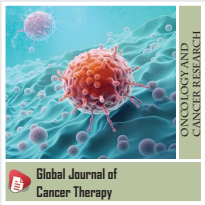
Peertechz



Global Journal of Cancer Therapy OPEN ACCESS JOURNAL

ISSN: 2581-5407 DOI: https://dx.doi.org/10.17352/gjct

Mini Review

The Impact of Positive Thinking on Disease Progression in Oncology Patients

Ivan Milosevic*

MD, ZZZR, Kragujevac, Serbia

Received: 05 January, 2026
Accepted: 12 January, 2026
Published: 13 January, 2026

***Corresponding author:** Ivan Milosevic, MD, ZZZR, Kragujevac, Serbia, Email: kragujevac73@yahoo.com

Keywords: Positive thinking; Cancer; Oncology patients; Psychosocial factors; Disease progression; Quality of life

https://www.cancerresgroup.us

Check for updates

Abstract

Cancer is a life-threatening disease that significantly affects both physical and psychological well-being. In recent decades, increasing attention has been directed toward psychosocial factors that may influence disease progression and patient outcomes. Positive thinking, optimism, and adaptive coping strategies have been proposed as potentially beneficial factors in oncology care. This article reviews current scientific evidence on the impact of positive thinking on disease progression, treatment adherence, immune function, and quality of life in cancer patients. The findings suggest that while positive thinking does not replace conventional oncological treatment, it may play an important supportive role in improving psychological resilience, reducing stress, and potentially influencing biological pathways related to disease outcomes.

Introduction

Cancer remains one of the leading causes of morbidity and mortality worldwide. Despite significant advances in diagnosis and treatment, cancer patients often experience substantial psychological distress, including anxiety, depression, and fear of disease progression. These psychological responses may negatively affect treatment adherence, immune function, and overall quality of life.

Positive thinking, defined as a cognitive and emotional orientation characterized by optimism, hope, and constructive coping strategies, has gained increasing attention as a complementary approach in oncology. The biopsychosocial model of health suggests that psychological factors interact with biological processes and social environments, potentially influencing disease outcomes. This article aims to examine the role of positive thinking in the course of disease among oncology patients and to assess its relevance for clinical practice.

Theoretical Background

The relationship between psychological well-being and physical health is supported by extensive research in psychoneuroimmunology. Chronic psychological stress has been shown to activate the hypothalamic–pituitary–adrenal (HPA) axis and the sympathetic nervous system, leading to increased secretion of stress hormones such as cortisol and catecholamines, which may suppress immune function.

Positive thinking and optimism may counteract these effects by promoting emotional regulation, enhancing coping abilities, and reducing perceived stress. According to the biopsychosocial model, these psychological processes may influence biological pathways involved in tumor progression, including inflammation, immune surveillance, and angiogenesis.

Impact of positive thinking on oncology patients

Psychological well-being and quality of life

Multiple studies indicate that oncology patients with a positive outlook report lower levels of emotional distress, reduced symptoms of depression and anxiety, and improved quality of life. Positive thinking has been associated with better emotional adjustment, stronger social relationships, and increased life satisfaction, even in patients with advanced or metastatic disease.

Citation: Milosevic I. The Impact of Positive Thinking on Disease Progression in Oncology Patients. Glob J Cancer Ther. 2026;12(1):001-003. Available from: https://dx.doi.org/10.17352/2581-5407.000055

Treatment adherence and health-related behaviors

Optimistic patients are more likely to actively participate in their treatment, adhere to prescribed therapies, attend medical appointments, and adopt healthier lifestyle behaviors. Improved adherence and health behaviors may indirectly contribute to better treatment outcomes and disease management.

Immune function and biological mechanisms

Emerging evidence suggests that positive emotional states may influence immune parameters relevant to cancer progression, such as natural killer cell activity and inflammatory cytokine levels. Although results across studies are not fully consistent, reduced psychological stress and enhanced optimism appear to support immune regulation and may contribute to slower disease progression in some patient populations.

Limitations and controversies

Despite growing interest in positive psychology within oncology, the role of positive thinking in cancer progression remains controversial. Some authors caution against overstating its effects, emphasizing that cancer outcomes are primarily determined by biological and medical factors. Excessive emphasis on positivity may also lead to feelings of guilt or self-blame in patients who experience emotional distress.

