Psychological Issues in the Assessment and Management of Chronic Pain

By Allen Lebovits, Ph.D.

Accreditation Approval

The American Psychotherapy Association provides this continuing education credit for Diplomates after October 2001 required to obtain 15 credits per year to maintain their Diplomate status.

ACFEI/APA is recognized by the National Board for Certified Counselors to offer continuing education for National Certified Counselors. We adhere to NBCC Continuing Education Guidelines. Provider #5812

Abstract

The objectives of the psychological evaluation of the patient with chronic pain are reviewed. The standard pain center evaluation protocol utilizes a pain questionnaire, a structured clinical interview, pain assessment measures that include pain intensity rating scales and the McGill Pain Questionnaire, and a psychological evaluation of the patient. As pain management has become more technologically sophisticated and aggressive in its approach, one of the more common uses of the psychological evaluation has been to determine the appropriateness of a potential candidate for interventional techniques. The psychological intervention with the patient who has chronic pain is also reviewed. As an integral part of the multidisciplinary approach to pain management, the most commonly utilized approach today is the cognitive-behavioral modality. The general goal of cognitive-behavioral treatment strategies is to reconceptualize the patient's beliefs about his or her pain from an uncontrollable medical symptom to a belief that pain can be under his/her control.

Key Words

Psychological assessment, chronic pain, cognitive-behavior therapy

The multidisciplinary evaluation and treatment approach to the patient suffering with chronic pain is widely practiced today and considered to be the standard of

care. The psychological evaluation and assessment of chronic pain patients has evolved from unidimensional to multidimensional models and the utility of these approaches has increased, exponentially. As its sophistication has increased so has its distance from the standard mental health intake assessment. This article reviews the unique issues involved in the assessment and management of the patient with chronic pain.

Psychological Assessment of the Chronic Pain Patient

The objectives of the psychological evaluation of the patient with chronic pain are:

I. To determine the degree of psychological adaptation to chronic pain including:

• mood state

• coping skills

• effect on family, and

• level of physical functioning

II. To evaluate the patient's premorbid psychological state, which would include

• personality factors that may influence pain etiology.

• personality factors that may influence pain onset.

III. To determine the role of psychological factors in terms of the etiology, maintenance and exacerbation of pain.

IV. To formulate a DSM-IV diagnosis.

V. To identify environmental reinforcers of chronic pain and illness behaviors such as family, litigation status and disability insurance status

VI. To evaluate the likelihood of the development of a chronic pain-related disability.

VII. To predict outcome of invasive procedures such as surgical implantation of spinal cord stimulators or continuous infusion pumps.

VIII. To determine which psychological and medical interventions would be most appropriate for the patient.

The standard pain center evaluation protocol utilizes:

• a pain questionnaire,

• a structured clinical interview,

• pain assessment measures (that include pain intensity rating scales and the McGill Pain Questionnaire (Melzack, 1975)), and

• a psychological evaluation of the patient.

The pain questionnaire referred, to above, should be designed to yield objective clinical outcome measures and include information such as:

• demographic characteristics,

• pain descriptors such as throbbing or gnawing,

• what makes the pain better and worse,

• whether or not there is interference with sleep, and

• circumstances related to the onset of pain.

Also included typically are:

• a review of prior non-pharmacologic interventions and their efficacy,

• specific current and past medication used to treat symptoms,

• litigation and compensation status,

• job status,

• job satisfaction, and

• specific occasions when pain interferes with quality of life.

The clinical interview should review:

• the patient’s pain complaints

• onset of pain and relationship to trauma

• prior medical and psychiatric history

• prior alcohol and drug usage

• current marital and family environment

• current functional level

• utilization of coping skills

• disability status

• motivational level to return to work

• the possibility of secondary gain issues

• ability to experience restful sleep at night

• the patient's beliefs and cognitions about his or her pain.

