

Cancer-Related Quality of Life: A Narrative Review of Emotional and Psychological Factors Across Treatment and Recovery

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Abstract

The diagnosis and treatment of cancer can be psychologically and emotionally challenging for the patient, affecting their Quality of Life (QoL). There have been several studies conducted on psychosocial factors but these studies have not come together in a cohesive manner that maps the psychosocial factors through the clinical timeline. This review demonstrates these points and presents a synthesis and evaluation of the pertinent literature relating to treatment and recovery from cancer. The study was conducted systematically and various electronic databases, namely PubMed and Google Scholar, were exploited. The synthesis developed is based on the Transactional Model of Stress and Coping proposed by Lazarus and Folkman. The thematic analysis comprised three stages, which are diagnosis (acute anxiety, diagnostic shock, uncertainty, existential distress and initial coping), active treatment (side effects, body image disturbance, social isolation, fatigue and financial toxicity) and recovery/survivorship (fear of recurrence, post-traumatic growth, adjustment and long-term effects). Coping responses, social support, financial distress and spiritual health were all important throughout the process. The results highlight the dynamism of the psychological distress process and the need for psychosocial interventions at each stage. A psychological screening should be part of the routine at each phase of cancer treatment. Further studies need to be conducted to support the proposed phase-based model mentioned in this paper utilizing longitudinal mixed-methods methodologies.

Keywords: Cancer, quality of life, psychological distress, psychosocial factors, coping strategies, survivorship

1. Introduction

Cancer still stands out to be one of the primary causes of illness and death all over the world and millions of cases of cancer are registered every year [1]. Even though significant advancements have been achieved in dealing with the disease through timely diagnosis, surgery, and effective interventions against it, cancer is still an experience that is not only related to physical processes. The journey of cancer patients involves many psychological and emotional challenges that significantly influence the quality of life of patients [2]. Quality of life (QoL) is one of the important outcomes measured in the process of cancer treatment and research. The World Health Organization [3] describes QoL as the patient's own understanding of their life based on their set of values, culture, aims, and expectations. Cancer impacts are on physical, psychological, social, and functional dimensions of QoL [4].

Cancer diagnosis and treatment are frequently accompanied by psychological distress. Anxiety and depression, fear of recurrence, existential issues and body image disorders are common side effects for patients [5,6]. Emotional responses will last through treatment and into the survivorship period [7]. More importantly, psychological distress consistently has been associated with reduced QoL outcomes, reduced treatment adherence, and even mortality [8,9]. The emotional world of cancer is ever-changing. Patients experience a variety of moods at different times: first, shock at diagnosis, followed by the physical and emotional burden of active treatment (chemotherapy, radiotherapy, surgery), and the complexities of survivorship or palliative treatment [10]. Psychological demands and coping strategies during each phase have a distinct effect on QoL.

Many psychosocial factors have been identified that influence the patient's QoL in cancer. These factors include intrapersonal (coping style, resilience, self-efficacy, and prior mental health issues [11,12]); interpersonal (family, friend and caregiver social support; marital status; and quality of interpersonal relationships [8,16]); treatment-related (treatment modality, burden of side-effects, severity of symptoms, and extent of hospitalization [15,16]); socioeconomic (financial toxicity, employment, insurance status and access to care [17,18]); and spiritual and existential (meaning making, spiritual wellbeing and acceptance of mortality [19,20]). The detection and control of these parameters are comparable to some other domains such as food safety, where molecular detection and data-handling tools have been employed to reduce food safety risks [31,32]. Although there is growing research on the subject, there is a lack of integration across disciplines, and some psychological and social literature remains isolated. There is currently no comprehensive synthesis that maps how these varied determinants span the treatment-recovery continuum.

1.1 Aim and Objectives

This is a narrative review aimed at summarising and critically evaluating the published literature on emotional and psychological aspects of cancer treatment and recovery and the Quality of Life (QOL) that is important to people. Specific objectives include: (1) identify and categorize the most important emotional/psychological determinants of the cancer patient's QOL; (2) explore the nature of these determinants across the various stages of the cancer experience (diagnosis, treatment, recovery, survivorship); (3) examine existing theoretical and empirical evidence on the relationship between psychosocial determinants and cancer patient QOL outcomes; and (4) determine any gaps in the existing body of knowledge and suggest directions for future research and practice

2. Methodology

2.1 Study Design

This manuscript presents a narrative review of the existing literature. As a result of the complex and subjectively interpreted nature of the emotional and psychological experiences of oncology, a narrative synthesis rather than a systematic review or meta-analysis was selected. The narrative review method is especially appropriate for exploring more complex, multidimensional areas of research like psychological well-being and QoL, where the nuances of context and theory interpretation are crucial [8].

