

Comprehensive Handbook of Cognitive Therapy

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Psychotherapy for Chronic Pain

A Cognitive Approach

BRUCE N. EIMER

Chronic pain is a health problem of epidemic proportions. Debilitated victims of long-duration, intractable pain lead severely limited lives. For example, many low-back-pain patients, in addition to suffering from physical pain are chronically depressed and are unable to sleep at night, to eat properly, to take care of activities of daily living, and to remain gainfully employed. Traditional medical approaches often prove unsatisfactory for providing long-term relief from chronic pain. In addition, clinicians frequently encounter patients whose pain complaints have no discernible organic basis or where the degree of tissue damage is disproportionate to the reported pain severity. The search for efficacious alternatives has led clinicians to focus on psychological approaches to the problem of treating chronic pain patients (Barber & Adrian, 1982; Catalano, 1987; Holzman & Turk, 1986; Turk, Meichenbaum, & Genest, 1983).

Unfortunately, most chronic pain patients initially consulting a psychotherapist are resentful toward a medical system that has failed them, angry about having pain, and demoralized and depressed about their painful lives. Hence, the therapist needs to pay special attention to building a therapeutic relationship with a patient whose expectations are initially soured. This demands a high degree of activity and relevance on the part of the therapist (Bellissimo & Tunks, 1984; Turk *et al.*, 1983). In this chapter, a cognitive approach to psychotherapy with chronic pain patients will be presented that takes into account the special problems that are likely to emerge in working with this patient population. The approach described here dictates that the therapist assume an active role as a teacher or coach to encourage and guide the patient in learning strategies for managing pain, coping with related problems, and assuming a more rewarding life-style.

ACUTE VERSUS CHRONIC PAIN

The International Society for the Study of Pain (1979), as quoted by Merskey (1982), has succinctly defined pain as "an unpleasant sensory and emotional experience which is associ-

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ated with tissue damage or described in terms of tissue damage." (p. 10) The key word in this definition is *experience*. Pain is a complex subjective experience, and as such, is influenced by context, focus of attention, thoughts, feelings, attitudes, beliefs, images, and behaviors, in addition to sensory processes.

The degree to which a sensation following an injury will be interpreted by an injured individual as painful is dependent on a complex of factors. A particularly poignant example is offered in a much-cited study by Beecher (1946). He compared the reactions of World War II soldiers whose painful wounds occasioned their leaving the battle zone with the reactions of civilians awaiting surgery. More of the soldiers reported less pain, and fewer requested narcotics than did the civilians. According to Beecher, the soldiers viewed their painful wounds as a gift in that they had been given a ticket home. For the civilians awaiting surgery, there were other more psychologically painful implications. These observations highlight the important roles of cognition, personal meaning, and expectation in the experience of pain. If one witnesses the injured athlete doggedly giving his best despite an injury, one sees illustrated the primacy of context and focus of attention in pain perception.

The foregoing examples illustrate situations giving rise to acute pain. Acute pain serves as a signal that something is physically wrong. To return to the latter example, once the injured athlete is out of the game and has the opportunity to refocus his or her attention on the sensations of the injury, he or she is alerted to the necessity of preventing further damage and tending to the wound. Acute or short-duration pain by definition is pain that subsides with time. If the athlete's pain did not subside within a few months or in fact became worse, then it would be seen as having turned into chronic pain. Chronic pain is pain that has outlasted its utility as a signal of any ongoing, remediable threat (Sternbach, 1987). Some common sources of chronic, benign pain are musculoskeletal disorders, neuralgia, neuritis, vascular disorders, arthritis, excessive levels of muscle tension, gastrointestinal disorders, and maladjustment to the effects of surgery. Some common types of pain produced by the previously mentioned etiologies are low back pain, neck and shoulder pain, the burning, stabbing, and throbbing of neuritis and neuralgia, migraine and cluster headaches, the numbness and coldness in hands and feet of Raynaud's disease, chronic muscle stiffness and soreness, inflammatory joint pain, muscle contraction headaches, and gastrointestinal pains.

When pain does not subside or becomes worse, there are profound psychological ramifications. Hendler (1984) has described four stages in the progression of the pain experience. During the first, or acute, stage that lasts up to 2 months, there are no apparent psychological changes, probably because patients at this stage generally expect to get well. During the next 4 months or subacute stage, patients become concerned and frightened if their pain has not diminished or disappeared. If pain persists after 6 months, life-limiting depression and anxiety are likely to ensue as the patient enters the chronic stage. If patients have pain for more than 3 years, they enter the subchronic stage. For most of these patients, depression and somatic preoccupations become a way of life.

A COGNITIVE CONCEPTUALIZATION OF CHRONIC PAIN

The physical limitations imposed by many chronic pain conditions block the continued validation of basic components of a sufferer's self-image (Gallagher & Wrobel, 1982; Violin, 1982). Many chronic pain patients have lost the ability to view themselves as sexual, or as independent and resourceful. Their pain-related limitations make it more likely that contrasting polarities of their self-image will be validated, so they begin to see themselves as nonsexual or sexually incapable, unresourceful, helpless, and dependent on others (Shealy, 1976; Skevington, 1983). Negative self-perceptions such as these are likely to produce thoughts of guilt and self-blame for failure to meet one's former standards, feelings of sadness about the

loss of one's former functions, and anger about being incapable of gratifying one's former desires. The chronic pain sufferer is likely to develop the belief that it requires more effort than he or she has available to realize even some portion of his or her former goals. This belief can form the breeding ground for cognitions of hopelessness and helplessness (Seligman, 1975), feelings of discouragement, withdrawal behaviors, and may set the stage for the reinforcement of excessive reliance on significant others. As the individual comes to feel increasingly vulnerable due to a diminished evaluation of his or her coping resources, anxiety, discouragement, disappointment, guilt, self-blame, sadness, and anger are likely to activate depressogenic cognitions in a final common pathway of depression (Covington, 1982; Hendlar, 1984; Lefebvre, 1981; Rosenstiel & Keefe, 1983).

