Pain Assessment and the Mental Health Practitioner: A Mind-Body Approach

Eliezer Schnall
Ferkauf Graduate School of Psychology
Albert Einstein College of Medicine
Bronx, New York 10461

ABSTRACT

Pain is the most common reason individuals visit physicians, yet medical doctors are often inadequately trained in pain assessment. Furthermore, pain is increasingly viewed as having significant affective and cognitive components necessitating a biopsychosocial approach. The role of the mental health practitioner is essential in a mind-body approach to pain assessment. In addition, issues arising in special populations, such as children and the elderly, require special attention.

INTRODUCTION

More than 23 million surgical procedures are performed each year in the United States in addition to the 50 million traumatic injuries, both of which usually cause substantial pain. Moreover, 3.5 million Americans suffer from cancer, a disease that often leads to chronic pain, and as many as 50 million others suffer chronic pain from a host of other causes. Not surprisingly, pain is the most common reason individuals visit their physicians, accounting for over 70 million visits per year (80%) in the United States alone. In fact, pain medications are among the most commonly prescribed drugs. Experts estimate that the cost of medical treatments for pain, along with the associated loss of productivity and income, may be above $125 billion annually (Clay, 2002; Turk and Melzack, 2001). Unfortunately, many physicians are not adequately trained to assess and manage pain. Furthermore, insurance companies often do not cover treatment costs. These problems may be compounded by patients’ own attitudes about pain treatment which discourage them from seeking help (Clay, 2002; Jauhar, 2002; Recer, 2002).

Beginning with the formulation of the “gate control” theory, pain has been increasingly viewed as having affective and cognitive components in addition to sensory-physiological ones (Turk and Melzack, 2001). As a result, psychologists and other professionals who take a mind-body approach are playing greater roles in the assessment and management of pain (Martin, 2002; Schnall, 2002a; Schnall, 2002b; Wilkinson, 2002). While some methods of pain assessment require the intervention of a medical doctor, such as diagnostic injection (for a review see Hogan, 2001), the focus of this review will be on the methods employed by mental health practitioners.

ASSESSMENT OF PAIN

The simplest way to assess pain is via patient self-report scales. Admittedly, these instruments are inherently subjective. Furthermore, they often require a patient to recall, perhaps unreliably, the amount of pain the patient suffered at various times, how much the patient thought about the pain, and in what activities the patient was involved. However, new palm-top computers make it more convenient to complete reports throughout the day (Carpenter, 2002a), presumably adding to their accuracy. Such devices may even “beep” to remind the patient when he is to answer specific questions, and are thus superior to traditional pain diaries. Of course, the cost of this technology is sometimes prohibitive (Keefe et al., 2001).

Self-report scales usually relate to four major dimensions of pain: intensity, affect, quality, and location (Jensen and Karoly, 2001). Instruments to assess pain intensity include the verbal rating scales, visual analogue scales, and numerical rating scales. Apparently, pain intensity is easy for patients to report, and most instruments of this category correlate well with each other. As such, most will work well in nearly all situations (Jensen and Karoly, 2001). A popular example is the 15-point scale published in Gracely, McGrath, and Dubner (1978).

Pain affect, by contrast, is the emotional distress associated with pain. There is some evidence that it is a construct independent from pain intensity and should be assessed separately. The affective subscale of the McGill Pain Questionnaire (MPQ) (Melzack, 1975) is the most widely used instrument for self-report of pain affect (Jensen and Karoly, 2001).

Another important dimension of pain is its quality. For example, patients often describe a pain as “sharp,” “dull,” “deep,” or “superficial.” While there are currently very few instruments for this category, the MPQ also has a sensory scale, which has been shown both reliable and valid for self-report of pain quality (Jensen and Karoly, 2001).

A pain assessment is incomplete without examination of the fourth aspect of pain, its location. The “pain drawing” is the most common instrument used for this type of self-report (Jensen and Karoly, 2001). There are
numerous examples of these sketches of the human body, which are marked in the area where the patient feels pain (see Margolis et al. (1986) for an example).

In addition to a patient's own report, there are many ways in which clinicians can detect or evaluate patient pain on their own. Once used mainly in research, facial expression of pain has now been applied to clinical practice (Craig et al., 2001). For example, Chambers et al. (1996) have developed a manual for application of their Child Facial Coding System.