2.2 Theoretical Underpinning

The Transactional Model of Stress and Coping (Lazarus and Folkman, 1984) [5] is conceptually used as an interpretative framework for this narrative review. According to this theory, a person's QoL is not a direct consequence of the stressor, that is, the cancer diagnosis and treatment itself, but rather is a result of dynamic cognitive appraisal processes and the subsequent emotional regulation.

The model consists of three main components. Primary appraisal is the person's assessment of whether the cancer experience is a threat, harm, loss, or challenge. Secondary appraisal requires an evaluation of one's coping resources and coping options. Coping refers to cognition and behaviors used to deal with an external or internal demand that is appraised as demanding or challenging to the person. A theoretical lens was used to analyze the extracted literature critically and to synthesize the interrelationships between psychological states, coping mechanisms, and QoL outcomes throughout the treatment and recovery process. The Transactional Model offers a solid underpinning for the understanding of how appraisal and coping responses to similar clinical presentations may lead to vastly different QoL outcomes for patients.

2.3 Search Strategy

The systematic search was conducted through the databases of PubMed/MEDLINE, Scopus, and Google Scholar. Using a combination of keywords and Boolean operators, the search strategy was as follows: (cancer or oncology or neoplasm or malignancy) AND (quality of life or QoL or well-being or psychosocial or emotional or psychological or distress or depression or anxiety or fear or resilience or coping or adaptation) AND (treatment or chemotherapy or radiotherapy or surgery or recovery or survivorship).

2.4 Inclusion and Exclusion Criteria

The articles were selected according to certain criteria for inclusion and exclusion, as indicated in Table 1.

Table 1: Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Population	Patients older than 18 years with any form of cancer were included	Pediatric populations (<18 years)
Focus	Emotional and psychological factors as determinants of QoL	Only physical symptoms/biomedical outcomes, with no psychological connections

Article Type	Original research, review articles, and theoretical papers that are peer-reviewed	Conference abstracts, editorials, opinion pieces, case reports
Language	English	Non-English
Timeframe	Papers published between 2000 and 2026	Papers published before 2000
Availability	Full text available	Full text not available

2.5 Thematic Synthesis

As this review is narrative-based, no rigid protocol for exclusion and inclusion, such as PRISMA, was applied to articles. Instead, retrieved articles were evaluated on their relevance, theory building, and empirical soundness regarding the emotional and psychological influences on cancer-related QoL.

The thematic analysis approach, as described by Braun and Clarke (2006) [24], was adopted for the synthesis process. The author engaged in the iterative and close reading method on selected full texts to search for patterns, conflicting viewpoints, and theory convergences. Subsequently, the various themes were categorized according to their chronological and thematic context to embody the overall journey of a patient: Stage 1, which is being diagnosed and initial treatment, consisted of shock, confusion, and acute distress and initial coping; Stage 2, which is active treatment, consisted of treatment-related effects, body image problems, social isolation, and fatigue; and Stage 3, which is related to recovery and survivorship, included the themes of fear of relapse, post-traumatic development, the new normal, and long-term psychological effects. As a result, a narrative is developed that illustrates how the emotional experience changes in time.

2.6 Quality Appraisal

This narrative review was unlike systematic reviews because it was not conducted with a standardized checklist to assess the quality of the studies included. Rather, in the synthesis process, the scholarly quality, methodological soundness and theoretical contribution of the cited literature was critically assessed. Priority was placed on studies with a good methodological design, including longitudinal cohort studies, randomized controlled trials, and well-designed qualitative studies. Studies published in high-impact, peer-reviewed journals or with well-designed methodological studies such as longitudinal cohort studies, randomized controlled trials, and well-designed qualitative studies, were prioritized.

3. Thematic Findings

Synthesized literature was presented in the three phases of emotional and psychological experience within the cancer journey: (1) Diagnosis and Initial Treatment; (2) Active Treatment; and (3) Recovery and Survivorship. Each phase has specific psychological issues, coping requirements, and determinants of Quality of Life. Results are presented in chronological order to illustrate the emotional experiences throughout the clinical course.

