment ends. Patients may feel constant anxiety about every ache or pain, worrying that their cancer might have returned.[3] Such stress can be overwhelming, leading to chronic anxiety

and depression, both of which can negatively affect a survivor's quality of life.

In addition to its impact on emotional health, these psychological comorbidities—depression and anxiety—have been implicated in increasing the risk of cancer recurrence.[4]It has been suggested that stress-induced alterations in the immune system and inflammation may create a biological environment conducive to cancer growth or recurrence. Therefore, early detection and prompt treatment of mental health disorders in cancer survivors are crucial, as this can improve not only mental health outcomes but also long-term cancer outcomes, potentially reducing the risk of recurrence and enhancing overall survival rates.

## Diagnosis of Anxiety

Identifying anxiety in cancer survivors can be particularly challenging due to the overlap between symptoms of anxiety and the physical effects of cancer and its treatment. For instance, fatigue, insomnia, and concentration difficulties can be symptoms of both anxiety and cancer treatment side effects. Thus, distinguishing between the two is essential but can be difficult for both patients and healthcare providers.

The Generalized Anxiety Disorder 7 (GAD-7) is a widely recognized and reliable tool for diagnosing anxiety.[5] This seven-item scale has been validated in various clinical settings and is effective in both primary care and specialized oncology practices. It is quick and easy to administer, making it an ideal choice for busy clinics. While the GAD-7 can help identify anxiety, it's important to recognize that not every cancer survivor will benefit from this screening tool. Knowing when to administer this tool requires careful observation and understanding of the patient›s emotional state.

Self-reports are valuable tools for assessing anxiety, particularly in adult cancer survivors. These tools empower patients to articulate their emotional struggles, which might otherwise go unnoticed by healthcare providers. However, in pediatric cancer patients, self-reports may not be as reliable.[5] Children often lack the vocabulary to describe their feelings of anxiety, and their expressions of distress may manifest in behavioral changes rather than verbal complaints. This is where observational assessments by parents and healthcare providers become crucial.

Due to the high prevalence of anxiety in cancer survivors, screening for anxiety using self-report questionnaires, such as the Hospital Anxiety and Depression Scale (HADS), is essential.[6] The HADS is a widely used screening tool in oncology settings and focuses on both anxiety and depression, offering a comprehensive view of a patient›s emotional health. Its use can help identify patients who may require further psychological support and interventions.

## Risk Factors

Several identifiable risk factors increase the likelihood of anxiety in cancer survivors. One study conducted on 1,323 patients with breast, lung, or gastrointestinal cancer found that younger age and unemployment were associated with greater levels of anxiety.[7] Younger survivors often face distinct challenges, such as concerns about future fertility, career prospects, and long-term health, which may not be as prevalent in older populations. Additionally, younger patients may feel a greater sense of isolation, as they are less likely to know peers who have experienced similar health challenges.

Unemployment exacerbates the financial and social stresses that can accompany cancer treatment, contributing to anxiety. Cancer survivors may struggle to return to work due to lingering physical side effects, or they may face workplace discrimination due to their medical history. The financial strain of unemployment, coupled with the high costs of cancer treatment, can lead to significant emotional distress, further increasing the risk of anxiety.

Another study conducted on 133 cancer survivors indicated that patients experiencing more side effects from treatment had a greater likelihood of developing an anxiety disorder.[3] Cancer treatments, such as chemotherapy, radiation therapy, and surgery, can cause significant physical side effects, including fatigue, pain, and cognitive changes (often referred to as "chemo brain"). These side effects can lead to a sense of helplessness and uncertainty about the future, which in turn contributes to heightened anxiety levels.

A cross-sectional study performed on colorectal cancer survivors suggested that survivors with

multiple comorbid diseases, shorter time since diagnosis, and female survivors might be at risk for higher levels of anxiety and/or depressive symptom severity.[8] Female survivors, in particular, may face unique challenges, such as changes in body image, reproductive health concerns, and caregiving responsibilities, all of which can contribute to emotional distress. Furthermore, those who have other chronic health conditions may feel overwhelmed by managing multiple illnesses at once.

Another cross-sectional study identified financial problems, global quality of life, and cognitive function as factors with the strongest association with depression and anxiety in cancer survivors[9]. Financial difficulties often arise from the high cost of cancer treatments, loss of income during treatment, and ongoing medical expenses related to follow-up care. Cognitive function, often impacted by cancer treatments, can also contribute to anxiety, as survivors may struggle to regain their pre-cancer cognitive abilities, which can affect their work and daily life.

