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TRAUMA ASSOCIATED WITH CANCER DIAGNOSIS AND TREATMENT AND THE DEVELOPMENT OF PTSD

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PTSD

Post-Traumatic Stress Disorder

Cancer diagnosis

Summary

This investigation examines the association between oncological trauma and post-traumatic stress disorder (PTSD), emphasizing its chronic and multidimensional nature. Unlike acute trauma, oncological trauma follows a protracted trajectory encompassing the diagnostic phase, treatment period, and post-therapeutic stage. This phenomenon is intensified by the subjective perception of a life threat and the cumulative burden imposed by therapeutic interventions.

Epidemiological investigations indicate that PTSD prevalence in oncological populations ranges from 10% to 50%, with variation attributable to methodological heterogeneity and sample characteristics. Clinical manifestations include a spectrum of psychopathological symptoms, notably anticipatory anxiety, hypervigilance to somatic cues, and persistent fear of disease recurrence. Identified risk factors for PTSD development in oncological contexts include: neoplasm type and stage, therapeutic modality, previous traumatic experiences, coping mechanisms, social support availability, and sociodemographic variables including age, gender, and socioeconomic status.

The diagnostic protocol for oncology-related PTSD employs a multi-phase approach utilizing standardized clinical interviews and validated self-report instruments, including the PTSD Checklist for DSM-5 (PCL-5), Impact of Event Scale-Revised (IES-R), and Distress Thermometer. Interdisciplinary collaboration among specialists and cultural adaptation of assessment tools are essential components of accurate diagnosis.

Empirical evidence supports the therapeutic efficacy of cognitive-behavioral therapy (CBT), eye movement desensitization and reprocessing (EMDR), pharmacological interventions, and mindfulness-based approaches. The authors advocate the implementation of systematic screening protocols utilizing standardized assessment instruments, early psychological intervention, and personalization of mental health care.

Comprehensive understanding of the interaction between oncological trauma and PTSD symptomatology constitutes the foundation for effective integration of psychological support within comprehensive oncological treatment, potentially contributing significantly to the optimization of quality of life and psychosocial functioning in oncological patients.

Introduction

Post-traumatic stress disorder (PTSD) is a complex mental disorder that may develop in the aftermath of a traumatic event. PTSD is characterised by the occurrence of specific symptoms, including:

1. intrusions (recurrent and intrusive memories, nightmares, flashbacks and intense psychological distress occurring from contact with triggers related to the trauma);
2. avoidance (conscious evasion of thoughts, feelings, places, situations or people related to the traumatic experience);
3. negative changes in thinking and mood (persistent low mood, troubles experiencing positive emotions, feeling disconnected from others, low self-esteem and negative attitudes towards others and the world);
4. hyperarousal (irritability, outbursts of anger, hypervigilance, exaggerated startle response and difficulty sleeping).

To diagnose PTSD, the above symptoms must be present for at least a month and must significantly impact a patient's functioning in social life, work, and other key areas [1].

The diagnosis and treatment of tumours can be significant sources of psychological trauma, with the potential of leading to PTSD [2]. The observed increase in the number of cancer cases in the general public [3] translates into a larger number of people potentially at risk of developing the disorder. Additionally, advances in oncological treatment contribute to longer patient survival, posing new challenges in the area of long-term somatic and psychological care. Therefore, it is necessary to better understand the mechanisms contributing to the development of PTSD in this specific patient group and to develop effective strategies for preventing and treating the disorder.

The article examines the relationship between trauma from tumour diagnosis and treatment, and the development of PTSD in adult patients. This article attempts to identify the specific aspects of the diagnostic process and cancer treatment that can increase the risk of developing PTSD. Also discussed are key risk factors, patients' abilities to cope with the illness and the effectiveness of preventive and therapeutic strategies used to prevent and treat PTSD in patients with tumours. This article pays particular attention to recommendations for diagnostics and treatment.

