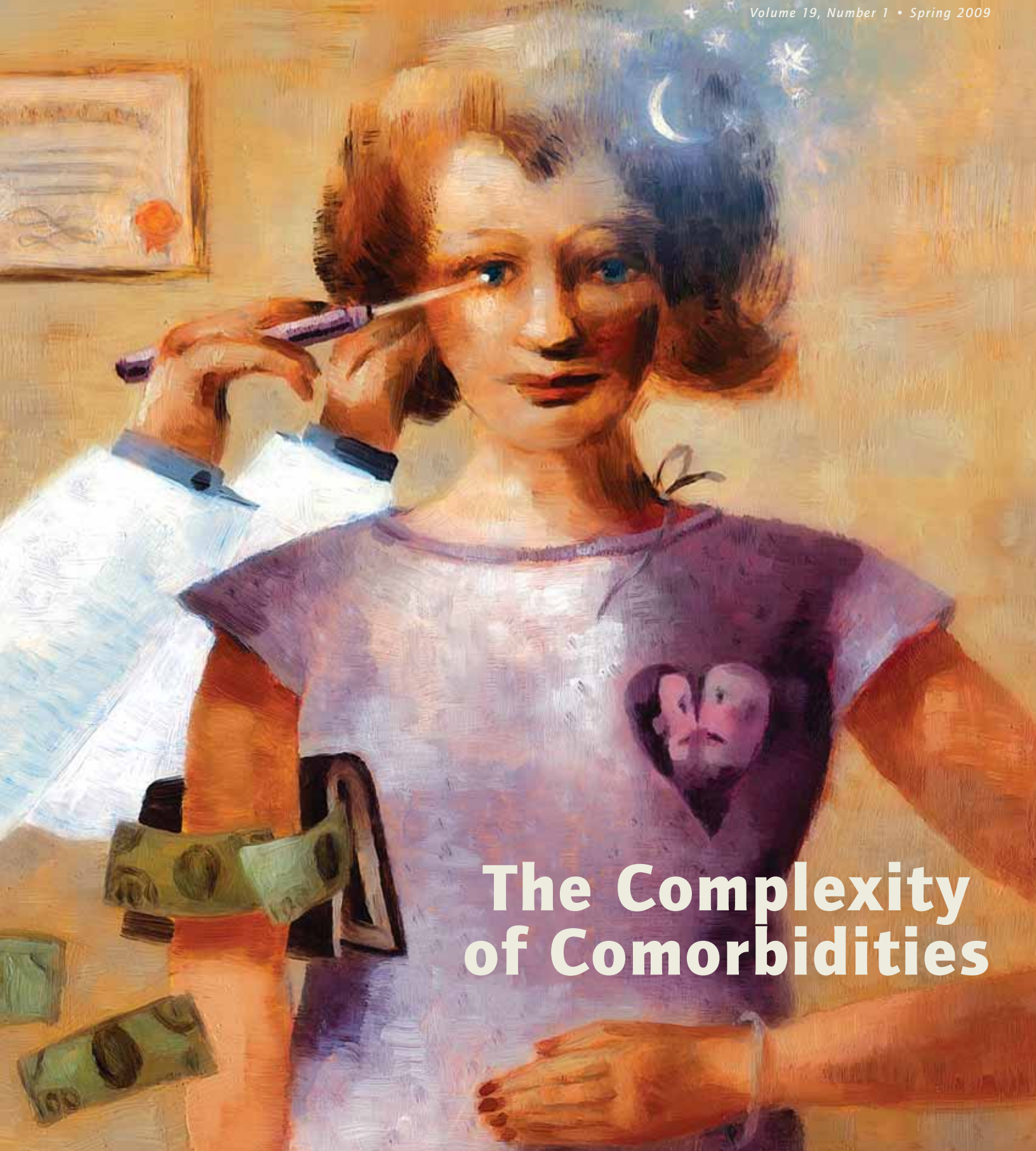


A M E R I C A N A C A D E M Y O F P A I N M A N A G E M E N T

The Pain Practitioner

Volume 19, Number 1 • Spring 2009



The Complexity of Comorbidities

Member Profile: Talking with Gil Jaudy, DC, CCST

BY DEBRA NELSON-HOGAN

Q: Can you tell us a little about yourself?

DR. JAUDY. I am a Doctor of Chiropractic practicing Functional Neurology (FN) in Palm Desert, California. I received my doctorate degree from Life University in Marietta, Georgia and am currently completing a second Master's program in Clinical Nutrition and a Post-Doctorate program towards Diplomate status and Board Certification with the American Board of Chiropractic Neurology, which will comprise my third Master's program and a Degree in Neuroscience. The intricate connections and communication pathways between the brain and the human body, and all of their complex functions, have always fascinated me. My research has been driven by uncovering complex layers of the human body through systematic clinical analysis, based on individual case presentations. I am certified in Chiropractic Spinal Trauma and I am a member of the American Academy of Pain Management, the Council on Applied Chiropractic Sciences, the International and the American Associations of Clinical Nutritionists, the Institute of Functional Medicine, and the Physicians Committee for Responsible Medicine.

Q: Can you tell us more about your particular interest in FN?

