

Evidence-based psychotherapeutic interventions in patients suffering from chronic physical diseases

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Abstract

Chronic diseases prevalence is continuously rising and they constitute a major cause of poor health, disability and mortality in developed countries. Chronic disease patients experience persistent symptoms which impair their health-related quality of life and are vulnerable to increased levels of psychological distress which further impede their overall functioning and put an extra burden on caregivers and healthcare systems resources. The key role of psychological parameters for patients' prognosis and overall well-being has led research and clinical practice to focus not only to symptom management but also to psychosocial interventions addressing the needs of chronic patients. There are several studies assessing the effects of specific psychotherapeutic interventions on patients' psychological functioning and on disease severity indices and progression. In this context, the aim of the current narrative review is to present and critically appraise recent findings regarding the role of psychotherapy in the management of a wide range of chronic diseases including cancer, gastrointestinal disorders, cardiovascular disorders, multiple sclerosis, autoimmune disorders and chronic pain. This evidence-based information may provide physicians with useful knowledge regarding the optimal and holistic management of their patients' physical and psychosocial needs.

Key words: *Chronic disease; psychotherapy; psychosocial functioning; health-related quality of life*

INTRODUCTION

According to the Centers for Disease Control and Prevention, chronic diseases are defined as medical conditions that last more than three months, with periods of latency, but with a prolonged clinical course that show gradual changes over time, are usually multifactorial and require continuous management for a period of years or decades [1]. Some of the most prevalent chronic physical diseases include cardiovascular and

respiratory diseases, cancer, diabetes, neurological and gastrointestinal diseases, autoimmune disorders and skin conditions [2,3]. A great percentage of the adult population worldwide suffer from chronic physical illness and have to cope with several challenges in everyday living [4]. In Greece, one in two people over the age of 15 report at least one chronic illness, while five in ten women (53.9%) and four in ten men (44.2%) state that they have a one-year disease. Moreover, compared to 2009, Greek chronic patients have increased by 24.2% [5]. Chronic diseases constitute the main cause of poor health, disability and death in developed countries hence representing a major burden for healthcare systems. In addition, chronic disease patients commonly report high levels of psychological distress, disturbed

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quality of life, interpersonal difficulties and have to face high financial costs which compromise their living conditions [6,7].

According to the biopsychosocial model, health is not just the absence of disease or disability but a state of complete physical, mental and social well-being (WHO). In this context, the concept of health is not only attributed to medicine, but also to other factors such as the environment, the economy, work and more. Genetic, environmental factors (lifestyle, home, work, working environment, environmental pollution), life factors (diet, smoking, exercise, addictive behavior, behavior), health and system-related factors, and health education factors affect people's health but also the social representation of the health-disease dipole [8]. Taking into account these theoretical formulations, it has become increasingly evident that chronic disease management calls for a holistic approach incorporating biological, psychological and social parameters. In this respect, there has been a growing interest in designing and implementing targeted psychotherapeutic interventions for chronic sufferers aiming at alleviating their symptoms, lowering their psychosocial burden and improving their quality of life and everyday functioning.

The aim of the current narrative review is to present and critically appraise recent findings regarding the role of psychotherapy in the management of a wide range of chronic diseases including cancer, gastrointestinal disorders, cardiovascular disorders, multiple sclerosis, autoimmune disorders and chronic pain.

MATERIALS AND METHODS

We performed an extensive search of the PubMed database until December 2019 using all possible combinations of the following categories of terms: chronic disease or cancer or gastrointestinal disorders or cardiovascular disorders or multiple sclerosis or autoimmune disorders or chronic pain and psychotherapy or psychotherapeutic interventions or psychosocial interventions. Results are presented by disease category.

CANCER

30-35% of cancer patients suffer from a psychiatric disorder, mainly depression and anxiety, while an additional 20% report psychosocial distress and existential worries which do not meet formal diagnostic criteria, however add significantly to patients' turmoil [9]. There are numerous studies assessing the effects of psychotherapeutic interventions in cancer patients and cancer

survivors. According to several meta-analyses, cognitive behavioral therapy, existential therapy, problem-solving therapy, interpersonal therapy and hypnosis have proven effective in alleviating symptom-related discomfort, reducing depressive and anxiety symptoms and improving cancer patients' quality of life [10,11]. Furthermore, there have been several therapeutic protocols targeting specific cancer-related symptoms such as pain and fatigue which have shown efficacy. An earlier review [12] emphasizes that the quality of therapeutic alliance and group cohesion appear as factors which mediate the benefits of psychotherapy for cancer patients.

