

ABSTRACT

Objective: The objective of this study was to evaluate the impact of chronic diseases on the quality of life of patients, comprehend the psychological implications of these diseases, and review the literature.

Materials and methods: Narrative review using PubMed, Google Scholar, Embase, ScienceDirect Medline (2014–2024) BMC database and Cochrane Library with search terms included chronic diseases, psychological impact, quality of sleep and life, psychological distress. After screening, 32 of the studies were included.

Results and discussion: Depression, anxiety, insomnia, and social isolation frequently coexist with chronic disease. These

emotional tolls may contribute to physical symptoms while diminishing the effectiveness of treatment.

Conclusion: Providing psychological support is important in the management of chronic disease. Tailoring interventions can improve patients' quality of life and should be considered in research and public health initiatives.

Keywords: Chronic disease, mental health, quality of life, sleep disorder, public health.

1. Introduction

Chronic illness is a burdensome event that weighs heavily on the individual and affects various aspects of their life. The sudden transition from a state of health and well-being to a state of illness constitutes a painful and shocking experience, disrupting their personal and social stability. It plunges them into a cycle of continuous suffering, forcing them to adhere to a structured treatment program and imposing unavoidable restrictions on their life. This negatively impacts their psychological well-being and quality of life, hindering their capacity to perform everyday activities and duties.

The World Health Organization defines a chronic disease as a condition requiring long-term health care lasting years or decades [1], characterized by its slow progression, and not transmitted from person to person [2]. According to the Centers for Disease Control and Prevention, they do not heal automatically and cannot be cured entirely [3]. These definitions go beyond the medical dimension, reflecting a complex reality imposed by the disease on individuals' lives. Besides their chronic nature, they significantly affect the patient's personal and professional life, in contrast to short-term diseases such as colds or fevers [3]. Furthermore, there is a need to adhere to continuous treatment programs, which include taking medications, monitoring diet, and ongoing medical care [4,5], in order to control the disease and maintain health stability.

Suffering from a chronic illness is not just a health crisis; it is a harsh transitional experience that disrupts an individual's normal state, subjecting their physical, psychological, and social life to immense pressures. Thus, coexisting and adapting to the illness becomes an urgent existential necessity, requiring them to arm themselves with strength and patience not only to deal with the biological aspect of the disease but also to face its psychological and social repercussions. In addition to the physical suffering of the patients, they also experience psychological difficulties resulting from the trauma of the illness and the harsh treatment, as well as the fear of the disease's complications and consequences, which

leads to psychological conflicts that significantly affect the mental balance of these individuals. Therefore, the psychological aspect should be taken into consideration when monitoring patients with chronic diseases [5].

Chronic diseases encompass a wide range of illnesses, including diabetes, chronic respiratory diseases, cardiovascular diseases, and cancer [2]. According to the (WHO), these diseases constitute the primary cause of mortality globally, accounting for 71% of the global population, with an average of 41 million deaths out of a total of 57 million global deaths [6].

From this standpoint, addressing and managing chronic diseases has become a top priority within global policies, not only to alleviate the burdens of these diseases but also to improve the quality of life for patients, alleviate their distress, and enhance their capacity to manage the repercussions of the illness. The process of identifying effective strategies to mitigate the repercussions of this health burden is of paramount importance, as chronic diseases are one of the primary causes of elevated levels of anxiety and depression among patients.

Although chronic diseases establish a complex association between mental and physical health. Living with a chronic illness frequently elicits many psychological responses, which the patient employs as an unconscious defense strategy to manage the trauma and anxiety associated with the condition. Upon receiving a diagnosis of a chronic illness, the person usually go through a period of disbelief and uncertainty, which can impede the receipt of initial treatments.

The objective of this narrative review is to compile evidence regarding the most prevalent psychological effects, investigate the factors that influence mental health outcomes, and investigate the disparities among various population subgroups, such as age, gender, education, and socioeconomic level. The review offers healthcare providers and policymakers actionable insights to assist in the development of approaches that integrate mental health support into chronic disease prevention and management programs for patients and communities by incorporating this information.

2. Methods

2.1. Search Strategy

This review analyzed academic materials published between 2014 and 2024. The query in the English language was performed in scientific databases, including PubMed, Embase, ScienceDirect, Medline, Cochrane, Google Scholar, and BMC using the following words: chronic diseases,

chronic illness, psychological consequences, quality of life, sleep disorders, and mental health.