Table 2: Summary of Main Psychosocial Determinants in All Phases

Determinant Category	Examples	Key References
Intrapersonal Factors	Self-efficacy, mental health status before coping, coping strategies, and resilience	[5,11,12]

Interpersonal Factors	Social support, relationship with family or caregiver, and marital status	[8,16]
Treatment-Related Factors	Morality, disease severity, hospitalisation rates	[15,21,22]
Socioeconomic Factors	The extent of financial toxicity, employment status, insurance coverage	[17-19]
Spiritual or Existential Factors	An appreciation for meaning, spiritual health, and the acceptance of death	[8,20]

Source: Author's own synthesis.

3.1 Phase 1: Diagnosis and Initial Treatment

The cancer diagnosis presents a significant psychological crisis and can evoke a wide range of emotions that can have a profound effect on the outcome of other quality of life issues. The diagnosis involves a lot of anxiety, fear, and disbelief as the patient strives to cope with death and the unknown future. This shock disrupts cognitive activity and decision-making, while clinically relevant anxiety has been reported in 30-40% of the patient population [9-13].

Apart from shock, patients have to deal with substantial uncertainty about the prognosis or life consequences, which has been repeatedly linked with a negative effect on QoL [8,15]. Many patients also experience existential distress, that is, questioning meanings, purposes, and mortality, and spiritual well-being is associated with better QoL outcomes [16-18].

The diagnostic phase represents primary appraisal, using Lazarus and Folkman's Transactional Model. Early coping responses (such as reactive problem solving and emotional avoidance) have a crucial role in shaping adjustment, with adaptive coping decreasing distress and avoidant coping increasing distress [5,19,20]. These factors work in a synergistic way; uncertainty can lead to existential distress, which can stimulate anxiety further, thereby increasing vulnerability which then carries over into treatment.

The main factors of this phase are summarized in Table 3.

Table 3: Summary of Key Factors in Phase 1 (Diagnosis)

Factor	Key Findings	References
Acute Anxiety and Diagnostic Shock	Highly anxious and overwhelmed in 30-40% of those patients; impacts the way the person thinks and makes decisions	[9-13]
Uncertainty and Fear of the Unknown	A factor that predicts psychological distress and poorer QoL is fear of consequences and quality of life	[8,15]
Existential and Spiritual Distress	Questioning of meaning, purpose, and mortality; spiritual well-being predicts better QoL	[16-18]
Initial Coping Responses	Active problem solving and emotional avoidance vs. adaptive coping and reduction in distress vs. avoidant coping and worsening outcomes	[5,19,20]

3.2 Phase 2: Active Treatment

Active treatment consists of surgery, chemotherapy, radiotherapy, or a combination of these treatments. Side effects of treatment, like pain, nausea, fatigue and immunosuppression, have direct effects on well-being, and the severity of side effects is related to psychological distress and subsequent effects on QoL [15,22]. These changes in the body, such as hair loss, weight loss or gain, scar tissue, and disfigurement, are deeply disturbing to body image and identity and can lead to depression, social withdrawal, and lower QoL [21-25].

Treatment demands require lifestyle changes, sometimes causing social isolation [28,29]. This social support is an important protective factor [8,16]. Fatigue is common in cancer patients (up to 90%), overwhelming, and is characterized by emotional exhaustion and diminished coping ability, despite rest [30]. Financial toxicity refers to the financial burden associated with treatment, such as the financial burden of missing treatments, anxiety, and reduced QOL [17-19]. Fatigue is a cumulative stressor that reduces social interaction and increases the feeling of isolation, which further increases depressive symptoms and this vicious circle reduces QOL. A summary of the most important psychological stresses identified in this stage is presented in Table 4.

Table 4: Summary of Key Factors in Phase 2 (Active Treatment)

Factor	Key Findings	References
Treatment-Related Side Effects	Pain, nausea, fatigue, immunosuppression; symptom severity predicts distress; cumulative burden reduces QoL	[21-23]
Body Image Disturbance	Hair loss, weight changes, scarring, disfigurement; associated with depression, social withdrawal, reduced QoL	[24-27]
Social Isolation and Relationship Strain	Lifestyle changes, reduced activities, caregiver dependence; perceived social support is protective	[8,16,28,29]
Fatigue and Emotional Exhaustion	Occurs in up to 90% of patients; profound, unpredictable fatigue results in emotional exhaustion.	[30]
Financial Toxicity	Medical expenses, lost income; associated with non-adherence, anxiety, poorer QoL	[17-19]

3.3 Phase 3: Recovery and Survivorship

The recovery or long-term survivorship phase is a unique psychological phase that can be both challenging and fulfilling. Though the physical symptoms may go away, emotional and psychological problems can endure and develop.

