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## The Chronic Pain Patient: Multimodal Assessment and Psychotherapy

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*This paper elaborates a comprehensive, multimodal framework for assessing the chronic pain patient, constructing a modality profile, and implementing psychotherapy. Behavioral, affective, sensory, imaginal, cognitive, interpersonal, and medical dimensions of chronic pain are discussed, and therapeutic interventions for targeting problems in each modality are described. Interpersonal ramifications of living with pain are examined. Taking into account factors underlying patients' resistances to forming a working alliance, a schematization of the psychotherapeutic process is introduced that emphasizes developmental tasks and milestones. Clinical guidelines are presented for addressing such resistances and for motivating patients to learn self-help techniques for coping more effectively and rebuilding their debilitated lives.*

### Introduction

Chronic pain is a major public health problem. Millions of individuals suffer from one or another type of long duration, intensive pain that remains intractable in the face of efforts to treat the inferred physical cause. As a result, many people are unable to lead productive lives, as pain leaves them physically and emotionally dysfunctional. Recently, there has been an emergence of interest in the development of multimodal psychological treatment approaches designed to address the varied dimensions of chronic pain (Barber & Adrian, 1982; Catalano, 1987; Holzman & Turk, 1986).

Following Melzack and Wall's (1970) "gate-control model," chronic pain can be seen as involving the interaction between three major systems in a psychophysiological interface. These are the cognitive-evaluative system, the emotional-motivational system, and the sensory-physiological system. This conceptualization suggests that effective interventions for pain control must deliberately take into account each of these three

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systems. Mental health clinicians who evaluate and treat chronic pain patients therefore require a flexible framework for organizing their interventions within each of these systems. Lazarus's (1981, 1985a) comprehensive modality profile, represented by the acronym "BASIC I.D.," provides such a framework, allowing the clinician to conceptualize the chronic pain experience in terms of seven specific modalities. These modalities are: behavior, affect, sensation, imagery, cognition, interpersonal relationships, and drug-related and biological factors. The first letters of each of these modalities spell out the acronym.

The construction of a modality profile is a way of listing and systematically organizing the problems and complaints to be targeted for intervention, and facilitates the adaptation and fitting of psychotherapy to the patient's unique needs (Lazarus, 1985b). In this paper, I shall describe how the multimodal BASIC I.D. framework can be utilized in the psychological assessment and treatment of the chronic pain patient, taking into consideration both the commonalities inherent in this population across all seven modalities, and each patient's unique modality profile.

Given the difficulties that living with chronic pain creates interpersonally, commonalities tend to coalesce within the interpersonal modality. Many chronic pain sufferers are angry and resentful, and a great deal of this resentment finds direction in its expression towards a health care system that is perceived as having failed them. Therefore, the clinician must pay special attention to building rapport during initial contacts, and must assume an action-oriented role to encourage patients to cease blaming themselves and others, and help them to redefine their complaints in terms amenable to problem-solving and coping (Bellissimo & Tunks, 1984; Turk, Meichenbaum & Genest, 1983).

The chronic pain patient, despite pessimism and hopelessness that can spell "resistance" to straight behavior change efforts, must develop affection for the therapist. If this affection is not present, the patient will resist the clinician no matter how skillfully the latter is able to administer his or her armamentarium of techniques. This relationship forms the soil in which the seeds of change take root. The therapist must work to help patients feel good when they leave the office. If patients feel better, they are more likely to be motivated to get better through practicing the coping techniques that the therapist eventually teaches.

### Conceptualizing Pain

Following Merskey's (1982) citation of the definition put forth by the International Association for the Study of Pain (1979), pain is herein defined as "an unpleasant sensory and emotional experience which is associated with tissue damage or described in terms of tissue damage." Pain is a complex subjective experience influenced by the setting, the individual's attentional set, and a host of motivational, attitudinal, cognitive, interpersonal, affective, behavioral, and sensory variables. Whereas acute pain is of short duration, usually following tissue injury, and serves as a signal that something is wrong, chronic pain is continuing discomfort of long duration that no longer serves as a signal of immediate threat.

When acute pain does not subside, the ramifications can be psychologically debilitating. Individuals whose lives are seriously disrupted and who center their attention on their pain come to occupy a chronic "sick role" (Bellissimo & Tunks, 1984; Engel, 1959; Gallagher & Wrobel, 1982; Sternbach, 1974; Violin, 1982).

## The Chronic Pain Patient

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**Table 1**  
**Modality Profile of the Chronic Pain Patient**