2.2. Study Selection

The selection included articles published in English that examined the relationship between chronic diseases, generally or specifically, and psychological outcomes such as anxiety, depression, social isolation, and sleep disturbances, as well as discussions of patients' quality of life. Articles outside the specified time period, those that focused solely on biological aspects without considering psychological components, and those written in a language other than English were excluded.

2.3. Data Extraction

The rigor of this review corresponds to the quality of the results achieved, which can be attributed to the careful synthesis and organization of the studies. From an initial pool of 169 studies, the search strategy progressed through four stages: removal of 38 duplicate studies, exclusion of 59 studies following abstract screening, elimination of 34 studies after full-text summarization, and exclusion of 6 additional studies found to be unrelated to the research topic. The number of studies meeting the inclusion criteria settled at 32 (Figure 1).

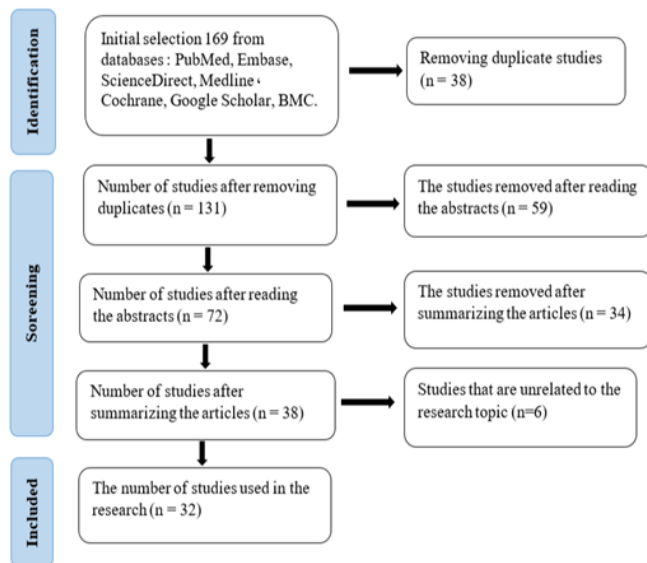


Figure 1. Flowchart of the study selection process for the narrative review on the psychological burden of chronic diseases and quality of life (2014–2024)

3. results

3.1. Characteristics of the selected studies

By summarizing 32 studies according to a model that includes the country, year, type of study, chronic disease, psychological disorder, sample, and results, it was concluded that they are characterized by several features, including significant cultural diversity across nearly 28 countries. The most common type of study is cross-sectional (22 studies), followed by literature reviews (7 studies), and then longitudinal studies (3 studies).

The sample sizes ranged from small studies, including 70 patients, to extensive studies with 9807 participants. The studies were distributed in terms of chronic diseases into studies that addressed multiple diseases at the same time ($n = 7$) and studies that focused on specific diseases: kidney diseases ($n = 5$), heart diseases ($n = 6$), diabetes ($n = 4$), respiratory diseases ($n = 4$), rheumatic and muscular system diseases ($n = 3$), and cancer ($n = 3$). The articles tended to focus mainly on psychological disorders such as anxiety and depression, sleep, and social isolation.

The list of included studies is provided in the Appendix (Table A1)

3.2. Chronic diseases and psychological problems

The reviewed studies identified multiple links between chronic diseases and psychological issues. Researchers have found that people living with chronic diseases like diabetes, cancer, kidney disease, heart disease and arthritis suffer from a range of mood disorders that are exacerbated by poor mental health.

3.2.1. Sleep disorders

Five of the 32 reviewed studies examined the relationship between chronic disease and sleep disturbances [7–11]. In addition to their physical suffering, these individuals experience sleep disturbances, which can have profoundly negative impacts on both their mental and physical health. This was confirmed by a study conducted by Dwi Tama & Astutik (2021) on 9,807 patients aged 15 years and older, which showed that 75.7% of patients with chronic diseases suffer from sleep disorders, and that the presence of such disorders increases the likelihood of health deterioration in this population [7]. Sleep disturbances are considered one of the most prominent factors affecting the physical and mental health of the elderly, as sleep is an essential element for maintaining physical, mental, and psychological well-being [8]. The consequences of poor sleep quality are not limited to

feelings of fatigue, lack of concentration, and bad mood; they also lead to a decline in motor skills and cognitive functions and increase the risk of obesity, dementia, and cardiovascular and cerebrovascular diseases, which poses a danger to an individual's quality of life [10].