The study of PTSD in oncological contexts is crucial from both practical and theoretical perspectives. Understanding the complex relationships between traumatic experiences in oncology and the occurrence of PTSD is essential for developing comprehensive care for oncology patients, which should combine somatic treatment with appropriate psychological support. The purpose of the article is to present the current state of knowledge on the topic and to highlight key directions for further research and practical implications in healthcare.

Trauma in the context of neoplastic disease

Oncological trauma is a specific form of traumatic experience, differing from the classical understanding of trauma as a single and sudden life-threatening event [4]. According to contemporary definitions, trauma is an experience that exceeds the adaptive capacity of an individual, leading to profound disruptions in mental and social functioning [5]. Trauma associated with neoplastic disease is unique in several key ways. Most notably, this trauma is chronic, because it is not limited to the moment of diagnosis but instead lasts throughout treatment, often continuing beyond its completion [6]. It is also characterised by a feeling of uncertainty about the future and a loss of control over everyday life, which significantly affects patients' sense of security. In the case of oncology, trauma has both psychological and physical roots, making it exceptionally complex [7, 8].

The diagnosis of a tumour often constitutes a crucial moment in patients' lives and leads to profound changes in their perception of themselves and the world around them. In psychological aspects, the diagnosis serves as a confrontation with one's own mortality, disrupts the sense of safety and challenges the individual's previous understanding of life. Research emphasises that the way in which a diagnosis is communicated plays a key role in the patient's experience. A lack of empathy and sensitivity in communication may intensify the traumatic nature of this moment [9, 10]. Psychological reactions to diagnosis and oncological treatment are diverse and change over time. Initially, patients often experience intense emotions, such as shock, denial, disbelief, anger, and fear. As time passes, these emotions may evolve into chronic tension, symptoms of depression or emotional numbing, which is a characteristic reaction to traumatic experiences [11, 12]. In the first few weeks after diagnosis, around 30-40% of patients report clinically significant symptoms of anxiety or depression, which can affect their ability to adapt to the illness [13, 14].

Oncological treatment is also a source of potentially traumatic experiences. Procedures such as surgery, chemotherapy or radiotherapy are inherently associated with intense stress, pain, and side effects, all of which significantly affect patients' quality of life. Physical changes such as hair loss or other aspects related to appearance may lead to lowered self-esteem and body image disturbances [15]. Furthermore, a prolonged hospital stay as well as the need to make difficult therapeutic decisions may further intensify the sense of losing control over one's life. Traumatic experiences associated with treatment may be exacerbated by secondary traumatisation, resulting from factors such as coping with relapses, chronic fatigue, or side effects of therapy. Many patients develop Damocles syndrome — a chronic fear of cancer recurrence — which may persist for years, even after finishing treatment [16].

Academic research confirms that the response to medical trauma in the context of neoplastic disease can take various forms. Some patients develop acute stress disorder (ASD), which can lead to post-traumatic stress disorder (PTSD) [17].

PTSD in oncology patients

The prevalence of PTSD among oncology patients constitutes a relevant topic in current academic research. According to the latest estimates, the frequency of PTSD cases in this group ranges from 10% to 50% [2, 18–20]. Research results show that neoplastic disease may be perceived as traumatic by some patients; however, this perception does not apply to all those battling cancer. The prevalence of PTSD varies depending on the type of cancer and the diagnostic tools used. Additionally, empirical data suggest that clinically significant symptoms of PTSD may appear at different stages of the neoplastic disease's course [2].

Specific characteristics of PTSD in the context of cancer

Post-traumatic stress disorder associated with neoplastic diseases is distinguished from classic PTSD by several unique characteristics. In this context, trauma is an ongoing process rather than a past, discrete event. The threat is not a one-time occurrence, but a constant one – patients must cope with the potential of relapse and further stages of treatment. In addition, the source of trauma in cancer is internal, inherent in the body, which contrasts with external sources of trauma, such as accidents or natural disasters [21].