Chronic pain sufferers appear to engage in specific patterns of cognitive distortion that form a "downward spiral" of negative, depressogenic thinking (Catalano, 1987; Lefebvre, 1981). These patterns of cognitive distortions have been described and catalogued by Beck and his colleagues (Beck, 1976; Beck, Rush, Shaw, & Emery, 1979; Burns, 1980; Freeman, 1987). In an effort to validate empirically clinical data collected by clinicians treating chronic pain patients, Lefebvre (1981) compared the occurrence of cognitive distortions in depressed low-back-pain patients with that of nondepressed low-back-pain patients, depressed nonpain patients, and a control group. Depressed low-back-pain patients evidenced a greater frequency of catastrophizing, overgeneralization, and selective abstraction than did nondepressed low-back patients. They also rated their pain intensity to be higher than did the nondepressed pain patients.

Lefebvre's study bore out that many pain patients tend to catastrophize about their condition by exaggerating the seriousness of the consequences they anticipate will result from their pain sensations. For example, one patient seen by the author became preoccupied with the question: "What if my back pain becomes so severe that I'll be bedridden permanently?" His catastrophic ruminations on the negative possibilities suggested by the "what-if" question led him to magnify his perceptions of threat and minimize his estimation of his own coping resources (Beck & Emery, 1985). This heightened his level of anxiety.

Many chronic pain sufferers also selectively focus on their pain signals to the exclusion of everything else. This usually exacerbates anxiety and pain and can result in a state of chronic invalidism as the individual ruminates about and becomes increasingly absorbed in his or her experience of physical deterioration (Sternbach, 1974, 1987).

A particularly dysfunctional pattern of cognitive appraisal involves the misattribution of causality for pain. This can work in either of two directions, leading the pain sufferer mistakenly to internalize or externalize the blame for his or her continuing pain. As an example of dysfunctional internalization, the author treated a low-back-pain patient who attributed his musculoskeletal dysfunction completely to his own "negligent and unhealthy" lifestyle and to his belief that he was an inherently weak person. In addition, he held the belief that he had already caused himself irreversible damage and concluded that his coping options were limited. As an example of dysfunctional externalization, the author saw a woman who believed that her rheumatoid arthritis was completely the result of a viral and autoimmune disorder. Her absolutistic "medical model" attributions led her to believe that there was nothing that she could do for her pain and fostered an excessive reliance on the medical system. In both cases, these patient's extreme, one-sided attributions sabotaged their potential sense of self-efficacy and undercut their motivation to cope more directly with their pain-related conditions.

The tendency to evaluate one's health status in absolute, black-and-white terms is also prevalent in many chronic pain sufferers. For example, a very health-conscious young woman who had developed low back problems told the author: "Now that I'm not totally healthy anymore, I'm a sick person. If I can't exercise as vigorously as I used to, then I will turn into a physical weakling."

In addition, two particularly dysfunctional distortions that probably are at the root of the

sick-role behaviors and invalidism of many chronic pain patients are termed overgeneralization and negative prediction (Burns, 1980). *Overgeneralization* refers to the tendency to exaggerate one's limitations in one area to all areas of one's life. It often leads patients to make negative predictions by concluding arbitrarily that, because they are currently in pain, they will always be in pain. The health-conscious young woman mentioned previously added to her misery by predicting that, because she was currently limited in the amount of exercise she could tolerate, she would never be strong again and never be able to live the kind of life she wanted to live. She then took this prediction as an *a priori* fact. This created a sense of hopelessness and made her feel depressed. She then acted on her mistaken assumption and asked her mother to sell all of her exercise equipment, planned on giving up her career, and even anticipated rejection by her boyfriend.

Another cognitive distortion, termed *disqualifying the positive* refers to the tendency to "snatch defeat from the jaws of victory" (Freeman, 1987). Many chronic pain sufferers distort in this manner by frequently finding reasons to avoid giving themselves credit for successfully coping. Positive events are discounted and overshadowed by negative impressions. Such discounting reinforces the "downward spiral" of negative thinking, exacerbating anxiety and depression and prolonging distress.

One of the most insidious patterns of negative thinking involves the excessive use of *should* and *ought* statements. Most pain sufferers tell themselves that they should not have to suffer pain and that their situation ought not have happened to them. However, excessive absorption in this kind of thinking invariably leads to feelings of anger and resentment given the implication that life has been unfair and that life must not be unfair. This pattern of thinking is potentially the most destructive because by fueling rage and resentment, it has tremendously debilitating psychophysiological effects.

The chronic pain sufferer who has not obtained pain relief from any of his or her contacts with the health care system is likely to feel angry and resentful given cognitions such as "I should have been helped by now!" and "It's not fair that I continue to suffer and others don't have to suffer as I do." A downward spiral of *shoulds* and *shouldn't haves* is set up and repeatedly reinforced by each unsuccessful effort at obtaining pain relief. Anger and rage trigger the "fight-or-flight" stress response (Asterista, 1984) that further depletes the body of its energy reserves as physiological systems work in overdrive.

Given all of the foregoing and building on Beck's (1976) cognitive model of stress, chronic pain can be viewed as a psychophysiological stress disorder. That is, the individual fails to recover physiologically and psychologically long after the original physical stressors have abated. The pain is maintained by a reverberating circuit of dysfunctional thinking, misdirected selective attention, negative feeling states, and autonomic hyperarousal. The pain sufferer's constructions of the pain's causes and anticipated short- and long-term consequences are active, ongoing cognitive processes that include successive reappraisals of the pain, its effects, the risks involved, the individual's coping resources, and the probabilities of forestalling permanent damage and progressive deterioration.

Consistent with Beck's model of a stress reaction, the individual's cognitive structuring of pain forms the basis for how he or she copes. Psychophysiological stress reactions follow from intense arousal that the individual has no effective way of discharging (Asterista, 1984). For example, the individual might downplay his or her resources as too minimal for modulating the pain. If the individual perceives vital interests to be at stake (i.e., perceives high threat), then he or she is likely to make extreme, absolutistic appraisals of his or her condition and its implications. This is likely to result in cognitive interferences such as overpreoccupation with the pain, difficulties in concentrating on anything else, forgetfulness, and so on. These disruptions eventually impair the individual's self-efficacy and deplete his or her coping resources.