MODALITY	PROBLEMS
Behavior	Preoccupation with pain, complaining, whining, sympathy-seeking, argumentativeness, irritability, explosive outbursts, loss of patience, restlessness, impulsivity, overreactivity, underreactivity, indifference, aggression, uncooperativeness, social withdrawal, avoidance of activities, overactivity, poor pacing, dependency behaviors, inactivity, medication abuse, oversolicitation of medical attention, inability to relax, lethargy, decreased work performance, difficulty coping, crying easily and frequently.
Affect	Sadness, depression, social anxiety, guilt, feelings of vulnerability, anger, resentment, inability to express emotions, unmet nurturance and dependency needs, discouragement, disappointment, anticipatory anxiety, traumatic anxiety, helplessness, fears of disapproval and rejection, deprivation feelings, emotional lability, edginess, loss of motivation, frustration, fear of failure, loss of self-confidence, loss of interest, general malaise, boredom, emotionally drained, exacerbation of pre-existing emotional problems and difficulties.
Sensation	Pain sensations in different parts of the body: head, face, neck, shoulders, extremities, back, buttocks, chest, stomach, groin, genital region; fatigue, insomnia; motor tension: shakiness, muscle aches, muscle weakness, strain, twitches, tics, easy startle; autonomic overactivity: increased and erratic heart and respiration rates, increased skin conductance response manifested by excessive sweating, cold extremities, flushing, pallor, paresthesias, dizziness, light-headedness, upset stomach, urinary and bowel irregularities, throat and chest discomfort, tinnitus, aphonia, oversensitivity to stimuli, visual disturbances.
Imagery	Nightmares, morbid daydreams, intrusive recollections, images of future suffering, images of being disapproved of and rejected, negative self-images, images of self as invalid, distorted interpersonal images.
Cognitions	Negative self-talk, negative attitudes, guilty thoughts, pessimism about the future, ruminations about the unfairness of having chronic pain, punitive thoughts, cognitive distortions: catastrophizing, overgeneralization, selective focus on pain, misattribution, all-or-nothing thinking, negative prediction, disqualifying the positive, magnification and minimization; fears of not getting better; fears of getting worse, fears of certain activities exacerbating pain, negative self-appraisals, constant worrying, confusion, memory disturbances, concentration difficulties, intrusive recollections, self-conscious thoughts, suicidal thoughts.
Interpersonal	Mistrust, conflictual and strained relationships, ambivalence, social withdrawal, social isolation, increased dependency, hostility and resentment, argumentativeness, overreactivity, marital discord, fears of rejection and abandonment, fears of social censure and disapproval, oversensitivity, decreased cooperativeness, abruptness, exacerbation of pre-existing interpersonal problems, trouble meeting others' expectations, "out of synch" with others, unmet expectations, inability to communicate needs and feelings assertively, polarized and labile interactions, feeling misunderstood, feeling unappreciated, feeling stuck in the "sick role," loss of customary social role, others placed in adversarial role, secondary gains for pain, decreased libido.
Drugs and Biology	Medication abuse, drug and alcohol abuse; lack of exercise, poor physical conditioning, improper nutrition, lack of rest and relaxation, overexertion; underlying medical problems: musculoskeletal disorders: low back pain, tension headaches, rheumatoid arthritis, osteoarthritis, myofascial pain; dental pain, nasal pain, sinusoidal pain, ophthalmological pain, otological pain; ischemic disorders: angina pectoris, peripheral vascular disease; neurological disorders: neuralgia, causalgia, neuritis, postoperative neuromas, phantom limb pain, scar tissue pain, nerve entrapments; neoplastic disorders causing nerve compression or invasion.

Hendler (1984) has delineated four stages of response to unremitting pain. During the first two months, or *acute* stage, the sufferer generally expects the pain to subside as the injury heals. Therefore there are no significant psychological changes. During the next four months, or *subacute* stage, when the pain does not remit, the sufferer becomes concerned and frightened. When pain persists beyond six months, the

individual's anxiety becomes pervasive and a major reactive depression is likely to develop. Hendler terms the period between six months and three years the *chronic* stage. Pain lasting for longer than three years is termed *subchronic*. People whose pain lasts for more than three years frequently are observed to have recurrent depressions and somatic preoccupations. Those who become chronic pain patients often develop a lengthy history of unsuccessful medical and non-medical treatments to remove their pain. Their psychological profiles reveal a host of behavioral deficits and excesses, self-defeating habits, negative affective states, painful sensations, dysfunctional images, negative cognitions, interpersonal deficits, and bio-physical vulnerabilities.

A prototypical modality profile listing the gamut of problems within each modality presented by chronic pain patients is given in Table 1. It is important to note that individual modalities are not mutually exclusive, although the categories are distinct conceptually, and problems are often categorizable under more than one modality. Complex concepts such as "emotion" or "pain" are really best conceptualized as the interaction among the different modalities, and it is important to look at the whole picture. Nevertheless, for the sake of simplicity and providing a logical structure, therapeutic interventions are organized to target specific problems listed under individual modalities.

### Assessment of the Chronic Pain Patient

Effective psychotherapy with chronic pain patients necessitates that each of the seven aforementioned modalities be assessed for deficiencies or "negative symptoms," excesses or positive symptoms, and disruptions. Within the first few sessions, a BASIC I.D. modality profile should be compiled, which then can serve as a "road map" for setting treatment goals. The choice of techniques to be employed should follow logically and systematically from the assessment data (Lazarus, 1985b). Lazarus (1981, 1985a) offers detailed guidelines for constructing a modality profile. Some useful structured paper-and-pencil self-report instruments to supplement a structured interview are the Multimodal Life History Questionnaire (Lazarus, 1981), the Patient Pain Questionnaire (Turk, Meichenbaum & Genest, 1983), the McGill Pain Questionnaire (Melzack, 1975) and the Beck Depression Inventory (Beck, 1967).