Symptoms of PTSD in this group of patients are characterised by a specific clinical profile. Anxiety is mainly focused on the future – the fear of a relapse – and the traumatic memories consist of the moment of diagnosis or the particularly difficult stages of treatment. Patients may experience hypervigilance towards somatic symptoms, which can further increase their stress. Particularly important from a clinical perspective is the nature of the stimuli that trigger anxious reactions – these are usually elements integral to the treatment process and clinical monitoring, such as odours characteristic of the hospital environment or the sight of medical equipment. Avoidance behaviours may also manifest in the refusal to attend follow-up visits or undergo diagnostic tests. Also distinctive are triggering periods, such as the anniversary date of the diagnosis or the period of awaiting test results, during which PTSD symptoms may intensify [22].

An important aspect is the co-occurrence of PTSD with the physical symptoms of the illness, as well as the side effects of treatment. Somatic symptoms, such as chronic fatigue or pain, may add to the psychological reactions related to PTSD, which can complicate the distinction of normal emotional reactions from pathological ones [23, 24].

The emotional burden of the illness intensifies its physical effects. Cancer treatment frequently leads to changes in appearance, including hair loss and surgical scars, all of which can cause body image disturbances and a sense of loss of control of one's life [25, 26]. The treatment process is associated with invasive procedures such as chemotherapy, radiotherapy, or surgical operations, which can be significant sources of stress. During these procedures, patients often report feelings of helplessness, fear, and emotional distress, which can further complicate their psychological state [27].

Supplementing quantitative data with qualitative research findings allows for a deeper understanding of the subjective experiences of oncology patients exhibiting PTSD symptoms. In a study by Hampton and Frombach [33], women who had undergone cancer treatment described the illness experience as “a constant presence of death” and “a loss of self.” One participant stated: “I wasn’t afraid of dying – I was afraid of who I had become because of the illness.” Miller [10], in her analysis of autobiographical graphic memoirs by female patients, described the “trauma of diagnosis” as a moment of “splitting of meaning,” in which the patient ceases to be a person and becomes a medical case. These accounts highlight the need to integrate narrative therapeutic approaches with standard cognitive-behavioural techniques, and to include issues of identity, body image, and emotional alienation in psychotherapeutic treatment.

Risk factors for the development of PTSD in oncology patients

The risk factors for the development of post-traumatic stress disorder in oncology patients are complex and multi-faceted. These factors can significantly impact the psychological and emotional health of individuals diagnosed with cancer.

Factors related to the disease and treatment

The first key factor is the type of cancer. Some tumours, such as pancreatic or lung cancer, are defined by their high mortality and aggressive progression, often triggering stronger emotional reactions or a sense of danger. Patients with less aggressive cancers, such as prostate cancer, report lower levels of anxiety and stress [28, 29].

The second key element is the stage of the disease at the moment of diagnosis. Patients in an advanced stage of the disease, specifically in stage IV, frequently experience a stronger sense of defencelessness and greater emotional distress. Research shows that those diagnosed in later stages more commonly report severe symptoms of anxiety and depression [30, 31].

The type of treatment is another relevant factor. Chemotherapy, radiotherapy, and surgical procedures may cause various mental burdens, specifically in the case of invasive procedures or those that cause side effects. Adjuvant chemotherapy causes more psychological difficulty than radiotherapy alone in the 13 months following a mastectomy [32]. Patients who only underwent surgical operations have lower recorded levels of depression, anxiety, and post-traumatic stress than those who underwent surgery and chemotherapy or surgery combined with radiotherapy [27]. The intensity and frequency of treatment play a key role in the patients’ experiences – aggressive therapeutic regimens, demanding and long-term hospitalisations, and constant medical procedures significantly increase both physical and emotional burden [33].