One of the most common and longstanding survivorship fears is recurrence, and anxiety about recurrence remains a common experience long after successful cancer treatment [14,15]. An increased sense of fear of recurrence is correlated with an increase in healthcare use, hypervigilance to bodily sensations, and a decrease in Quality of Life [30]. More social support and younger age at diagnosis are predictive of higher amounts of fear of recurrence [15].

Despite these challenges, many survivors have positive psychological changes, such as a greater appreciation of life, improved relationships, and a new sense of purpose [20]. This phenomenon is known as post-traumatic growth, a phenomenon of adaptation to stressors that can improve QoL [24]. Social support, positive coping, and meaning-making processes are associated with higher post-traumatic growth [22]. Importantly, psychological distress and PTG can coexist, highlighting the multifaceted and complex nature of survivorship [23].

Cancer survivors often report feeling like they have entered into a “new normal”, or a reconfigured identity and life path that includes the cancer journey [24]. The adjustment process includes revisiting personal and professional self, making new habits, and coping with the continued physical challenges [25]. Successful coping is related to improvements in QoL outcomes, while difficulty coping with changed circumstances is correlated with ongoing distress [8].

However, for some survivors, psychological issues can continue long after treatment. Many long-term survivors experience chronic anxiety, depression, and cognitive problems, sometimes referred to as “chemo brain” [26]. Also, survivors continue to have late effects of treatment such as secondary cancers and organ damage, which keeps them psychologically vulnerable [27]. There has been an increasing appreciation of the need for survivorship care that includes psychosocial long-term needs as part of a holistic approach to cancer management [28]. Hence, fear of recurrence and post-traumatic growth are two types of emotional duality that survivors undergo when dealing with cancer.

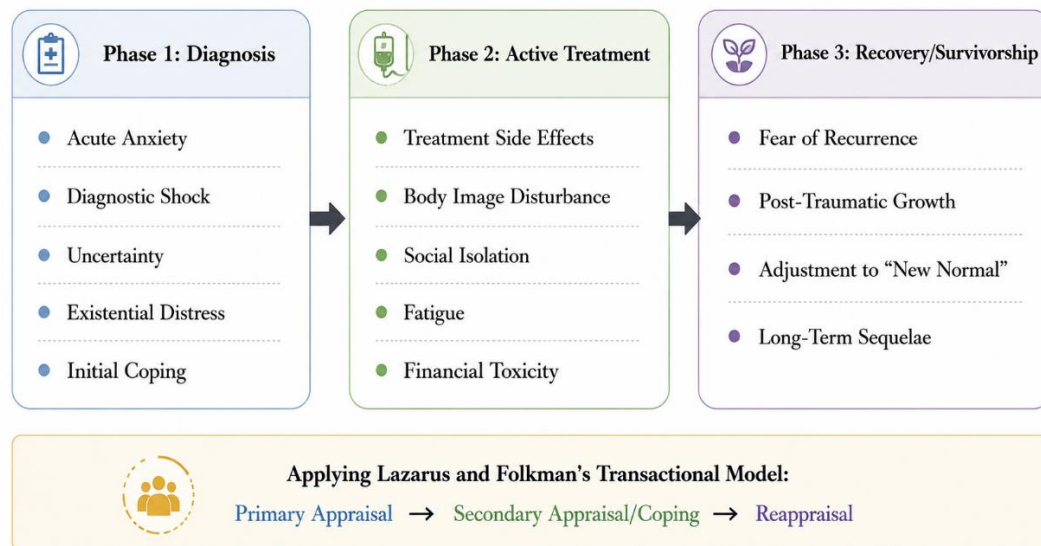
Table 5 highlights the factors determined in the recovery and survivorship phase.

Table 5: Summary of Key Factors in Phase 3 (Recovery and Survivorship)

Factor	Key Findings	References
Fear of Recurrence	Persistent anxiety about cancer returning years after treatment; associated with hypervigilance and reduced QoL	[14,15,30]
Post-Traumatic Growth	Positive psychological changes including renewed purpose and stronger relationships; coexists with distress	[20-23]
Adjustment to "New Normal"	Reconciling identity and life trajectory; successful adjustment linked to better QoL	[8,24,25]
Long-Term Psychological Sequelae	Chronic anxiety, depression, cognitive difficulties; ongoing survivorship care needed	[26-28]

Figure 1 illustrates the phase-based framework of emotional and psychological factors across the cancer trajectory.

