

Review

When dyspnea becomes existential distress: pathways from symptom burden to demoralization and a tiered nursing framework in lung cancer—a narrative review

Yilan Fei¹, Yunyun Cai^{2,*}

¹ Department of Health Care Center, The First Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou 310009, Zhejiang Province, China

² Department of Respiratory and Critical Care Medicine, The Second Affiliated Hospital of Zhejiang Chinese Medical University, Hangzhou 310000, Zhejiang Province, China

* Corresponding author: Yunyun Cai, 15171963260@126.com

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Abstract: Patients with Lung cancer (LC) often live with persistent symptoms, including dyspnea, fatigue, pain, and sleep disturbance. Among them, dyspnea has physiological, emotional, and functional consequences and may be associated with a higher risk of demoralization. Using a structured integrative approach, we searched PubMed, MEDLINE, Embase, Web of Science Core Collection, PsycINFO, the Cumulative Index to Nursing and Allied Health Literature (CINAHL), and the Cochrane Library for relevant studies published between January 2015 and June 2026, together with seminal theoretical literature. The final search was conducted on June 1, 2026. After deduplication, title/abstract screening, and full-text review, 128 publications were included, comprising observational studies, intervention studies, qualitative studies, systematic reviews, meta-analyses, and clinical guidelines. Direct evidence from LC populations, indirect evidence from mixed-cancer populations, and supplementary evidence related to dyspnea were synthesized narratively. Current evidence suggests that dyspnea may contribute to demoralization through symptom threat, reduced perceived control and self-efficacy, activity avoidance, functional decline, role restriction, impaired dignity, and erosion of meaning, although this pathway has not yet been tested in longitudinal or interventional studies. On this basis, we propose a conceptual dual-track, four-tier nursing framework in which symptom and functional management proceeds alongside psychological and existential support, with emphasis on dynamic assessment, tiered intervention, and specialist referral. The framework is presented as a hypothesis-generating model requiring empirical validation rather than an established evidence-based protocol. The framework may support earlier recognition of demoralization and more continuous care for patients with LC.

Keywords: lung cancer; dyspnea; demoralization; symptom burden; tiered nursing care

1. Introduction

Lung cancer (LC) remains one of the malignancies carrying the heaviest global disease burden; in 2022, approximately 2.48 million new cases and 1.82 million related deaths occurred worldwide, accounting for 12.4% of all new cancer cases and 18.7% of cancer deaths, respectively [1]. Although targeted therapy, immunotherapy, and multimodal treatment have prolonged survival for some patients, symptoms such as dyspnea, cough, fatigue, pain, sleep disturbance, and loss of appetite may persist for prolonged periods and continue to affect treatment tolerance, daily functioning, and quality of life. Dyspnea is particularly common among patients with LC, with reported prevalence frequently exceeding 50%, and becomes more prominent

in advanced disease and when multiple symptoms coexist [2]. Its sudden onset, unpredictability, and clear association with a threat to life mean that it is not merely a physical discomfort; it may also mark the beginning of fear, loss of control, and functional withdrawal.

Several systematic reviews have synthesized evidence on symptom burden in LC [2] and demoralization in cancer populations [3,4]; however, these reviews have generally addressed symptom clusters or composite distress measures rather than isolating dyspnea as a specific exposure. The novelty of the present review lies in its focused examination of dyspnea as a single symptom with unique existential implications, rather than embedding it within broader symptom clusters, and in its explicit construction of a psychological-functional-existential pathway linking dyspnea specifically to demoralization.

Demoralization is an important yet easily overlooked form of psychological-existential distress among patients with cancer, characterized mainly by helplessness, hopelessness, subjective incompetence, a sense of failure, and diminished meaning and purpose in life [3]. Existing studies have reported rates of demoralization ranging from approximately 13.5% to 49.4% among patients with cancer, together with associations with anxiety, depression, poorer quality of life, a wish to die, and suicidal ideation [4,5]. When psychological screening is confined to anxiety and depression, patients who already show pronounced helplessness, disruption of their roles, or loss of meaning may not be recognized in time.

In recent years, the relationship between symptom burden and demoralization in patients with LC has attracted growing attention; some studies suggest that overall symptom burden may be associated with demoralization through family functioning, psychological resilience, coping style, social support, self-efficacy, and other factors [6]. However, most available evidence comes from cross-sectional studies and mediation models, while multiple symptoms are often combined into a total score; consequently, it remains unclear how individual symptoms characteristic of LC enter the process through which demoralization develops. Dyspnea is particularly relevant because it encompasses sensory, emotional, and functional experiences, including air hunger, fear of suffocation, activity restriction, and thoughts of death, yet longitudinal studies treating dyspnea as a specific exposure and demoralization as the primary outcome remain lacking. The relationship between the two therefore cannot yet be regarded as causal[7].

The unique existential threat posed by dyspnea warrants particular attention. Unlike pain or fatigue, which are also prevalent in LC, dyspnea directly threatens the fundamental biological function of breathing and is frequently interpreted by patients as impending suffocation or approaching death [8]. This immediate, visceral threat to survival may carry stronger existential weight than other symptoms, as it confronts patients with their mortality in a direct and inescapable manner. Pain, while distressing, does not typically evoke the same primal fear of instantaneous death, and fatigue, although debilitating, does not carry the same urgent sense of life threat. Dyspnea thus occupies a distinctive position among LC symptoms in its capacity to trigger existential distress and demoralization.

Recurrent or unpredictable dyspnea may erode patients' perceived control over their symptoms and their self-efficacy, prompting them to reduce walking, bathing, going out, and social activity; this avoidance may further worsen physical deconditioning, functional dependence, and role restriction, leaving some patients feeling that they have become a burden on their families and that their self-worth,

dignity, and life goals are diminishing[9]. These measures may reduce the perceived threat posed by symptoms, but symptom improvement does not necessarily bring a parallel reduction in helplessness, role loss, or distress related to meaning. Because nurses remain involved in symptom observation, patient education, functional assessment, family communication, and psychological risk screening, they are well placed to recognize whether a patient has progressed from “feeling short of breath” to being “afraid to be active”, “unable to cope”, “a burden on the family”, or convinced that “life has lost its meaning”, and can provide tiered interventions and interprofessional referrals accordingly.

By integrating direct evidence from patients with LC, psycho-oncology evidence from mixed-cancer populations, and supportive care research related to dyspnea, this review delineates the known associations between symptom burden and demoralization and the limits of the available evidence, examines how dyspnea may become linked to demoralization through threat appraisal, diminished perceived control, activity avoidance, functional decline, role loss, and impaired meaning, and proposes a conceptual tiered nursing framework that combines symptom and functional management with psychological and existential support.

2. Review design

2.1. Design type

This review used a structured integrative design to search for and synthesize evidence concerning dyspnea, overall symptom burden, demoralization, and the related psychological, functional, and existential outcomes among patients with lung cancer. The review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines for scoping and integrative reviews, with a PRISMA-style flow diagram documenting the screening and selection process (see **Supplementary Figure S1**).