Psychological factors

The occurrence of existing mental disorders, such as anxiety or depressive episodes, is an important prognostic factor, which increases the risk of developing PTSD in oncology patients. Psychological predispositions present before a cancer diagnosis can significantly increase susceptibility to negative emotional reactions, especially in response to stressors related to diagnostic and therapeutic processes [34, 35].

Personality traits also play an essential role in the susceptibility to developing PTSD. Individuals with an elevated level of neuroticism show a greater tendency to experience negative emotions such as anxiety or anger, which makes them more prone to stress and adaptive difficulties [36, 37]. In turn, characteristics such as mental resilience, optimism, or the ability to constructively cope in emergency situations may have a protective effect, reducing the risk of PTSD [38, 39].

Strategies of dealing with stress

The type of strategy used in coping with stress significantly influences patients' psychological results. Adaptive strategies, such as actively resolving problems, seeking social support, or effectively processing emotions are associated with better mental functioning and a lower risk of PTSD development. In contrast, nonadaptive strategies – such as avoidance, denial, or displacement – may increase distress and the susceptibility to developing mental disorders [40, 41]. Test results indicate that patients who actively engage with coping methods promoting emotional processing and social engagement are less prone to developing PTSD compared to those who adopt avoidance strategies. Social support plays a key role in the process of adaptation to cancer, contributing to reducing the feeling of isolation and lowering the level of emotional stress associated with oncological diagnosis and treatment [42].

Socio-demographic factors

Age is a major socio-demographic factor impacting the risk of PTSD occurrences. Research shows that younger oncology patients are more likely to develop PTSD than older individuals [18, 43, 44]. Young patients often need to face disruptions in their life plans, including education, careers, or starting a family. Additionally, they experience greater financial instability due to interruptions in their professional work and family responsibilities, which can increase feelings of helplessness and anxiety. In contrast, older patients typically possess greater life experience and effective coping strategies, which may protect against the development of PTSD. That said, older patients face different challenges, such as the co-occurrence of chronic diseases, which may affect their mental burden, but not necessarily lead to PTSD.

Research indicates significant gender differences in the risk of developing PTSD among oncology patients. Women are more prone to developing PTSD after a cancer diagnosis [33, 45]. This increased susceptibility in women may result from various factors, such as biological differences in regulating emotions, a greater tendency to process emotions reflectively, and differences in social support networks and cultural expectations related to gender roles. Additionally, women may feel the impact of treatment on their body image and sense of femininity more strongly, especially in the case of therapies that alter physical appearance, such as mastectomy, hair loss, or post-surgical scars. These changes may lead to body image disturbances and a loss of gender identity, which increases the risk of PTSD in this group. In turn, men frequently avoid expressing emotions and seeking social support, which may lead to hidden and destructive psychological reactions, such as emotional isolation or somatic disorders.

Socioeconomic status (SES)

People of lower socioeconomic status often experience additional stressors, such as financial instability, difficulties accessing healthcare, and limited social support. Financial barriers may impede patients' access to medical and psychological services, which can deepen their mental distress [46]. Furthermore, limited resources may prevent patients from coping with the emotional and physical burdens resulting from their disease and treatment. These struggles affect both everyday challenges, such as family care, and more complex problems, including making difficult therapeutic decisions in the face of limited access to modern therapies. Patients of lower socioeconomic status also frequently experience difficulties accessing psychological support, which hinders their ability to cope with traumatic events related to cancer [2].

The following original model presents risk factors for developing PTSD, created based on relevant literature.