Clinicians also make use of numerous psychophysiological techniques to assess pain. These measure either peripheral or central processes. The former include electromyographic recordings, measures of blood flow and skin temperature, heart rate and blood pressure, as well as skin conductance. Positron emission tomography (PET), functional magnetic resonance imaging (fMRI), and electroencephalographic (EEG) recordings are examples of the latter (Flor, 2001).

Another way that clinicians assess pain without resorting to subjective self-report is by measuring observable pain behaviors. These include verbalizations (even paralinguistic ones), facial expressions, activity levels, gesticulations, and postural adjustments. Such measurements are especially useful in behaviorally focused therapies which often aim to limit these behaviors.

Behaviors are particularly important to measure because, unlike pain per se, they are susceptible to learning and conditioning influences. As such, clinicians must examine whether a patient's environment rewards pain behaviors such as lying in bed with a day off from work. Such operant conditioning may make the pain more “resistant” to treatment (Dworkin and Sherman, 2001; Turk and Melzack, 2001). For example, Keefe et al. (2001) have developed scoring sheets for the “osteoarthritis pain behavior observation system” and the “naturalistic low back pain behavior system.”

A thorough pain assessment also includes measure of patient impairment, which helps in evaluating the severity of the condition. The degree of impairment also has important legal ramifications when claims for financial compensation are filed. Since physical impairment bears only a small association with self-reported pain (Turk and Melzack, 2001), it is especially important to conduct a separate evaluation to determine a patient’s level of function.

To illustrate, Polatin and Mayer (2001) detail how the capacity of the lumbar spine is tested when quantifying function in patients with chronic lower back pain. Measurements typically focus on range of motion, trunk strength, lifting, and aerobic capacity as well as task specific tests. Although largely outside the domain of the mental health professional, it is important that such reports be provided him by the practitioner who made the physical evaluation (Battie and May (2001) review the literature on physical and occupational therapy assessment approaches).

It is also important to assess a patient’s pain beliefs. For example, a patient who believes that successful use of biofeedback or hypnosis implies that his suffering is nonphysical, and thus less respectable, is less likely to comply with subsequently proposed treatments. To be more specific, patient compliance requires that a patient have appropriate outcome expectancy and self-efficacy beliefs. In other words, he must believe that the treatment is the correct one and that he is capable of carrying out the activities it necessitates. The pain beliefs instrument most widely used and studied is the Survey of Pain Attitudes (SOPA), originally developed by Jensen et al. (1987) (DeGood and Tait, 2001). Several revised and abridged versions are now available, such as Tait and Chibnall's (1997) Survey of Pain Attitudes.

Pain coping methods also seem critical to the success or failure of pain treatment. Although results probably depend on the circumstances, reinterpreting or ignoring pain, diverting attention from it, using coping self-statements or praying and hoping, have demonstrated varying degrees of effectiveness. As such, clinicians should investigate what types of coping methods a patient tends to employ. The Coping Strategies Questionnaire (Rosenstiel and Keefe, 1983) and the Vanderbilt Pain Management Inventory (Brown and Nicassio, 1987) have been used for this purpose.

Clinicians and researchers alike have realized that pain patients should not be evaluated in a vacuum, but must be considered within their social context. As mentioned earlier, complaining of pain may trigger rewards like attention from relatives or sympathy from friends. Conversely, the responses of others may trigger new reactions in the patient. Furthermore, the patient’s suffering may have positive or negative effects on his overall family and social system. Evaluation of these factors is valuable in determining what methods of intervention will work best, and how they should be applied (Carpenter, 2002a; Jacob and Kerns, 2001; Romano and Schmaling, 2001).

There are many ways by which an individual’s social context can be assessed, the most traditional being the clinical interview. Clinicians who prefer a structured interview approach might consider the Psychosocial Pain Inventory (Heaton et al., 1985). Self-report measures also exist, such as the Family Environment Scale (Moos and Moos, 1986), although some have questioned its psychometric properties. Similarly, the West Haven-Yale Multidimensional Pain Inventory (WHYMPI) (reprinted in Jacob and Kerns, 2001) has a section designed to evaluate the patient’s perception of his social interactions. To be used as a complement, Kerns
and Rosenberg (1995) have developed a version of that scale which allows a patient’s significant other to provide his perspective of the social environment.