2.2. Search strategy

The databases searched were PubMed, MEDLINE, Embase, Web of Science Core Collection, PsycINFO, CINAHL, and the Cochrane Library; the search covered January 2015 to June 2026. The final search was executed on June 1, 2026. No publication date limit was applied to foundational papers concerning the concept of demoralization, its theoretical basis, or its measurement instruments, subject headings were combined with free-text terms: disease-related terms included “lung cancer”, “lung neoplasm”, and “pulmonary malignancy”; symptom-related terms included “dyspnea”, “breathlessness”, “respiratory distress”, “symptom burden”, and “symptom cluster”; terms related to psychological and existential outcomes included “demoralization”, “existential distress”, “helplessness”, “hopelessness”, “dignity”, and “meaning”; care-related terms included “nursing”, “psycho-oncology”, “supportive care”, “palliative care”, and “psychosocial intervention”. Terms within the same conceptual group were linked with “OR”; different conceptual groups were combined with “AND”, with appropriate adjustments made according to the subject-heading system and search rules of each database. The complete search strategy for PubMed is provided as an example: (“lung cancer” [Mesh] OR “lung neoplasm” [Title/Abstract] OR “pulmonary malignancy” [Title/Abstract]) AND (“dyspnea” [Mesh] OR “breathlessness” [Title/Abstract] OR “respiratory distress” [Title/Abstract] OR “symptom burden” [Title/Abstract] OR “symptom cluster” [Title/Abstract]) AND (“demoralization” [Mesh] OR “existential distress” [Title/Abstract] OR “helplessness”

[Title/Abstract] OR “hopelessness” [Title/Abstract] OR “dignity” [Title/Abstract] OR “meaning” [Title/Abstract]) AND (“nursing” [Mesh] OR “psycho-oncology” [Title/Abstract] OR “supportive care” [Title/Abstract] OR “palliative care” [Mesh] OR “psychosocial intervention” [Title/Abstract]). Similar strategies were adapted for other databases according to their respective subject-heading systems.

2.3. Inclusion and exclusion criteria

The review focused primarily on patients with lung cancer aged 18 years or older, without restriction by pathological type, disease stage, or treatment phase. Eligible publications were required to address at least one of the following: symptom burden or symptom clusters in lung cancer; the sensory, emotional, or functional effects of dyspnea; demoralization or related psychological-existential outcomes; relationships between symptoms and perceived control, self-efficacy, activity capacity, functional dependence, social roles, dignity, or meaning in life; or nursing, psychosocial, or palliative interventions targeting these concerns. Eligible publication types included observational studies, randomized or nonrandomized intervention studies, qualitative studies, systematic reviews, meta-analyses, and clinical practice guidelines. Studies of mixed-cancer populations had to report findings related to symptom burden, demoralization, or relevant psychosocial variables. Studies involving severe respiratory diseases or general palliative care populations were used only to supplement evidence concerning the experience of dyspnea, its functional effects, and nonpharmacological management.

Studies involving children or adolescents, case reports, conference abstracts, editorials, commentaries, and publications for which complete information could not be obtained were excluded. Studies reporting only tumor biology, the effects of anticancer treatment, or survival outcomes, without addressing symptomatic, psychological, functional, or existential outcomes, were also excluded. For duplicate publications based on the same cohort, priority was given to the paper providing more complete information on the sample, measurement procedures, and findings; when different papers reported independent outcomes relevant to this review, they were included under their respective themes.

2.4. Data extraction

The basic information extracted included authors, year of publication, study region, study design, sample size, disease stage, treatment phase, instruments used to measure symptoms and demoralization, psychosocial variables, principal findings, intervention components, and follow-up duration. Information related to the pathway from symptoms to demoralization was organized under the following themes: dyspnea and symptom clusters, threat appraisal, symptom unpredictability, perceived control, self-efficacy, activity avoidance, functional decline, dependence in daily life, family and social roles, perceived burden, dignity, meaning in life, and demoralization.

2.5. Evidence stratification

According to the study population and its proximity to the review question, evidence was divided into three levels: publications involving patients with lung cancer were classified as direct evidence; mixed-cancer studies that did not report lung cancer findings separately were classified as indirect oncology evidence; studies involving severe respiratory diseases or general palliative care populations were classified as supplementary evidence related to dyspnea. When an association was supported by publications from different sources but had not yet been tested in patients with lung cancer through longitudinal or interventional research, it was

classified as an integrative inference.

The strength assigned to each body of evidence was determined by considering study design, sample characteristics, measurement methods, consistency of findings, and relevance to patients with lung cancer: longitudinal studies, intervention studies, and methodologically rigorous original studies involving patients with lung cancer were given priority when supporting the principal conclusions; systematic reviews and clinical guidelines were used to supplement the evidential background and clinical recommendations; cross-sectional studies and mediation analyses were used mainly to identify associations and potential pathways between variables and were not treated as evidence of causality (**Table 1**). Quality assessment was performed using established tools appropriate to study design: the Newcastle-Ottawa Scale for observational studies, the Cochrane Risk of Bias tool for randomized controlled trials, and the critical appraisal skills programme (CASP) checklist for qualitative studies. Studies rated as low quality were used only for supplementary contextual information and did not form the primary basis for pathway construction or framework development.

Table 1. Application and interpretive limits of different evidence sources in this review

Evidence category	Main sources	Evidence supported	Application in this review	Interpretive limits
Direct evidence from LC populations	Observational studies, intervention studies, qualitative studies, systematic reviews, and clinical guidelines involving patients with LC	Symptom burden, dyspnea, and demoralization in LC, and their relationships with self-efficacy, psychological resilience, coping styles, family functioning, and social support	Used to describe the association between symptom burden and demoralization in patients with LC and to identify disease-specific clinical manifestations and potential influencing factors	Most available studies use cross-sectional designs or mediation analyses, making it difficult to establish temporal order or causal relationships between variables
Indirect oncology evidence	Mixed-cancer studies that did not report LC findings separately	Relationships among physical symptoms, functional impairment, perceived burden, dignity, hope, meaning in life, and demoralization	Used to supplement psychological, social, and existential aspects that have not been adequately addressed in LC research	Cancers differ in symptom patterns, disease trajectories, and treatment experiences; these findings cannot be regarded directly as LC-specific conclusions
Supplementary evidence related to dyspnea	Studies involving advanced cancer, severe respiratory disease, and general palliative care populations	Sensory, emotional, and functional dimensions of dyspnea, together with anticipatory fear, activity avoidance, functional limitation, and nonpharmacological management	Used to explain how dyspnea affects threat perception, activity capacity, and social participation, and to support related symptom-care measures	Not all study populations consisted of patients with LC, and most studies did not include demoralization as the primary outcome; the risk of demoralization in patients with LC therefore cannot be estimated from these findings

Continuation Table:

Evidence category	Main sources	Evidence supported	Application in this review	Interpretive limits
Integrative inference	Derived jointly from direct evidence from LC populations, indirect oncology evidence, and supplementary evidence related to dyspnea	Dyspnea may be linked to demoralization through diminished perceived control, activity avoidance, impaired function and roles, and erosion of dignity and meaning	Used to construct the psychological-functional-existential pathway proposed in this review and to identify possible entry points for assessment and nursing care	Represents a conceptual integration of the available evidence and requires further validation through longitudinal studies and intervention trials involving patients with LC

2.6. Evidence synthesis

Symptom-related evidence was organized sequentially under the themes of dyspnea and symptom clusters, symptom threat, diminished perceived control, activity avoidance, functional decline, role change, impaired dignity, erosion of meaning, and demoralization. Psychological resilience, self-efficacy, coping style, family functioning, and social support were categorized as possible buffering or amplifying factors according to their roles at different points along the pathway. Intervention studies were classified by their principal targets, including symptom stabilization, restoration of agency, maintenance of function and roles, support for relationships and meaning, specialist referral, and safety management.

