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THE PSYCHOLOGICAL IMPACT OF CANCER DIAGNOSIS AND TREATMENT

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ABSTRACT

A cancer diagnosis is widely recognised as one of the most profoundly life-altering and emotionally distressing experiences an individual may encounter. Beyond its physical consequences, cancer exerts substantial psychological effects on patients, their families, and caregivers. Initial reactions often include shock, denial, fear, anxiety, and sadness; in some cases, symptoms resemble post-traumatic stress disorder. These responses are not confined to the moment of diagnosis but frequently persist, evolve, or intensify throughout treatment and survivorship. Life-saving interventions such as chemotherapy, radiotherapy, and surgery can exacerbate distress through side effects including fatigue, alopecia, and cognitive impairment *("chemo brain").Prolonged treatment may erode patients' sense of identity and autonomy, strain interpersonal relationships, and disrupt social roles. Multiple determinants influence the psychological burden experienced by cancer patients, encompassing pre-existing psychiatric comorbidities, demographic variables such as age and sex, tumor characteristics including histological type and disease stage, and the robustness of available social support networks. For example, older adults may experience heightened loneliness and fear of mortality, whereas adolescents and young adults are more vulnerable to body image concerns and interruptions to life goals. Caregivers, too, frequently report exhaustion, anxiety, and guilt, underscoring the need for comprehensive psychosocial support.Integrating mental health care into oncology are therefore imperative. Evidence supports interventions such as mindfulness-based stress reduction, cognitive–behavioural therapy, and psychotherapy in alleviating distress and improving quality of life. These approaches are central to the multidisciplinary field of psycho-oncology, which promotes patient-centred models of care that address both physical and psychological resilience. Only through such an integrated framework can patients and their families receive holistic support across the continuum of diagnosis, treatment, and survivorship.*

Keywords: *Cancer diagnosis, Psychological impact, Patient well-being, Post-traumatic stress, Holistic cancer care*

INTRODUCTION

Numerous studies and works of literature have examined the emotional and psychological effects of receiving a cancer diagnosis on the patient as well as their friends and family. (Pitceathly et al., 2003)It is clear that the diagnosis causes the patient and their support group a great deal of worry and emotional distress. Many people experience dread, denial, anger, concern, and despair about the future, and nearly all cancer patients report experiencing significant emotional distress and bewilderment. Many even suffer from clinically significant discomfort. Some may react with post-traumatic stress disorder, and others may suffer from anxiety, despair, and even paranoid symptoms. Due to their diagnoses, even patients who manage the situation somewhat well experience emotional pain. It has been said, however, that individuals often feel stronger and find comfort by finding significance and hope in the coping process, even in the face of misery. Through a review of a large body of professional and scientific literature, the purpose of this paper is to simulate the psychological distress that cancer patients usually experience, the strategies that hospital clinical psychologists currently employ to reduce it, and the limitations of future treatment in this area. In order to enhance treatment and promote mutual support among all parties, a few presentation themes for patient education will be proposed. These subjects will be directed towards cancer patients and their family members who are dealing with the situation of a loved one with cancer. (Northouse et al., 1987)Patients should be able to identify and comprehend the feelings they experience after being diagnosed with cancer. Anger, anxiety, and uncertainty are a few typical feelings. However, there is no generally "normal" emotional reaction to receiving a life-threatening medical diagnosis, like cancer, because it does not follow a certain pattern. Patients frequently alternate between feeling nothing at all and going through a huge emotional roller coaster. Fear is frequently the first emotion that men and women of all ages experience when they learn they have been diagnosed with cancer (Consedine et al., 2004). Common reactions include fear of pain, fear of the unknown, worry of a painful and incapacitating death, and anxiety of how the patient's family would handle their loss. Fear, however, might give way to a strong desire to learn more about the illness and determine whether it is