A patient’s psychological state may also affect, or be affected by, his pain (Sullivan, 2001). It is thus important to evaluate whether the patient suffers any psychiatric morbidity that may contribute to his condition or that has since developed and now requires attention. The Structured Clinical Interview (SCID) for DSM-IV Axis I Disorders (First et al., 1997a) and SCID for DSM-IV Axis II Personality Disorders (First et al., 1997b) are useful for this purpose, as are the self-report Minnesota Multiphasic Personality Inventory 2 (Hathaway et al., 1989) and the WHYMPI. Clinicians should also consider the possibility that psychological factors may, in some instances, play “the major role in the onset, severity, exacerbation, or maintenance of the pain,” as in the DSM-IV diagnosis of Pain Disorder Associated with Psychological Factors (American Psychiatric Association, 1994).

PAIN ASSESSMENT IN SPECIAL POPULATIONS

Pain in children and babies has long been undertreated, underreported, and even misunderstood. In fact, until recently many physicians believed that infants could not even feel pain. This is likely related to the fact that children are often unable, or considered unable, to provide meaningful information about their pain. Hospital staff also seem less sensitive to children’s pain, and even lack a common language with which to discuss the topic (Clay, 2002; Kain et al., 2002). To emphasize some of the confusion in this area, it is noteworthy that some researchers claim that “providers are unsure which of the myriad pain measures are best to use” (McGrath and Gillespie, 2001), while others blame “the lack of available and validated pain assessment tools” (Breau et al., 2002).

Given the above, it is critical that clinicians properly attend to pain assessment in children. Indeed, infants’ pain can only be detected with physiological or behavioral indices, such as the aforementioned Child Facial Coding System. Nevertheless, McGrath and Gillespie (2001) have compiled an extensive list of measures to be employed for older children. Some examples include the Children’s Headache Interview for migraine and tension type headaches, the Pain Ladder for acute pain, and The Oucher for postoperative pain. The latter is also available in African American and Hispanic versions.

Assessment is made even more complicated when the child in question suffers cognitive impairment and thus increased communication difficulties. However, several new assessment methods are showing promise (Carpenter, 2002b). For example, Breau et al. (2002) have recently tested their Non-communicating Children’s Pain Checklist-Postoperative Version on children with severe intellectual disabilities and found good psychometric properties. Their results also suggest that the observer who completes the form checklist need not be familiar with the individual child (See Hadjistavropoulos et al. (2001) for an extensive review of self-report, observational, and physiological measures used in pain assessment of adults with impaired communication abilities).

In the United States, the elderly constitute a rapidly expanding segment of the population and are often in special need of pain management. Yet, this group is a challenging one to treat for many reasons. To be sure, some elderly individuals have difficulty communicating as a result of strokes or other conditions. Many may also believe that pain is an unavoidable part of aging and do not seek treatment for their pain (Clay, 2002). But in actuality, the problem is much broader.

One recent reviewer (Gagliese, 2001) complained that researchers have not even resolved how to measure pain variables in the elderly. Studies employing instruments designed for younger and healthier subjects may not yield valid data for this group. For example, some researchers have found that older people have trouble completing pain questionnaires. While research in this area is still in its infancy, Gagliese (2001) suggests using the MPQ for this population. Hopefully, as further investigation is performed, we will be more fully equipped to serve this growing segment of the population.

SUMMARY AND CONCLUSION

Due to surgery, injury, and many chronic conditions, a large segment of society suffers from significant pain. Increasingly, scientists and clinicians realize that pain is not merely a physiological phenomenon, but also has substantial psychological components and relevant social variables. As such, the biopsychosocial approach to pain assessment has become popular. Practitioners who work within this model make use of a myriad of new observational, self-report, and interviewing methods in consonance with traditional medical techniques. While research is far from complete, new and better methods are being developed to better serve the pain assessment needs of all segments of the population, including those that have been neglected in the past.

REFERENCES


Pain Assessment and the Mental Health Practitioner: A Mind-Body Approach


Schnall, E. (2002b) Health Psychology in the Medical Curriculum, Faculty Development Workshop. Albert Einstein College of Medicine, New York.


Medical Review

A Medical Review summarizes the current published literature and offers perspective based on that literature. Medical Reviews can be submitted by electronic mail (ejbm@aecom.yu.edu) or regular mail (1300 Morris Park Avenue; Forchheimer Building, Room 306; Bronx, New York 10461). Receipt of a Medical Review is acknowledged. Medical Reviews are peer reviewed and edited for space and clarity.