3. The concept of demoralization and the particular vulnerability of patients with LC

3.1. Conceptual meaning of demoralization

Demoralization is a common form of psychological-existential distress in the context of serious illness. What distinguishes it from low mood alone is the patient's growing belief that they no longer have the ability to cope with the illness and its consequences [10,11]. The theoretical foundation of demoralization is most comprehensively articulated in Kissane's demoralization syndrome framework, which conceptualizes demoralization as a multidimensional construct encompassing five core domains: (1) loss of meaning and purpose, (2) subjective incompetence, (3) dysphoria, (4) disheartenment, and (5) helplessness. Within this framework, demoralization is understood as a state of existential despair that arises when individuals perceive themselves as unable to cope with overwhelming stressors, accompanied by a loss of hope and meaning. Kissane's model emphasizes that demoralization exists on a continuum from transient discouragement to persistent, clinically significant distress, and that it is distinct from major depressive disorder in that anhedonia is not a central feature. This theoretical grounding provides the conceptual architecture for understanding how symptom burden, particularly dyspnea, may precipitate demoralization through erosion of coping capacity and meaning. This experience is commonly expressed as helplessness, hopelessness, subjective incompetence, a sense of failure, and diminished goals and meaning in life. Patients are often fully aware of the predicament they face but cannot find an effective way to cope; over time, their sense of control over the future and their expectations for it also decline [10]. Demoralization is not a fixed state, and its manifestations may

gradually progress from transient discouragement, frustration, and difficulty coping to persistent helplessness, hopelessness, and loss of meaning. Some patients do not meet the diagnostic criteria for a mental disorder, yet as demoralization becomes more severe, it is often accompanied by poorer quality of life, social withdrawal, reduced engagement in treatment, and even an increased wish to die or risk of suicide [11]. Clinical identification should therefore not stop at determining whether a patient is “feeling low”; attention should also be paid to whether the patient repeatedly says that they can no longer cope, no longer holds hope for the future, or believes that they have lost their value.

3.2. Distinction from related psychological problems

Demoralization overlaps to some extent with depression, anxiety, adjustment disorder, and death anxiety in its clinical presentation, but their psychological cores differ: depression is usually characterized by persistent low mood, reduced interest, and loss of pleasure; patients with demoralization may still retain some interests and emotional responses, but believe that their current predicament cannot be overcome and consequently lose their sense of direction and hope [12]. Anxiety is directed more toward worry and vigilance about disease progression, treatment outcomes, or the recurrence of symptoms, whereas demoralization is more strongly marked by failed coping, powerlessness, and the loss of meaning in the future. By comparison, demoralization often involves deeper disruption of goals, damage to roles, and a crisis of meaning. Clinical assessment should focus on identifying the predominant nature of the patient’s current distress and avoid simply classifying psychological-existential suffering as depression or a general emotional response (**Table 2**).

Table 2. Clinical differentiation of demoralization from related psychological states

Psychological state	Core experience	Common manifestations	Main distinctions from and relationships with demoralization	Key areas of clinical assessment
Demoralization	Feeling unable to cope with the illness and its consequences, losing hope for the future, and experiencing weakened goals and meaning in life	Discouragement, helplessness, hopelessness, subjective incompetence, a sense of failure, diminished self-worth, and loss of meaning	The core features are failed coping and a psychological-existential crisis. Anhedonia is not required for demoralization, although demoralization may coexist with depression, anxiety, and death anxiety	Current predicament and coping resources; hope; life goals; self-worth; sense of meaning; wish to die; suicide risk
Depression	Persistent low mood or loss of interest and pleasure in activities that were previously appealing	Low mood, reduced interest or pleasure, decreased energy, changes in sleep and appetite, impaired concentration, self-blame or feelings of worthlessness, and suicidal ideation in severe cases	Depression is more strongly characterized by persistent changes in mood and the capacity for pleasure; demoralization primarily involves an inability to cope, powerlessness, and loss of confidence in the future and in life’s meaning. The two may overlap and cannot be distinguished solely by whether interest is preserved	Duration of changes in mood and interest; anhedonia; cognitive and somatic symptoms; functional impairment; self-blame; suicide risk

Continuation Table:

Psychological state	Core experience	Common manifestations	Main distinctions from and relationships with demoralization	Key areas of clinical assessment
Anxiety	Persistent worry, fear, and vigilance in response to an actual or anticipated threat	Tension, recurrent worry, restlessness, sleep disturbance, poor concentration, physiological arousal, catastrophic thinking, and avoidance behavior	Anxiety is usually directed toward a possible future threat, such as disease progression, treatment failure, or another episode of dyspnea; demoralization more often reflects the patient's belief that they are already unable to cope with the current situation	Focus of worry or fear; triggering situations; physiological responses; catastrophic cognitions; avoidance behavior; functional effects
Adjustment disorder	Maladaptive emotional or behavioral responses to an identifiable stressful event or continuing stressor	Anxiety, low mood, irritability, excessive worry, behavioral changes, and impaired social or occupational functioning	Closely related to an identifiable stressor and the timing of its occurrence, with clinical distress or functional impairment exceeding what would normally be expected; demoralization is more strongly characterized by persistent failed coping, helplessness, hopelessness, and a crisis of meaning. The two may overlap when continuing stressors, such as cancer, are present	Nature of the stressor; time of symptom onset; level of distress; functional impairment; persistence of the stressor; whether features of another mental disorder are present
Death anxiety	Fear, unease, or intense concern about one's own death, the dying process, or the consequences of death	Fear of approaching death, suffocation, pain, loss of control, separation from loved ones, or leaving important matters unfinished	Death anxiety centers on death and the dying process; it may aggravate demoralization but does not encompass the subjective incompetence, sense of failure, and loss of meaning found in demoralization	Specific content of the fear; understanding of the disease and prognosis; death-related avoidance; unfinished matters; family communication; spiritual needs
General psychological distress	A multifactorial unpleasant experience related to cancer and its treatment, involving psychological, cognitive, behavioral, social, spiritual, and physical dimensions	Worry, sadness, irritability, fear, sleep problems, social or family pressure, practical difficulties, and spiritual distress	A broad overarching concept that may include demoralization, anxiety, depression, and other manifestations. A high overall level of distress does not in itself indicate demoralization; failed coping, hopelessness, and loss of meaning still require further assessment	Severity and sources of distress; duration; practical problems; social support; functional effects; need for specific assessment of demoralization, anxiety, or depression

3.3. Particular vulnerability of patients with LC

The symptoms and disease course experienced by patients with LC may make them especially vulnerable to demoralization; dyspnea, cough, fatigue, and pain can persist for prolonged periods and fluctuate repeatedly as the disease and treatment course change. Among these symptoms, dyspnea is most likely to evoke a strong sense of threat to life: patients may interpret an episode of breathlessness as disease deterioration, impending suffocation, or approaching death, while its sudden and unpredictable nature can rapidly weaken their sense of safety and control [8]. As activity tolerance declines, walking, going outdoors, social interaction, and activities of daily living gradually become restricted, dependence on family members increases, and established family, occupational, and social roles may change accordingly. In addition to persistent symptoms, disease progression, uncertainty about treatment effectiveness, changes in treatment regimens, and repeated hospitalization can also increase the psychological burden; some patients additionally experience smoking-related self-blame or stigma, attribute their illness to personal choices, and consequently develop shame, self-denial, and social alienation [13]. Empirical evidence supports this vulnerability: a study of patients with advanced LC found that smoking-related stigma was independently associated with higher levels of psychological distress and social isolation, and that shame-related cognitions mediated the relationship between perceived stigma and depressive symptoms [14]. Qualitative studies have similarly documented that patients with LC who attribute their illness to smoking often experience intense self-blame, which exacerbates feelings of worthlessness and social withdrawal—factors that may predispose to demoralization. When symptoms persist, functioning continues to decline, and patients simultaneously feel that they are becoming a burden on their families, short-term difficulty coping may develop into a broader loss of confidence in their own abilities and future. Demographic factors may further modify vulnerability: older patients with LC may experience greater functional decline and social isolation, while younger patients may face more pronounced disruption of occupational and family roles. Women with LC have been reported to experience higher levels of psychological distress than men, potentially reflecting gender differences in emotional expression and coping. Lower socioeconomic status is consistently associated with greater symptom burden, reduced access to supportive care, and higher psychological distress in cancer populations, all of which may amplify demoralization risk. These demographic vulnerability modifiers should be considered in clinical assessment, although specific threshold values for demoralization risk by demographic subgroup have not been established. Demoralization in patients with LC should therefore not be attributed simply to the cancer diagnosis or a poor prognosis; it is more likely to arise through the combined effects of symptom experiences, functional impairment, role changes, social evaluation, and existential threat.

