## Multidisciplinary Collaboration Between Pain Physicians and Psychologists: Ageless Wisdom for the New Millennium

## To the Editor:

"The good physician will treat the disease, but the great physician will treat the whole patient."

This declaration is attributed to Sir William Osler, an eminent nineteenthcentury physician. In his career Sir William was associated with McGill, Johns Hopkins, and Oxford Universities, and during that time he prepared and revised his monumental work: The Principles and Practice of Medicine. His words convey compassion and respect for the wholeness and integrity of the patient, and they reveal that for more than a century many physicians have recognized the value of identifying and treating the nonmedical factors that can play a role in the course of disease and treatment outcome for medically-ill patients.

Mind and body are intricately and inextricably woven in the fabric of all human experiences, but nowhere is this nexus more evident than in the suffering of those in pain, especially when the pain is chronic. In the field of pain management, the formulation of the Gate Control Theory in the 1960's (1,2) led to a paradigm shift from the traditional biomedical model's focus on disease and cure to the more integrated and holistic bio-psychosocial model of illness and management (3). Over the past forty years an abundant body of literature has been produced to document the significant role of psychosocial factors in the severity, exacerbation, and maintenance of pain, as well as the occurrence of mental disorder in chronic pain populations (4,5).

Pain is often the result of injury, disease, or specific tissue damage, but in many cases it is experienced in the absence of objective physical findings. Typically, when non-malignant pain persists beyond the expected period of healing (arbitrarily determined to be three months or six months) and is intractable, it is said to be chronic. There are an estimated 34 million Americans who experience chronic pain of varying duration and severity (6). Although pain is one of the most common problems motivating people to pursue medical attention, it has been one of the most difficult and mystifying to study, assess, and treat.

The experience of chronic pain is frequently puzzling for individual sufferers as well as perplexing for pain physicians and other healthcare providers. Yet we know that when it is prolonged and uncontrolled, pain can become a crisis that destabilizes a person's equilibrium on multiple levels, often resulting in impaired physical, psychological, social, and occupational functioning. Moreover, these disturbing changes are likely to increase with the chronicity of illness, especially if pain assessment is not comprehensive and if subsequent treatment is not thorough and complete.

As many distinguished veterans in the field of pain management have observed, the manifestation of chronic pain is uniquely personal for each individual seeking medical treatment (2, 7-10). Myriad factors from the sensory-physical, cognitive, behavioral, affective, and contextual dimensions of human experience can influence and often obfuscate a patient's complaint of chronic pain. A conundrum of conflicting and uncertain information is frequently the challenge faced by all who attempt to assess and effectively treat chronic pain, irrespective of professional training or experience. Complicated clinical presentations are pervasive in the field of pain medicine, leading some to wonder if a true genius is necessary to decipher the complexities of chronic pain (11).

While exceptional intellectual power may not be required to sort out all of the questions associated with complex pain complaints, true genius may be demonstrated through the spirit of a collaborative multidisciplinary approach to pain assessment and treatment. When interventional pain physicians and psychologists working together share the view of pain as a multidimensional phenomenon, they can address the labyrinthine nature of many chronic pain complaints with a broader spectrum of assessment and treatment methods. Thus, through collaboration and cooperation clinicians offer patients a greater degree of control over their discomfort and their health in general.

Carron (12) summarized the challenge faced by healthcare practitioners, noting that "minimal pathology with maximum dysfunction remains the enigma of chronic pain." Importantly, the compounding variables that may influence a person's experience of pain must first be delineated if medical and/or psychological treatment procedures are to be conducted in an efficient and cost-effective manner, and if treatment outcomes are to be optimal.

Most physicians, trained with a sensory-neurophysiological model of pain, will assess the physical contribution to the chronic pain complaint by obtaining a patient's history, conducting a physical examination, and/or relying on advanced laboratory tests, radiological investigations, and other diagnostic procedures. While these methods provide much useful information, they frequently fail to completely account for reported physical symptoms. Indeed, the typical patient's complex presentation of pain is often loosely related or unrelated to tissue damage.