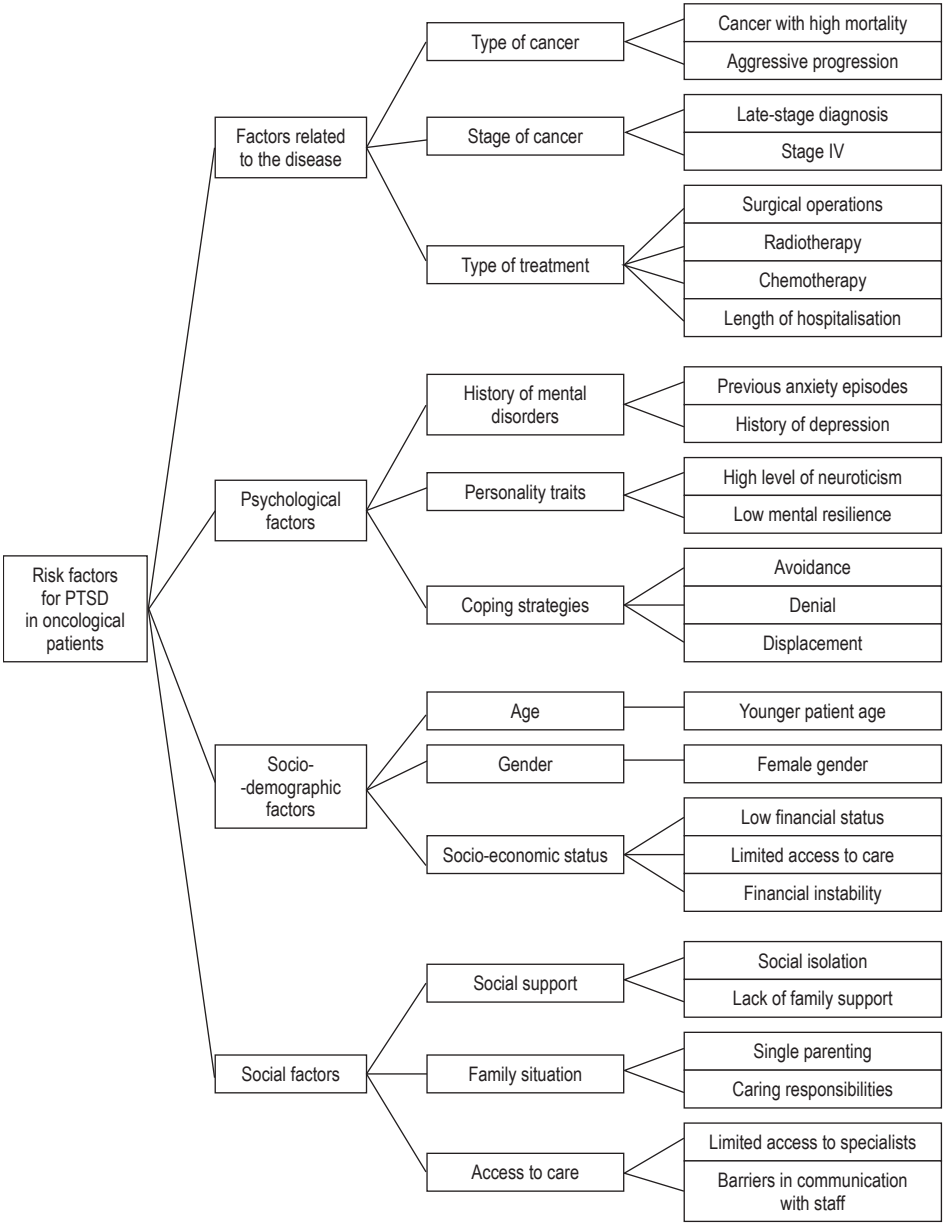


Figure 1. Conceptual model: Risk factors for the development of PTSD

Diagnostic methods and screening tools

Diagnosing PTSD in this patient group is a complex process and is based on three main pillars. The first pillar consists of structured clinical interviews, which form the foundation of the psychological assessment. These interviews, conducted by qualified professionals, enable the collection of detailed data regarding patients' traumatic experiences, their impact on mental functioning, and the emotional context accompanying diagnosis and treatment. This enables the accurate identification of PTSD symptoms and the development of an appropriate therapeutic intervention [47].