Two psychometrically validated self-report inventories for assessing the effects of chronic pain on personality functioning are the MMPI and the much shorter Symptom Checklist-90 (SCL-90). On the MMPI, patients with persistent pain of recent onset tend to show elevations on scales 1 and 3 (hypochondriasis and hysteria) reflecting their concern and anxiety about their bodies (Hendler, 1984). When pain continues beyond six months and becomes chronic, individuals begin to show elevations on the depression scale so that scale 2 (depression) becomes more elevated than scales 1 and 3. Hendler (1984) makes the point that many patients whose pain has lasted for more than three years eventually show a lowering of their elevations on the depression scale while their somatic concerns persist, reflected in continued scale 1 and 3 elevations. On the SCL-90, patients with persistent pain of relatively recent onset show positive symptom clusters for anxiety and somatization. With increasing pain chronicity, they also show positive symptom clusters for depression and interpersonal sensitivity on the SCL-90.

The specific categories of information that need to be collected in an initial multimodal assessment include: the patient's medical and psychiatric treatment history; current living situation; family demographics and history; precipitating events; circumstances surrounding pain onset; characteristics of the pain; information about pain location, intensity, and frequency; duration of pain episodes; the course of the pain episodes over time; the effects of situations and activities on the pain; and related physical and psychological symptomatic complaints. It is important to gather information concerning the patient's personal theories of why he or she has pain, and to inquire about the personal meanings that are assigned to its occurrence. In addition, the clinician ought to gather information about the ways in which the patient has coped thus far with the recurrences of pain, and the ways in which the pain has restricted activities and affected interpersonal relationships. Last but not least, it is always important to ask patients to consider what they are willing to do to learn how to manage their pain, how hard they are willing to work, and how they expect that life will be different after some skills in pain management have been learned. Several excellent sources are available for detailed presentations of structured interview assessments (Cinciripini & Floreen, 1983; Getto & Heaton, 1985; Holzman & Turk, 1986; Melzack, 1975; Tollison, 1986; Turk et al., 1983).

Once an adequate assessment is conducted, the patient needs to be socialized to the therapist's therapeutic model. Actually, the socialization process starts from the initial clinical contact.

### **Socializing the Patient to the Therapeutic Model**

The therapeutic model advocated here is a relationship-oriented psychoeducational one. From the first contact, the patient is socialized to the conceptual framework of self-management through the effective utilization of coping skills. The rationale underlying the construction of a BASIC I.D. is taught, and pain is discussed as a complex multimodal phenomenon. The notion that pain is experienced in many interactive modalities is highlighted as an advantage, by making the point that there are many portals of entry for coping with it and ameliorating it. Pain management is conceptualized as a set of skills, and the idea is presented that the patient may have more of a knack for refining some skills than others. Given the multimodal nature of pain this is considered advantageous, as strengths in one modality can compensate for weaknesses in others.

As many patients are unaware of underlying psychological or environmental stressors that may exacerbate their pain, from the outset of therapy they are encouraged to record their pain-related symptoms in a diary (Turk et al., 1983). In this diary, they are asked to make pain intensity ratings for each hour of the day; to keep track of the circumstances under which their pain is most severe and least severe; and to record associated thoughts, feelings, and coping behaviors, including medication use. By providing clear rationales for such homework assignments, as well as for specific therapeutic interventions, the therapist facilitates rapport and promotes a more positive relationship.

## **Developmental Tasks in Psychotherapy: Recreating a New Identity**

In standard applications of cognitive-behavior therapy with neurotically depressed and anxious individuals (Beck & Emery, 1985; Beck, Rush, Shaw & Emery, 1979; Lazarus, 1981, 1985a), therapy is generally time-limited. The therapist employs time-management strategies during each session, and in setting therapy goals by focusing with the patient on manageable problems, setting task-relevant agendas, and assigning self-help homework to do between sessions. Effective psychotherapy with chronic pain patients often necessitates a more open-ended time perspective. While the psychotherapist is well advised to maintain a systematic and structured focus on problems targeted for solution, it is essential that his or her expectations be adjusted to the reality that the patient is likely to have a great deal invested in maintaining the chronic sick role. In a sense, helping people relinquish a sick role is a developmental task that involves helping them recreate a more functional identity. What follows is an adaptation of Erik Erikson's (1950) stage model of psychosocial development for schematizing developmental milestones in the therapeutic process of identity reformation.

Developmental schematization rests on two assumptions. The first assumption is embodied in the principle of the "psychological double" (Beck & Emery, 1985; Horney, 1950; Kelly, 1955), which holds that people think in terms of contrasting polarities. The second assumption holds that a therapist can give patients the freedom to shift their thinking to the positive poles of their conceptual dimensions, by sharing with them hypotheses concerning the variables maintaining their negative expectations and feelings. The patient is seen as holding a triad of cognitions about self, world, and future (Beck, 1967) that have been repeatedly validated but are dysfunctional.

Often in the initial phases of therapy the essential task is to resolve negative transference. Many hopeless and angry pain patients begin therapy with beliefs such as, "I can't trust anyone to believe that my pain is real and I am not faking," or "They sent me to a shrink because they think the pain is all in my head." The hurdle at this point is to get the patient to develop "hope" that maybe once and for all, help can be given. In order to negotiate this task successfully, the therapist must be able to convey an understanding for the basis for the patient's hopelessness. The goal is to lead the patient to cognize on the positive (i.e., trust) pole of the dimension of *trust vs. mistrust*.