In the same context, a study by Nefae et al. (2022) [9] showed that 41.1% of patients with type 2 diabetes in their study experienced poor sleep quality, while Zheng et al. (2023) [11] revealed that 46.67% of patients with coronary artery disease suffered from sleep problems. These findings suggest that sleep disorders and psychological difficulties may mutually reinforce one another, contributing to a cycle of deteriorating physical and mental health outcomes in chronically ill patients.

Taken together, the reviewed studies highlight a consistent association between chronic diseases and sleep disturbances, and underscore the negative impact of poor sleep on patients' quality of life [7,8,10]. These findings indicate the necessity of incorporating targeted sleep interventions, alongside primary disease treatment, as an essential component of therapeutic programs aimed at improving health outcomes for individuals with chronic diseases.

3.2.2. Anxiety and depression

The burden of suffering from a chronic illness causes a range of feelings of distress, helplessness, and despair, which contribute to exacerbating the patient's depressive state. The pain and treatment obligations imposed by the nature of the illness can form constraints for the patient, leading them to experience psychological struggles that affect their quality of life and psychological balance.

Twenty-six of the 32 reviewed studies examined chronic diseases, anxiety, and depression, indicating that patients with heart disease, diabetes, and hypertension have psychological tendencies towards anxiety and depression [8,11]. These studies concluded that the risk of exposure to these conditions increases with the presence of chronic diseases. Notably, a study by M. et al [12], conducted with a cohort of 323 participants diagnosed with cardiovascular diseases, metabolic disorders, kidney diseases, respiratory problems, liver diseases, cancer, and autoimmune disorders, reported a depression rate of 58.8% and an anxiety rate of 51.1% in their sample, with both conditions most prevalent among patients with heart disease. Additionally, Cserép et al. (2022) observed a significant association between long-term diseases and the likelihood of depression and anxiety among adolescents [13].

3.2.3. Diabetes

Patients with type 1 and type 2 diabetes were among the populations most frequently reporting anxiety and depression in the reviewed studies. Liu et al. (2020) found that depression and anxiety are prevalent among patients with diabetes, with a notable proportion experiencing both conditions concurrently [14]. Bădescu et al. (2016) reported that the demanding nature of diabetes self-management, including insulin administration, continuous glycemic monitoring, and strict dietary adherence, imposes significant psychological pressure on patients, contributing to the onset and worsening of depression and ultimately leading to poorer glycemic control and reduced treatment adherence [15]. Sahu & Rajyalakshmi (2024), in a study of 109 patients with diabetes, found a high prevalence of depressive symptoms in their sample [16]. Bădescu et al. (2016) further reported that anxiety and depression are more prevalent among children and adolescents with type 1 diabetes compared to their peers in the general population [15].

In general, anxiety and depression adversely affect patients' health-related quality of life [14]. Additionally, the relationship between diabetes and depression may be bidirectional; just as diabetes can lead to depression due to the psychological stress associated with managing the disease, depression can also cause the onset of diabetes [15].

3.2.4. Joint and muscle diseases

Three of the reviewed studies examined the psychological burden among patients with rheumatic and musculoskeletal diseases. A review by Unal Enginar and Nur [17] found that 50.3% of the patients exhibit depression symptoms, while 25.3% suffer from anxiety [17]. While a study conducted on 3198 adults showed a strong relationship between rheumatic diseases and increased anxiety symptoms, there were no differences in depression [18]. Another study revealed that 66% of patients had high levels of depression [19], as continuous exposure to inflammation can adversely affect the patient's capacity to work and perform daily activities [19], as well as their response to treatment [17]. Additionally, depression and anxiety can exacerbate the patient's health deterioration and relapses [18,19].