Considerable research has demonstrated that there is no direct association between physical pathology and pain (8). For example, sophisticated imaging procedures may reveal objective abnormalities in asymptomatic individuals, while many pain sufferers report significant degrees of pain with no objective physical findings. Moreover, reported levels of pain severity are often disproportionate even when physical pathology is identified (13).

The results of sensory-physical assessments alone have been disappointing to healthcare professionals wanting to understand and treat pain, thereby underscoring the importance of assessing the non-medical elements influencing the experience of pain and pain behavior.

It is not enough to know what sort of pain a person has; we must also understand what sort of person has the pain. To be sure, psychosocial and behavioral factors such as emotional states, personality, expectancies, the meaning of pain, reinforcement contingencies, resourcefulness, substance abuse, issues of secondary gain, and so on cannot be objectively and reliably assessed by the "clinical impressions" of the general physicians, neurologists, surgeons, physical medicine/rehab physicians, anesthesiologists, or interventional pain physicians who treat pain. In the process of ethical medical decision-making, pain specialists must safeguard against substituting biases and hunches for evidence-based criteria. Psychological evaluation by a trained professional is often an essential component of a well-thought-out and comprehensive pain assessment (14), providing critical data about the non-medical factors influencing the patient's complex chronic pain complaint.

The usefulness of a psychological evaluation in pain management rests primarily on its ability to answer specific questions about an individual's experience of pain and pain behavior as well as its ability to inform decision-making regarding treatment emphasis and alternatives. Pain physicians frequently want to know if their patient's pain perception, pain behavior, and/or response to medical treatment is influenced by emotional distress, personality, behavioral, or other psychosocial factors. When emotional or psychological overlay is identified, physicians may welcome psychological and/or behavioral approaches to modify these effects. At other times, pain physicians are concerned about the level of risk associated with a patient's use of opioid medication. In such instances, a psychological evaluation can clarify issues of drug-seeking, addictive disease, and pseudo-addiction (15, 16) and can thus lead to specific treatment recommendations. For interventional physicians who are considering patients for implantable therapies, evaluating psychological criteria has long been viewed as an important step in determining potential risk factors (17-21). Some have suggested that instead of excluding individuals based on screening, psychological information could be used to target areas of intervention, with the goal of improving overall functioning and thereby the patient's candidacy for all treatment (22).

In these and numerous other instances, the collaboration between pain physicians and psychologists produces outcomes for patients that would be difficult if not impossible to achieve with a disengaged, dichotomous, segregated, or single-minded approach to the management of pain. Indeed, some studies have demonstrated therapeutic changes in chronic pain patients treated in multidisciplinary or interdisciplinary pain programs (23), while others have reported comparable or higher levels of improvement for pain patients receiving multidisciplinary treatment compared with medical treatment alone or other single-modality programs (24-26). In these studies the criteria for treatment success included pain reduction, elimination or reduction of opioid medication, increase in activity level, and return to work.

Despite their clinical effectiveness, many of the multidisciplinary and interdisciplinary in-patient pain programs are disappearing due to changes in insurance reimbursement patterns. Today, more and more patients are turning to a growing number of minimally invasive interventional pain management procedures, including various pain blocks (27), spinal endoscopy (28), radiofrequency denervation (29, 30), intradiscal electrothermal annuloplasty (31), and implantable technologies (32). The latter includes surgical procedures such as spinal cord stimulation (33-35) and drug administration systems (36-38). The application of these and other interventional procedures is best conceptualized and carried out within a multidisciplinary model, where comprehensive assessment of complex pain problems leads to appropriate multidimensional treatment plans and where patient selection for invasive procedures continues to be an issue of highest importance. Indeed, the American Society of Interventional Pain Physicians (ASIPP) lists the provision of total pain care as one of its goals (39). Meaningful collaboration between pain physicians and psychologists can enhance the clinical and cost effectiveness of interventional treatments and contribute to greater overall levels of improvement for pain patients. Yet, from one clinical setting to another, there is considerable variation in the level of attention given to the multidimensional aspects of the primary pain complaint, and there is a substantial difference in the degree of collaboration between pain physicians and psychologists.