Other risk factors include low emotional support, isolation, and low social status[10]. Social inequalities, such as low income or lack of access to healthcare, were also associated with poorer quality of life in cancer survivors[11]. Survivors with limited social support systems, such as those living alone or without family, may feel isolated and overwhelmed by their cancer journey. In contrast, those with strong support networks may have better emotional resilience and lower levels of anxiety.

The type of cancer is a significant predictor of anxiety and depression symptoms. These variations may be brought on by varying prognoses, pain thresholds, the extent of body image disturbance, and neuropsychiatric (side) effects associated with tumors or treatments.[12] In a cross-sectional study covering more than 13 different types of cancers, with over 7500 participants found lung and brain cancer patients to be particularly burdened, probably due to higher mortality rates. Patients with breast cancer, having better prognosis and social support, showed lower rates of anxiety[13]. However, a recent meta-analysis revealed that ovarian cancer had the highest prevalence of anxiety symptoms/disorders among cancers (43%), followed by breast cancer (27%), and lung cancer (26%).[14]

## Treatment Approaches

The treatment of anxiety in cancer survivors is not markedly different from the treatment of anxiety arising from other causes. However, treating anxiety in this specific population is crucial, as it can lead to significant improvements in their quality of life. Additionally, some evidence suggests that managing anxiety may reduce the risk of cancer recurrence and all-cause mortality[4]. By alleviating psychological stress, patients may experience fewer negative health outcomes and be more resilient in the face of potential cancer-related challenges.

Cognitive behavioral therapy (CBT) is widely considered the first-line treatment for anxiety disorders, and it has been shown to improve quality of life in cancer survivors[15]. CBT helps patients challenge their negative thought patterns and develop healthier coping mechanisms for dealing with anxiety. In the context of cancer survivors, CBT may focus on helping patients manage their fears of recurrence, cope with physical side effects, and rebuild their sense of identity and purpose post-treatment.

Acceptance and commitment therapy (ACT) is particularly effective for cancer survivors[16]. Unlike CBT, which focuses on changing thought patterns, ACT encourages patients to accept their emotions and commit to actions that align with their values, even in the face of anxiety. This therapy can be especially beneficial for cancer survivors, who may need to come to terms with uncertainty and the possibility of recurrence. By focusing on values-driven action, survivors can build a meaningful life despite their fears.

Mindfulness has gained significant popularity as an effective adjunct therapy for managing anxiety and other behavioral symptoms related to cancer.[17] Mindfulness-based practices, such as meditation and deep-breathing exercises, help individuals stay grounded in the present moment, reducing the tendency to ruminate on past trauma or future uncertainties. Studies have shown that mindfulness-based interventions can reduce stress, improve emotional regulation, and enhance overall well-being in cancer survivors.

Some cancer survivors may require pharmacotherapy to manage their anxiety. These medica-

**Table 1:** Role of medications in managing anxiety in cancer survivors

| *Medication Class* | *Description* | *Study/Source* |
|---|---|---|
| Benzodiazepines | Commonly used for short-term relief of anxiety. Typically limited to acute situations due to the risk of dependence. | Study [18] |
| Selective Serotonin Reuptake Inhibitors (SSRIs) | Often the most effective medications for treating anxiety with comorbid depression. Examples include sertraline and escitalopram. These medications help balance neurotransmitter levels. | Study[19] |
| Atypical Antipsychotics | Used in more severe cases, especially when anxiety is accompanied by psychotic symptoms. Examples include olanzapine and quetiapine. | Study [20] |

tions can help balance neurotransmitter levels in the brain, leading to improvements in both mood and anxiety symptoms. The role of different classes of drugs in the management of anxiety in cancer patients has been discussed in Table 1.

Yoga and other relaxation techniques can also be helpful in reducing anxiety in cancer survivors. A randomized controlled study on cancer patients found that yoga therapy significantly reduced anxiety symptoms and fatigue compared to a control group that did not receive yoga therapy[21]. The gentle physical movement, combined with mindfulness and breath awareness, can help survivors reconnect with their bodies and reduce tension. Yoga and mindfulness have also been proven beneficial in reducing symptom load in cancer patients[22]. Tai Chi, especially Yang-style Tai Chi, has also been shown in studies to alleviate anxiety symptoms in cancer survivors.[23]

## Barriers to Treatment

There are several barriers to the effective treatment of anxiety in cancer survivors. Mental health literacy—the ability to recognize mental health problems and seek appropriate treatment—is one of the most prominent barriers.[24] Many cancer survivors may not fully understand the symptoms of anxiety or may attribute them to physical side effects of treatment, leading to delayed diagnosis and treatment.