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indeed cancer. For the patient, who wants to have an intellectual grasp of the illness and its consequences, knowledge might be viewed as a protective strategy. Other feelings like bitterness, doubt about the original diagnosis, and the pursuit of alternative medical care may then surface. A serious disease like cancer, however, might upset a patient's peace of mind if they have a strong religious belief. The patient may experience anxiety, guilt, and depression. Their partner may even be the target of these sentiments. It makes sense that their spouse could feel the same way. (Hawkins et al., 2022)Worldwide, millions of individuals are impacted by breast cancer. Healthcare providers may fail to consider the psychological effects of the disease on patients and their support system because physical symptoms are the main focus of therapy. This review of the literature looks at the comprehensive, multifaceted strategy that should be used to care individuals with breast cancer, starting with screening and continuing through diagnostic testing, treatment, and referral. From January 2000 to April 2024, a PubMed literature search was carried out (Lazar et al., 2025). Datasets from studies that were screened during the literature search were gathered and examined, taking into account both the data and the whole paper. This covered its drawbacks and possible prejudices. The prospect of receiving a cancer diagnosis following screening can cause a range of feelings, including worry, despair, and terror. Patients may have anxiety about being evaluated and having a negative body image assessment throughout the diagnosing process. When patients feel these emotions, medical personnel need to be ready to help them. Patients may find the stages of therapy to be the most challenging since side effects and problems can affect their life in many ways and are hard to control. These include of hair loss, discomfort, and sexual dysfunction. Overall, the review of the chosen literature revealed areas where psychological support for a patient's cancer diagnosis, care, and treatment might improve clinical practice. A patient's quality of life during treatment can be significantly enhanced by being able to offer counseling before these symptoms appear, and preferably before they become unnecessary. The goal of this literature study is to discover, raise awareness of, and encourage healthcare providers to use support systems. A patient's mental health is frequently greatly impacted by the overwhelming nature of receiving a cancer diagnosis and treatment. People may experience elevated levels of anxiety, despair, rage, and dread on a psychological level. A frequent reaction to a cancer diagnosis is anxiety. Patients may be concerned about the effects of the disease on their loved ones, their physical condition, and the results of their therapy. Physical symptoms including perspiration, trouble sleeping, and elevated heart rate might result from this anxiousness. Additionally, depression is more common among cancer patients. Sadness, despair, and a lack of interest in once-enjoyed activities are some of the symptoms of depression.

CANCER DIAGNOSIS

In cancer care, organisations must critically evaluate their structures, policies, and point-of-care processes, while adopting patient-centred models that address the needs of socioeconomically disadvantaged populations within the broader context of their social, economic, cultural, and physical environments (Bourgeois et al, 2024).

Cancer diagnosis encompasses a systematic approach utilizing laboratory investigations, diagnostic imaging, and tissue sampling to establish definitive pathological confirmation. Laboratory assessments, including haematological and biochemical analyses of blood and urine specimens, may reveal abnormalities suggestive of malignant processes (Shalata et al, 2024). Non-invasive imaging modalities enable comprehensive evaluation of internal structures and osseous tissue without patient discomfort, providing crucial anatomical and functional information. Tissue acquisition methods vary according to tumor location and accessibility, with biopsy selection tailored to optimize diagnostic yield while minimizing procedural morbidity. Histopathological examination remains the gold standard for cancer diagnosis, as microscopic analysis reveals characteristic cellular morphological features distinguishing malignant from benign tissue. Normal cellular architecture demonstrates uniform size, shape, and organized structural arrangement, whereas neoplastic cells exhibit pleomorphism, irregular dimensions, and disordered growth patterns that facilitate definitive diagnosis.Following confirmed alignment, accurate staging determines disease extent and guides therapeutic decision-making and prognostic assessment. Staging protocols incorporate clinical examination, laboratory parameters, and advanced imaging studies, including radiography and scintigraphic bone scanning, to evaluate local invasion and distant metastatic spread. This comprehensive assessment informs treatment selection and provides essential prognostic information for patient counselling and care planning. Primary treatment objectives focus on complete tumor eradication or maximal cytoreduction to achieve optimal oncological outcomes. While surgical resection represents the cornerstone of treatment for most solid malignancies, primary therapy selection depends on tumor-specific characteristics, including histological subtype, molecular profile, and treatment sensitivity patterns. Certain malignancies demonstrate exceptional responsiveness to systemic chemotherapy or radiation therapy, making these modalities appropriate as definitive primary interventions rather than adjuvant treatments.Patient education regarding diagnosis, prognosis, and treatment options enhances informed decision-making and therapeutic alliance formation. A comprehensive understanding of disease characteristics and treatment alternatives empowers patients to participate actively in care planning and promotes treatment adherence. Psychosocial support systems, including family networks and peer counselling resources, provide essential emotional and practical assistance throughout the cancer journey. Social connections facilitate coping mechanisms, reduce psychological distress, and may improve treatment outcomes through enhanced social support and reduced isolation. Professional counselling services and support group participation offer additional resources for addressing the complex emotional and practical challenges associated with cancer diagnosis and treatment (Ferracin et al., 2010)

PSYCHOLOGICAL IMPACT

The COVID-19 pandemic exposed populations worldwide to unprecedented psychological stressors. Quarantine measures curtailed social activities, restricted non-essential travel, and forced hospitals to adopt emergency protocols to manage surges of critically ill patients. These conditions increased vulnerability to mental health problems both in the general population and among frontline healthcare workers.