Figure 1: Phase-Based Framework of Emotional and Psychological Factors Across the Cancer Trajectory



Source: Author's own synthesis based on reviewed literature.

4. Discussion

This narrative review compiled the current evidence on emotional and psychological influences on cancer-related Quality of Life during treatment and recovery. The results show that psychological distress is not static, but rather varies in its expression through three different phases: diagnosis, active treatment, and recovery/survivorship. Key findings are summarized, discussed within the theoretical framework of Lazarus and Folkman's Transactional Model, and clinical implications and limitations are explored.

4.1 Synthesis of Findings Across Phases

A thematic synthesis revealed common themes of emotional and psychological experiences along the cancer trajectory. The diagnostic phase was a time of severe crisis with shock, uncertainty, and existential distress [9,10]. The immediate post-diagnosis period can be one of the most psychologically challenging situations for cancer patients [11]. The active treatment phase showed a different pattern of distress, with themes including treatment-related side effects [15,22], body image disturbance [21,25], social isolation [8,22], and financial toxicity [18,19]. Cumulative burden gradually depletes psychological resources due to the continuous demands of the treatment [22]. Recovery and survivorship, however, showed more complicated emotional dynamics, including fear of recurrence and opportunities for post-traumatic growth and positive adaptation [14,20]. This phase tests the hypothesis that psychological distress clears up after treatment, which emphasizes the need for ongoing psychosocial support [28].

Throughout all phases, the importance of coping processes as determinants of QoL outcomes comes across as a key finding. Patients who used adaptive coping strategies (active problem solving, positive reframing and seeking social support) consistently reported higher QoL than patients using avoidant and disengaged

coping strategies [19,20]. This pattern was found for all three phases, indicating that coping mechanisms are a potentially modifiable determinant of QoL that can be targeted through psychosocial interventions.

4.2 Theoretical Interpretation

These findings have been explained by the framework of Lazarus and Folkman's Transactional Model of Stress and Coping [5]. The diagnostic phase could be interpreted as the initial appraisal phase where the patients look at the personal meaning and danger of their cancer diagnosis. These emotional reactions are related to the extent of the perceived threat: the greater the threat, the more intense the emotional reactions, with patients who appraise the diagnosis as catastrophic experiencing more emotional reactions [6]. The secondary appraisal and coping stage (active treatment) is when patients constantly evaluate their coping skills and employ coping strategies to address continual treatment demands. Fatigue, social isolation, and financial toxicity tend to emerge during this stage and can be seen as a depletion of coping resources, where coping is inadequate to meet the demands, leading to an increase in distress and reduced QoL [22]. The recovery and survivorship phase involves continuous appraisal and reappraisal; patients' lives have changed, and they need to adapt to these changes and learn new coping mechanisms. Fear of recurrence and post-traumatic growth co-occur, as do threat and opportunity in appraisal and coping processes, which are dynamic and iterative [5].

This theoretical perspective also provides an understanding of how elements of the individual can account for variability in QoL outcomes. Patients with similar clinical presentations can have different QoLs, depending on the manner in which they appraise the situation, how they cope and have to cope, and the support they receive in their social network [8]. This highlights the need for a psychosocial assessment and intervention for the individual.

4.3 Comparison with Existing Quality of Life Frameworks

The framework proposed in this review shares conceptual foundations with the existing QoL models, but provides unique advantages. The EORTC QLQ-C30 is a widely used tool in oncology that measures QoL in functional and symptom domains, but captures a one-time view of QoL. [6] While both Wilson and Cleary's models are related to biological factors and outcomes of QoL, the latter does not take into account of the temporal dynamics of distress [7]. While Ferrans' QoL Model focuses on subjective well-being, it does not indicate the relative importance of the determinants during different phases of treatment [8].

The current framework overcomes these limitations by grouping determinants in chronological order. This temporal perspective shows that intrapersonal factors (such as coping) are most critical at the time of diagnosis, socioeconomic factors (such as financial toxicity) are most important during active treatment, and spiritual factors (such as meaning-making) become central in survivorship. These phase-specific differences are mechanistically explained by Lazarus and Folkman's transactional model, where primary appraisal is most prominent during the diagnosis phase, secondary appraisal and coping during the treatment phase, and reappraisal during the survivorship phase [5].

The present integration of the cognitive appraisal theory and a chronological perspective separates the present model from the descriptive ones that are lacking of explanatory power. This review serves as a starting point for subsequent research and testing of the framework to validate and improve it, as it proposes a framework for predicting the patterns of distress in each particular phase.

