Introduction
The Relationship of Chronic Pain and Depression

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Clinical depression manifests itself in various emotional and physical symptoms, often including chronic physical pain. The comorbidity of chronic pain and chronic depression is so common and the conditions are so interwoven that it is difficult to pinpoint which usually comes first or whether one causes the other; still, the correlation is clear. Almost half of all people with depression experience comorbid somatic symptoms of pain and discomfort.[1,2] Depression is often correlated with headaches, back pain, chest pain, gastrointestinal discomfort, and other chronic aches and pains. Depression that accompanies chronic pain disorders only worsens the condition, contributing more disability and impairment of daily functioning.[3] The presence of a chronic pain disorder may also complicate or even preclude diagnosis of depression, or vice versa.

Although the exact relationship between pain and depression is undefined, their comorbidity often operates in 3 different ways.[4] Comorbid pain and depression may be attributed to a heightened susceptibility to both physical and psychological dysphoria and a tendency for psychological stress to magnify physical dysphoria. The connection between pain and depression may also manifest as a maladaptive psychological or behavioral response to pain experienced in the early stages of a condition that has since resolved; in this situation, the dysfunctional psychological and behavioral responses continue despite the cessation of physical pain. Another way that pain and depression function together occurs when pain becomes a significant physical and psychological stressor and produces or aggravates a psychological condition.

When treating depression, it is important that both the physical and psychological aspects be addressed. Full recovery must include a remission of both the psychological symptoms (e.g., somber mood, lack of motivation, and disinterest in social activity) and the physical symptoms (e.g., chronic pain, insomnia, and fatigue). Treating both types of symptoms is important because residual physical symptoms such as pain can often prevent psychological recovery from depression or lengthen its duration. Even if psychological remission of depression is achieved, lingering physical pain speeds the recurrence of depression. It is therefore vital that remission of depression be considered complete only upon the cessation of both physical and psychological symptoms. Such remission should be the goal of any physician treating patients with depression.

In the first article of this supplement, Maurice M. Ohayon, M.D., D.Sc., Ph.D., details the prevalence of comorbid chronic pain and depression in a large European sample, focusing on the impact of chronic painful physical conditions on the severity and frequency of depression symptoms. In a survey of 18,980 subjects representative of the general population of 5 European countries (United Kingdom, Germany, Italy, Portugal, and Spain), interviewees responded to a series of questions about chronic painful physical conditions and any medical treatment, consultations, and hospitalizations received as a result of medical conditions or diseases. The subjects' responses to other questions allowed positive and differential diagnoses of DSM-IV mental disorders. Results showed that chronic painful physical conditions are more prevalent in depressed subjects than in the general populace, and chronic painful physical conditions affect the frequency and the severity of depressive symptoms, exacerbate other physical symptoms of depression (e.g., insomnia, fatigue, weight gain, psychomotor retardation), and may lengthen the course of depressive episodes.

Bruce A. Arnow, Ph.D., examines the correlation between maltreatment and abuse experienced in childhood and the physical and psychological health outcomes and medical utilization realized as adults. Childhood maltreatment (which may include physical, sexual, and emotional abuse and physical and emotional neglect) is prevalent among men and women and is a reliable predictor of adult physical and psychiatric disorders and conditions. People who have been neglected or abused, especially sexually abused, have a significantly higher incidence of major depressive disorder, anxiety disorder, alcohol and substance

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abuse, antisocial behavior, and suicide attempts. Moreover, the greater the severity of childhood abuse, the greater the severity of psychiatric and physical illness. Previous emotional or physical pain greatly impacts the risk and degree of depression later in life.

Increasing evidence shows that recurrent depression is associated with progressive neurodegeneration. According to Pedro L. Delgado, M.D., this threat of damage to the brain makes full remission of depression crucial. Chronic pain may prolong depressive episodes, and residual pain after the remission of depression makes recurrence more likely. It is, therefore, especially important that the physical symptoms associated with depression be fully addressed. Physical and emotional pain share the same neurobiological pathways—those of the serotonergic and noradrenergic neurotransmitters. As part of the body's internal pain transmission and regulation system, these neurotransmitters play a role in physical and emotional symptoms of depression. Dr. Delgado examines the efficacy of dual-action antidepressants in treating both the physical and emotional symptoms of depression through their suppressing action in the shared serotonergic and noradrenergic pathways.

The supplement concludes with an assessment of the path to depression remission by Vivian K. Burt, M.D., Ph.D. Depression treatment, as it is currently understood, often consists of finding an antidepressant to which a patient responds. Dr. Burt emphasizes that response to antidepressant treatment is not enough—full remission of the emotional, anxious, and physical symptoms of depression should be the goal of depression therapy. Focusing treatment solely on the emotional symptoms of depression is an incomplete therapy program. Accompanying physical and anxious symptoms can be more prominent and more significant than the emotional symptoms of depression, especially among women. Dual-action antidepressive agents and the combination of pharmacotherapy and psychotherapy constitute promising treatment possibilities for achieving full depression remission.

The relationship between chronic pain and depression is complex. While the precise relationship requires further research and definition, it is important that physicians stay alert to the role that one condition plays in the other. Physical pain reported by a patient may mask an underlying, comorbid depression and prevent its diagnosis and treatment. Conversely, the exclusive focus on the emotional symptoms of depression can result in residual pain that may, in turn, prolong depression or bring on early recurrence. In treating depression, physicians should strive for the complete remission of its psychological and physical symptoms. While some encouraging treatment options are emerging, it is vital that more research and attention be invested in the quest for complete remission of depression.

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