Measures of psychological status include two measures of mood state: The Beck Depression Inventory (BDI) (Beck, Rush, Shaw & Emery, 1979), (the BDI is one of the most widely used tests with chronic pain patients because it is a relatively quick measure of depression- a mood state closely linked with chronic pain (Romano & Turner, 1985)), and the Spielberger State-Trait Anxiety Inventory (STAI) (Spielberger, 1983), (the STAI is a widely used measure of anxiety that is not used as extensively as measurements of depression with chronic pain patients, but can be a very useful tool). The Minnesota Multiphasic Personality Inventory (MMPI, MMPI-2) (Butcher, Dahlstrom, & Graham, 1989), one of the most widely used and researched tests of all time, the MMPI is used quite extensively with chronic pain patients. The MMPI is a 566-question true/false test that evaluates the presence of psychopathology through three validity scales (the degree to which respondents may be trying to distort their true persona), and 10 clinical scales: Hypochondriasis, Depression, Hysteria, Psychopathic Deviance (history of antisocial behavior and nonconformance), Paranoia, Psychasthenia (obsessive-compulsive tendencies and other expressions of anxiety), Schizophrenia, Hypomania, Masculinity-Femininity, and Social Introversion. Other commonly used measures include the Symptom Checklist 90- Revised (SCL-90R) (Derogatis, 1977), a commonly used assessment of psychological symptom patterns that evaluates nine "symptom dimensions:" Somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. The Coping Strategies Questionnaire (Rosenstiel & Keefe, 1983), is an extensively used measure designed to evaluate how pain patients cope with their pain. Specific coping strategies such as "catastrophizing," correlate strongly with a pain patient's prognosis.

As pain management has become more technologically sophisticated and aggressive in its approach, one of the more common uses of the psychological evaluation has been to determine the appropriateness of a potential candidate for

an interventional technique. Nelson Kennington, & Novy, 1996, conducting a meta-analysis of the literature on this topic, concluded that patients should be excluded from implantable spinal cord stimulators if they have active psychosis, suicidality, untreated major depression, somatization disorder, alcohol or drug dependency, compensation/litigation disincentive to recovery, lack of social supports, or cognitive deficits (severity and type unspecified). Additional considerations for exclusion include unusual pain ratings, significant personality disorders, physical incongruence, a high elevation on the Depression scale of the MMPI, or elevations on four or more MMPI scales.

Patients appreciate being listened to, rather than being dismissed as having imaginary pain.

The clinician needs to take the results from the pain questionnaire, clinical interview, and psychological assessment measures, and with sound clinical judgment formulate a diagnosis and treatment plan that is individually geared to each patient.

Psychological Management of Pain

The psychological intervention with the patient who has chronic pain is an integral part of a multidisciplinary approach to pain management. The most commonly utilized approach is a cognitive-behavioral modality. The general goal of cognitive-behavioral treatment strategies is to assist the patient in reconceptualizing the belief about pain as an uncontrollable medical symptom to a belief that the patient's response to pain can be under his/her control (Holzman, Turk, & Kerns 1986; Bradley 1996). The initial step is educating the patient about the mind-body relationship. The effectiveness of this step depends on the patient's defensiveness, level of knowledge about the mechanism of pain and attitudes about the mind-body relationship. The mainstay of this approach is relaxation training, which helps patients to redirect their focus away from pain, reduce autonomic reactivity and enhance a sense of self-control. Relaxation training can be accomplished through several techniques: 1-guided imagery, 2-progressive muscular relaxation, 3-biofeedback, and 4-hypnosis.

Guided imagery requires the patient to focus on a multisensory imaginary scene. Typically, the image is elicited from the patient, and the psychotherapist guides the patient through the image, substituting sensations, such as warmth or numbness, for pain. Diaphragmatic breathing is an important part of the relaxation experience, distracting the patient even further.

In progressive muscular relaxation, patients are taught to alternately tense and relax individual muscle groups throughout the body (Lebovits & Bassman, 1996). Only non-painful muscle groups and body locations are used. Patients learn to recognize and differentiate feelings of tension and relaxation.

Biofeedback is a particularly effective modality for teaching chronic pain patients relaxation as well as self-regulation of physiological processes. In a comparison of electromyographic (EMG) biofeedback to cognitive-behavioral therapy and to conservative medical intervention, 57 patients with chronic back pain as well as 21 patients with temporomandibular joint dysfunction (TMD) were evaluated. At 24 months, only the biofeedback group maintained significant reductions in pain severity, interference, affective distress and use of the health care system (Flor & Birbaumer, 1993).