Effective therapy with this patient population requires that the multiple modalities dis-

rupted by the chronic pain condition be addressed. Following the psychophysiological model of Melzack and Wall (1970), these modalities would include the cognitive-evaluative system, the emotional-motivational system, and the sensori-physiological system.

PSYCHOLOGICAL MANAGEMENT OF CHRONIC PAIN

In recent years, clinicians have developed multimodal treatment packages to address the cognitive, affective, behavioral and sensoriphysiological dimensions of the chronic pain experience (Eimer, 1988; Holzman & Turk, 1986; Tollison, 1982; Turk *et al.*, 1983). There are a number of basic assumptions that underlie these intervention packages.

First, it is assumed that the central nervous system is selective in processing stimulus input (Melzack & Wall, 1970). Stimulus input is automatically screened before being centrally processed and brought to the focus of attention. The nervous system's capacities for screening sensory input and employing attention selectively make it possible to retrain patients to exert deliberate control over their attentional resources. In other words, patients can be taught to attend to stimulus sensations other than pain (Turk *et al.*, 1983).

A second basic assumption is that pain sufferers' cognitive interpretations of pain have a profound effect on the pain experience, as was underscored by the Beecher (1946) study.

A third assumption is that the chronic pain response is a maladaptive collection of overt and covert learned behaviors and therefore can be unlearned (Fordyce, 1976). Pain control is seen as a skill that can be learned, consolidated, and refined with practice (Turk *et al.*, 1983).

In some early work, Cautela (1977) built on these principles and developed a technique he termed *covert conditioning* for modifying pain behavior. The essence of covert conditioning is to teach the patient to yell the words *stop* and *relax* whenever he or she experiences pain. The overt verbalizations are gradually faded into covert verbalizations over repeated trials. The patient is also instructed to reinforce these self-verbalizations by imagining a pleasant, relaxing scene. He or she is instructed to repeat this three-part sequence until the pain subsides or is eliminated.

In order to build tolerance for future episodes of pain, trigger situations for pain are identified and the patient is asked to practice imagining himself or herself in these situations comfortable and pain free. This is then followed by distraction in the form of imagining a pleasant scene. Pain occurrences in actual situations are also counterconditioned by having the patient practice distraction from the "real" pain and imagine being in the same situation with no pain. This is then followed by imagining a reinforcing scene. The use of these procedures is bolstered by repetitive practice as well as by employing overt operant principles such as prohibiting the patient from complaining about the pain and instructing significant others to withdraw attention when and if the patient does complain.

Building on the integrative work of Meichenbaum (1977), Turk *et al.* (1983) have developed a comprehensive psychological pain management program grounded in Meichenbaum's stress inoculation training paradigm. Their program addresses the cognitive-evaluative, emotional-motivational, and sensoriphysiological dimensions of chronic pain.

Painful episodes are conceptualized as occurring over time in four phases: (1) the prodromal phase that is seen as the time when one prepares for the onset of pain; (2) the actual confrontation with painful sensations; (3) coping with intense feelings and sensations during the most difficult and stressful moments; and (4) after the worst moments have passed, reflecting on the experience and one's coping strategies.

Patients are taught techniques for coping with the pain during each phase of the pain episode. There are physical techniques such as progressive muscular relaxation and deep breathing for reducing sensory input, releasing muscle tension, and decreasing physiological arousal. There are cognitive techniques that include the use of coping statements and self-

instructions for talking to oneself positively through each phase of the pain episode. There are also various attention-diverting strategies for distracting oneself from pain and refocusing on positive emotive imagery (Lazarus, 1977).

The attention-diverting strategies are categorized into those that simply involve shifting the focus of attention and those that involve the deliberate utilization of imagery. Examples of the first kind are focusing attention externally on physical characteristics of the environment and focusing attention internally such as on various thoughts unrelated to pain or directly on the part of the body experiencing intense sensations. The rationale for the latter strategy is to look at the pain sensations objectively and impassively in order to reduce catastrophizing and lower emotional arousal.

Examples of strategies involving the deliberate utilization of imagery are engaging in mental imagery incompatible with the experience of pain (e.g., imagining oneself in a pleasant place), reinterpreting the pain sensations as something other than pain, minimizing the sensations so as to alter one's perceptions of the pain (e.g., hypnotic imagery such as visualizing the affected body parts as numbed by Novocain or seeing the affected body parts as made of some artificial substance rendering them incapable of transmitting pain sensations), and imaginatively transforming the context in which the pain is experienced (e.g., picturing oneself as an athlete or hero who can endure or ignore the pain in the midst of the action).

In self-instructional training, the patient is coached to develop a "library" of self-statements to facilitate coping with each of the four phases of the pain episode. For example, in preparing for the pain episode, the patient is taught to tell himself or herself to view the situation as a solvable problem, to plan how he or she will deal with the pain, to review all the techniques that might be employed, and to remember to use anxiety as a reminder to focus on what needs to be done. For confronting the pain, the client is coached to remind himself or herself to do one thing at a time to avoid becoming overwhelmed, to relax and breathe deeply, to focus on coping and to use tension as a cue to relax and to stay on task. For confronting especially difficult moments when the pain sufferer feels unable to continue constructively, the patient is coached to tell himself or herself to continue focusing on the task, to refrain from catastrophizing, to accept some pain as inevitable, and to remember that he or she has a repertoire of strategies for keeping the pain under control.

Throughout each of the phases of the pain episode and at its termination, the patient is asked to evaluate his or her performance, to use negative feedback as a cue to try different coping strategies, and to use positive feedback as a cue to self-reinforce. Following Hamburg and Adams's (1967) work, Turk *et al.* (1983) gear their program toward promoting "satisfactory adjustment" through the enhancement of the patient's self-care behaviors. "Satisfactory adjustment" is defined as:

Keeping distress within manageable limits, maintaining a sense of personal worth; restoring relations with significant other people and increasing the likelihood of working out a personally valued and socially acceptable situation after maximum physical recovery has been obtained. (p. 60)

Turk *et al.* assert that successful coping requires that the patient understand the nature of his or her disorder and the rationale for employing various coping behaviors. In addition, it is essential that the patient believe in the efficacy of available coping techniques, have the self-confidence to apply them, be capable of coping with depression and anxiety, have the ability to problem-solve, and make realistic attributions concerning limitations in the efficacy of his or her coping efforts.