4. From dyspnea to demoralization: a psychological-functional-existential pathway

4.1. Symptom threat and emotional amplification

Dyspnea in patients with LC rarely occurs in isolation; rather, it is intertwined with symptoms such as cough, fatigue, pain, and sleep disturbance, creating a symptom burden that fluctuates over time [15]. Breathing difficulty carries an unmistakable sense of threat to life, and patients may readily interpret it as a sign of disease progression, airway obstruction, or approaching death. A severe episode

of breathlessness often leaves a vivid physical memory and keeps patients alert to the possibility that the symptom may recur during their subsequent daily lives [16]. Such anticipatory fear heightens sensitivity to respiratory rhythm, chest discomfort, and bodily changes: tension, faster breathing, and excessive use of the accessory respiratory muscles may then intensify the subjective sensation of breathlessness, allowing a self-reinforcing cycle between breathlessness and fear to develop. This process does not deny the organic basis of dyspnea; even when physiological abnormalities are comparable, patients may experience markedly different degrees of distress because of differences in previous episodes, the way they interpret symptoms, and the coping resources available to them.

4.2. Diminished perceived control and impaired agency

Patients cannot be certain when symptoms will occur, whether they will subside, or under what circumstances emergency assistance is needed; this uncertainty directly affects their perceived control and self-efficacy in symptom management [17]. Agency refers not only to the physical ability to complete an activity, but also to the subjective sense of participating in life, making choices, and influencing one's own circumstances. As perceived control declines, patients may shift from active coping to passive endurance and begin to judge activities they remain physically capable of performing as dangerous before attempting them. Existing LC studies suggest that symptom burden is associated with demoralization both directly and indirectly, while self-efficacy, psychological resilience, and coping style may shape this relationship [18]. The loss of control and agency may therefore be the point at which dyspnea begins to extend beyond a bodily experience and contribute to demoralization.

Crucially, this pathway distinguishes between state moderators—factors that are potentially modifiable through nursing intervention, such as self-efficacy, perceived control, coping style, and family communication—and trait moderators that are largely static risk amplifiers, such as financial strain, smoking stigma, and demographic characteristics. This distinction has important clinical implications: state moderators represent targets for tiered nursing interventions, whereas trait moderators inform risk stratification and the identification of high-risk populations requiring more intensive surveillance and support.

4.3. Activity avoidance, functional decline, and role change

On the other hand, patients may reduce walking, bathing, eating, going outdoors, and social activities to avoid another episode of breathlessness. Although such avoidance can reduce discomfort in the short term, it may also lead to physical deconditioning and lower activity tolerance, making even relatively light activity more likely to provoke dyspnea [19]. As functional status declines, patients become increasingly dependent on family members and medical care, while established roles in work, family decision-making, caring for relatives, and social interaction may also become restricted. Some patients gradually come to regard themselves as “care recipients” and may even believe that they have become a burden on their families; reduced participation in their former roles not only weakens self-efficacy, but may also reinforce the subjective incompetence and sense of failure that characterize demoralization.

4.4. Impaired dignity, erosion of meaning, and demoralization

When autonomy continues to decline and established roles can no longer be maintained, patients may develop a stronger sense of being a burden, impaired

dignity, and disruption of their life goals. Studies suggest that the association between physical problems and demoralization may be partly mediated by loss of dignity [20]; particularly for patients with LC, dyspnea may carry meaning beyond the symptom itself because it not only signals declining physical function, but also makes patients acutely aware that their living space, range of movement, and future choices are steadily narrowing. If patients cannot re-establish achievable goals or continue to participate meaningfully in family and social relationships, their initial helplessness and frustration may gradually give way to hopelessness and loss of meaning, eventually presenting as demoralization. Once demoralization develops, patients may further reduce their activities, abandon symptom self-management, and withdraw from social relationships, thereby worsening functional impairment and symptom burden [21]. The relationship between dyspnea and demoralization is therefore more likely to be a dynamic feedback process than a simple one-way effect. Overall, “symptom threat—impaired agency—changes in function and roles—erosion of dignity and meaning—demoralization” forms an integrative pathway with clinical explanatory value, although some parts of the pathway still rely mainly on cross-sectional research and indirect evidence and require longitudinal validation. The direct evidence supporting specific pathway components should be distinguished from integrative inferences. Direct evidence from LC populations supports the associations between symptom burden and diminished self-efficacy [18], between functional decline and psychological distress [22], and between perceived burden and quality of life [8]. However, the complete causal sequence from dyspnea through each intermediate step to demoralization has not been empirically tested in a single longitudinal study. Components such as the specific role of dignity impairment as a mediator of the dyspnea-demoralization relationship are primarily derived from mixed-cancer studies [20] and represent integrative inferences requiring LC-specific validation. The possible psychological-functional-existential pathway between dyspnea and demoralization in patients with LC, together with its buffering factors, amplifying factors, and reverse feedback processes, is shown in **Figure 1**.