Hypnosis is another particularly effective therapeutic technique with pain patients. It not only teaches patients relaxation, but also enables patients to experience an analgesic re-interpretation of their pain, experiencing numbness, for example, instead of pain. In a study by Spiegel and Bloom (1983), women with metastatic breast carcinoma pain undergoing weekly group therapy with self hypnosis, had significantly lower pain ratings over one year than a control group.

In addition to education and relaxation training, an essential part of the cognitive-behavioral approach is cognitive restructuring. With this technique, patients are taught to identify maladaptive negative thoughts that pervade their thinking, and replacing them with more constructively adaptive positive thoughts. The maladaptive thoughts often take the form of statements about oneself or one's illness that are negative, overgeneralizing, or catastrophizing. Psychotherapy also plays an essential role in the psychological intervention with pain patients. This can include group therapy, psychoanalytic (dynamic) psychotherapy and/or family therapeutic interventions.

In conclusion, the psychological evaluation of the patient suffering with chronic pain is based on a comprehensive evaluation of the patient and his or her pain. The evaluation protocol typically uses a pain questionnaire, a structured clinical interview, pain assessment measures and a psychological evaluation of the patient. The psychological treatment of the patient with pain is most often a cognitive-behavioral approach, with relaxation training as the mainstay of the approach. The assessment and management of the patient with chronic pain involves unique issues that mental health care providers need to be aware of.

About the Author

Allen H. Lebovits, Ph.D., is a licensed psychologist who has specialized in pain management for over 10 years. Dr. Lebovits is Associate Professor in the Departments of Anesthesiology and Psychiatry of the NYU Medical Center and is Co-Director of the NYU Pain Management Center. Dr. Lebovits was previously Director of Psychological Services of the Pain Management Service at the Mount Sinai School of Medicine and subsequently Co-Director of the Pain Management Service at the State University of New York Health Science Center at Brooklyn.

Dr. Lebovits has published extensively in the scientific literature on the topic of pain, and is on the editorial board of the Clinical Journal of Pain. He is co-editor of the 1996 book A Practical Approach to Pain Management. He has presented frequently at the national scientific meetings of the American Pain Society and plays an active role in national and regional psychological and pain associations.

References

1. Beck AT, Rush AJ, Shaw BF, Emery G. (1979) Cognitive Therapy of Depression. New York: Guilford.

2. Bradley LA. Cognitive-behavioral therapy for chronic pain. (1996) In Gatchel RJ, Turk DC (eds) Psychological Approaches to Pain Management. New York: Guilford Press, 131-147.

3. Butcher NB, Dahlstrom WG, Graham JR, et al. (1989) MMPI-2, Manual for Administration and Scoring. Minneapolis: University of Minnesota Press.

4. Derogatis LR.(1997) The SCL-90R: Administration Scoring and Procedures Manual 1. Baltimore: Clinical Psychometrics Research.

5. Flor H, Birbaumer N. (1993) Comparison of the efficacy of EMG biofeedback, cognitive-behavior therapy, and conservative medical interventions on the treatment of chronic musculoskeletal pain. Journal of Consulting and Clinical Psychology 61: 653-658.

6. Holzman AD, Turk DC, Kerns RD. (1986) The cognitive-behavioral approach to the management of chronic pain. In Holzman AD, Turk DC (eds) Pain Management-A Handbook of Psychological Treatment Approaches. New York: Pergamon, 31-50.

7. Lebovits AH, Bassman L.E. (1996) Psychological aspects of chronic pain management. In Lefkowitz M, Lebovits AH, Wlody D, Rubin S. (eds) A Practical Approach to Pain Management Boston: Little Brown, 124-128.

8. Melzack R. (1975) The McGill Pain Questionnaire: Major properties and scoring methods. Pain 1: 277-299.

9. Nelson DV, Kennington M, Novy DM.(1996) Psychological selection criteria for implantable spinal cord stimulators. Pain Forum 5:93-103.

10. Romano JM, Turner JA. (1985) Chronic pain and depression: Does the evidence support a relationship? Psychological Bulletin 97: 18-34.

11. Rosenstiel AK, Keefe FJ. (1983) The use of coping strategies in chronic low back pain patients: relationship to patient characteristics and current adjustment. Pain 17: 33-44.

12. Spiegel D, Bloom J. (1983) Group therapy and hypnosis reduce metastatic breast carcinoma pain. Psychosomatic Medicine 45: 333-339.

13. Spielberger CD. (1983) Manual for the State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.