Psychological techniques for pain control can be grouped into a few main categories. In working with pain patients, this author has coined the acronym "PADDS" for teaching a comprehensive self-management approach that "pads you against your pain."

The first letter, *P*, stands for "pacing." A number of authors have emphasized the

importance of pain patients pacing themselves in their activities so that they do not exhaust themselves and deplete their resources (Eimer, 1987; Fordyce, 1976; Sternbach, 1987; Tollison, 1982). Pacing oneself also means listening to the body's pain signals and learning to discriminate when the body is calling out "uncle," given overexertion, and when the body is "crying wolf." The pain sufferer needs to know his or her own physical limitations. It needs to be communicated that it is unfortunate, but realistically, the pain sufferer has some limitations that others may not have and that the patient may not have had in the past. Nevertheless, the important thing is to concentrate on abilities as opposed to disabilities (Tollison, 1982). Many chronic pain sufferers ruminate about activities they can no longer do rather than focusing on activities they can do.

The second letter, *A*, stands for "anxiety management." It is essential that pain sufferers learn some technique for reducing anxiety and producing the "relaxation response" (Benson, 1975). These include, among others, self-hypnosis, progressive muscle relaxation, deep breathing, autogenic training, meditation, yoga, and biofeedback. An excellent review of the major relaxation techniques is provided by Davis, Eshelman, and McKay (1982).

The third letter, *D*, stands for "distraction." As was discussed earlier, distraction capitalizes on the nervous system's capacity for selective attention. The basic idea is to block pain out by refocusing attention on something else. Various attention-diverting coping strategies were reviewed earlier in the discussion of the Turk *et al.* program.

The second *D* stands for "disputation of negative thoughts." The term *disputation* refers to a procedure for identifying automatic thoughts and underlying beliefs and then questioning their validity. Once cognitions are determined to be invalid, the next step is to alter or restructure them. Various authors (Beck *et al.*, 1979; Burns, 1980; Ellis, 1985; Freeman, 1987; McMullin, 1986) have catalogued and described strategies for cognitive disputation and restructuring. For heuristic purposes, these cognitive strategies may be seen as falling into five categories. The categories are uncovering strategies, hypothesis-testing strategies, reinterpretive strategies, problem-solving strategies, and cognitive rehearsal strategies.

Uncovering strategies would include clarification of the idiosyncratic meanings a patient places on events (Freeman, 1987), labeling cognitive distortions, tracing a patient's reasoning to the underlying schematic issues with the "downward arrow" technique (Burns, 1980), and helping a patient become aware of his or her worst fears.

Hypothesis-testing strategies would include questioning the evidence supporting particular beliefs and sorting out the probabilities of occurrence of patients' anticipated and feared consequences.

Reinterpretive strategies would include helping patients to learn the causal connections between their thoughts, feelings, and behaviors; helping patients to modulate the extremity and intensity of their evaluations; helping patients more realistically to sort out what is and what is not controllable; and helping patients substitute adaptive cognitions for maladaptive ones.

Problem-solving strategies would include helping patients sort out coping options and alternatives and helping them to weigh the advantages and disadvantages of holding particular beliefs or behaving in certain ways.

Last, cognitive rehearsal strategies would include techniques for mentally practicing new ways of thinking, feeling, and behaving, role-playing techniques for practicing how to dispute dysfunctional cognitions effectively, and the experimental method for testing-out hypotheses.

The last letter, *S*, of the acronym PADDS stands for "stopping negative thoughts and images." Thought-stopping techniques were discussed previously. In summary, however, thought stopping might be conceptualized as a general category for interventions that involve cueing oneself to abort the flow of negative thoughts and images and to "change the channel" to an alternative flow of cognitions. In these terms, cognitive disputation and cognitive restructuring may be seen as "elegant" versions of thought stopping.

Cognitive techniques are not best employed in a rote or mechanical manner. Their clinical

application with the pain patient requires sensitivity and clinical knowledge. Turk *et al.* (1983) assert:

A spontaneous, flexible approach will help to establish an atmosphere of rapport, confidence, and alliance (p. 194). . . . There is no substitute for the personal import of the trained therapist and there is no easy means of acquiring the sensitivity and judgment that are the fruits of experience (p. 195).

When psychotherapy is indicated for the pain patient, it is essential that the therapy be adapted to fit the patient rather than expecting the patient to adapt to fit the therapy (Lazarus, 1985). The remainder of the chapter will cover the parameters that need to be considered in the psychotherapeutic treatment of chronic pain patients by the cognitively oriented therapist. These parameters are dictated by the cognitive, behavioral, and affective commonalities among chronic pain patients who have had numerous unsuccessful and often iatrogenic contacts with the medical system. These patients provide the utmost challenge to the psychotherapist who is often their "court of last resort."

STRATEGIES FOR BUILDING A THERAPEUTIC RELATIONSHIP

Initial sessions need to be devoted to assessing the patient and the patient's complaints and translating the presenting problems into cognitive and behavioral terms congruent with the implementation of a cognitive-behavioral treatment package. In effect, the patient needs to be socialized to a cognitive-behavioral coping skills model and prepared to accept the ideas that the therapist will present.

From the outset, the therapist needs to facilitate a free exchange of feelings, thoughts, and beliefs, so that misconceptions potentially destructive to developing a therapeutic alliance can be identified and corrected. For example, many chronic pain patients anticipate that their therapist will doubt the authenticity of their pain complaints (Covington, 1982). It is essential to examine the basis for such misconceptions and assure the patient that this is not the case. A thorough cognitive and behavioral assessment of the patient's pain during the initial therapeutic contacts focusing on factors that make the pain better and worse helps to communicate to the patient that his or her complaints are construed as valid.

In the following sections, strategies for promoting the development of a positive therapeutic relationship while assessing the patient, socializing the patient to the cognitive coping skills model, and dealing with various sources of patients' resistance to therapeutic change efforts will be discussed.