3.2.5. Cardiovascular diseases

The repercussions of cardiovascular diseases are not trivial. Day by day, studies confirm the strong relationship between these diseases and psychological implications such as depression and anxiety, which have negative consequences on the patient's health [20], and increase the mortality rate and the

risk of stroke and heart attacks [20]. Coronary artery disease patients who experience these problems are at increased risk of developing serious vascular events [21]. For instance, persons with depression have a 60% excess risk of a cardiovascular disease event, compared to those without depression [22], and this also holds too for individuals with anxiety disorders [21]. From a multi-disciplinary perspective, psychological disorders could be the causative factor for inflammation or can interfere with the functioning of the autonomic nervous system, which could even develop into heart diseases [23]. Anxiety and depression in heart disease patients should be diagnosed early, and appropriate drug treatment initiated.

3.2.6. Respiratory diseases

Respiratory diseases come in a variety of forms, including but not limited to asthma, chronic obstructive pulmonary disease (COPD), bronchitis and pulmonary fibrosis, all of which interfere with an individual's ability to breathe comfortably. During the course of the disease and the onset of severe shortness of breath attacks, desperation becomes an ever-increasing companion, leading to a vicious circle of anxiety and depression [24]. Many studies have demonstrated a strong relation between respiratory diseases and symptoms of anxiety and depression [25–27]. For instance, the study by Hernández-Solís et al [26] revealed that 74.4% of patients with pulmonary disorders exhibit symptoms of anxiety and 69.5% exhibit symptoms of depression [25]. These psychological symptoms are associated with respiratory difficulties, such as wheezing and shortness of breath, after waking up or engaging in certain activities [27]. As a result, many patients reduce mobility and withdraw from social activities.

3.2.7. Cancer

Cancer is recognized as one of the foremost global health priorities and a significant challenge in scientific research, due to heterogeneity in causes, types and the variable progression among individuals. Depression and anxiety are some of the toughest challenges people face when they are diagnosed with cancer. This relationship has been confirmed by many studies [28,29], for which the strength of this association is different according to the cancer types and treatment stage [30]. Anxiety symptoms are common in newly diagnosed breast cancer patients, and depression figures within the psychological distress that patients experience with their first diagnosis, for example [29]. Another study conducted on patients with different types of cancer showed that the severity of depression and anxiety varies from one treatment stage to another. For example, patients with stage three cancer

exhibited higher levels of anxiety and depression than those in other stages [28]. Furthermore, depression can accompany the subject for many years after she/he has recovered [30]. In addition, psychological problems are obstacles based on the treatment of breast cancer and influence the treatment compliance, quality of life and risk for recurrence.

3.2.8. Kidney diseases

Because the kidneys play a vital role in the human body, any illness that affects them causes a patient's life to be disrupted and their equilibrium and homeostasis to be lost. Numerous studies have shown that quite a few patients have symptoms of depression and anxiety, which are serious adverse reactions of renal disease [31]. According to a series of studies, over 69% of kidney patients had symptoms linked to anxiety, and approximately 71% of them showed signs of depression [32]. The severity of anxiety and depression increases with the progression of the disease [32,33], meaning they are linked to the intensification of pain [31], an increase in disease symptoms, and a decline in kidney function. This will undoubtedly result in a decline in quality of life and a rise in mortality rates. Therefore, these psychological repercussions resulting from the disease contribute to increasing the suffering of patients and limit their adaptive capacities to the disease and its challenges [31].

3.2.9. Isolation

The repercussions of chronic diseases do not only appear in the physical aspects of the patient, but their effects extend to their psychological and social aspects. Before adapting to the disease, the patient goes through periods of frustration, depression and a sense of loss of autonomy, as well as finding it difficult to accept the treatment and the new self-image, which contributes to low self-esteem and affects his participation in life activities, maintaining his relationships and social roles, which leads to deepening the extent of his psychological and physical suffering and enhancing his sense of loneliness and isolation [34]. Similarly, patients with respiratory diseases tend to be socially isolated and minimize physical activity, which leads to a deterioration in their quality of life and elevates anxiety and depression [24]. This social isolation contributes significantly to elevating the levels of anxiety, depression, stress and psychological distress [12], which increases the danger of type 2 diabetes and cardiovascular disease [35], and leads to rapid deterioration of kidney function [36]. Research has demonstrated that patients who receive care and emotional support from family and close relatives and maintain strong social relationships have less impact of social isolation and show significant improvement in coping with the disease [12].