Experienced stigma and self-stigma are also major barriers to seeking mental health care[25]. Survivors may feel embarrassed or ashamed of their emotional struggles, believing that they should focus solely on their physical recovery. This stigma may be compounded by cultural beliefs or family pressures that discourage seeking mental health support. In some cases, survivors may view seeking mental health care as a sign of weakness or failure to "beat" cancer.

Negative attitudes toward professional help, high waiting times, and a shortage of mental health professionals also prevent many survivors from accessing the care they need.[26] The mental health system may be overwhelmed, leaving survivors waiting for weeks or months before receiving therapy. Additionally, the cost of mental health care can be prohibitive for many survivors, especially when combined with the already significant financial burden of cancer treatment.

# Conclusion

Anxiety is highly prevalent in cancer survivors and has the potential to significantly impact their quality of life. The emotional toll of surviving cancer, compounded by fears of recurrence, physical side effects from treatment, and the social and financial challenges that survivors face, can lead to persistent anxiety that requires ongoing management. Prompt diagnosis and treatment of anxiety in cancer survivors are crucial, as they can lead to better emotional well-being, improved physical health outcomes, and potentially lower rates of cancer recurrence.

CBT, mindfulness-based approaches, and ACT have all been shown to be effective in treating anxiety in cancer survivors. Pharmacotherapy, including benzodiazepines, SSRIs, and atypical antipsychotics, may also be necessary for some patients, particularly those with severe anxiety or co-occurring mental health disorders. Complementary therapies, such as yoga and Tai Chi, can further enhance treatment by providing survivors with additional tools to manage stress and anxiety.

However, barriers to treatment, including mental health stigma, lack of awareness, and financial challenges, must be addressed to ensure that all cancer survivors have access to the care they need. By prioritizing mental health as a key component of survivorship care and addressing these barriers, healthcare providers can help cancer survivors lead healthier, more fulfilling lives, free from the burden of untreated anxiety.