The second diagnostic element incorporates self-assessment questionnaires, which patients fill out on their own. These tools allow patients to express their subjective experience of symptoms, which provides additional information about their well-being and the impact of trauma on their everyday lives. They are especially helpful in monitoring changes in patients' mental state during and after treatment. These questionnaires also assist in assessing the effectiveness of the implemented therapeutic interventions [48, 49].

The third diagnostic pillar consists of clinical assessment scales used by specialists. They allow for an objective assessment of the severity of PTSD symptoms as well as their classification based on standardised criteria. These scales are particularly helpful in the context of planning therapy, assessing treatment progress, and verifying the effectiveness of various therapeutic approaches. Their quantitative nature makes them an indispensable tool in scientific research and clinical practice [50].

The comprehensive use of these diagnostic methods allows for assembling a complete clinical picture of the patient, which is necessary for the effective management of the therapeutic process. In the context of oncology patients, diagnosing PTSD and monitoring its symptoms are foundations for psycho-oncological care, directly affecting the quality of life of patients as well as their ability to adapt to disease-related challenges.

Listed below are the most commonly used tools in oncology.

Overview of the main diagnostic tools

The **PCL-5** (PTSD Checklist for DSM-5) is a 20-item self-report questionnaire designed to assess PTSD symptoms according to the DSM-5 criteria. This instrument enables respondents to rate the severity of each PTSD symptom experienced over the past month on a scale from 0 (none) to 4 (severe). The PCL-5 is widely used to assess symptom changes during treatment, to screen for PTSD, and to support the diagnostic process. The total score ranges from 0 to 80, and a result over 31-33 suggests the presence of PTSD; however, the exact cutoff points may vary depending on the population and purpose of the study. This tool is widely used in oncology [51, 52].

The **IES-R** is a 22-item self-report questionnaire that assesses subjective distress related to a traumatic event. It consists of three subscales: intrusion (intrusive thoughts and memories), avoidance (actively avoiding thoughts or situations related to the trauma), and hyperarousal

(hypervigilance, irritability). This tool allows respondents to rate their PTSD symptoms over the past week on a scale from 0 (not at all) to 4 (extremely). The IES-R is widely used in PTSD research, including in cancer patients, providing valuable information on psychological reactions towards diagnosis and treatment [53].

The **Distress Thermometer** (DT) is a screening tool developed by the National Comprehensive Cancer Network (NCCN) that is used to rapidly assess the distress level of cancer patients. This tool is simple to use and consists of a visual analogue scale in the form of a thermometer on which patients subjectively rate their level of distress on a scale from 0 (no distress) to 10 (extreme distress). In addition to the scale, DT also includes a list of potential issues contributing to distress, such as practical, family, emotional, spiritual, and physical issues. This comprehensive approach allows for the identification of a wide range of factors that may influence patients' well-being. Although this tool is not specifically designed for diagnosing PTSD, it serves as an indicator of the need for further and more detailed psychological evaluation, including a target PTSD diagnostic test [54]. In this context of oncology patients, the DT tool may be used as a first initial screening tool, indicating the need for further diagnosis using more specialised tools, such as the PCL-5 or IES-R, which assess the severity of PTSD symptoms.

The most commonly used therapeutic strategies for treating PTSD in oncology patients

Cognitive behavioural therapy (CBT) is one of the most researched and effective methods of treating PTSD. It focuses on modifying negative thoughts and behaviours related to trauma. Therapy frequently includes exposure techniques, cognitive restructuring, and coping strategies that are tailored to the unique experiences of oncology patients. Studies have shown that early CBT intervention with exposure components reduces PTSD symptoms in patients with head and neck cancer even after 12 months of therapy [55, 56].

Eye Movement Desensitisation and Reprocessing (EMDR) is another evidence-based therapy that has shown promise in treating PTSD. EMDR therapy is based on the premise that traumatic memories can become “frozen” in the nervous system along with their original perceptions, emotions, and beliefs. During a session, the therapist guides patients through a series of bilateral (two-sided) simulations, most often using eye movements, although sound or tactile stimulation can also be employed. EMDR is also used in treating PTSD in cancer patients, and its effectiveness has been confirmed by numerous scientific studies [57–60].