INITIAL ASSESSMENT OF THE PATIENT

There are a number of excellent sources that present in detail specific categories of data that are relevant to conducting a comprehensive cognitive-behavioral assessment of the pain patient (Cinciripini & Floren, 1983; Getto & Heaton, 1985; Holzman & Turk, 1986; Melzack, 1975; Tollison, 1986; Turk *et al.*, 1983). Only a brief listing of the categories will be given here.

These include the patient's medical and psychiatric treatment history, details about health status, characteristics of the pain (including information about location, onset, course, intensity, duration, frequency, and idiosyncratic characterizations of the symptoms), situations and activities that exacerbate the pain, situations and activities that relieve the pain, and associated physical and psychological complaints. It is important to inquire about the patient's personal theories of the pain's etiology, the idiosyncratic meanings that the patient assigns to the pain,

the ways in which the symptoms place restrictions on the patient's life-style, health-related behaviors such as diet, exercise, and sleep patterns, previous and current coping strategies, and the reactions of significant others. It is also important to inquire about what the patient is willing to do to reduce his or her pain, how hard he or she is willing to work, and the ways in which the patient thinks things will be different when pain relief is attained.

SOCIALIZING THE PATIENT TO THE COGNITIVE MODEL

Once an adequate assessment is conducted, the patient should be introduced to the conceptual framework underlying the cognitive-behavioral coping skills model. Following the psychophysiological "gate-control" model of Melzack and Wall (1970), pain is discussed as a complex phenomenon that results from the interaction of sensoriphysiological, motivational-emotional, and cognitive-evaluative modalities.

It is important that the therapist have a basic medical understanding of the nature of the underlying disorders or syndromes contributing to the patient's pain. Part of the therapist's role is to teach the patient basic biomechanical and physiological concepts of the bodily systems that are disordered. This is important as increased knowledge on the patient's part is facilitative of enhanced self-care behaviors. Following assessment and conceptual-educational phases, the patient is gradually introduced to various pain and stress management strategies and given homework assignments for practicing and consolidating new skills.

Unfortunately, as various authors have pointed out (Gallagher & Wrobel, 1982; Merskey, 1982; Violin, 1982), many chronic pain patients are not psychologically minded. They tend to complain about multiple symptoms, all usually equally severe, and to deny past and current life stressors that may have precipitated or that may be maintaining their pain (Covington, 1982). They also tend to deny psychological problems and often are not particularly motivated to work hard at learning coping skills given their depressed outlooks and perceptions of their limitations as overwhelming and insoluble. Therefore, the cognitive therapist's job early in the therapy is to socialize the patient to anticipate that multiple problems are each amenable to solution if they are broken down into more concrete tasks that can be approached one step at a time.

The patient's lack of awareness of life stressors can be dealt with by recommending that the patient keep a pain diary in which he or she records the connections between pain and different situational contexts. Once the patient begins to associate variations in pain with variations in situations, the next step is to teach the patient to identify automatic thoughts and feelings in those situations. These, too, can be recorded in the diary. Turk *et al.* (1983) provide a sample pain diary format. In addition, the Daily Record of Dysfunctional Thoughts (Beck *et al.*, 1979) provides a useful format for this activity. The therapist can eventually use the patient's diary entries to discuss the connections between activating situations, thoughts, feelings, and pain. This relationship is basic to the cognitive model of the emotional disorders (Beck, 1976) and to building a cognitive understanding of pain.

SOURCES OF PATIENTS' RESISTANCES TO THERAPEUTIC CHANGE EFFORTS

During initial contacts, the therapist is likely to encounter a patient who is resistant to accepting the therapist's suggestions (DeGood, 1983; Pilowsky & Bassett, 1982). These resistances often manifest themselves in the patient's unwillingness to carry out assignments, in the patient's communication of an impatient and intolerant attitude toward the therapist's ministrations, and in the expression of anger and resentment toward the therapist. The therapist

needs to address these resistances by first addressing the feelings and then examining with the patient the probable underlying cognitions and behavior patterns.

First of all, many pain patients, disgruntled by a track record of unsuccessful medical contacts, expect that the therapist will doubt the authenticity of their pain. Therefore, at the outset, the therapist must reassure the patient that he or she believes that the pain is real and not "all in the patient's head."

A mistaken belief that frequently underlies the aforementioned expectation is the notion of a mind-body duality. Mind and body are viewed as independent entities and often no connection is seen between the ways in which psychological stressors are handled and the body's reactions. This misconception needs to be corrected through education. The therapist needs to teach the patient about the reciprocal relationship between mind and body and about the ways in which thoughts and feelings affect and are affected by one's physical functions. Biofeedback is an excellent tool for helping patients to become more aware of their bodily functions and for teaching patients cognitive and imaginal strategies for regulating their bodily functions and controlling their pain (Basmajian, 1983; Schwartz, 1987). In addition to examining the ways in which the patient has been coping with pain, therapist and patient need to assess jointly the adequacy of the patient's coping skills in the domains of health habits, interpersonal relationships, work, habits, leisure activities, and personal expectations and goals.

As was mentioned earlier, chronic pain patients often present as angry and disillusioned. The pain sufferer has not gotten what he or she wants—pain relief. The health care system is seen as an adversary rather than as an ally. The therapist initially must be willing to tolerate the negative transference and countertransference that are likely to develop in the therapeutic relationship. It is often useful to allow the patient some time during initial sessions to ventilate about his or her journey through the health-care system. It is not wise during the initial contacts to attempt to dispute the patient's impressions. It is likely that the patient will react negatively to such attempts and jump to the conclusion that the therapist does not accept his or her reality. The patient is also apt to be hypersensitive to any indications that the therapist lacks sincerity or interest. In the face of the patient's hypersensitivity and hostility, it is necessary that the therapist show interest, concern, and communicate hope.