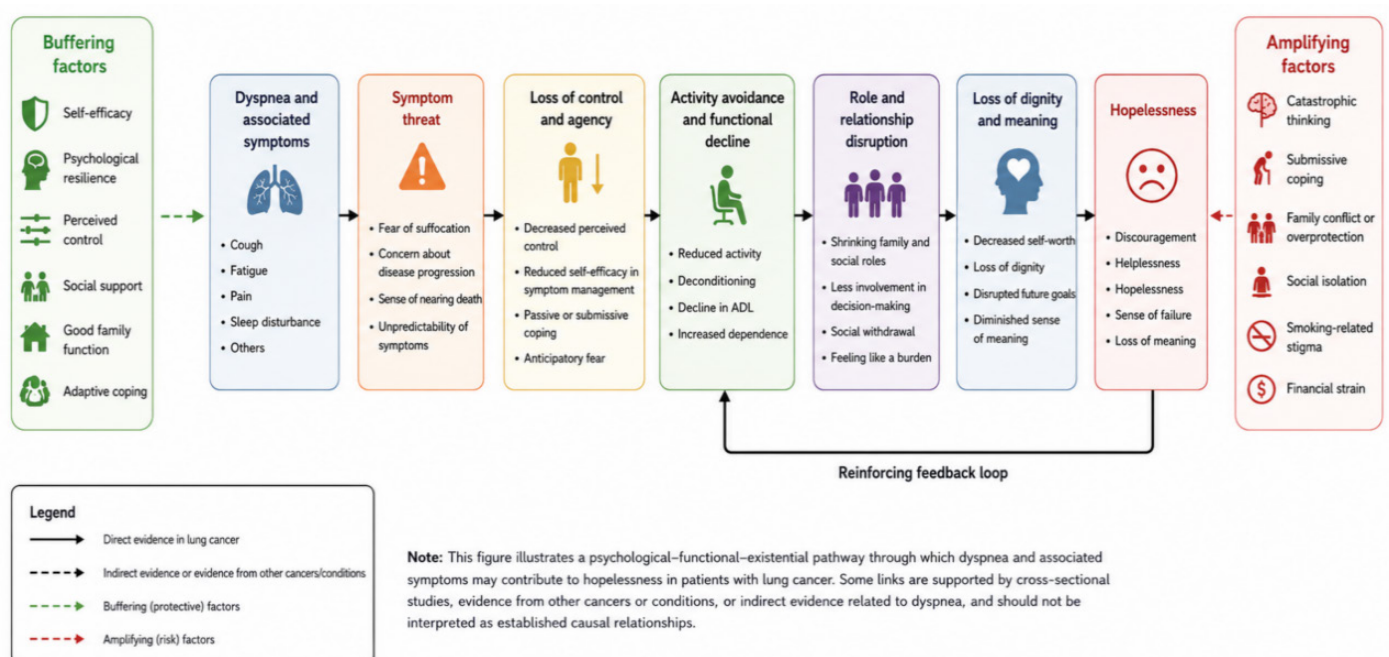


Figure 1. Psychological-functional-existential pathway linking dyspnea to demoralization in patients with LC.

5. Moderating factors and high-risk situations

5.1. Moderating factors

Dyspnea and other symptoms do not produce the same psychological consequences in every patient with LC; patients' psychological resources, family relationships, and social circumstances influence the extent to which symptom threat develops into demoralization. Higher self-efficacy, psychological resilience, and perceived control help patients retain confidence in their ability to cope and reduce the helplessness and sense of failure arising from functional limitations [23]. Adaptive coping, stable family functioning, and adequate social support may also buffer the effects of impaired roles and erosion of meaning; by contrast, catastrophic thinking, submissive coping, family conflict, overprotection, social isolation, and financial pressure may intensify patients' sense of powerlessness in relation to their symptoms [24]; smoking-related stigma and self-blame may further weaken self-worth, making patients more likely to attribute their illness and functional decline to personal failure [25]. These factors are not independent causes of demoralization; rather, by altering how patients interpret their symptoms, their ability to cope, and the support available to them, they amplify or weaken the psychological effects of symptom burden.

5.2. High-risk situations

The risk of demoralization often increases when the disease trajectory changes, and an initial diagnosis, the first episode of marked dyspnea, disease progression or recurrence, treatment failure, or a change in treatment regimen may all disrupt the patient's existing coping balance. Repeated emergency visits or hospitalization because of breathlessness, a sudden reduction in activity capacity, and increased dependence in daily life can likewise undermine perceived control and role identity [22]. After patients enter palliative treatment or end-of-life care, prognostic uncertainty, the threat of death, and unfulfilled goals may further intensify existential distress, although these situations do not inevitably lead to demoralization, they may expose vulnerabilities in patients' psychological resources, family support, and social functioning. Assessing moderating factors alongside critical points in the disease course can therefore help identify changes in symptom threat, activity withdrawal, role impairment, and erosion of meaning in a timely manner, while also providing a basis for subsequent risk stratification and nursing intervention.

6. Assessment and risk stratification

The risk of demoralization in patients with LC cannot be assessed solely from the severity of dyspnea, nor should it depend on a single psychological scale, so we believe that clinical assessment should begin with the symptom experience and gradually extend to perceived control, functional status, role changes, and existential distress. In addition to recording the intensity, frequency, duration, and precipitating factors of dyspnea, clinicians should determine its effects on sleep, eating, activity, and social interaction, while promptly identifying reversible causes such as infection, pleural effusion, airway obstruction, anemia, and cardiopulmonary complications. For patients with recurrent breathlessness, attention should also be paid to whether they remain persistently worried about another episode, deliberately restrict their activities because of fear, or possess basic skills for coping with the symptom, once dyspnea begins to affect daily activities, the focus of assessment should shift further toward functional and role changes. The patient's range of activity, ability

to perform activities of daily living, degree of dependence on family members, and participation within the family and society can all indicate whether the effects of symptoms have extended beyond the physical level to self-worth and role identity. If patients frequently say that they “cannot do anything” or are “adding to the family’s burden”, or gradually withdraw from family decision-making, social interaction, and former activities, this often indicates that perceived control and agency have already been impaired. Psychological-existential assessment should, of course, also address helplessness, hopelessness, subjective incompetence, impaired dignity, disruption of life goals, and erosion of meaning. Although a demoralization scale may be used together with screening instruments for general psychological distress, anxiety, and depression, the results must be interpreted alongside a clinical interview; patients should be asked directly whether they have lost hope for the future, believe that life has become meaningless, or have developed a wish to die, thoughts of self-harm, or suicidal ideation. For frontline nurses without formal psycho-oncology training, brief screening tools such as the Demoralization Scale (DS) or the Distress Thermometer (DT) are recommended for initial risk identification. The DS is a 24-item self-report measure with established validity in cancer populations, while the DT provides a rapid single-item assessment of overall distress that can flag patients requiring further evaluation. These instruments are feasible for routine clinical use and do not require specialized psychological training for administration, although interpretation of positive screens should be followed by clinical interview.

Operationalization of risk categories: The low-, moderate-, and high-risk categories proposed in this framework are conceptual rather than empirically validated classifications. They are not based on existing validated assessment systems but are derived from the authors’ integration of clinical experience and the available evidence. As a conceptual proposal, these categories require empirical validation through prospective studies that establish their predictive validity for demoralization outcomes. In the interim, we suggest the following provisional operational criteria for clinical use: low risk—patients who experience dyspnea or other symptoms but retain basic perceived control, functional participation, and realistic goals; moderate risk—patients who have developed activity avoidance, increased dependence, role restriction, or persistent helplessness; high risk—patients who exhibit marked hopelessness, severe loss of meaning, a persistent wish to die, or a risk of self-harm or suicide. Patients may be classified as being at low, moderate, or high risk according to the effects of symptoms, changes in function, and psychological-existential manifestations. Patients at low risk experience dyspnea or other symptoms but retain basic perceived control, functional participation, and realistic goals; those at moderate risk have developed activity avoidance, increased dependence, role restriction, or persistent helplessness; those at high risk exhibit marked hopelessness, severe loss of meaning, a persistent wish to die, or a risk of self-harm or suicide. Risk levels should be adjusted dynamically as the disease progresses, with reassessment conducted particularly when dyspnea worsens, the disease progresses, the treatment regimen changes, hospitalization recurs, or functional status declines markedly. For patients at high risk, a safety assessment should be completed immediately, followed by referral to psycho-oncology, mental health, or palliative care services.

7. Tiered nursing framework

Given the current evidence, we believe that patients with LC differ markedly in symptom burden, functional limitations, and the severity of demoralization;

nursing plans should therefore be adjusted dynamically according to risk level, principal problems, and disease course. In line with the psychological-functional-existential pathway described above, nursing care can be organized into four tiers—symptom stabilization, restoration of agency, support for roles and meaning, and specialist referral—with symptom and functional management proceeding alongside psychological and existential support. We developed a conceptual dual-track, four-tier nursing framework for demoralization risk in patients with LC (**Figure 2**); the tiers are not strictly progressive, and patients do not need to receive every intervention in sequence, as the actual focus of nursing care should be determined jointly by the severity of dyspnea, functional status, perceived control, and psychological risk. It is important to emphasize that this framework is presented as a conceptual proposal requiring empirical validation rather than an established evidence-based nursing protocol. The framework should be tested in future feasibility, acceptability, and effectiveness studies before it can be recommended for routine clinical implementation.