If the therapist cannot help the patient acquire hope, then treatment is likely to end before it begins, because the patient is likely to drop out. If the therapist is successful at this, then the therapy can proceed to the next phase. The second phase may be conceptualized using Erikson's model as a battle of "will." The patient is likely to want the therapist to validate his or her negative cognitions of self in the "sick role." Although the goal is eventually to lead patients to view themselves as autonomous, at this point they have to be offered some validation of their feelings of shame stemming from the activation of long-held cognitions of self-doubt. Paradoxically, by doing so, the therapist is granting the patient autonomy. Again, therapy can reach a premature end if the patient drops out because of a belief that the therapist lacks understanding and acceptance of the exigencies of his or her customary role.

The next phase may be conceptualized as the beginning of a purposive working alliance and collaboration. If the therapeutic relationship has progressed to the point of mutual acceptance, the patient might be ready to share his or her guilt about years

of failure at implementing socially constructive, purposive behaviors, having in a sense dropped out of the functional role as a member of society. The therapist needs to acknowledge this guilt and collaborate in an examination of the patient's cognitions about it. This might also be an opportune time to explore the idiosyncratic meanings that the sick role has held for the patient. The goal of this phase of the program is to explore options and alternatives, to develop motivation to change, to accept some responsibility for changing, and to move towards the positive pole (i.e., initiative) of the *initiative-guilt* dimension.

If this phase is negotiated successfully, then therapy might proceed to a more advanced phase of true collaboration and a productive working alliance. At this point, the patient might be open to recognizing his or her sense of inferiority regarding skills and lack of competence in the context of a purposeful, collaborative, and safe relationship. This may now be an opportune time for building coping skills and concomitantly nurturing developing cognitions of "competence," through implementing active cognitive and behavioral interventions. The therapist wants to encourage the patient's industriousness in becoming more active and productive, at the same time relinquishing the sick role. Interventions might include, among others: distraction techniques (Tollison, 1986; Turk et al., 1983), thought stopping (Cautela, 1977), cognitive disputation (Ellis & Grieger, 1977), rational-emotive imagery (Maultsby, 1984), self-instructional training (Turk et al., 1983), relaxation training and self-hypnosis (McKay, Davis, & Eshelman, 1982; Zilbergeld & Lazarus, 1987), biofeedback training (Schwartz, 1987), guided imagery (Lazarus, 1977), contingency management (Fordyce, 1976), assertiveness training (Lange & Jakubowski, 1976), systematic desensitization (Goldfried & Davison, 1976), and muscle-strengthening exercises (Catalano, 1987).

Even if treatment is progressing successfully at this stage, both patient and therapist need to expect periodic lapses marked by reactivation of powerful negative beliefs about self and future, and concomitant recurrences of the negative transference (e.g., thoughts such as, "you don't really understand me after all," "I haven't changed one bit," "I can't really change, nothing helps after all, and we have wasted our time"). In reality, this is likely to be a very difficult transitional phase. The patient is faced with the task of reconciling budding cognitions of an industrious, competent self with powerful old beliefs of a self-doubting, sick self. The therapist has to be sensitive to this, and is well-advised to frame such therapeutic lapses as occasions for "turning adversity into advantage" (Freeman, 1987). Depending on the patient's idiosyncratic meanings and the nature of the lapses, it may be necessary to review the changes made up to this point. Adversity may be reframed as an opportunity for the patient to employ new skills in identifying and disputing cognitive distortions, and to identify, challenge, and restructure dysfunctional core assumptions concerning major issues such as acceptance of pain, personal competence, and control (Beck & Emery, 1985). In terms of Erikson's model, this phase can be conceptualized as a time of identity reformation.

In the following section, various therapeutic techniques for addressing the major problems likely to be identified within each of the seven modalities are briefly discussed. It is important to keep in mind that techniques are not used best in a rote or mechanical fashion. Their successful clinical administration demands flexibility, sensitivity, proper timing, clinical intuition, and knowledge. As Turk, Meichenbaum, & Genest (1983) point out, "a spontaneous, flexible approach will help to establish an atmosphere of rapport, confidence, and alliance" (p. 194).

## Therapeutic Techniques

The therapist needs to model a systematic approach to problem-solving, and to combat globalizing, catastrophizing, and all-or-nothing thinking about problems. Therapeutic techniques are logically selected based on an analysis of the problems identified and targeted for intervention in the patient's modality profile (Lazarus, 1985b). Problems are addressed in terms of their urgency, priority, and amenability to solution. It often helps to address "easy" problems early in the therapy in order to promote the patient's sense of self-efficacy and competence (Beck, Rush, Shaw & Emery, 1979). Vague problems are defined in concrete cognitive and behavioral terms; global complaints are made more specific by breaking them down into their component parts so that they become less overwhelming.

Different components of each problem are addressed in their idiosyncratic context and at opportune times. For example, a depression would be addressed in terms of its behavioral components (e.g., inactivity and inertia), affective components (e.g., feeling sad, disappointed, and hopeless), cognitive components (e.g., self-condemning and blaming thoughts, negative expectations, lack of hope), interpersonal components (e.g., social withdrawal, putting people off), and biological components (e.g., vegetative symptoms, response to medication). Each of these components is assessed in terms of the "five W's," these being: What does the problem involve? What maintains the problem? Where does the problem occur? When does it occur? and With whom does it happen? Interventions are then chosen to address the factors involved in maintaining the problem at given times in given situations with particular people.