4. Discussion

4.1. The influence on quality of life

Chronic illnesses are among the factors influencing the patient's quality of life, as the latter is considered one of the main indicators reflecting the extent to which the disease affects the patient's physical, psychological, and social aspects. In the reviewed studies, the association between quality of life and the disease was indicated either directly or indirectly. It was emphasized that chronic diseases significantly affect the quality of life of individuals suffering from chronic conditions such as kidney diseases [34] and rheumatic and muscular diseases [18]. Studies have also shown that cancer is associated with feelings of discomfort, decreased life satisfaction, reduced daily activities, non-adherence to treatment, and prevalence of suicidal thoughts [28], and all these signs indicate a deterioration in health-related quality of life. Additionally, impaired overall quality of life in chronic obstructive pulmonary disease patients is associated with greater pain severity [24]. As for patients with kidney failure who require a large number of dialysis sessions, their quality of life is affected by changes in their lifestyle and daily habits [34].

In the same context, one comparative study on the quality of life in those with chronic illnesses found that the highest quality of life scores were among those with hepatitis and psoriasis, while the lowest scores were among those with kidney failure and cardiovascular diseases [37]. In a separate study, the highest scores were among patients with diabetes and hypertension, and the lowest levels were among patients with chronic obstructive pulmonary disease and asthma [38]. As for adolescents, the results revealed that patients with inflammatory bowel disease reported a lower quality of life than patients with type 1 diabetes [13]. At this point, it should be noted that there are other factors that, alongside the disease, impact the patient's quality of life. The three studies mentioned that a higher quality of life is associated with a comfortable economic situation and a high educational level of the patients or their relatives, while a lower quality of life is related to aging [13,37,38] and the presence of multiple diseases and the duration of the illness [37,38]. Moreover, in turn, regular exercise enhances the quality of life for patients.

On the other hand, the decline in quality of life is not only related to the physical aspects of the patient but also to the psychological impacts of the disease. Studies indicate a negative correlation between quality of life, anxiety and depression in diabetic patients [14], and among kidney failure patients [33]. Additionally, sleep disorders further compromise the quality of life in patients with heart diseases,

as the quality of life was lower among patients suffering from sleep disorders compared to patients without such disorders [11]. However, sleep disorders are not only associated with quality of life but also result in a deterioration of health state [8]. Therefore, early diagnosis and intervention might boost patient health outcomes [7].

4.2. Factors contributing to psychological problems in patients with chronic diseases

The reviewed data have shown us a consistent and strong association between chronic diseases and multiple psychological disorders already studied, being clear that long-standing organic diseases are not only the patients' bodies but also their "soul" or minds, with deep consequences on the patient's quality of life as well as on their resources for health. However, studies have also found that there are other influential factors that create differences among patients in terms of their response to the disease and its psychological repercussions. Therefore, identifying these factors can help in discovering individuals who are more susceptible to psychological suffering.

In this regard, it has been pointed out that demographic variables such as age, gender, educational attainment and social class can be considered important moderators that determine the psychological problems of patients with chronic diseases. Of the 32 studies included in this review, gender is relevant to this correlational relationship in such a way that 84.38% of the findings of relevant papers show females are much more sensitive than males to anxiety, depression, sleep disturbances, and other psychological symptoms, also with a range from [50%] for females compared to only [15.63%] for males concerning all those items related above. This gap between males and females can be explained by biological differences as well as the differing social roles they occupy.

Regarding the age factor, 62.5% of the studies addressed it as one of the variables affecting the patient's psychological condition, with 53.13% of them mentioning that elderly individuals exhibit many psychological problems, including high levels of anxiety, stress, social isolation, and feelings of loneliness, as well as low quality of life. These results reflect the challenges faced by the elderly, which are related to the physiological changes of ageing, and sometimes due to the death of a partner, retirement, loss of social roles, and limited social participation, contributing to the deepening of psychological and physical problems. Furthermore, research studies show that the patient's marital status can function as a protective factor against psychological disorders. Of 15 studies focused on differences between patients according to this factor, 63.64% revealed that unmarried persons (single,

divorced, or widower/widower) are at risk of psychological distress, poor health, poor sleep quality, and low-quality life.

As for the impact of educational level and economic status, 56.25% of the studies that addressed educational level and 53.13% of the studies that dealt with the economic status of patients found that both low educational level, unemployment, and limited income contribute significantly to the emergence of various psychiatric disorders, which manifested in anxiety, depression, tension, insomnia, social isolation, and decreased quality of life and psychological well-being.