DR. JAUDY. FN is a clinical discipline that addresses the interaction of the nervous system with the environment, and it has diverse and widespread applications in the restoration and maintenance of health. Clinical interventions in FN integrate many theoretical concepts from several basic and clinical sciences, including embryology, psychology, neuropsychology, neurology, neuroanatomy, cellular biochemistry, neurophysiology, and genetics. I believe FN is a discipline that emphasizes the nervous system as the modulator of human expression and experience.

Each person's nervous system responds differently to environmental changes. This is central to the discipline, and may provide insight into neuronal health and output at multiple levels of the neuroaxis. Internal and external

stressors whether chemical, physical, or emotional, can decrease the brain's firing potential, which in turn decreases human function. Then muscular deviations and changes in function can occur in gait, coordination, metabolism, targeting, memory, personality, decision-making, balance, and a decreased sense of well-being. Many pain-related conditions and symptoms can result from these dysfunctions, including: dizziness, memory problems, headaches, migraines, chronic fatigue syndrome, restless leg syndrome, fibromyalgia, reflex sympathetic dystrophy, poor or interrupted sleep patterns, hypertension, and chronic neck and back pain.

Q: How do you make a diagnosis using FN?

DR. JAUDY. We use standard clinical methods during the examination, but put a greater emphasis on the whole-body response to environmental stimulation. We then examine brain function to identify the under-functioning part of the brain, and find treatments to correct that problem. Some tests can be as simple as looking at pupil reactions to light, eye movement and dilation, bilateral blood pressure, or temperature differentials of the forehead and peripheral limbs and basic sight and hearing functions. We use several diagnostic tools, including computerized dynamic posturography to understand a patient's neurological function; video electronystagmography (VENG) to test inner ear balance; electromyography (EMG) and electroencephalogram (EEG) to measure the electrical activity of the brain and the signals sent peripherally; magnetic resonance imaging (MRI), and other imaging tools.



Q: How does FN address brain function?

DR. JAUDY. Using FN, we regard brain function and its autonomic consequences or reactions to changes in body position or in response to an environmental stimulus. A patient's reaction to a stimulus is reflected by changes in heart rate, papillary diameter, respiratory function and muscle tone, which are all functions of neurological integration. Responses to stimuli, including pain, include measurable reflexogenic and purposeful actions. Our specific approach involves identifying and addressing neurological pathology while embracing applications that will increase human function in spite of a disability. We perform a thorough neurological examination in which different areas of the nervous system are tested and challenged at the appropriate levels to obtain a response, assess activity, and later gauge the effectiveness of the treatment.

Q: How is nerve function restored?

DR. JAUDY. When a nerve does not receive a stimulus it may be prone to atrophy, and transneuronal degeneration may occur. The longer the nerve continues like this, the longer it takes to restore nerve function. Understanding the importance of the body's responses, in the form of neurological tests and signs, can determine which treatment may help to restore proper nerve pathway communication. Moreover, brain function can be exponential. Neuroplasticity, also known as brain plasticity, cortical plasticity, or cortical re-mapping, refers to the brain's ability to re-organize itself by forming new connections between neurons. Chemical reactions and physical or emotional injuries can affect the brain and change function in any one of these areas.

When you change brain function you also are affecting internal chemistry. In a clinical setting we use neuro-receptors to allow for precise brain activation. Neuro-receptors convert mechanical environmental stimulation to electrical life energy.

Q: What types of treatments do you offer?

DR. JAUDY. We correct FN imbalances using information obtained from tests and observations of gateways to the neuroaxis, such as cranial nerve activity, muscular reflex activity, and tonic activation levels. We use external and internal forms of afferent stimuli, such as brain-based neurological adjustments, clinical tools, and instruments, to activate brain tissue and bring the under-functioning part of the brain to a higher level of function.

Applications that are specific to brain function can change the joint angulation due to their effect on muscle spindles. Vestibular and spinocerebellar stimulation also may be used to rehabilitate weak pathways and restore as much function as possible. We also use exercise and movement, and visual, auditory, dietary, and lifestyle changes to support the positive changes made to brain tissue activation.

Q: How can we translate this to pain management?

DR. JAUDY. Our approach to pain management involves the treatments we discussed and to decrease nociception and inhibit pain centrally.

Complex regional pain syndromes and central autonomic dysfunctional conditions are two of the many conditions that may occur due to functional imbalance. As the functional state of the neuroaxis and the functional immune state of the patient are interconnected, hemispheric imbalances can manifest in immune system dysfunction, which is linked to systemic inflammatory or autoimmune reactive states.

Most of my patients are in a tremendous amount of pain. One patient with severe migraine was unable to open her eyes, and there was decrease of function in her left cerebellum. Through specific adjusting applications to the left side of her body, we activated specific joint mechanoreceptors in her left arm and ribs. After her second treatment, she had improved by 60%. I have had many situations where the pain was resolved without addressing the actual pain site.

Q: Can clinicians use functional neurology as part of an integrative treatment program?

DR. JAUDY. Yes, of course. We work in conjunction with physicians and other practitioners to complement their treatment programs.

Q: How has being a member of the Academy helped you?

DR. JAUDY. The Academy recognizes the need for knowledge regarding interdisciplinary pain management, and continually strives to raise the standard to provide healthcare professionals with awareness, knowledge, and empirical evidence-based research on pain management. The Academy not only meets the needs of the field, but very importantly, impacts the doctor's approach to treat the many facets of pain and problems that the person with pain may experience.