The therapist can acknowledge the patient's frustrations and relate similar experiences shared by other patients. However, it is important that the therapist eventually address the underlying beliefs or "beefs" that fuel the patient's anger. These are probably variants of the belief that it is terribly unfair that the patient has been stricken with enduring pain, whereas others who are less deserving (especially because they do not take good enough care of the patient!) are pain free. Commiserating with the patient about how unfair the world really is can go a long way in building rapport. The therapist needs to communicate that the patient has a right to be angry and that anger is understandable but that it may not be the best thing for the patient's pain. A useful phrase is the old saying that "living well is the best revenge." The patient has to come to the realization that ultimately he or she is punishing himself or herself by remaining angry.

The principle of moderation is also useful here for communicating the idea that a little anger is energizing and therefore adaptive but that excessive anger is immobilizing and worsens pain. Unfortunately, cognitions of helplessness and hopelessness maintain the patient's anger given the expectation that, because nothing has helped thus far, nothing will help. Therefore, the therapist needs to work gingerly to help the patient collect evidence contrary to these expectations of continued failure. One way of doing this is to persuade the patient to collaborate in setting up little experiments for evaluating the efficacy of different coping strategies.

A powerful cognitive strategy for countering hopelessness involves helping the patient to access his or her long-term memories and retrieve positive experience memories. The patient

can be guided to create a lexicon of such memories that can then be accessed in "tight spots." Having such a growing "positive experience memory library" is also likely to orient the patient toward identifying positive experience opportunities for feeling good (Kall, 1986, 1987). The "bottom line" to be communicated to the patient is that living with chronic pain is unfortunate and often "just plain lousy." It would certainly be wonderful to be pain free. However, the patient would be better off if he or she makes the best of an unfortunate situation. The patient can learn to take advantage of the opportunities that having chronic pain affords for learning about his or her body and learning to listen to the body's signals.

Cognitions of hopelessness and helplessness arise in a breeding ground of catastrophic thinking that leads many pain sufferers to believe that their pain is horrible and the worse anyone has ever encountered. Such overexaggeration and catastrophizing needs to be addressed. The therapist should teach the patient how to dispute such thinking.

Given that many patients have been cognitively conditioned to believe that they must place either all or none of their reliance on the therapist to be "cured," the therapist needs to introduce the idea of "shades of gray" so that a middle ground can be discriminated. The therapist needs to utilize the developing "positive transference" in the service of teaching the patient self-management skills for relieving pain or at least making it more tolerable.

Pilowsky and Basset (1982) emphasize the necessity of making somatic interventions for building a positive therapeutic relationship. Their rationale is that the patient construes his or her discomfort primarily in somatosensory terms; therefore, if interventions are not made in this dimension, the patient is likely to doubt that the therapist believes in the authenticity of his or her pain. The author worked with a 44-year-old woman with cerebral palsy and crippling degenerative joint disease. He consulted on an ongoing basis with the patient's orthopedic physician, took an interest in helping the patient systematically reduce her reliance on analgesic medications, played an active role in helping the patient obtain orthopedic equipment, and adjusted the office arrangements in the clinic to accommodate the patient's unique needs.

The medication issue is an important one. Most pain patients become addicted to pain medications. Long-term use of analgesics, however, leads to the buildup of tolerance and to the occurrence of negative rebound effects (Covington, 1982; Tollison, 1986). Therefore, the therapist needs to negotiate with the patient a systematic program of medication monitoring and gradual reduction.

Another effective, nonthreatening somatic intervention is biofeedback-assisted relaxation training. Comprehensive treatments of this subject are available in other sources (Basmajian, 1983; Schwartz, 1987). The inclusion of biofeedback training in a multimodal cognitive-behavioral treatment program can help the patient learn to tune into and regulate bodily functions previously out of awareness. Concrete evidence from biofeedback instrumentation of positive changes in the patient's ability to self-regulate physiological functions can build the patient's overall sense of self-efficacy (Bandura, 1977) and help the patient fine-tune his or her control of the stress response. Biofeedback makes self-regulation training empirically based by providing technically precise data on a patient's progress in learning to lower sensory and physiological arousal and quiet the mind and body.

The therapist should also address the necessity of the patient's embarking on a graduated physical exercise program for increasing muscular strength and tone, joint flexibility, and range of motion. All of these variables are negatively correlated with pain. If the patient has already had exercises prescribed by his or her physician or physical therapist, then the psychotherapist ought to be aware of the kinds of exercises. If no exercises have been prescribed, then the therapist ought to make a judicious inquiry with the patient or with the patient's physician or physical therapist. The patient is likely to need remotivation periodically to keep exercising with the rationale that pain sufferers who exercise regularly experience less pain, suffering, and improved mood.

Some kind of training in self-hypnotic techniques is also frequently employed as part of a

program of biofeedback-assisted relaxation and self-regulation training. Excellent guidelines for teaching self-hypnosis that are consistent with cognitive-behavioral principles are available in other sources (Catalano, 1987; Golden & Friedberg, 1986; Hilgard & Hilgard, 1983; Zilbergeld & Lazarus, 1987). Self-hypnosis can be utilized as a coping strategy for imaginatively transforming pain perceptions (Turk *et al.*, 1983). Patients who learn the skills of self-hypnosis learn how to alter their pain experience by "reprogramming" their negative, dysfunctional self-suggestions and imagery in a state of "relaxed wakefulness." Negative self-talk is replaced by positive self-talk in a relaxed state when the patient is not thinking critically or analytically and is therefore more receptive to alternative ideas.

On the interpersonal front, the therapist needs to be on the lookout for "secondary gains" that might be maintaining the patient's sick-role behaviors and "down time" (Catalano, 1987; Fordyce, 1976). Many pain patients believe that love has to be earned through suffering and guilt and, on examination, report that they learned early in childhood that they could receive love and attention for being ill. As a consequence, pain often mysteriously becomes worse when certain people are around or are being discussed. In addition, many patients believe that they should be appreciated for all the suffering they endure due to their pain. Eventually, the therapist needs to discuss with the patient the secondary gains that appear to have resulted from being ill and that seem to lend certain advantages to remaining ill. The patient needs to be guided in examining the advantages and disadvantages of the sick role. It should be emphasized that secondary gains are likely to create primary losses. These primary losses need to be identified.