Conversely, a series of research emphasized that other factors related to the disease may contribute to the onset of psychological disorders. 14 investigations have shown that the length of the sickness might elevate the danger of psychological issues, whilst 9 studies have indicated that the existence of comorbid conditions alongside the primary illness can substantially impact the patient's mental health.

Biological, economic, social disparities, and other factors underlying poor mental health outcomes among persons with chronic diseases belong, of course, to more than the purely academic. They stress the importance of psychological care plans tailored to these differences. Restoring these challenges in face will be able to decrease the mental stress and enhance one's health and life quality effectively.

The results of this review suggest that there is an acknowledged problem, but one that has been poorly addressed in the published literature. Anxiety and depression are not incidental comorbidities in chronic disease. They are enduring elements of the illness experience common across illnesses and independent contributors to clinical outcomes. Cardiovascular, renal, pulmonary, metabolic, and rheumatological conditions share a transdiagnostic pattern that can be interpreted as underpinned by a shared psychobiological substrate, plausibly involving HPA axis dysregulation, chronic inflammation, and autonomic imbalance rather than disease-specific psychological reactions. That distinction matters clinically: if the mechanism is shared, so should be the response.

What makes this particularly hard to justify is that the gap between evidence and practice isn't new. Celano et al. (2018) showed that depression and anxiety are still understudied in heart failure patients, despite decades of evidence associating each with higher rates of subsequent death and rehospitalization [20]. The barrier is partly diagnostic, in that the somatic symptoms of chronic illness muddy the affective picture, but also structural. Mental health assessment remains largely absent from chronic disease protocols, is considered a

specialty issue rather than routine care, and is often not included in practice guidelines. This review contributes to a growing body of evidence that is making that position increasingly untenable.

The bidirectional association of psychological morbidity and HRQoL makes this argument even stronger. When diminished quality of life pushes depression deeper and deeper, and deepening depression drags quality of life lower still, then deferred intervention isn't just a missed opportunity. It enables a downward cycle to continue unimpeded. For clinicians, the question is no longer if psychological comorbidity matters in chronic disease. The question is whether today's care structures are designed to tackle it.

Sleep disturbance, which is often treated as background noise, may warrant more consideration than it usually gets in this situation. As Xu (2023) has identified a mediation pathway in which sleep quality lies between psychological resilience and health-related quality of life, this suggests that, rather than a downstream symptom, sleep is an actionable target [10]. In contexts where access to psychological services is limited, sleep-oriented interventions might offer a tangible, evidence-based window into a broader issue.

The most unambiguous methodological strength of this review is its cross-disease scope. Most studies to date are still organized around individual conditions, making it hard to identify and easy to underestimate transdiagnostic patterns. This also serves to strengthen the translation of the evidence, as the included studies in this review come from a range of countries, which helps reduce bias and avoid findings specific to particular cultures or settings. The limitations of the underlying evidence are significant and should not be downplayed. Most of the studies included in this review were cross-sectoral; thus, directional assertions throughout are at best plausible and internally consistent but cannot be rigorously established based on the existing data. Differences in measurement instruments, cut-off thresholds, and sampling strategies limit the comparability of prevalence estimates across studies and disease groups. Clinic-based recruitment, which dominates the literature included here, has a systematic bias of inflating the representation of those with more severe disease; readers should interpret prevalence figures accordingly.

The prevalence case is made. What the field now requires are longitudinal studies to track the co-evolution of psychological burden and disease progression, and controlled trials of integrated care models in which assessments of psychology as an illness are a central pillar of chronic disease management rather than an optional referral pathway.

5. Conclusion

Due to the quality and morbidity of life associated with psychological burden, it is a critical albeit understudied part of patient care. The psychological burden can be as heavy as the physical burden itself. Thus, unlike care frameworks, these mental health interventions should be among those adopted as part of programs to prevent and treat chronic diseases.

Because psychological interventions strategically improve medication adherence, reduce healthcare resource use, and ultimately enhance population health, public health professionals and policy-makers should prioritize them. Future studies should focus on the development and evaluation of culturally relevant psychological interventions for different chronic illness populations.