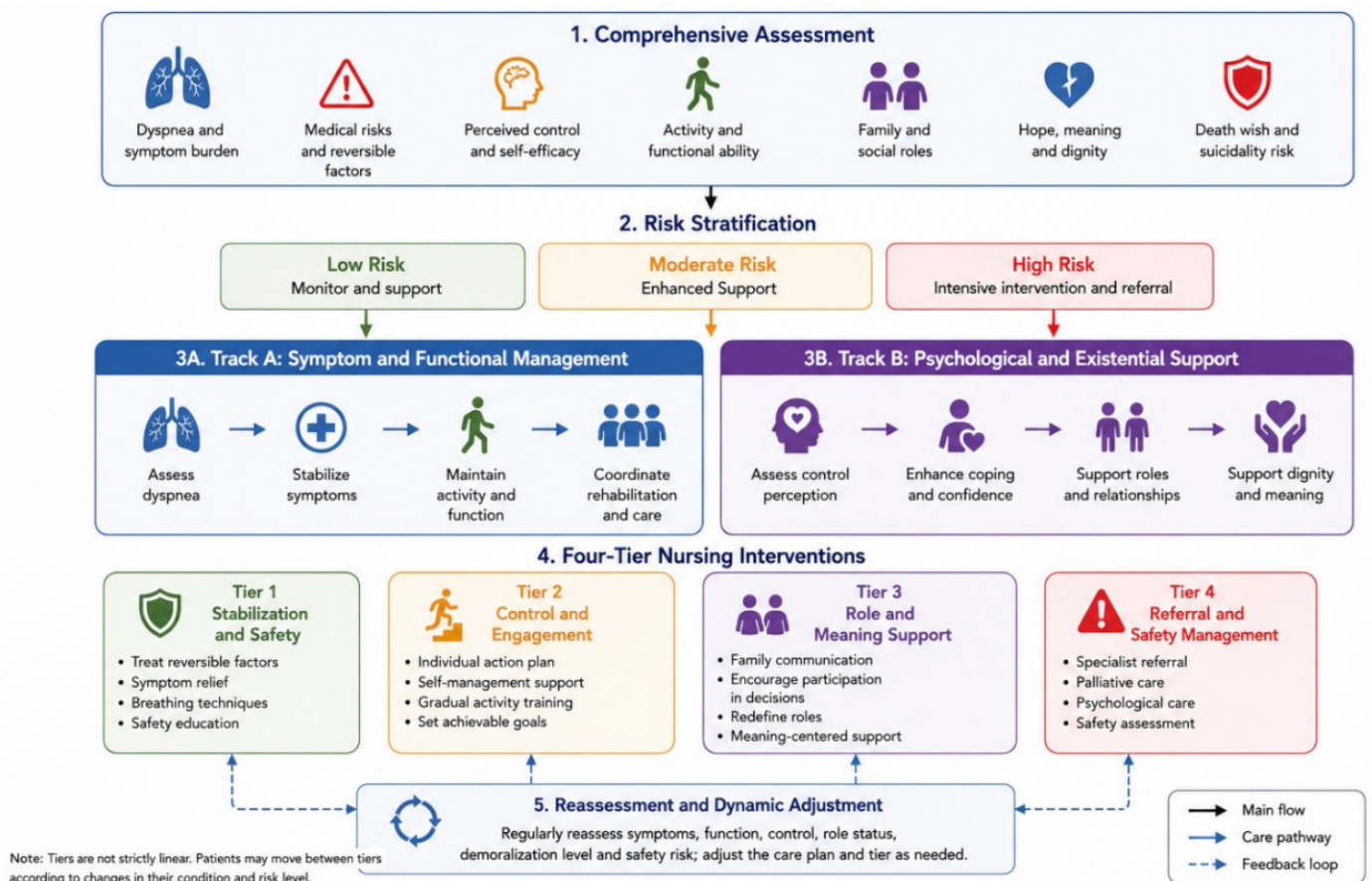


Figure 2. Dual-track, four-tier nursing framework for demoralization risk in patients with LC.

7.1. Symptom stabilization and restoration of a sense of safety

When dyspnea develops or clearly worsens, reversible causes and acute risks should be identified first: nurses need to monitor respiratory rate, oxygen saturation, symptom triggers, accompanying manifestations, and activity tolerance; remain alert to infection, pleural effusion, airway obstruction, pulmonary embolism, anemia, and cardiopulmonary complications; and initiate medical assessment promptly when necessary. Measures such as positional adjustment, facial airflow stimulation,

pursed-lip breathing, breathing pattern training, and activity pacing may be used as adjuncts to relieve the subjective sensation of breathlessness. Oxygen therapy and pharmacological treatment should be provided when clinically indicated and as prescribed, with treatment responses and adverse reactions monitored at the same time. The purpose of symptom management is not only to relieve dyspnea itself, but also to reduce the patient's uncertainty about the symptom and the threat it represents. Explaining common triggers, available methods of relief, and warning signs that require emergency assistance can help patients develop more stable expectations about how to respond, reducing the tendency to interpret every episode of breathlessness as rapid disease deterioration or approaching death.

7.2. Restoration of perceived control and functional participation

When patients deliberately reduce their activities because they fear breathlessness, or already show marked helplessness and reduced self-efficacy, the focus of nursing care should shift toward symptom-coping capacity and functional participation. An individualized action plan can then be developed according to symptom severity, with the specific circumstances for home management, contacting medical personnel, and seeking emergency care clearly defined; the teach-back method should be used to confirm whether the patient and caregiver have genuinely understood the information. Functional activities should begin at a level the patient can tolerate: washing, eating, walking short distances, and performing simple household tasks may be divided into smaller steps according to physical capacity, with intermittent rest, energy conservation, and assistive devices incorporated when necessary. Finally, goals should be determined jointly with the patient, both to avoid frustration caused by excessive activity demands and to prevent family members from taking over unnecessarily while the patient remains capable.

7.3. Maintenance of roles and support for meaning

When functional decline begins to affect family and social roles, or patients repeatedly say that they have “become a burden” or have “no value”, nursing care needs to extend beyond activity capacity to identity, relationships, and meaning. Family members should be taught how to assist during an episode of dyspnea; while patients remain capable, however, every effort should be made to preserve their opportunities to participate in daily affairs and treatment decisions. Even when patients can no longer fulfil their previous occupational or family responsibilities, they may retain their place and value within the family by participating in important decisions, sustaining family relationships, providing emotional support, or managing personal affairs. For patients who experience helplessness, hopelessness, or a diminished sense of meaning, nurses may use open communication to understand their immediate concerns, unfinished matters, and the people and goals they continue to value. Brief life review, hope-oriented communication, dignity support, and assessment of spiritual needs may serve as basic forms of support; these measures do not require patients to remain optimistic, but help them retain choice, connection, and achievable directions in life despite the limitations imposed by illness [26]. If a patient experiences a persistent crisis of meaning, marked impairment of dignity, or complex existential suffering, referral to a professional with appropriate training is needed for further management.

7.4. Specialist referral and dynamic reassessment

Specialist referral should be considered throughout the nursing process rather than initiated only after demoralization has clearly worsened. When moderate

demoralization is accompanied by social withdrawal, family conflict, persistent hopelessness, or complex existential distress, patients may be referred to psycho-oncology, palliative care, social work, or spiritual care teams according to the specific problem. Patients with refractory dyspnea, repeated emergency visits, or inadequate symptom control require joint assessment by oncology, respiratory medicine, palliative care, and rehabilitation teams. Once a patient develops an explicit wish to die, thoughts of self-harm, or suicidal ideation, a safety risk assessment should be performed immediately and a mental health professional contacted as soon as possible. Moreover, disease progression, adjustment of the treatment regimen, rehospitalization, or marked functional decline may rapidly weaken the patient's previous coping capacity [27]; reassessment should therefore address dyspnea and related symptoms, activity and self-care capacity, role participation, perceived control, hope, and manifestations of demoralization, with the intensity of intervention adjusted accordingly.