Across the course of the pandemic, a spectrum of adverse psychological responses emerged, including anxiety, stress, hopelessness, frustration, and uncertainty (Salanti et al., 2022). Widespread fear, compounded by inconsistent or inadequate information, was strongly associated with rising infection rates. Quarantine and prolonged social isolation—rarely imposed on such a global scale in modern history—amplified feelings of helplessness and loss of control. In some cases, these reactions escalated into severe outcomes, such as suicidal ideation and behaviours. Importantly, high levels of anxiety also adversely affected physical health and resilience, reinforcing the need for early identification of dysfunctional coping strategies and maladaptive lifestyle changes.

The pandemic also highlighted the absence of robust systems for managing psychological crises linked to biological disasters. Although government regulations aimed to preserve public health and social stability, few comprehensive frameworks were in place to address the widespread mental health consequences. The global experience underscored humanity's vulnerability and lack of preparedness for the psychosocial dimensions of such crises, emphasising the urgent need to integrate mental health into disaster planning and public health response (Serafini, et al., 2020)

PATIENT WELL-BEING

This scoping review employed predefined inclusion criteria to examine psychological well-being among healthcare professionals, defining this construct to encompass mental, emotional, and psychological

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dimensions while excluding physical or spiritual components. Healthcare professionals were categorized according to World Health Organization (2010) classifications, including formally trained medical personnel (physicians, nurses, allied health professionals), healthcare assistants (technicians, nursing assistants), and personal caregivers. Administrative personnel, including secretaries and service managers, were excluded from analysis. The review incorporated empirical studies, theses, systematic reviews, and reports published in English, while excluding book chapters, editorials, and opinion pieces due to resource limitations. To manage the substantial volume of retrieved literature, inclusion criteria were refined to focus exclusively on publications containing "wellness," "well-being," or "wellbeing" within titles or abstracts, ensuring concentrated attention on healthcare professionals rather than students or volunteers. Data synthesis followed the three-phase framework proposed by Levac et al. (2010): descriptive numerical summary, thematic coding, and qualitative thematic analysis. Initial coding by KB underwent collaborative review with SP, HL, and JM, with findings examined through the lens of research questions and implications for future investigation, clinical practice, and health policy.The final analysis encompassed fifteen studies, with emerging research identified in additional countries at the review's conclusion. Publication distribution demonstrated United Kingdom leadership, followed by the United States and Australia, with limited representation from other nations. Professional group analysis revealed nursing as the most frequently studied discipline, followed by physicians, clinical psychologists, and unregistered nursing assistants. Multi-professional studies incorporated diverse healthcare workers, including physicians, nurses, and allied health professionals across varied clinical settings encompassing primary care, palliative care, mental health services, and critical care environments, though specific contextual details remained limited in several investigations.Healthcare worker well-being gained prominence following the 2009 NHS Staff Well-being Review, with the subsequent Boorman Report establishing critical linkages between healthcare worker well-being and patient outcomes. This seminal work demonstrated that NHS trusts with superior staff well-being metrics—including reduced turnover, decreased sick leave utilization, and lower agency costs—consistently achieved enhanced patient satisfaction scores, improved care quality, more efficient resource utilization, and reduced healthcare-associated infection rates. Subsequent research has reinforced the direct relationship between healthcare professionals' experiences and patient care quality. Despite policy initiatives targeting healthcare worker experience improvement, NHS annual surveys demonstrate increasing proportions of staff reporting stress-related conditions in recent years.The global COVID-19 pandemic has intensified these concerns, compounding existing challenges through workforce depletion and economic instability. Healthcare professionals currently experience unprecedented levels of emotional exhaustion and post-traumatic stress symptomatology directly attributable to occupational demands. The deteriorating psychological health of healthcare workers internationally underscores the urgent necessity for comprehensive intervention strategies. While existing literature has explored relationships between healthcare professional psychological health and patient outcomes, research emphasis has predominantly focused on quantitative methodologies and intervention approaches, indicating opportunities for expanded qualitative investigation and alternative therapeutic frameworks (Velikova et al., 2004). Fatigue is a frequent and distressing symptom in the post-treatment phase of cancer care. At the cellular level, it is closely linked to energy metabolism, with mitochondria playing a central role (Pesta et al., 2024). The concept of “mitochondrial health” reflects the optimal functioning and balance of these organelles, including both their efficiency and abundance. When mitochondrial function is impaired, energy demands are not met effectively, leading to persistent exhaustion characteristic of chronic fatigue (Wijlens et al., 2025). Beyond physical symptoms, mitochondrial dysfunction has been implicated in mental health disorders, including anxiety, depression, and panic attacks. Evidence suggests that energy imbalance and oxidative stress contribute to these associations. Chronic psychological stress further disrupts mitochondrial bioenergetics, reinforcing the interplay between cellular energy regulation and mental well-being.