In the case of patients with advanced cancer, psychosocial interventions can be classified in 6 categories: cognitive behavioral therapy based; meaning enhancing; dignity, life review, and narrative; other counselling; education only; and music, writing, and others [13]. In general, cognitive behavioral therapy has demonstrated the strongest efficacy evidence in addressing cancer patients' psychosocial needs and reducing anxiety and depression levels [14]. Mindfulness-based interventions have also shown promising results in reducing cancer-related psychological distress although further studies are needed to determine whether these benefits persist after the cessation of the intervention [15-18].

CHRONIC GASTROINTESTINAL DISEASES

Gastrointestinal diseases have been associated with increased psychosocial burden and patients' care integrates multidisciplinary approaches including standard psychiatric evaluation and psychopharmacological and psychotherapeutic interventions when indicated [19]. Irritable bowel syndrome (IBS) is a prototype of psychosomatic disorders characterized by unusual visceral hypersensitivity and increased psychological co-morbidity [20]. Several psychological interventions have been implemented in IBS management and research data suggest that cognitive behavioral therapy, interpersonal therapy and psychodynamic therapy may provide benefits for IBS patients, although there is no convincing evidence that treatment effects are sustained after treatment completion [21,22]. In addition, cognitive behavioral therapy seems to have a greater effect in alleviating IBS symptoms compared to reducing psychosocial distress [23].

Inflammatory bowel diseases (IBD) constitute severe medical conditions which are characterized by chronic intestinal inflammation and have a major impact on patients' psychosocial functioning and quality of life.

Anxiety and depressive symptoms commonly affect IBD patients and are associated with poorer prognosis, increased hospitalization rates and lower treatment adherence [24,25]. There seems to be a bidirectional relationship between patients' mental health and disease activity, given that psychological distress may either trigger IBD symptoms or be the aftermath of patients' debilitating symptoms. Cognitive behavioral therapy, mindfulness therapy and gut directed hypnotherapy have been associated with reduced healthcare utilization and better psychosocial functioning especially in adolescent populations, while relaxation techniques have proven effective in reducing patients' pain and psychological distress [26]. In addition, psychotherapeutic interventions have shown quite promising results in fatigue management [27]. In contrast, there is no adequate evidence that psychotherapy improves GI symptoms and decreases disease activity indices [24,28]. All these findings need further corroboration given that existing data are limited and relevant studies are characterized by small sample sizes and high levels of bias [29]. In this context, the British Society of Gastroenterology consensus guidelines encourage IBD patients with psychological co-morbidity to seek psychological therapy including cognitive behavioral therapy, hypnotherapy or mindfulness meditation as part of a holistic strategy of disease management. Experts on psychogastroenterology agree that patients with clinical levels of depressive and anxious symptomatology would benefit from psychotherapeutic treatment and further research is needed to clarify which parameters mediate psychotherapy's beneficial effects [30].

CARDIOVASCULAR DISEASES

Anxiety and depression are highly prevalent in patients with cardiovascular conditions including acute coronary syndrome and congestive heart failure [31] and have been associated with poor prognosis and lower survival rates [32]. Several psychological interventions have been implemented in the management of cardiovascular diseases which aim at lifestyle modification and a decrease in patients' psychological distress. These interventions include psychoeducational and self-management approaches, cognitive behavioral therapy and mindfulness therapy and have shown efficacy in establishing a healthier lifestyle and improving patients' quality of life [33].

According to a recent meta-analysis, cognitive behav-

ioral therapy alleviates depressive symptomatology and improves quality of life in heart failure patients and these benefits largely remain at 3 months follow-up. However, no significant benefits were observed in hospital admission and mortality rates [34]. In a similar way, the latest Cochrane review on the topic revealed that psychological therapies did not significantly affect total mortality in coronary heart disease patients but reduced cardiac mortality by 21% and improved psychological functioning. Nevertheless, most studies included in this review suffered from reporting bias hence their evidence was of low quality. In addition, there were no data regarding which patient- and intervention-specific characteristics were associated with better outcomes suggesting that further large-scale studies are needed to focus on the impact of specific psychotherapeutic interventions on certain sub-populations of heart disease patients [35].

OTHER CHRONIC DISEASES

Apart from cancer, gastrointestinal and cardiovascular disorders, there is a wide constellation of other chronic diseases which impair patients' everyday functioning and are commonly accompanied by high levels of psychological distress thus calling for appropriate and effective interventions to alleviate patients' suffering. Findings regarding the whole spectrum of chronic diseases would not be possible to be included in a single review and for this reason we chose to selectively provide brief references of research evidence on the effects of psychotherapy in multiple sclerosis patients, other autoimmune disease patients and patients suffering from chronic pain. The psychological correlates and relevant psychosocial interventions have been extensively studied in these patient populations.