Implementation barriers and feasibility considerations: The proposed framework requires consideration of practical barriers to implementation in busy oncology wards. These include: (1) staff training burden—nurses require education on demoralization recognition, brief screening tools, and tiered intervention principles, which may be challenging to deliver in resource-constrained settings; (2) time constraints—routine assessment of both symptom and psychological-existential dimensions adds to existing documentation burdens; (3) limited access to psycho-oncology specialists—many oncology units lack on-site psychological support services, making timely referral difficult; and (4) interprofessional coordination—clear communication pathways between nursing staff, medical teams, and allied health professionals must be established. To address these barriers, we suggest that implementation begin with: (a) brief training modules integrated into existing nursing education; (b) incorporation of a single screening question for demoralization (e.g., “Do you feel you have lost hope or meaning in life?”) into routine symptom assessment; (c) establishing formal referral protocols with designated contacts in psycho-oncology, palliative care, and rehabilitation services; and (d) regular interdisciplinary team meetings to review high-risk patients and coordinate care.

Interprofessional collaboration protocols: The following communication workflows are suggested to facilitate integration of the framework into clinical practice: (1) ward nurses screen for demoralization risk using brief instruments and document findings in the patient record; (2) patients identified as moderate risk are discussed in weekly interdisciplinary team meetings, with input from psycho-oncology and palliative care consultants; (3) high-risk patients trigger an immediate referral to mental health services, with a standardized referral form specifying the reason for referral, current risk level, and relevant clinical information; (4) respiratory rehabilitation and palliative care teams are consulted for patients with refractory dyspnea or complex functional impairment, with shared care plans developed collaboratively; and (5) all referrals are tracked to ensure timely follow-up and to identify gaps in service provision. These protocols are provisional and should be adapted to local resources and institutional structures.

The clinical manifestations, key assessment domains, nursing goals, and indications for escalated management at each point along the psychological-functional-existential pathway are summarized in **Table 3**.

Table 3. Correspondence between psychological-functional-existential pathway nodes and nursing assessment and intervention

Pathway node	Main clinical manifestations	Key assessment content	Nursing goals	Main nursing measures	Indications for escalation or specialist referral
Dyspnea and symptom threat	Breathlessness, chest tightness, labored breathing, fear of suffocation, and concern about disease progression or approaching death	Intensity, frequency, duration, and triggers of dyspnea; accompanying symptoms; oxygenation status; effects on activity; potentially reversible causes	Identify acute risks and relieve both the symptom and the threat associated with it	Initiate medical assessment promptly; adjust positioning; use facial airflow, pursed-lip breathing, and breathing pattern training; guide activity pacing; provide oxygen therapy and pharmacological management according to clinical indications and medical orders	Sudden or persistent worsening of dyspnea, marked hypoxemia, or suspected infection, pleural effusion, airway obstruction, pulmonary embolism, or another acute cause
Symptom unpredictability and diminished perceived control	Fear of symptom recurrence, reluctance to remain alone or go out, repeated reassurance seeking, and uncertainty about when medical assistance is needed	Patient's understanding of the symptom; anticipatory fear; perceived control; self-efficacy in symptom management; previous coping strategies; ability to seek help	Increase the perceived predictability of symptoms and strengthen confidence in coping	Develop an individualized symptom action plan; explain common triggers, relief methods, and warning signs; clarify when to manage symptoms at home, contact healthcare professionals, or seek emergency care; use the teach-back method to confirm the understanding of patients and caregivers	Persistent panic, pronounced catastrophic interpretation, inability to learn basic coping methods, or frequent unplanned healthcare use because of fear
Activity avoidance and functional decline	Reduced walking, bathing, eating, going outdoors, or social interaction, together with decreased activity tolerance and impaired ability to perform activities of daily living	Range of activity; ability to perform activities of daily living; functional changes; physical condition; dependence on care; risks related to falls and activity safety	Reduce unnecessary activity avoidance and maintain safe, sustainable functional participation	Introduce graded activity according to tolerance; divide daily tasks into manageable steps; schedule intermittent rest; provide guidance on energy conservation; use assistive devices appropriately; refer to rehabilitation services when necessary	Rapid functional decline, marked impairment in activities of daily living, increased risk of falls, or a need for specialist rehabilitation assessment

Continuation Table:

Pathway node	Main clinical manifestations	Key assessment content	Nursing goals	Main nursing measures	Indications for escalation or specialist referral
Role restriction and perceived burden	Withdrawal from family decision-making or social activities, repeated statements such as “I am useless” or “I am causing trouble for my family”, and increasing dependence on family members	Previous and current family, occupational, and social roles; level of participation; dependence on care; family communication; caregiver stress; overprotection	Preserve opportunities for participation and the patient’s sense of role value, while reducing perceived burden	Encourage participation in treatment and daily-life decisions; redefine roles that can still be maintained; provide joint patient-caregiver education; promote family communication; arrange a family meeting when necessary	Pronounced family conflict, severe caregiver burden, persistent over-substitution by caregivers, or prolonged withdrawal from social relationships
Impaired dignity and erosion of meaning	Persistent helplessness or hopelessness, diminished self-worth, disruption of future goals, and the belief that life lacks meaning	Severity of demoralization; hope; experience of dignity; self-worth; life goals; important relationships; unfinished matters; spiritual needs	Preserve dignity and self-worth and help patients retain realistic goals and sources of meaning	Use open communication; provide hope-oriented communication; assist with a brief life review; offer dignity-conserving support; assess spiritual needs; preserve opportunities for choice and participation	Moderate-to-severe demoralization, persistent hopelessness, marked impairment of dignity, complex psychological-existential distress, or a need for structured psychological intervention
Severe demoralization and safety risk	Persistent wish to die, thoughts of self-harm or suicide, marked abandonment of self-care, or severe depression, anxiety, or other psychiatric symptoms	Severity of demoralization; wish to die; thoughts, plans, or previous acts of self-harm or suicide; psychiatric comorbidities; protective factors; available practical support	Ensure patient safety and provide timely professional assessment and treatment	Ask directly about safety risks; ensure the patient is not left alone; reduce environmental hazards; activate institutional safety procedures; contact psycho-oncology, mental health, or palliative care teams promptly	Explicit thoughts, plans, or acts of self-harm or suicide, inability to maintain personal safety, or severe psychiatric symptoms