What this study adds

- Integrating evidence from 32 studies published between 2014 and 2024 across major databases, this review maps the psychological toll of chronic disease on patients' daily lives;
- Depression, anxiety, insomnia, and social isolation tend to cluster in chronically ill patients, creating a cycle that amplifies physical symptoms and undermines treatment effectiveness;
- Findings highlight the value of incorporating tailored psychological support into chronic disease management, with practical implications for both clinical practice and public health planning.

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Appendix

Table A1: Summary of the objectives, methods, main findings, and quality assessment of the 32 studies included in the narrative review on the psychological burden of chronic diseases and quality of life, published between 2014 and 2024

Reference	Country	Sample	Disease	Study type	Results
[7]	Indonesia	9807 participants Males: 3996 Females: 5811	Various diseases	Quantitative	Chronic patients experience a diminished quality of life influenced by depression, activity levels, and socioeconomic status, while healthy individuals are affected by socioeconomic status, anxiety, and educational attainment.
[8]	Jordan	820 individuals Males: 422 Females: 398	Various diseases	Quantitative	Depression and psychological distress are key contributors to sleep disturbances, with depression negatively and distress positively associated with sleep quality.”
[9]	Saudi Arabia	270 patients Males: 100 Females: 170	Diabetes	Quantitative	Poor sleep quality is common among patients, but it shows no clear association with glycemic control.
[10]	China	339 participants Males: 207 Females: 132	Various diseases	Quantitative	Psychological resilience correlates positively with quality of life, with depression sleep quality and serving as key mediators in this association.
[11]	China	240 patients Males: 126 Females: 114	Cardiovascular diseases	Quantitative	Sleep disturbances correlate with elevated levels of anxiety and depression, leading to diminished physiological, and social quality of life.
[12]	India	323 patients Males: 189 Females: 134	Various diseases	Quantitative	Patients often exhibit elevated levels of stress, anxiety, and depression, which show a stronger correlation with cardiovascular disease than with other chronic conditions.
[13]	Hungary	85 adolescents Males: 29 Females: 56	Various diseases	Quantitative	Adolescents’ and parents’ cognitive emotion regulation strategies strongly influence adolescents’ quality of life, with type 1 diabetes patients showing longer disease duration and greater use of positive reappraisal than those with inflammatory bowel disease.
[14]	Netherlands	244 patients Males: 123 Females: 121	Diabetes	Quantitative	Depression and anxiety are prevalent common within those suffering, with a notable proportion experiencing both conditions concurrently.
[15]	Romania	Review	Diabetes	Qualitative	Depression is highly prevalent among diabetes patients, worsening glycemic control, treatment adherence, complications, mortality risk, and overall quality of life
[16]	India	109 patients Males: 66 Females: 43	Diabetes	Quantitative	Depression is highly prevalent among patients, particularly affecting middle-aged adults, with men showing greater susceptibility than women.
[17]	Turkey	182 patients Males: 45 Females: 137	Rheumatic and musculoskeletal diseases	Quantitative	Depression and anxiety are common in rheumatoid arthritis, with depression more prevalent and linked to higher disease activity and poorer physical function, influenced by sex, occupation, and education level.

[18]	Portugal	3877 patients Males: 1247 Females: 2630	Rheumatic and musculoskeletal diseases	Quantitative	Patients with rheumatic and musculoskeletal disorders exhibit higher anxiety, reduced quality of life, and poorer physical functioning, while depression levels are similar to healthy individuals.
[19]	Iran	100 patients Males: 28 Females: 72	Rheumatic and musculoskeletal diseases	Quantitative	Clinical depression is common and is strongly associated with greater perceived pain, mediated by illness perceptions, and linked to poorer pain control
[20]	USA	Review	Cardiovascular diseases	Qualitative	Depression and anxiety are associated with heart failure progression, higher mortality, and increased hospitalizations.
[21]	USA	Review	Cardiovascular diseases	Qualitative	Anxiety, depression, post-traumatic stress disorder, and chronic psychological stress are correlated with an elevated risk of cardiovascular diseases, increased incidence of cardiac events, and heightened mortality rates. Furthermore, depression is associated with recurrent cardiac incidents, while anxiety is specifically linked to a greater risk of coronary heart disease and cardiac mortality.
[22]	Italy	2009 patients Males: 1426 Females: 583	Cardiovascular diseases	Quantitative	Women exhibit higher rates of depression and anxiety than men, and patients in heart failure and cardiac surgery units show elevated symptom levels.

