Original Article

Somatic Symptoms in Patients with Chronic Non-Cancer-Related and Cancer-Related Pain

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Abstract

This study describes and compares patients' reports of somatic symptoms and physicians' ratings of the same symptoms in patients with chronic non-cancer-related and cancer-related pain. Ninety-seven patients with chronic non-cancer-related pain and 100 patients with chronic cancer-related pain reported somatic symptoms using a newly developed checklist of somatic symptoms. Patients also completed the Brief Symptom Inventory-18, Courtland Emotional Control Inventory, Catastrophizing scale, two items from the Coping Strategies Questionnaire (one about efficacy to control and another about ability to decrease pain), and a numeric rating of average pain. After they completed medical histories and physical examinations on patients, physicians rated the degree to which the patients' reported somatic symptoms on the checklist were medically unexplainable. Over 80% of patients in both groups reported somatic symptoms that their physicians rated as not fully explainable. Strong associations existed between patient-reported somatic symptoms and negative mood states. For the majority of patients, results supported a concept of combined illness- and affect-related pathology rather than one of pure somatoform disorder. Assessing patients' reports of somatic symptoms and negative mood states and incorporating physicians' ratings of level of medically unexplainable somatic symptoms were useful for distinguishing these diagnoses. J Pain Symptom Manage 2005;29:603–612. © *2005 U.S. Cancer Pain Relief Committee. Published by Elsevier Inc. All rights reserved.*

Key Words

Somatic symptoms, somatoform symptoms

Introduction

Somatic symptoms may be medically explainable, unexplainable, or as frequently is the case, indeterminate. When findings from patients' medical histories and physical examinations suggest that a group of specific bodily symptoms are unexplainable, physicians may consider

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a somatoform disorder (SD). SDs are widespread and largely unsolved problems that involve physical and psychological components.[1] The *Diagnostic and Statistical Manual of Mental Disorders, 4th edition* (DSM-IV) defines SDs as a group of specific disorders or problems characterized by persistent bodily symptoms or concerns that cannot be fully accounted for by a diagnosable disease. SDs include hypochondriasis, body dysmorphic disorder, conversion disorder, somatization disorder, and pain disorder. *Hypochondriasis* involves persistent, unfounded worry or conviction about a serious medical illness, despite adequate medical assurance to the contrary. *Body dysmorphic disorder* involves preoccupation with an imagined or exaggerated physical defect. *Conversion disorder* is characterized by medically unexplained deficits or alterations of motor or sensory functions. *Somatization disorder* is a chronic condition consisting of multiple medically unexplained physical complaints that occur over a prolonged period of time. *Pain disorder* involves the persistence of medically unexplained pain symptoms.[2] In each of these SDs, the physical symptoms are not under voluntary control and often coexist with anxiety, depression, or both.[2–4]

Although studies of primary-care populations report that relatively low numbers of patients meet the full DSM-IV criteria for any specific SD, the prevalence rates of unexplained somatic symptoms, such as dizziness, chest pain, or fatigue, have been reported to be as high as 80%.[5] In a secondary-care orthopedic clinic, more than 50% of patients who presented with chronic low back pain had multiple unexplained symptoms, and 34% had pain diagrams that were believed to be incompatible with an organic cause.[6] In reports of patients with chronic non-cancer-related pain, the prevalence of SDs has ranged from 0% to 53%.[7]

A number of etiologic models of SD have been proposed for patients with pain. Models with inconsistent or weak support include the pain-prone personality perspective, the pain as a variant of an affective disorder perspective, and the functional relation between secondary gain and disability in patients with chronic pain.[7] A more tenable model of SD for patients with pain is that unexplained or indeterminate somatic symptoms may be related to a sensitizing effect to physiological events that heightens bodily awareness.[8] However, other models suggest that patients with chronic pain blur certain experiences and interpret them in terms of pain or affective distress.[9] Another valid explanation is that cultural factors and medical and social institutions may emphasize physical symptoms rather than the accompanying psychological distress, thereby contributing to a heightened perception of physical problems.[9] Finally, work by Geisser et al.[10] supports Field's neurobiological model of pain in which the patient's tendency to focus on somatic symptoms activates pain facilitation neurons. These neurons, in turn, are believed to sharpen the perception of the stimulus. One current theory suggest that for the majority of patients with chronic pain, unexplainable somatic symptoms are related to both pain and negative mood states.[11]

Several explanations have been offered for the association between negative mood states and somatic complaints. One possibility is that negative mood might contribute directly to bodily dysfunction and somatic symptoms or more indirectly by causing changes in habit patterns and behavior, thus increasing vulnerability. Another possibility is that negative mood state might be associated with bodily arousal that then might be appraised as symptoms of various kinds. Third, negative mood state may affect the interpretation of physical changes as symptoms.[12]

The current literature on pain is somewhat limited in guiding hypotheses about unexplained or indeterminate somatic symptoms, especially profile comparisons across different groups of tertiary-care patients with non-cancer-related and cancer-related pain. On the other hand, current literature on pain can be used to guide hypotheses about the relational pattern of somatization and relevant variables. Although these relations have not been compared across groups of patients, available validity data support the expectation that different measures and methods of assessing somatic symptoms will yield results that are highly related (i.e., convergent validity).[13] Because somatic symptoms, negative mood states, and pain intensity often coexist in patients with non-cancer-related and cancer-related pain,[3,4,11,14,15] at least moderate convergence is expected among these variables. This finding would support a conceptualization