The ways in which pain behaviors prevent the patient from leading a happy life filled with positive experience opportunities need to be explored. The therapist's goal is to teach the patient more adaptive ways of being in control so that the patient can meet his or her own needs. Believing that one has available the resources to control one's experiences appears to mediate satisfactory adjustment in pain patients (Lefebvre, 1981; Rosenstiel & Keefe, 1983; Skevington, 1981).

In addition, on the interpersonal front, many patients believe that if they say "no," refuse another's request, or express anger, that rejection will follow. A behavioral and cognitive consequence is a habitual "biting of one's tongue" and holding on to feelings when one believes he or she has been treated unfairly. In such instances, assertiveness training is indicated (Lange & Jakubowski, 1976).

In many instances, marital or family systems interventions are indicated to resolve tensions stemming from the exacerbation of dysfunctional aspects of marital or family functioning. Many chronic pain sufferers complain that their mate does not really understand what they are going through and consequently is unwilling to accept their need to exercise, rest, or to not engage in certain activities. Ventilation by the pain sufferer is reported as being frequently met by sarcasm on the part of a mate or other family members. In both individual and marital or family sessions, the therapist ought to validate the fact that pain is likely to slow a person down and make the sufferer not feel like doing things. Family members need to be educated about what to reasonably expect from their family member with chronic pain. For example, it is likely to take the pain sufferer longer to engage in self-care activities. When family schedules are upset as a consequence, anger on the part of the other family members is a likely result.

There are some important principles for reharmonizing disturbed marital relationships in the chronic pain situation. These include the principle of moderation in ventilating or complaining, the principle of reciprocity or *quid pro quo*, and the principle of making expectations explicit.

The moderation principle refers to the importance of expressing feelings and lodging complaints, but in moderation. Too much complaining or nagging can reinforce pain-related dysfunctional behaviors. On the other hand, a taboo on expressing feelings or reactions in

addition to making a relationship dysfunctional can also result in an increase in pain as interpersonal tensions find no outlets.

The principle of reciprocity refers to the importance of making compromises so that spouses do not feel exploited. A *quid pro quo* needs to be established with the therapist's help so that when something is given or a sacrifice is made by a spouse, something is received in return.

Last, the principle of explicit expectations refers to the necessity of avoiding "mind reading" by setting clear expectations for important roles and functions of each spouse and other family members. The therapist is often called upon to help family members vocalize unspoken, unmet, or misdirected expectations and air grievances and lingering resentments. It is often helpful to compose a contract signed by each family member that details central duties and obligations as well as "licenses and limits" for sick and well behaviors.

In the following section, principles will be presented for integrating the various therapeutic dimensions previously discussed into a cognitive approach to psychotherapy with the patient.

PRINCIPLES OF COGNITIVE THERAPY FOR CHRONIC PAIN PATIENTS

Cognitive therapy is an integrative system of psychotherapy that is indicated in the treatment of a variety of psychiatric disorders where mistaken cognitive appraisals of reality and cognitive distortions play a significant role in maintaining or exacerbating the disorders (Beck, 1976; Beck & Emery, 1985; Beck *et al.*, 1979; Emery, Hollon, & Bedrosian, 1981).

Cognitive therapy is based on the cognitive model of emotional disorders (Beck, 1976; Guidano & Liotti, 1983) that holds that anxiety and depression are maintained by mistaken cognitive appraisals of the self, the world, and the future. Cognitive therapy is geared toward helping chronic pain patients correct the distorted cognitions that maintain their pain-related, dysfunctional emotions and behaviors. Following the principal tenets of the cognitive model, this should eventuate in relief from their symptoms of excessive anger, anxiety, and depression.

In standard applications of cognitive therapy with neurotically depressed and anxious patients (Beck & Emery, 1985; Beck *et al.*, 1979), the therapist works to keep therapy time-limited, the aim being to accomplish agreed-upon goals within an anticipated time period. Therapy is engineered for simplicity and concreteness. The therapist employs wise time-management strategies by setting agendas, focusing with the patient on manageable problems, maintaining a task-relevant orientation, assigning homework, and making ongoing assessments of the patient's progress. Effective cognitive therapy with chronic pain patients often requires a more extended time perspective. Although the cognitive therapist would be well advised to follow all of the aforementioned guidelines, the therapist should keep in mind that many chronic pain patients have occupied the sick role for a considerable length of time and have developed rigid beliefs that breed the kinds of resistances discussed previously. These beliefs breed hopelessness and mistrust of other people's intentions and reinforce the patient's despondency. Although the therapist needs to address these beliefs, therapeutic timing is essential. Effective cognitive therapy with chronic pain patients, as with all patients, requires that a sound therapeutic relationship be developed in order to build trust and a productive working alliance. However, as has been discussed, with chronic pain patients, more attention generally needs to be devoted to nurturing the relationship than is the case in doing standard cognitive therapy with neurotically depressed and anxious patients.

In cognitive therapy, the therapeutic relationship is built by collaboration between thera-

pist and patient. The therapist aims to facilitate a team atmosphere wherein the therapist provides the structure and his expertise on problem solving. Given the team concept, collaboration does not have to be "50-50" (Freeman, 1987). The therapist and patient will vary in the percentage that one or the other is active versus passive. However, successful therapy with these patients requires high activity by the therapist and focused and relevant therapeutic interventions (Bellissimo & Tunks, 1982). The cognitive therapist needs to be aware of the power of self-perpetuated inquiry for helping the patient become aware of his or her thinking patterns and the connections between his or her thoughts and feelings. Therefore, whenever feasible, the cognitive therapist employs questions as leads in a Socratic dialogue.

Good questions can establish structure, develop collaboration, clarify the patient's statements, awaken the patient's interest, build the therapeutic relationship, provide the therapist with essential information, open the patient's previously closed system of logic, develop his motivation to try out new behavior, help him to think in a new way about his problem and enhance the patient's observing self (Beck & Emery, 1985, p. 177).