What follows is an outline of the major techniques that are employed for targeting particular categories of problems within each modality.

### *Techniques for Shaping Functional Behaviors*

Behavioral deficits such as withdrawal, inactivity and avoidance are approached through the implementation of contingency management and behavioral shaping procedures such as graded task assignments (Beck et al., 1979; Fordyce, 1976). Behavioral excesses such as complaining, whining, sympathy-seeking, and argumentativeness are also best addressed in this manner. As behavioral problems frequently occur in an interpersonal context, it is important to involve family members in the treatment. With the patient's approval, family members can be taught behavioral extinction, selective reinforcement, and response-cost procedures for decreasing behavioral excesses (Bellack & Hersen, 1985; Cameron, 1982; Fordyce, 1976).

The patient also needs to learn these procedures to employ as self-management strategies. Many pain patients are unable to modulate their activity levels; they either engage in spurts of excessive activity or are completely inactive, which results either in physical deconditioning from a lack of activity or additional injuries from overexertion. Therefore, it is important to teach such people to pace themselves. This task often demands that the underlying cognitions of all-or-nothing thinking and perfectionism be pinpointed and restructured. Patients need to practice setting limits on the intensity and duration of their efforts in performing chores, duties, and obligations. They need to learn when to stop and rest when they begin to feel pain. Also useful are self-



instructional strategies (Turk et al., 1983), and contingency management involving the self-administration of rewards for effort rather than solely for performance or outcome.

### *Techniques for Altering Negative Emotions*

In the affective sphere, chronic pain patients often have difficulty expressing emotions and are frequently emotionally needy. It is therefore helpful to encourage them to ventilate feelings during therapy sessions. Such ventilation can be included in a session's agenda. In addition, assertiveness training (Lange & Jakubowski, 1976) through role-modeling and behavioral rehearsal are frequently indicated for shaping assertiveness and expressive skills.

Rational-emotive imagery (Maultsby, 1984) can be a useful technique for helping the patient learn to change painful emotions to more neutral or positive emotions. In addition, the therapist ought to teach the "rational-emotive A-B-C's" of emotional disturbance (Ellis & Grieger, 1977) and various cognitive techniques such as thought stopping (Cautela & Kearney, 1986), cognitive disputation (Ellis & Grieger, 1977) and self-instructional training (Turk et al., 1983). These techniques are aimed at helping the patient identify and alter dysfunctional cognitions that create and maintain negative affects. They will be addressed in more detail in a later section.

Another very powerful affective technique involves accessing positive affective states by recalling positive memories of past successes and pleasant experiences. Kall (1987) suggests building a "library" of positive experience memories. The basic idea is that positive affects are incompatible with negative ones, and that by learning to replace the latter with the former, one in effect "displaces" negative emotional states. Zilbergeld & Lazarus (1987) offer detailed instructions for hypnotically recalling past successes, which is a useful coping strategy for combatting depression and anxiety. Positive affects from past successful experiences can mobilize hope and conviction and dispel hopelessness and helplessness in the present.

The hypnotic technique known as the "affect bridge" is a powerful method for uncovering the origins of current negative affective states (Edelstien, 1981). The patient is put into a trance and instructed to experience the troublesome feeling in moderate intensity, and then to indicate through ideomotor signaling when the feeling has been attained. Then, the therapist gives the patient permission to hold onto the feeling so that it can be used as a bridge to the past, and to utilize the feeling state as a cue for reconstructing the circumstances under which that particular feeling and associated cognitions originally emerged. Once the original circumstances are reconstructed, they can be restructured so that more positive feeling states can replace the negative ones.

### *Techniques for Re-regulating Sensory-Physiological Dysregulation*

Most chronic pain patients suffer from chronic psycho-physiological dysregulation. Their autonomic overreactivity to stressful situations actually makes for more tension and stress, which perpetuates and exacerbates the pain. Therefore, the sufferer who is caught in a vicious pain-tension-pain cycle needs to learn strategies for re-regulating his or her physiological response system and for breaking out of the negative cycle.

Also, most chronic pain patients complain primarily in somato-sensory terms. Therefore, somatically-oriented interventions are useful for "tracking" patients' "firing orders" for construing their problems (Lazarus, 1985b).

Chronic pain patients often benefit from learning relaxation skills for reducing muscle tension levels that exacerbate musculoskeletal pain and for quieting autonomic nervous system activity. These strategies include progressive muscle tensing and letting-go exercises in the tradition of Jacobson (1977) and passive deep muscle relaxation solely emphasizing letting go of muscle tension (Zilbergeld & Lazarus, 1987). In addition to muscle relaxation, other forms of relaxation for achieving the "quieting response" (Stroebe, 1982) are various forms of meditation and deep, diaphragmatic breathing.