Certainly, as Loeser (40) has pointed out, there pain patients with arthritis, cancer, CRPS, neuropathic pain, myofascial syndromes, and other chronic pain complaints whose discomfort is not significantly influenced by emotional or environmental factors but instead results from persistent dysfunction of the nociceptive system (tissue damage, nervous system dysfunction, or both). Many of these patients are effectively managed by rheumatologists, anesthesiologists, neurosurgeons, interventional pain physicians, and other health professionals and may not require a multidisciplinary treatment plan. However, for a multitude of chronic pain patients the disease aspect of their pain complaint is accompanied by issues of distress, disuse, and disability, all requiring clinical attention. Neglect of one of these components can result in treatment failure even in the presence of excellent care for the other components.

Unfortunately, the field of pain management is too often hampered by a competitive tension and distrust between behavioralists and interventionists. On one side, behaviorally-oriented specialists are concerned that interventionists are overly aggressive in their treatment of pain and use of invasive procedures while ignoring the psychosocial components of treatment and, thus, reinforcing pain behavior. Conversely, some in interventional pain medicine are concerned that the "bio" component of the "bio-psychosocial approach" to pain management has been devalued in favor of predominantly "psychosocial approaches" (41), leading to underutilization of medical therapies.

It is indisputable that the psychology of pain, with roots in behavioral and cognitive science, is based on fundamental assumptions that differ significantly from those of pain physicians, regardless of professional training, because these and other medical disciplines build on the field of neurophysiology and Cartesian dualism. Such conceptual differences can be divisive, but the spirit of sincere collaboration between biological and behavioral scientists and between pain physicians and psychologists can function as a unifying bond that holds the complete bio-psychosocial model together. Many pain investigators have acknowledged the value of conceptualizing pain across multiple dimensions (2, 42-44), while others have attempted to develop a unifying theory of pain (45). However, achieving full integration of pain medicine and pain psychology will require reconsideration of fundamental assumptions on both sides and intensive dialogue. High quality collaboration may well include processes of argumentation in addition to cooperation as we continue to attempt to construct and maintain a shared conception of the problems of chronic pain.

As emphasized in the physicians' professional oath, the health of the patient should be the first consideration, overcoming barriers such as party politics or professional standing. The term "health" derives from the Anglo-Saxon word "haelth" which means wholeness; a condition in which all functions of the body and mind are normally active. Moreover, the World Health Organization defines health as a state of complete physical, mental, or social well-being and not merely the absence of disease or infirmity (46).

On a more practical level, a clear, conscientious, and compassionate understanding of chronic pain sufferers reveals that their anguish is not merely physical but involves declines in cognitive, emotional, social, and spiritual functioning. Accordingly, the ethical, competent care of people in pain necessitates that all parties in the health care delivery system face and embrace the actuality of the Mind-Body unity in a manner that is reflected in their principles, policies, and practices.

As the field of pain medicine grows and advances into the new millennium, it is appropriate, indeed imperative, that pain management specialists from all professional backgrounds re-envision and reaffirm their principles and priorities for treating people with pain. The wisdom of Sir William Osler is as relevant in the 21st century as it was in the past. His standard 9. of treating the whole patient must not become expendable and non-essential, especially in the management of chronic pain. Pain physicians and psychologists working collaboratively demonstrate the commitment to uphold high principles, policies, and practices by providing total pain care. Moreover, the professional organizations representing pain physicians can display exemplary leadership by promoting and supporting multidisciplinary as-

sessment and treatment of chronic pain patients.

Hopefully, the future of chronic pain control will be largely represented by those physicians and psychologists who acknowledge and respect the wholeness of the pain patient,

and actively pursue collaborative professional arrangements to assess and treat the complex biopsychosocial phenomenon of chronic pain. In this way the good physician and the good psychologist can produce great patient care.

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## James C. Thompson, Ed D

Psychologist, Pain Control Network, PSC Louisville, KY 40205 E mail:DocJCThom@aol.com