Multiple sclerosis (MS) is an autoimmune disorder affecting the nervous system which puts great strains on patients' and families' emotional resources and may severely impede personal independence and quality of life. MS patients are prone to depression and have to cope with high levels of stress which in turn may lead to disease relapse and impaired prognosis [36]. Psychosocial therapies are commonly used as an adjunct to the medical management of multiple sclerosis [37] and in clinical practice neurologists encourage their patients to engage in stress-reducing activities. Several psychological therapies including cognitive behavioral therapy, acceptance and commitment therapy and motivational interviewing counseling have been compared to usual care in MS patients and have been associated with sig-

nificant reduction in depressive symptomatology but were not effective in anxiety management [38]. Another recent meta-analysis concluded that psychosocial interventions reduce depressive symptoms, anxiety and fatigue levels and improve mental and overall quality of life but have no significant effect on physical quality of life [37]. Cognitive behavioral therapy has also been extensively used in MS-related fatigue and has shown moderate positive effects, however, these effects were not maintained after treatment completion [39]. Comorbid anxiety symptoms have also been addressed by mindfulness-based interventions which promote self-awareness and emotional regulation. These techniques have shown quite promising results in reducing psychological distress, pain and fatigue and promoting quality of life in MS patients [36]. By promoting meta-cognitive abilities, mindfulness training may facilitate positive coping and problem-solving thus empowering patients to manage disease-related challenges in everyday living.

There is a complex interplay between neuropsychological factors and immunological disturbances underlying the pathogenesis of autoimmune disorders. Depression is a highly prevalent co-morbid condition in patients suffering from systemic lupus erythematosus (SLE) or rheumatoid arthritis (RA), while stress-induced pathophysiological alterations seem to trigger autoimmunity responses leading to symptom exacerbation [40,41]. A comprehensive systematic review on the effect of psychosocial intervention in RA patients revealed small to moderate beneficial effects of several types of psychological treatments including cognitive behavioral therapy, supportive counselling, psychotherapy, self-regulatory techniques, mindfulness-based cognitive therapy and disclosure therapy in global functioning, pain, fatigue, psychological functioning, coping, self-efficacy and physical activity. Improvements in coping and physical activity and remission of depression were maintained at 8-14 months post-intervention. Moreover, longer therapy duration and the inclusion of follow-up sessions were associated with greater efficacy [42]. Similarly, psychological interventions provided as adjuncts to traditional medical management of SLE lead to significant improvements in psychological status and quality of life and to pain and fatigue relief [43].

Chronic pain is a debilitating symptom severely impairing patients' productivity, social relationships and quality of life. Pain-relieving medications demonstrate limited efficacy in chronic persistent pain and may be

associated with severe adverse effects including the risk of addiction [44]. In this respect, pain management through psychological interventions might be better tolerated by chronic pain patients. There are several randomized controlled studies assessing the effect of mindfulness-based interventions on chronic pain reporting positive outcomes, however most of them suffer from low methodological quality and their findings need to be further corroborated [45]. Cognitive behavioral therapy is another type of psychotherapeutic intervention which has been shown to reverse functional disability and pain symptoms, increase self-efficacy, reduce catastrophizing cognitions and improve psychological functioning in chronic pain patients [46]. Furthermore, there are limited yet interesting neuroimaging data suggesting that psychotherapeutic interventions promote alterations in pain-associated neural circuits [47,48].

In conclusion, chronic disease patients have to cope with major limitations in their living conditions and are prone to enduring feelings of sadness, loss, anger, despair and anxiety which compromise their psychological functioning and quality of life. Proper management should address both their physical and psychosocial needs by incorporating educational, counseling and psychotherapeutic approaches adjunctively to traditional biomedical treatments. In the case of comorbid psychopathology, mostly depression and anxiety disorders, psychological interventions appear as effective alternatives to psychotropic medication due to the limitation imposed by the chronic disease status on pharmacological therapies. Cognitive behavioral therapy and mindfulness-based interventions have shown the strongest efficacy evidence in reducing psychological distress, relieving pain, coping with fatigue and functional impairment and improving quality of life in a variety of medical conditions. However, there is still a need for large-scale randomized controlled studies of high methodological quality to further investigate the role of psychotherapy in chronic disease and identify which patient- and intervention-related parameters are associated with the optimal outcome.

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