The inclusion of a biofeedback component (Stroebe, 1982), often makes it easier to learn relaxation skills. In this form of therapy, behavioral shaping procedures are employed for feeding back to the patient precise data on his or her progress in lowering sensory and physiological arousal levels (Basmajian, 1983; Schwartz, 1987). Biofeedback-assisted relaxation training teaches one to notice when one is unnecessarily tensing different parts of one's body, and to relax those parts that do not need to be tensed. Such "differential relaxation" helps to break the pain-tension cycle as patients learn to mobilize only those muscle groups that are necessary for a given activity and to relax all others, thus conserving energy. In addition, they are taught to regulate peripheral blood flow so that they can warm their extremities at will. By learning hand- and foot-warming techniques, they indirectly learn how to lower central and autonomic nervous system arousal (Schwartz, 1987).

In the somatic sphere, the therapist should also discuss the necessity of starting a graduated physical exercise program for increasing muscle strength, joint flexibility and range of motion. As this is the domain of the physical therapist and the physician, permission should be obtained from the patient to consult with these specialists.

### *Techniques for Working with Imagery*

Self-hypnosis and guided imagery are useful techniques that can be taught in a skills-based program for learning to alter pain perceptions and images (Hilgard & Hilgard, 1983). Patients can be taught how to "re-program" their negative images, sensations and self-suggestions in a receptive state of relaxation (Zilbergeld & Lazarus, 1987).

Basically, self-hypnosis depends on the acquisition and reinforcement of three skill components (Golden & Friedberg, 1986; Zilbergeld & Lazarus, 1987). These are: inducing a state of relaxed wakefulness, learning to focus one's attention, and refining the ability to generate vivid images and covert verbalizations. Hypnotic techniques capitalize on the phenomenon of distraction; learning to become re-absorbed in something other than pain-related perceptions.

Turk, Meichenbaum and Genest (1983) categorize attention-diverting strategies into those that simply involve shifting attentional focus and those that involve the evocation of imagery. Purely attentional strategies would include the refocusing of attention externally on selected physical characteristics of the environment (e.g., counting ceiling tiles or noticing how many cars of each make you pass on the highway), or internally on thoughts that are unrelated to pain or paradoxically, on the subtle nuances of the pain sensations themselves. The rationale of the latter strategy is to be able to view

the pain sensations objectively so as to reduce catastrophizing about them and to lower emotional arousal.

Attention-diverting strategies that involve the deliberate utilization of imagery would include techniques such as imagining oneself in a comfortable pleasant place, re-interpreting the pain sensations as something other than pain (e.g., mentally transforming a stabbing sensation into a tickle), and producing hypnotic analgesia (e.g., imagining that the affected body parts have been injected with Novacain, or visualizing them as made of some artificial substance such as rubber or metal, rendering them incapable of transmitting pain sensations). Another form of imagery involves the imaginative transformation of the context in which the pain is experienced. For example, the sufferer might imagine himself or herself as an athlete or hero who can endure or ignore pain in the midst of an action episode.

Bresler (1979) discusses a guided imagery technique that involves finding an "inner advisor" or guide. In a state of relaxation, the individual takes a "mental trip" to a pleasant and private place where he or she is guided to find a special friend. This special friend is then utilized as an advisor to help the sufferer find new meaning in his or her suffering. A key assumption of this approach is that chronic pain is a signal from the body that needs to be addressed and understood, and the individual is guided to become more attuned to these signals. The kind of guided imagery employed in the inner advisor technique has many similarities to Simonton's (Simonton, Simonton, & Creighton, 1978) visualization approach to mobilizing the body's immunity against the malignancies of cancer. A key similarity is that in both contexts one is guided to tap previously untapped psychological resources for mobilizing hope and self-efficacy.

Another useful imagery technique is termed process or action imagery. In behavior therapy parlance it is also known as mental rehearsal (Zilbergeld & Lazarus, 1987). It involves imagining oneself performing a desired set of behaviors or action sequence. Mental rehearsal is usually employed for the purposes of training in order to shape one's performance to a desired level of proficiency. However, it can also be utilized as a substitute for the activity itself, and this is where it is relevant for the chronic pain patient who for medical reasons may be unable to engage in a certain desired physical activity.

For example, the author saw a depressed and very anxious young man who was recovering from an acute lumbar sprain and strain. He was medically advised to cease running for an indefinite time period. This young man had been running on the average of five times per week for over nine years and he thrived on it! As a result, the physician's proscription contributed significantly to his anxiety and depression. The author commiserated with his plight, and took the soonest opportunity to suggest a constructive alternative for coping, which involved the use of action imagery. The patient was taught how to induce a state of physical and mental relaxation through deep diaphragmatic breathing and progressive muscle relaxation. He was then coached to generate a vivid imagery of himself running from start to finish. This therapeutic team also discovered certain advantages to the use of imagery, the main one being that reality constraints could be slightly violated, and the patient could actually enhance the experience of joy and mastery associated with running, by visualizing himself running better than he ever had run in reality. Another advantage was that the imagery could be used along with biofeedback in order to train him to calm his overreactive nervous system. Electromyographic, heart rate, respiration rate, and blood volume pulse were the biofeedback modalities employed to assist the training. Utilizing these modalities, he was trained to maintain a state of low arousal while generating his arousing images.