POST-TRAUMATIC STRESS

Post-traumatic stress disorder (PTSD) is characterised by persistent re-experiencing of trauma, avoidance behaviours, negative alterations in cognition and mood, and heightened arousal. Symptoms typically emerge within three months of the precipitating event, though delayed onset is recognised. For diagnosis, symptoms must persist beyond one month, cause clinically significant distress or functional impairment, and not be attributable to substances or other medical conditions. The clinical course is heterogeneous: some individuals recover within months, whereas others experience chronic symptoms lasting years (Leske et al., 2025). Comorbidities—including depression, substance misuse, and other anxiety disorders—are common and complicate management.Several psychotherapeutic approaches have demonstrated efficacy. Eye Movement Desensitisation and Reprocessing (EMDR) targets trauma-related cognitions and emotions such as guilt and shame; facilitate adaptive reprocessing of traumatic memories in a supportive therapeutic context. Prolonged Exposure Therapy involves systematic and repeated confrontation with trauma-related stimuli, either through imaginal exposure or in vivo, enabling patients to reduce avoidance, regulate fear responses, and develop coping strategies. Family therapy may also provide benefit, recognising the broader impact of PTSD on interpersonal relationships.Psychotherapy remains the cornerstone of treatment, although pharmacological interventions—alone or in combination—can be appropriate for selected patients. A multidisciplinary approach is essential, given the frequent overlap with mood disorders, substance use, and suicidality. Importantly, addressing both the traumatic experience and its psychological sequelae is critical to recovery. Support from family and community networks further enhances resilience and therapeutic outcomes (Yehuda et al., 2015)

HOLISTIC CANCER CARE

Cancer patients increasingly seek complementary and alternative medicine (CAM) approaches alongside conventional treatments, with several evidence-based modalities demonstrating clinical utility in managing treatment-related sequelae rather than serving as primary therapeutic interventions. Acupuncture shows robust efficacy in systematic reviews for reducing chemotherapy-induced nausea and vomiting, with additional benefits for certain pain syndromes when administered by licensed practitioners using sterile techniques. Aromatherapy, particularly lavender oil application through inhalation or topical massage, provides anxiety reduction and symptom management with minimal adverse effects in oncological populations. Clinical hypnosis, delivered by trained mental health professionals, demonstrates evidence-supported benefits for anxiety management, pain control, and prevention of anticipatory nausea and vomiting, though patients with psychiatric comorbidities require careful screening. Therapeutic massage therapy shows significant benefits in meta-analyses for pain reduction, anxiety management, and quality of life improvement, requiring safety modifications in patients with severe thrombocytopenia, neutropenia, or near tumor sites and radiation fields. Mindfulness-based interventions and meditation practices provide measurable benefits for psychological distress and quality of life, with implementation ranging from formal stress reduction programs to individual practice supported by digital platforms. The clinical integration of these complementary therapies requires careful patient selection, appropriate practitioner credentials, and seamless coordination with conventional treatment protocols, necessitating open healthcare provider-patient dialogue regarding CAM use while respecting patient autonomy in treatment decisions and

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prioritizing future research on intervention standardization, optimal patient population identification, and economic evaluations of integrated care models (Sheikh-Wu et al., 2023)

Cancer treatments—including surgery, radiotherapy, and chemotherapy—have profound effects on patients' quality of life (QoL). Optimising QoL requires a multidimensional approach that integrates physical health management, psychosocial support, rehabilitative strategies, and palliative care. Speech and language therapists play a critical role by providing interventions to improve articulation, voice quality, and swallowing function (Arshad et al., 2024). Mind–body approaches, such as yoga, acupuncture, and meditation, may complement conventional care by reducing stress, promoting relaxation, and enhancing overall well-being. Equally important are effective pain and nutritional management, oral rehabilitation, psychological counselling, and access to social servicesParvizi, M., & Ay, S. (2024). . Together, these interventions form the foundation of comprehensive, patient-centered cancer care.

Conclusion

A cancer diagnosis profoundly alters an individual's psychological landscape, often triggering intense emotional responses such as fear, anxiety, depression, and uncertainty. These challenges extend beyond the patient, affecting family members and broader support networks throughout treatment and recovery. The extent of psychological distress is shaped by multiple factors, including cancer type and stage, the invasiveness of therapeutic interventions, personal coping mechanisms, and the availability of social and psychological resources. Addressing the psychological sequelae of cancer is as vital as managing the disease itself. Integrating structured mental health support—through counselling, psychoeducation, peer groups, and tailored interventions—can substantially improve quality of life, treatment adherence, and clinical outcomes. Ultimately, long-term health and comprehensive cancer care depend on a patient-centered, holistic model that recognizes and actively manages the psychological as well as the physical dimensions of illness.

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