Methodological limitations, including small sample sizes, heterogeneous patient populations, and reliance on self-reported psychological measures, further complicate interpretation of existing findings. Therefore, positive thinking should be viewed as a supportive, rather than curative, factor in oncology care.

Clinical implications

Integrating psychosocial interventions that promote positive coping strategies may provide meaningful benefits for cancer patients. Evidence-based approaches such as cognitive-behavioral therapy, psycho-oncological counseling, mindfulness-based stress reduction, and supportive group therapy can help patients cultivate realistic optimism while acknowledging emotional challenges.

Healthcare professionals should encourage balanced psychological support, emphasizing emotional validation, adaptive coping, and patient-centered care alongside standard oncological treatment.

Discussion

The findings discussed in this review support the growing recognition that psychological factors, including positive thinking and optimism, play a meaningful supportive role in oncology care. While the direct causal influence of positive thinking on tumor biology remains difficult to establish, accumulating evidence suggests that its effects on emotional regulation, stress reduction, and adaptive coping may indirectly shape disease trajectories through behavioral and biological pathways.

One important aspect emerging from the literature is the distinction between *realistic optimism* and forced positivity. Adaptive positive thinking allows patients to acknowledge the seriousness of their diagnosis while maintaining hope and a sense of agency. This balanced perspective appears to be particularly relevant in advanced cancer stages, where psychological resilience can significantly affect quality of life, symptom burden, and engagement with palliative or supportive care. In contrast, unrealistic or externally imposed positivity may contribute to emotional suppression and increased psychological distress, highlighting the importance of individualized psychosocial support.

From a biological standpoint, psychoneuroimmunological models provide a plausible framework for understanding how positive emotional states may influence cancer-related processes. Reduced activation of the HPA axis and sympathetic nervous system may lead to lower chronic inflammation, improved immune surveillance, and more favorable neuroendocrine profiles. Although current evidence does not conclusively demonstrate survival benefits attributable solely to positive thinking, these mechanisms suggest potential pathways through which psychological well-being may interact with disease progression, particularly in conjunction with standard oncological treatments.

The relationship between positive thinking and treatment adherence also deserves emphasis. Patients who maintain hope and optimism are more likely to engage actively in their care, communicate effectively with healthcare providers, and persist with demanding treatment regimens. These behavioral factors, while indirect, are clinically significant and may contribute to improved symptom control, reduced treatment interruptions, and enhanced patient satisfaction with care.

Nevertheless, the existing body of research is marked by important limitations. Variability in study designs, cancer types, disease stages, and psychological assessment tools makes it challenging to draw definitive conclusions. Moreover, the ethical implications of emphasizing psychological factors in cancer outcomes must be carefully considered. Framing positive thinking as a determinant of survival risks inadvertently placing responsibility on patients for disease progression, which may exacerbate feelings of guilt or inadequacy. Future research should therefore adopt nuanced, ethically sensitive approaches that emphasize support rather than obligation.

In this context, multidisciplinary oncology care offers a valuable framework for integrating psychological interventions without overstating their effects. Psycho-oncological services can help patients develop adaptive coping strategies, process emotional distress, and find meaning despite illness-related uncertainty. Such interventions align with patient-centered care models and may enhance overall well-being regardless of their direct impact on disease progression.

Finally, future studies should prioritize longitudinal designs, standardized psychological measures, and biological endpoints to clarify the mechanisms linking positive thinking and cancer outcomes. Investigating interactions between psychological interventions and emerging treatments, such as

Citation: Milosevic I. The Impact of Positive Thinking on Disease Progression in Oncology Patients. Glob J CJ1ancer Ther. 2026;12(1):001-003. Available from: https://dx.doi.org/10.17352/2581-5407.000055

immunotherapy, may be particularly promising. Understanding how psychosocial factors influence immune modulation could open new avenues for integrative cancer care.

Conclusion

Positive thinking may play a supportive role in the management of oncology patients by improving psychological well-being, enhancing treatment adherence, and potentially influencing biological mechanisms related to disease progression. While it cannot replace evidence-based medical therapies, fostering a positive mental attitude within a comprehensive, multidisciplinary treatment approach may contribute to improved overall outcomes. Further large-scale, longitudinal studies are needed to clarify the extent and mechanisms of these effects.