Pharmacotherapy for PTSD in oncology patients includes widely used serotonin and norepinephrine reuptake inhibitors (SSRIs and SNRIs), which effectively alleviate symptoms of chronic anxiety. However, it is important to note that pharmacotherapy in this group requires particular caution due to potential drug interactions [61].

Mindfulness-based interventions as well as stress management techniques have also shown positive effects on reducing hyperarousal and avoidance symptoms. Bränström and colleagues [62] indicated that the use of mindfulness can improve the overall psychological well-being of cancer patients, reducing the symptoms of post-traumatic stress.

Table 1. **Summary of Treatment Approaches**

Method	Efficacy	Clinical recommendations
CBT (with exposure)	High	Recommended for patients experiencing intrusive symptoms, anxiety, and avoidance
EMDR	High	Suitable for patients with difficulties verbalising emotions; effective in dissociative PTSD
Mindfulness (MBSR)	Moderate	Recommended during active treatment; supports daily functioning and emotional regulation

References: Kangas et al. [55]; Portigliatti Pomeri et al. [60]; Bränström et al. [62].

Differentiating PTSD: Considering the specifics of oncology

One of the challenges in diagnosing PTSD in oncological patients is differentiating PTSD symptoms from other adaptive disorders, as well as anxiety and depressive reactions that frequently co-occur in this patient group. In the context of oncology, it is crucial to take into account the natural adaptive responses related to the treatment process as well as individual risk factors, such as a history of previous traumatic experiences and mental disorders, young age, female gender, or low level of social support. Concerns such as fear of relapse or persistent anxiety symptoms are often adaptive reactions rather than symptoms of PTSD. Particular attention should be paid to the application of the DSM-5 diagnostic criteria, which state that intrusive and avoidance symptoms must be related to past traumatic events rather than to concerns about the future [55].

Recommendations for diagnostics

The guidelines of the international oncological and psycho-oncological societies emphasise the key role of a systematic and multi-stage diagnostic process for PTSD in oncology patients. This process should be initiated within the first few months following diagnosis and then repeated at critical moments, such as at the end of treatment or in the event of a relapse.

The diagnostic process for PTSD in oncology should be conducted in two stages:

1. **Screening stage** – includes the use of simple tools, such as the DT, which allow for the identification of patients with an increased level of distress requiring further assessment.

2. **In-depth clinical diagnosis stage** – following a positive screening result, detailed clinical interviews using the PCL-5 and IES-R are conducted.

Special attention should be paid to adapting diagnostic tools to meet the specific needs of cancer patients. It is worth adjusting the questionnaires and scales to the language, culture, and context of the patients to ensure their accuracy and usefulness in the oncology population. Cultural differences in assessing PTSD are key factors to consider, as the perception of trauma, distress, and coping with stress varies between cultural groups.

The diagnosis of PTSD in oncology patients should be interdisciplinary, involving specialists from various fields. Besides the psycho-oncologist and psychiatrist, the diagnostic process should also involve the lead oncologist providing treatment, as well as other specialists, depending on the patients' needs. This cooperation allows for a comprehensive assessment of the patient's condition, taking into account all factors affecting their mental state.

Integration of digital tools

Modern guidelines increasingly highlight the importance of integrating digital tools into the diagnosis of PTSD. Mobile applications, web platforms, and telemedicine systems can support the diagnostic process by providing quick and easy access to self-assessment tools and symptom monitoring. These solutions can be especially useful for the long-term monitoring of patients' conditions, particularly in situations where access to specialised psychological care is limited.