Initially, his electromyographic activity, heart rate, and respiration rate rose and blood flow to his extremities constricted when he imagined his scenes. However, with practice, he was able to maintain a low arousal state while imagining himself performing smoothly or performing poorly. His successes in building these skills enhanced his sense of self-efficacy and at the same time provided him with concrete skills for managing his anxiety and depression.

The next section describes cognitive self-instructional strategies that were utilized for coping with negative thoughts and images and for re-programming positive ones.

### *Cognitive Strategies*

Chronic pain sufferers evidence specific patterns of mistaken cognitive appraisals in a "downward spiral" of depressogenic thinking (Catalano, 1987; Lefebvre, 1981). These patterns of cognitive distortion were originally described by Beck and his colleagues (Beck, 1976; Beck et al., 1979; Burns, 1980; Freeman, 1987). They include: catastrophizing about one's limitations, magnifying the negative aspects of pain-related situations, expecting the worst to happen, making negative predictions that reinforce hopelessness and helplessness, overgeneralizing about the negative ramifications of pain-related limitations and their implications, selectively focusing on pain to the exclusion of other things, misattributing blame for pain to one's own insufficiencies, evaluating the implications of one's pain-related condition in all-or-nothing or "black and white" terms, disqualifying positive features of one's situation, and minimizing one's functional resources.

Cognitive techniques for pain control serve several important functions for the sufferer. These include providing motivation for coping, guiding coping efforts, setting limits on self-defeating thoughts and images, and identifying and restructuring cognitive distortions and dysfunctional beliefs. Motivation for coping is enhanced to the extent to which the individual is successful at countering negative self-talk and generating positive self-talk. Given that success increases the probability of more success, effective copers are those who make positive interpretations of their coping efforts and avoid catastrophizing (Turk et al., 1983).

Turk, Meichenbaum, and Genest (1983) have adopted the work of Meichenbaum (1977) to develop a self-instructional training program for chronic pain patients. This program is geared towards enhancing patients' motivation for coping by teaching them how to talk positively to themselves during the different circumstances in which pain is present. For example, to prepare for the eventual onset of pain, they are coached to remind themselves that their predicament is a workable one, and taught to plan out how they are going to cope and to review techniques that might be employed. Anxiety is re-interpreted as a cue for staying on task. For confronting pain and coping with exacerbations of discomfort, patients are taught to focus on coping, to stay on task, to refuse to catastrophize, and to manage physical tension through muscle relaxation and deep breathing. They are helped to compile a "library" of self-statements to facilitate coping in the above situations, and are taught to self-monitor and self-reinforce performance.

Limits are set on self-defeating thoughts and images by learning to abort them before they become overwhelming. The basic technique employed for this purpose is "thought-stopping" (Cautela, 1977), which simply involves interrupting a sequence of

negative ideas by vocalizing or subvocalizing the words "stop" a number of times and then substituting an alternative flow of thoughts or images. Golden and Friedberg (1986) describe two other variants of thought-stopping. The first technique simply involves noticing when one is having negative thoughts or images and then reminding oneself to "let go" of them and refocus on positive ideas. A second is derived from the Zen meditation tradition, and emphasizes passively allowing any negative thoughts to flow through one's "stream of consciousness" and then gently going back to thinking positive thoughts. In practice, these cognitive limit-setting techniques are best utilized along with self-instructional strategies. The latter provide the "backbone" and guide the individual's efforts at coping with pain.

Freeman (1987) describes a number of cognitive strategies for testing the reality of negative cognitions and for restructuring cognitive distortions, which can be grouped into five conceptually distinct but overlapping categories. These are: uncovering strategies, problem-solving strategies, hypothesis-testing strategies, re-interpretive strategies, and cognitive rehearsal strategies.

Uncovering strategies include searching for the idiosyncratic meaning of patients' statements, utilizing the "downward arrow" technique to help them follow their reasoning to the underlying schematic issues, guiding them to fantasize their worst concerns, and labeling cognitive distortions.

Problem-solving strategies include examining options and alternatives for coping, and listing the advantages and disadvantages of retaining particular beliefs or engaging in particular behaviors.

Hypothesis-testing strategies include questioning and examining the evidence supporting particular ideas and beliefs, and having patients estimate the probabilities of the worst possible circumstances occurring and then questioning the evidence supporting their fears related to these circumstances.

Re-interpretive strategies include helping patients to scale their evaluations of events so as to see things as existing on a continuum rather than solely in terms of good or bad, identifying their misattributions of blame for their difficulties and reassigning responsibility more realistically, and helping them to replace depressogenic and anxiety-provoking images with more functional ones.

Finally, cognitive rehearsal strategies include guiding patients to practice particular behaviors or ways of thinking mentally in order to consolidate newly formed skills and identify trouble spots, and giving them practice in disputing aloud dysfunctional thoughts verbalized by the therapist. Actually, this latter strategy first involves the therapist modeling the disputation procedure for the patient, whose role is to verbalize dysfunctional thoughts. This is followed by a role-reversal wherein the therapist verbalizes the dysfunctional thoughts and the patient disputes them.