8. Evidence gaps and future directions

Current research on symptom burden and demoralization in patients with LC has relied mainly on cross-sectional surveys, correlation analyses, and mediation models;

although such studies can indicate associations among symptoms, psychological resources, and demoralization, they cannot readily establish the order in which these factors arise and are insufficient to support causal inference [28]. Longitudinal evidence that treats dyspnea as a specific exposure and demoralization as the primary outcome is particularly scarce. Future research should therefore follow patients continuously across critical points such as diagnosis, treatment transition, disease progression, and symptom deterioration, examining whether dyspnea influences the development of demoralization through diminished perceived control, activity avoidance, functional decline, and role impairment, while also testing the reverse effects of demoralization on activity participation, symptom self-management, and treatment adherence. The way dyspnea is measured further limits the depth with which current findings can be interpreted: most studies focus on symptom intensity and pay insufficient attention to the emotional discomfort, unpredictability of episodes, anticipatory fear, and functional interference that accompany dyspnea [29]. Future studies could combine multidimensional dyspnea scales, patient-reported outcomes, activity capacity, and functional status indicators to assess symptom frequency, fluctuations, and cumulative effects dynamically. Third, a clear divide remains between symptom management and care for demoralization in existing intervention studies: interventions for dyspnea in LC generally use the severity of breathlessness, functional status, and quality of life as their main outcomes, whereas interventions for demoralization are mostly derived from mixed-cancer populations and rarely address symptom threat, functional limitations, role changes, and crises of meaning at the same time [30, 31]. Future clinical trials could add restoration of agency, role support, and meaning-centered interventions to routine symptom management, include demoralization as one of the primary outcomes, and concurrently assess possible intermediate variables such as perceived control, functional participation, and family burden. Finally, caregiver stress, family communication, overprotection, and decision-making patterns may all alter the effect of symptom burden on patients' psychological state [32]. Smoking-related stigma, financial pressure, and culturally shaped understandings of dignity, hope, and meaning in life may also influence how demoralization is expressed and identified [33]. Cross-cultural research is urgently needed to validate the applicability of demoralization assessment instruments and meaning-centered interventions across diverse cultural contexts. The construct of demoralization may be expressed differently—and may carry different social and existential connotations—in collectivist versus individualist cultures, and the specific content of meaning-centered interventions may require cultural adaptation to address locally relevant sources of meaning, dignity, and hope. Multinational studies that include diverse ethnic and cultural groups are essential to establish the cross-cultural validity of both assessment and intervention approaches. In addition, digital health and e-self-management interventions represent promising future directions for addressing dyspnea-related distress. Telehealth platforms, mobile app-based dyspnea self-management tools, and digital psychological support interventions could extend the reach of tiered nursing frameworks beyond hospital settings, particularly for patients with limited access to in-person supportive care. Future research should evaluate the feasibility, acceptability, and effectiveness of technology-enhanced interventions that combine symptom monitoring, self-management guidance, and psychological support, with attention to digital literacy and access barriers. Multicenter, longitudinal, and patient-caregiver dyadic studies are needed, together with further evaluation of the feasibility, acceptability, and sustained effects of

the tiered nursing framework across different disease stages and care settings. Research priorities should be distinguished by their temporal and practical scope: (1) immediate implementable quality improvement projects—e.g., integrating a single demoralization screening question into routine nursing assessment, developing locally adapted referral pathways; (2) medium-term feasibility studies—e.g., pilot testing of the tiered nursing framework in oncology wards, evaluating staff training and patient acceptability; and (3) long-term randomized controlled trials—e.g., testing the effectiveness of the full framework against usual care for demoralization outcomes, quality of life, and healthcare utilization.

9. Conclusion

Dyspnea in patients with LC may involve more than physical discomfort: it may also be accompanied by a heightened sense of threat, diminished perceived control, restricted activity, and role changes, and may be associated with impaired dignity, erosion of meaning, and demoralization; current evidence mainly supports an association between symptom burden and demoralization, while the specific temporal sequence and underlying pathways still require validation through longitudinal and interventional studies. The pathway and nursing framework presented in this review are therefore hypothesis-generating and require empirical validation. Alongside standardized assessment and management of dyspnea, clinical nursing should attend to patients' functional participation, coping capacity, family roles, and existential distress, with continuous assessment, tiered support, and specialist referral provided according to risk level.

Supplementary materials: The review was conducted in accordance with the PRISMA guidelines for scoping and integrative reviews, with a PRISMA-style flow diagram documenting the screening and selection process, could see **Supplementary Figure S1**.

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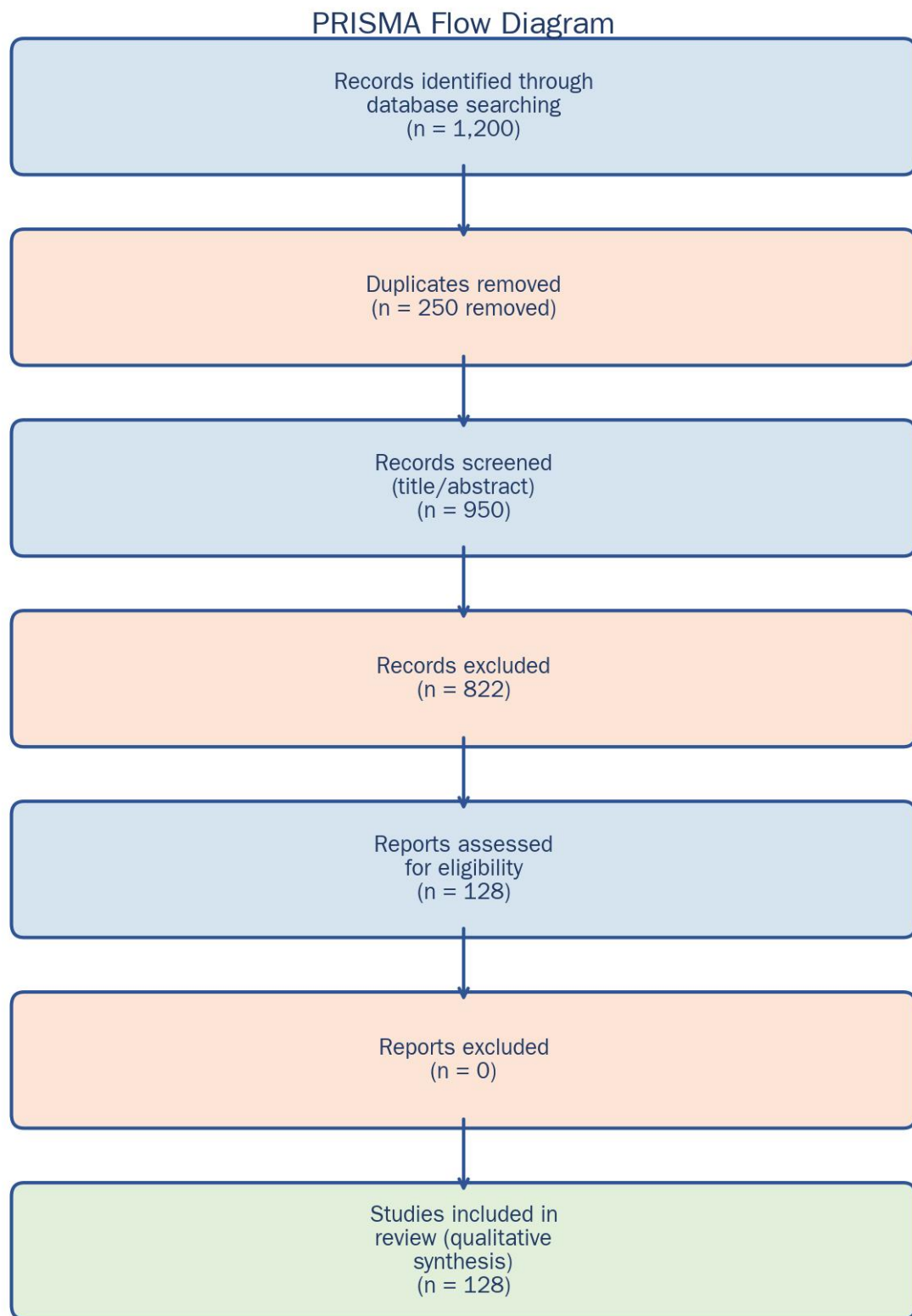
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Supplementary Figure S1. PRISMA flow diagram