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Commentary

Arthritis and psychiatric disorders: Disentangling the relationship

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Various studies have demonstrated a link between having arthritis, particularly rheumatoid arthritis (RA) and osteoarthritis (OA), and psychiatric disorders. More than two decades ago, Wells et al. [1] published data from the NIMH catchment area study in the United States showing that persons with arthritis had a lifetime prevalence rate of psychiatric disorders of 63.6% and a 6-month prevalence rate of 42.5%. These rates were alarming inasmuch as they exceeded those found in persons with potentially life-threatening illnesses such as COPD, diabetes, hypertension, and cardiovascular disease. While the authors found that having any chronic illness increased the risk of psychiatric disorder, these cross-sectional, epidemiological data did not address the important questions of whether arthritis preceded or followed the development of psychiatric disorders, or why these associations were found in the first place. Subsequently, corroborating evidence has been found in studies reporting rates of mood disturbance ranging from 15% to as high as 45% in persons with such conditions as RA, systemic lupus erythematosus, and fibromyalgia [2–4]. Evidence is also accumulating that anxiety disorders are prevalent in persons with arthritis [5]. Understanding the factors associated with the heightened psychiatric comorbidity in such studies represents an important challenge for behavioral medicine researchers and arthritis health professionals who serve these populations.

Accordingly, the major purpose of the Land et al. [6] study was to clarify the direction of the relationship between arthritis and psychiatric disorders by examining whether arthritis increased the risk for developing psychiatric disorders, or whether having psychiatric disorders increased the risk for developing arthritis. Using an epidemiological approach in which participants were interviewed in their homes and followed longitudinally across 90 municipalities in the Netherlands, the researchers found that persons with arthritis had significantly higher concurrent risk for mood and anxiety disorders than those without arthritis and conclusive evidence that arthritis contributed to the development of mood disorders over time. Conversely, having a psychiatric disorder did not increase the risk of developing arthritis. Methodological advantages of this research, including a sophisticated, population-based sampling approach, a 2-year follow-up, and the adoption of an objective measure of psychiatric disorders designed for epidemiological research, add weight to these findings and represent a significant improvement over previous studies in this area.

Mechanisms linking arthritis and mood disturbance

The Land et al. [6] study provides further confirming evidence of the deleterious impact of arthritis on patients' psychosocial functioning. However, this important research did not address the mechanisms responsible for heightened psychiatric risk. Recently published epidemiological data in the US have shown that persons with arthritis report significantly more functional limitations than persons with other disabling conditions [7]. Land et al. [6] appropriately note that disability may be a mechanism through which arthritis may lead to depression. In this regard, loss of valued activity, rather than overall level of disability, has been shown to play a particularly important role in

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depression in arthritis patients [8]. Such loss may be especially disruptive to identity, self-esteem, and the capacity to derive pleasure or meaning from valued acts and experiences.

Research has also shown that beliefs such as helplessness and catastrophizing in the face of pain [9–11] contribute significantly to depression and psychological distress in arthritis and mediate the effects of pain and disease activity on mood. Illness cognitions provide a window into the adjustment process from the perspective of the patient, illustrating the meaning of being ill and why having arthritis may be threatening to emotional well-being and quality of life. Negative, idiosyncratic beliefs may persist even when disease activity and symptoms are medically controlled and may continue to have adverse effects on mood and quality of life.

Dysfunctional beliefs may also affect patients' coping efforts. For example, helplessness is associated with passive coping [12], which is characterized by avoidance of activity, depending on others, and reliance on medication for pain relief. Passive coping, in turn, leads to greater disability and depression in patients with arthritis and other debilitating pain conditions such as whiplash injury [13]. Thus, the combination between dysfunctional illness beliefs and maladaptive coping promotes a negative downward spiral toward the development of mood disturbance. Having arthritis is the impetus for this result, not the primary causal agent. Arthritis patients who cope actively with their medical condition and do not exhibit passive coping typically have better psychological adjustment and do not experience depression.

Depression does not predict arthritis: a caveat

While Land et al. [6] showed that having a mood disorder did not predict the development of arthritis, depression may contribute to adverse health outcomes in already diagnosed patients. For example, after the onset of arthritis, depression may augment inflammatory processes, interfere with functioning, reduce medical adherence, and contribute to maladaptive health behaviors that create risk for greater disease activity and medical comorbidities. Thus, depression may serve as a potential cause for medical comorbidities in afflicted patients without serving as an independent cause for the development of arthritis. Depression and disease activity may have recursive influences, exacerbating each other in the absence of effective intervention. This pattern is common in rheumatology care and a source of significant frustration to clinicians and patients alike.

Clinical implications

The Land et al. [6] findings highlight the importance of being aware of the potential impact of arthritis on mood disturbance and the need for integrated management strategies that are based on the biopsychosocial model [14]. Having arthritis is a stressor that taxes the adaptive resources of patients and may lead to myriad adjustment problems for many patients. An integrated approach to management recognizes the interdependence between biomedical factors and psychosocial adjustment and the potential importance of mediating variables that explain this association.

Managing the deleterious impact of arthritis requires the existence of effective screening procedures for identifying mood disturbances and the involvement of psychologists and allied health care professionals who have expertise in coordinating the treatment of distressed patients. Rheumatologists do not have the time or expertise to implement this form of management independently and typically do not make psychosocial treatment a priority in clinical care. Psychological approaches, based primarily on social learning theory principles, have proven effective in randomized clinical trials in promoting adaptive coping and health behaviors, and in reducing pain, disability, and mood disturbance in patients with RA and OA [15,16]. If applied more consistently and earlier in the disease course, psychological interventions may prevent the development of disability and depression and foster improvement in quality of life. The Land et al. [6] findings underscore the need for such approaches to be implemented as part of the routine and ongoing care for arthritis patients.

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