References

1. Silver JK, Baima J. Cancer prehabilitation: an opportunity to decrease treatment-related morbidity, increase cancer treatment options, and improve physical and psychological health outcomes. Am J Phys Med Rehabil. 2013;92:715–727. Available from: https://doi.org/10.1097/phm.0b013e31829b4afe
2. Chen Y, Ahmad M. Effectiveness of adjunct psychotherapy for cancer treatment: a review. Future Oncol. 2018;14:1487–1496. Available from: https://doi.org/10.2217/fon-2017-0671
3. Faller H, Schuler M, Richard M, Heckl U, Weis J, Küffner R. Effects of psycho-oncologic interventions on emotional distress and quality of life in adult patients with cancer: systematic review and meta-analysis. J Clin Oncol. 2013;31:782–793. Available from: https://doi.org/10.1200/jco.2011.40.8922
4. De Mol M, Visser S, Aerts J, Lodder P, Van Walree N, Belderbos H, Den Oudsten B. The association of depressive symptoms, personality traits, and sociodemographic factors with health-related quality of life and quality of life in patients with advanced-stage lung cancer: an observational multicenter cohort study. BMC Cancer. 2020;20:431. Available from: https://doi.org/10.1186/s12885-020-06823-3
5. Breitbart W, Pessin H, Rosenfeld B, Applebaum AJ, Lichtenthal WG, Li Y, et al. Individual meaning-centered psychotherapy for the treatment of psychological and existential distress: a randomized controlled trial in patients with advanced cancer. Cancer. 2018;124:3231–3239. Available from: https://doi.org/10.1002/cncr.31539
6. Wu Y, Pan J, Lu Y, Chao J, Yu H. Psychotherapy for advanced cancer patients: a meta-analysis of the quality of life and survival assessments. Palliat Support Care. 2023;21:301–307. Available from: https://doi.org/10.1017/s1478951522000694
7. Antoni MH, Lutgendorf SK, Cole SW, et al. The influence of biobehavioral factors on tumour biology: pathways and mechanisms. Nat Rev Cancer. 2006;6(3):240–248. Available from: https://doi.org/10.1038/nrc1820
8. Carver CS, Scheier MF, Segerstrom SC. Optimism. Clin Psychol Rev. 2010;30(7):879–889. Available from: https://doi.org/10.1016/j.cpr.2010.01.006
9. Chida Y, Hamer M, Wardle J, Steptoe A. Do stress-related psychosocial factors contribute to cancer incidence and survival? Nat Clin Pract Oncol. 2008;5(8):466–475. Available from: https://doi.org/10.1038/ncponc1134
10. Coyne JC, Tennen H, Ranchor AV. Positive psychology in cancer care: bad science, exaggerated claims, and unproven interventions. Ann Behav Med. 2010;39(1):16–26. Available from: https://doi.org/10.1007/s12160-009-9154-z
11. Faller H, Schuler M, Richard M, et al. Effects of psycho-oncologic interventions on emotional distress and quality of life in adult patients with cancer: systematic review and meta-analysis. J Clin Oncol. 2013;31(6):782–793. Available from: https://doi.org/10.1200/JCO.2011.40.8922
12. Garssen B, Goodkin K. On the role of immunological factors as mediators between psychosocial factors and cancer progression. Psychiatry Res. 1999;85(1):51–61. Available from: https://doi.org/10.1016/s0165-1781(99)00008-6
13. Lutgendorf SK, Andersen BL. Biobehavioral approaches to cancer progression and survival: mechanisms and interventions. Am Psychol. 2015;70(2):186–197. Available from: https://doi.org/10.1037/a0035730
14. Spiegel D, Bloom JR, Kraemer HC, Gottheil E. Effect of psychosocial treatment on survival of patients with metastatic breast cancer. Lancet. 1989;334(8668):888–891. Available from: https://doi.org/10.1016/S0140-6736(89)91551-1
15. Stanton AL, Luecken LJ, MacKinnon DP, Thompson EH. Mechanisms in psychosocial interventions for adults living with cancer. J Consult Clin Psychol. 2013;81(2):318–335. Available from: https://doi.org/10.1037/a0032131

Citation: Milosevic I. The Impact of Positive Thinking on Disease Progression in Oncology Patients. Glob J CJ1ancer Ther. 2026;12(1):001-003. Available from: https://dx.doi.org/10.17352/2581-5407.000055