Monitoring symptoms over time

Recommendations indicate the need for systematic monitoring of the severity of PTSD symptoms over time, which facilitates the assessment of the effectiveness of the implemented therapeutic interventions. The use of the same diagnostic tools at specific time intervals allows for an objective assessment of treatment progress and adjustment of the therapeutic strategy.

Considering risk factors

During the diagnostic process, it is important to pay particular attention to the risk factors for developing PTSD, such as previous traumatic experiences, history of mental disorders, younger age, female gender, and a low level of social support. Early identification of these factors enables the implementation of preventative measures and better adjustment of therapeutic strategies to meet patients' needs.

Summary and conclusions

Post-traumatic stress disorder (PTSD) in the oncology population is a phenomenon of complex aetiology, resulting from interactions with biological, psychological, and social factors. The diagnosis of cancer alone is often regarded as a traumatic event. When combined with demanding and burdensome treatments, it can lead to the development of PTSD. The disorder affects not only patients' quality of life, but also their ability to effectively take part in the therapeutic process and adapt to the new living conditions. The aspects discussed in this research, such as risk factors, diagnostic methods, and therapeutic strategies highlight the need for developing a holistic approach to care for this patient group. Particularly important are the implementation of systematic diagnosis, interdisciplinary cooperation among specialists, and an individual therapeutic approach, adjusted towards the specific needs and circumstances of patients' lives.

Directions of future research

Despite the growing interest in PTSD in the context of the oncology population, there are many areas requiring further research. Firstly, understanding the biological foundations of PTSD in this patient group is crucial. The analysis of biomarkers such as cortisol levels, pro-inflammatory cytokines or structural changes in the brain may improve the identification of individuals especially vulnerable to developing disorders and facilitate the development of more targeted therapeutic interventions.

Secondly, there is a need for research on the cultural differences in the diagnosis and treatment of PTSD, which would consider the unique perceptions of trauma and the differing coping methods across various ethnic and social groups. This research could assist in the development of more targeted diagnostic tools and an individual therapeutic intervention.

Another key direction for research is the analysis of the effectiveness of digital tools in the diagnostic and therapeutic processes. Mobile applications, web platforms and AI-supported systems may represent the future of psycho-oncological care, particularly in regions with limited medical resources. Similarly, it is necessary to conduct research analysing their practical usefulness and influence on patients' treatment outcomes.

The long-term mental and somatic consequences of PTSD in oncology patients remain under-researched. It is worth deepening our understanding of the impact of PTSD on the course of oncological treatment, including adherence to medical recommendations, responses to therapy, and overall prognosis. Gaining this knowledge could enable the development of more comprehensive care programmes that address both the psychological and physical needs of patients.

In summary, further research on PTSD in the oncology population should focus on a better understanding of the mechanisms underlying the disorder, developing innovative diagnostic and therapeutic tools, and monitoring the long-term effectiveness of implemented strategies. Only by integrating clinical, technological, and scientific perspectives

can we achieve progress in the care of patients who are struggling with both cancer and the psychological effects of trauma.

Practical implications for psycho-oncologists

In light of the available evidence, it appears essential to implement specific clinical strategies that can be applied by psycho-oncology teams working with individuals experiencing PTSD following a cancer diagnosis. These strategies include:

- **the introduction of routine PTSD symptom screening** at critical points of the cancer trajectory (diagnosis, end of treatment, recurrence), using tools such as the PCL-5 or IES-R [51, 53];
- **ensuring access to short-term, trauma-focused cognitive-behavioural therapies**, which have demonstrated high efficacy in oncology patients [55];
- **sensitising medical teams to the importance of empathic communication**, particularly when delivering a diagnosis, as the quality of this moment can be a decisive factor in primary traumatisation [9, 10];
- **conducting psychoeducation** on possible posttraumatic responses and coping strategies, directed at both patients and their families [22].

Incorporating these elements into routine care may not only improve patients' quality of life but also enhance their adherence to cancer treatment and reduce the risk of premature treatment discontinuation.

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