Standard cognitive therapy is a structured therapy. The therapist directs the therapy with the assumption that the psychologically disordered patient needs to be lent more order and organization (Freeman, 1987). The therapist lends structure by setting agendas for each session in collaboration with the patient and helping the patient to keep focused on specific targets. The therapist helps the patient translate vague or overly complex complaints into more concrete terms amenable to change. In working with chronic pain patients, some modification of this principle often has to be made, especially in the early phases of therapy. As was mentioned earlier, the therapist has to be willing to allow the patient to complain and "ventilate" in order to give the patient the message that finally there is someone who accepts and understands him or her.

Nevertheless, cognitive therapy with chronic pain patients as with other types of patients still remains problem-oriented. This means that the therapist keeps the therapy relevant to identifying and solving problems. This is one of the ways the therapist lends the patient structure. Therapy moves from focusing on solvable here-and-now problems to helping the patient restructure old material in the present context, as well as in the context of planning for the future. The therapist strives to understand the patient's idiosyncratic conceptualization of his or her problems and from that point of shared understanding to develop problem-solving strategies collaboratively with the patient.

A central tenet to be emphasized is that cognitive therapy is based on an educational model. It is assumed that the best patient is an informed patient who understands each step in the therapy program. Also, it is held that often the intervention of choice is to provide the patient with information in order to correct misconceptions based on misinformation or a lack of knowledge. A major aspect of the therapist's role is to be a teacher of new skills and a provider of information (Turk *et al.*, 1983). The ultimate educational goal of cognitive therapy, however, is to improve the patient's ability to learn from his or her experiences. Many pain patients continue to use coping strategies that are ineffective. Therefore effective cognitive therapy teaches the patient to take an experimental attitude, utilizing coping strategies as long as they work and discarding them when they do not.

In addition, the experimental attitude and the empirical approach is also applied to the patient's beliefs. The therapist treats each of his or her cognitions as hypotheses that need to be put to the test. In this vein, the therapist avoids making interpretations and instead shares hypotheses with the patient. Together as a team, therapist and patient conduct experiments to test their beliefs. Given the rigidity of long-held, repeatedly validated beliefs that many chronic pain patients have, the therapist has to move sensitively, being careful not to confront the patient's major resistances too soon or too forcefully. The therapist needs to model patience and persistence, and at appropriate times, when the patient is ready for inquiry, share hypoth-

eses about the factors maintaining the patient's core dysfunctional beliefs. The therapist should always ask the patient for feedback regarding the plausibility of these hypotheses.

Although the optimal goal of cognitive therapy is to lead the patient to revise dysfunctional attitudes and beliefs, with many chronic pain patients this goal is not advisable. The therapist should know when to back off. It might be necessary for the therapist to examine his or her own dysfunctional attitudes or beliefs, if he or she is unable to slow the pace with the "resistant" patient. The therapist needs to apply behavioral shaping principles. Little adaptive changes will eventually add up to bigger adaptive changes, but if this does not happen, a little change for the better is still more advantageous than no change at all.

In standard cognitive therapy, homework is considered crucial to therapy's successful implementation. The bulk of the change process is seen to take place in between sessions when the patient has the opportunity to practice new ways of behaving and thinking and to test out his beliefs in problematic situations. With most chronic pain patients, the therapist needs to use clinical judgment in deciding whether to assign homework. Assigning homework too soon in the therapy program can put too much pressure on a patient who is hypersensitive to signs of failure and rejection, and who at this point more urgently needs to be listened to and understood. Homework might be more productive in the later phases of therapy after rapport is built, when the patient is ready to build up his or her repertoire of coping skills and reinforce his or her developing cognitions of self-competence.

One of the fundamental principles of cognitive therapy explained previously is the importance of engendering a collaborative relationship between the patient and the therapist. Collaboration requires that the patient trust the therapist. This requirement places a great deal of importance on the therapist's interpersonal skills, such as his or her capacity to show warmth, accurate empathy, and genuineness (Beck *et al.*, 1979). The essential feature of empathy is the ability to demonstrate an accurate understanding of the patient's cognitive and emotional perspective. Warmth is the quality of caring and interest in the patient conveyed by the therapist.

In working with chronic pain patients, warmth and empathy can be conveyed in the following ways: (1) The therapist demonstrates an accurate understanding of the patient's skepticism and pessimism and gives the patient permission to be skeptical and pessimistic. (2) The therapist communicates a belief in the reality of the patient's emotional and physical suffering, and in the possibility of attenuating it. (3) The therapist communicates the tentativeness and conditionality of everything. The therapist does not want to come on in a "gang-busting" or "bull-dozing" manner. He or she does not want to give the impression that he is out to chomp away at the patient's dysfunctional beliefs as in a "Pac-Man" model (Freeman, 1987). (4) The therapist, as soon as possible, focuses with the patient on any indications (e.g., statements, behaviors, shifts in the patient's affect) that the patient is dissatisfied with the therapy.

Adequate warmth and empathy are basic to developing a positive therapeutic relationship, and the relationship is the soil in which to implement active cognitive and behavioral interventions.

CONCLUDING COMMENTS

This chapter has elaborated a cognitive approach to psychotherapy with chronic pain patients. Out of all of this, a unique tension or polarity can be identified that arises in the psychotherapeutic context. This is the fact that, on one hand, successful treatment requires a high level of therapist activity and relevance. Yet, on the other hand, patience is required to allow the patient to progress at his or her own pace especially in the initial phases of therapy. Appropriate timing of therapeutic interventions is a *sine qua non* for successful psychotherapy.

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Chronic pain patients provide a challenge to the journeyman and master therapist alike. Balancing the opposing requirements of therapeutic activity with therapeutic patience necessitates that the therapist have available a wide array of techniques that can be employed when indicated. At the same time, however, the therapist needs to have a firm understanding of cognitive underpinnings of the patient's "resistances" in order to appreciate the patient's dilemmas and conflicts and to be able to communicate this understanding without threatening the patient's integrity. Although the therapeutic work is often very trying, the rewards are great. Most chronic pain patients have internalized the message from other health care professionals that nothing more can be done for their pain and that they must learn to live with it. Repeated contacts with a health care system that has let them down leaves these patients demoralized and depressed. Being in a position to understand their predicament and at the same time having available techniques for teaching them to lead more rewarding lives is a very heartwarming role to play as a therapist.

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