Table A1 (suite): Summary of the objectives, methods, main findings, and quality assessment of the 32 studies included in the narrative review on the psychological burden of chronic diseases and quality of life, published between 2014 and 2024

Reference	Country	Sample	Disease	Study type	Results
[23]	France	Review	Cardiovascular diseases	Qualitative	Psychological disorders, particularly depression and anxiety, show a strong association with cardiovascular disease; chronic stress exacerbates pathology via HPA axis activation and inflammation, while stress management and psychological interventions, especially during cardiac rehabilitation, improve patient outcomes.
[24]	Canada	128 participants Males: 64 Females: 64	Respiratory diseases	Quantitative	Chronic pain in COPD patients is more severe and often located in the chest and upper back, and is associated with higher depression, reduced physical activity, and greater dyspnea.
[25]	Saudi Arabia	70 patients Males: 56 Females: 14	Respiratory diseases	Quantitative	Anxiety and depression are common among patients with impaired lung function, with higher risk observed in women, smokers, and overweight individuals.
[26]	Mexico	317 patients Males: 181 Females: 136	Respiratory diseases	Quantitative	Anxiety and depression are prevalent, particularly among patients with chronic conditions.
[27]	Sweden, Iceland, Norway	2270 participants Males: 1089 Females: 1181	Respiratory diseases	Quantitative	Respiratory symptoms are strongly linked to anxiety and depression, which particularly predict nocturnal symptoms and dyspnea at rest, while bronchial responsiveness mainly predicts wheezing, and asthma prevalence is higher among those with comorbid anxiety and depression.
[28]	Nepal	220 patients Males: 89 Females: 131	Cancer	Quantitative	Depression and anxiety are common among cancer individuals in Nepal, particularly in women and those with advanced disease stages.
[29]	South Korea	138 females	Cancer	Quantitative	Psychological distress negatively affects quality of life, treatment decision-making, and adaptation to life with cancer

[30]	United Kingdom	Review	Cancer	Qualitative	Depression peaks during active treatment and generally declines afterward, though it may persist in some patients, while anxiety tends to increase post-treatment, often due to fear of disease recurrence.
[31]	Portugal	183 participants Males: 109 Females: 74	Kidney diseases	Quantitative	Depression, stress, and anxiety are linked to a lower quality of life, both physically and mentally, and they are positively correlated with the severity of pain and its effect on daily activities.
[32]	India	200 patients Males: 128 Females: 72	Kidney diseases	Quantitative	For patients with kidney diseases, depression, anxiety, and insomnia increase with disease severity and are associated with adverse clinical parameters, lower socioeconomic status, urban residence, and comorbid conditions.
[33]	Saudi Arabia	158 patients Males: 75 Females: 83	Kidney diseases	Quantitative	Patients are frequently affected by anxiety and depression, with women being more susceptible to anxiety and unemployed individuals more susceptible to depression.
[34]	Greece	Review	Kidney diseases	Qualitative	Chronic kidney failure patients commonly experience depression, poor sleep, sexual dysfunction, low self-esteem, and social isolation, all of which negatively affect quality of life and survival.
[35]	USA	Review	Cardiovascular diseases	Qualitative	Social isolation and loneliness correlate with an increased risk of coronary heart disease, stroke, and associated mortality.
[36]	China	3,031 participants Males: 1,478 Females: 1,553	Kidney diseases	Quantitative	Social isolation, especially living alone, being unmarried, and having limited social participation, is a risk factor for both the development of chronic kidney disease and a faster decline in kidney function.
[37]	Saudi Arabia	500 patients Males: 201 Females: 299	Various diseases	Quantitative	The quality of life differs among chronic illnesses, exhibiting the lowest levels in those with cardiovascular disease and renal failure, and is affected by variables including age, sex, socioeconomic status, education, and duration of illness.
[38]	Iran	625 patients Males: 299 Females: 326	Various diseases	Quantitative	Quality of life differs across chronic conditions, with the lowest levels observed in individuals with respiratory conditions such as asthma and chronic obstructive pulmonary disease, and is shaped by age, socioeconomic status, and disease type.