4.4 Clinical Implications

The findings of this review have several important implications for clinical practice. Psychological distress is a phase-related phenomenon, and screening and intervention for psychosocial issues should be tailored to the stage of the cancer journey. Regular screening for anxiety, depression, and fear of recurrence should be incorporated into the normal course of oncology treatment at several intervals after diagnosis [9,13]. Second, interventions for coping skills seem to be warranted at all phases. CBT, mindfulness-based stress reduction, and supportive-expressive therapies are effective cancer-related interventions that decrease distress and increase QoL in patients with cancer [30]. These should be available throughout the treatment and survivorship pathways.

Third, social support and financial toxicity are significant, thus emphasizing the need for systemic changes. Healthcare systems should focus on the psychosocial and socioeconomic factors as equally essential to QoL as medical care, and integrate both social work and financial counseling into oncology treatment. The proper implementation of such models demands the presence of efficient data management and monitoring systems that can be comparable to the ones utilized in food safety laboratories [32].

Fourth, the continuity of psychological issues in survivorship suggests there needs to be a focus on the ongoing management of cancer care. Sustained psychological screening, referral to mental health services, as needed, and information about late effects and fear of recurrence should be a component of survivorship care plans [28].

4.5 Strengths and Limitations

There are a number of strengths in this review. Unlike previous narrative reviews, this narrative synthesis structures emotional and psychological factors that affect cancer-related QoL over the course of a diagnosis, active treatment and recovery. This phase-based approach aligns with the patient journey and makes it easier to plan treatments based on the phases. The explicit theoretical underpinning in the Transactional Model of Lazarus and Folkman offers explanatory depth, rather than merely descriptive accounts, and helps to provide a focus on mechanisms of distress and adaptation. Summary tables and a conceptual framework figure make it easier to access for clinicians and researchers.

There are a number of limitations, however, that should be recognized. This study is a narrative review, so there is the possibility of selection bias, as it did not follow a systematic search protocol, nor did it use a formal quality assessment of the included studies. Although this allowed for a comprehensive synthesis, systematic reviews and meta-analyses would provide stronger evidence in the future [8]. Second, the review is mostly based on literature from high-income, Western countries; thus, results may not be generalizable to other cultural and socioeconomic settings [17]. It is important to examine emotional/psychological issues in other ethnic populations to guide culturally competent care. Third, the results obtained are applicable only to the adult patient population and may not apply to pediatric and adolescent cancer patients, as they have developmental and social needs that differ from adults. Fourth, because emotional experiences are dynamic, there is a need for studies that will follow changes in distress and QoL over time [27]. Finally, the proposed framework of the phases is conceptually sound, but needs to be empirically validated for clinical implementation.

5. Conclusion

5.1 Summary of Key Findings

This narrative review aimed to integrate the current literature about emotional and psychological influences on cancer-related Quality of Life throughout treatment and recovery. Results indicate that psychological distress is a dynamic phenomenon and presents in varying ways during three phases: diagnosis, active treatment, and recovery/survivorship. Through all phases, coping style, social support, financial toxicity, and spiritual well-being were identified as key determinants. The review emphasizes the role of adaptive coping strategies, strong social networks, and spiritual resources as protective factors, and of poor coping, social isolation, and financial stressors as consistently linked with poorer QoL outcomes.

5.2 Recommendations for Clinical Practice

From the above findings, a number of recommendations for clinical practice can be drawn. Psychological screening should be incorporated into routine oncology treatment at several key times, especially during the diagnosis and treatment process when distress is likely to be highest. Coping skills interventions should be provided across the cancer trajectory, and survivorship care should include ongoing psychological issues after cancer treatment. Socioeconomic factors play a major role in the health of oncology patients, and healthcare systems should consider the roles of social work and financial counseling in oncology.

5.3 Recommendations for Future Research

Longitudinal mixed methods designs should be used to document the dynamic nature of emotional experiences with time and to test the phase-based framework presented in this review. More research is required to understand the effectiveness of psychosocial interventions in each phase to provide optimum supportive care content and timing. Further, studies examining the cross-cultural differences in emotion experiences and emotion coping patterns would improve the generalizability of results to a wide range of patient groups. Understanding the biological pathways and processes involved in coping mechanisms and QoL outcomes could reveal new intervention targets, such as stress hormones. Utilization of a systematic method of screening and data management that parallels the approach used in food safety surveillance could improve the validity and replicability of psychosocial screening and intervention trials conducted in oncology.

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