## References


1. Vargas-Román K, Díaz-Rodríguez CL, Cañadas-De la Fuente GA, Gómez-Urquiza JL, Ariza T, De la Fuente-Solana EI. Anxiety prevalence in lymphoma: A systematic review and meta-analysis. Health Psychol Off J Div Health Psychol Am Psychol Assoc 2020;39(7):580–8.
2. Suzuki M, Deno M, Myers M, Asakage T, Takahashi K, Saito K, et al. Anxiety and depression in patients after surgery for head and neck cancer in Japan. Palliat Support Care 2016;14(3):269–77.
3. Arch JJ, Genung SR, Ferris MC, Kirk A, Slivjak ET, Fishbein JN, et al. Presence and predictors of anxiety disorder onset following cancer diagnosis among anxious cancer survivors. Support Care Cancer 2020;28(9):4425–33.
4. Wang X, Wang N, Zhong L, Wang S, Zheng Y, Yang B, et al. Prognostic value of depression and anxiety on breast cancer recurrence and mortality: a systematic review and meta-analysis of 282,203 patients. Mol Psychiatry 2020;25(12):3186–97.
5. Spitzer RL, Kroenke K, Williams JBW, Löwe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. Arch Intern Med 2006;166(10):1092–7.
6. Annunziata MA, Muzzatti B, Bidoli E, Flaiban C, Bomben F, Piccinin M, et al. Hospital Anxiety and Depression Scale (HADS) accuracy in cancer patients. Support Care Cancer Off J Multinatl Assoc Support Care Cancer 2020;28(8):3921–6.
7. Suskin JA, Paul S, Stuckey AR, Conley YP, Miaskowski C, Dunn LB. Risk factors for worse anxiety trajectories among patients undergoing cancer chemotherapy. Support Care Cancer Off J Multinatl Assoc Support Care Cancer 2022;31(1):32.
8. Braamse AMJ, van Turenhout ST, Terhaar Sive Droste JS, de Groot GH, van der Hulst RWM, Klemt-Kropp M, et al. Factors associated with anxiety and depressive symptoms in colorectal cancer survivors. Eur J Gastroenterol Hepatol 2016;28(7):831–5.
9. Götze H, Friedrich M, Taubenheim S, Dietz A, Lordick F, Mehnert A. Depression and anxiety in long-term survivors 5 and 10 years after cancer diagnosis. Support Care Cancer Off J Multinatl Assoc Support Care Cancer 2020;28(1):211–20.
10. Puigpinós-Riera R, Graells-Sans A, Serral G, Continente X, Bargalló X, Domènech M, et al. Anxiety and depression in women with breast cancer: Social and clinical determinants and influence of the social network and social support (DAMA cohort). Cancer Epidemiol 2018;55:123–9.
11. Graells-Sans A, Serral G, Puigpinós-Riera R, Grupo Cohort DAMA. Social inequalities in quality of life in a cohort of women diagnosed with breast cancer in Barcelona (DAMA Cohort). Cancer Epidemiol 2018;54:38–47.
12. Pitman A, Suleman S, Hyde N, Hodgkiss A. Depression and anxiety in patients with cancer. BMJ 2018;361:k1415.
13. Zeilinger EL, Oppenauer C, Knefel M, Kantor V, Schneckenreiter C, Lubowitzki S, et al. Prevalence of anxiety and depression in people with different types of cancer or haematologic malignancies: a cross-sectional study. Epidemiol Psychiatr Sci 2022;31:e74.
14. Amiri S. The prevalence of anxiety symptoms/disorders in cancer patients: a meta-analysis. Front Psychiatry 2024;15:1422540.
15. Ye M, Du K, Zhou J, Zhou Q, Shou M, Hu B, et al. A meta-analysis of the efficacy of cognitive behavior therapy on quality of life and psychological health of breast cancer survivors and patients. Psychooncology 2018;27(7):1695–703.
16. Mathew A, Doorenbos AZ, Jang MK, Hershberger PE. Acceptance and commitment therapy in adult cancer survivors: a systematic review and conceptual model. J Cancer Surviv Res Pract 2021;15(3):427–51.
17. Xunlin NG, Lau Y, Klainin-Yobas P. The effectiveness of mindfulness-based interventions among cancer patients and survivors: a systematic review and meta-analysis. Support Care Cancer Off J Multinatl Assoc Support Care Cancer 2020;28(4):1563–78.
18. Traeger L, Greer JA, Fernandez-Robles C, Temel JS, Pirl WF. Evidence-based treatment of anxiety in patients with cancer. J Clin Oncol Off J Am Soc Clin Oncol 2012;30(11):1197–205.
19. Popkin MK, Callies AL, Mackenzie TB. The outcome of antidepressant use in the medically ill. Arch Gen Psychiatry 1985;42(12):1160–3.
20. Sakamoto R, Koyama A. Effective Therapy Against Severe Anxiety Caused by Cancer: A Case Report and Review of the Literature. Cureus 12(6):e8414.
21. Hardoerfer K, Jentschke E. Effect of Yoga Therapy on Symptoms of Anxiety in Cancer Patients. Oncol Res Treat 2018;41(9):526–32.
22. Boppana SH, Kutikuppala LVS, Koirala SB, Konduru S, Thota V. Role of Mindfulness and Yoga in Cancer Management [Internet]. In: Anand A, editor. Neuroscience of Yoga: Theory and Practice: Part II. Singapore: Springer Nature; 2024 [cited 2025 Apr 14]. page 167–80.Available from: https://doi.org/10.1007/978-981-97-2855-8_7
23. Kuang X, Dong Y, Song L, Dong L, Chao G, Zhang X, et al. The effects of different types of Tai Chi exercise on anxiety and depression in older adults: a systematic review and network meta-analysis. Front Public Health 2023;11:1295342.

24. Kangas M, Heissel A. Mental health literacy, treatment preferences and the lived experience of mental health problems in an Australian cancer sample. Psychooncology 2020;29(11):1883–94.
25. Dubreucq J, Plasse J, Franck N. Self-stigma in Serious Mental Illness: A Systematic Review of Frequency, Correlates, and Consequences. Schizophr Bull 2021;47(5):1261–87.
26. Waumans RC, Muntingh ADT, Draisma S, Huijbregts KM, van Balkom AJLM, Batelaan NM. Barriers and facilitators for treatment-seeking in adults with a depressive or anxiety disorder in a Western-European health care setting: a qualitative study. BMC Psychiatry 2022;22(1):165.