Following the pioneering work of Ellis (Ellis & Grieger, 1977) and Beck (Beck, 1976; Beck & Emery, 1985; Beck et al., 1979), the procedure of cognitive disputation is based on the cognitive model of emotional disturbance. This model holds that situations and events do not make people disturbed, but it is rather their beliefs about them that give rise to emotional disturbance. Therefore, cognitive disputation with pain patients would involve first helping them to identify their underlying beliefs about pain-related situations. Then, they would be coached to utilize cognitive strategies to test the reality of these beliefs and argue against them. The goal of the disputation procedure is to help the patient restructure irrational and dysfunctional beliefs in order to produce a healthier set of emotional consequences.

### *Interventions in the Interpersonal Modality*

In addition to dysregulating sensory-physiological, cognitive-evaluative, and motivational-emotional systems, living with chronic pain often dysregulates interpersonal relationships (Roy, 1986). Behavioral, emotional, cognitive, and self-image disturbances strain the fabric of interpersonal interactions. Chronic pain sufferers often have difficulty meeting others' expectations. Their relationships are frequently characterized by ambivalence, mixed messages, strain, and tension. The length of time that the sufferer has lived an emotionally and physically debilitated existence is pathognomic of the degree of disturbance in the interpersonal modality. Avoidances and dependencies become conditioned, ambivalencies become fixated, hostilities and resentments are suppressed, fears are reinforced, and the sufferer becomes more entrenched in living out the "sick role."

Once a good therapeutic relationship has developed, the therapist ought to examine with the patient the interpersonal ramifications of living a debilitated lifestyle. Secondary gains and primary losses of living with pain need to be evaluated. Patients often benefit from coaching in interpersonal cognitive problem-solving skills (Spivack, Platt, & Shure, 1976), to develop the ability to look at their relationships, generate alternative solutions to interpersonal problems, choose and implement solutions, and evaluate the consequences of their choices. Assertiveness and communications training (Lange & Jakubowski, 1976), also are often indicated when patients are unable to communicate with significant others effectively or to express their feelings.

It is often necessary to implement interventions in the marital or family system to resolve tensions arising from the exacerbation of dysfunctional relationship patterns (Roy, 1986). Family members often need to be educated about chronic pain and the patient's underlying medical condition in order to bring their expectations in line with reality. When such efforts are made, the pain patient is more likely to feel understood and accepted. Understanding and acceptance are frequently necessary prerequisites for motivating behavioral change efforts.

Marital interactions between the chronic pain patient and his or her spouse are invariably disturbed (Block, 1981; Maruta, Osborne, Swenson & Holling, 1981; Roy, 1982; Shanfield, Heinman, Cope & Jones, 1978). The pain patient frequently feels that his or her spouse does not understand or does not do enough. The spouse frequently feels drained in that he or she is not getting enough in return for what is given. Expectations are often unspoken and unclear; demands are perceived as unfair. In sum, an adequate quid pro quo is likely to be non-existent. Given these factors, a number of important therapeutic principles emerge for reharmonizing disturbed marital relationships.

The moderation principle refers to the importance of communicating feelings, needs, and gripes, but all in moderation. Excessive complaining, demanding, or griping just builds resentments and reinforces pain-related, dysfunctional roles. Therefore, the therapist should work with the couple to help them learn and rehearse how to communicate their mutual feeling, needs, and complaints in moderation.

The principle of reciprocity refers to the importance of compromise. The therapist needs to help the couple establish a contractual quid pro quo so that neither party continues to feel exploited in the relationship: both need to accept the importance of giving something in return for what is received. At the outset, it often helps to construe the marriage as a sort of business relationship wherein nobody gives or gets anything in return for nothing.

The principle of explicit expectations relates to both of the first two principles. It refers to the importance of avoiding "mind reading" by learning how to communicate expectations clearly. Members of dysfunctional marital and family systems often hold unspoken expectations of other members, or express their expectations indirectly. Thus, expectations are often unmet, grievances accumulate, and resentments linger. It is important for the therapist to help family members make their expectations explicit and then negotiate agreements. Contracts detailing duties and obligations of each involved person relative to contested issues need to be formulated. In addition, licenses and limits for sick and well behaviors need to be agreed upon.

In conducting these interventions, it is always important to avoid joining family members in reinforcing the pain patient's status as a "scapegoat" for other problems. There is a delicate balance to be negotiated between focusing on presenting problems related to pain, and becoming over-involved in pursuing other tangentially related issues. Sticking to the "game plan" provided by the modality profile of the patient's problems is the key to staying on task and remaining focused on relevant and workable treatment goals.

As was mentioned earlier in this paper, the chronic pain sufferer's interpersonal difficulties cut across the modality profile. The modality profile provides a holistic picture, but the key to therapeutic success is modeling for the patient how to break global problems down into manageable chunks. The modality profile provides a coherent organization for accomplishing this. By tracing the patient's progress with the modality profile, each small success in resolving specific problems within given modalities can be noted. Small changes add up to big changes and gradually alter the total picture.

### **Summing It All Up in the Biological Modality**

As mentioned previously, chronic pain patients generally construe their problems in medical terms; they take analgesic medications and visit physicians to obtain pain relief. The multimodal therapist should deliberately respond to the patient in his or her preferred modality (i.e., the biological or medical one) before branching off into other modalities that show therapeutic promise (Lazarus, 1985a). The therapist needs to be able to talk in medical terms to help the patient achieve a basic understanding of the medical issues, and medical treatment alternatives need to be sorted out and evaluated. Only if the therapist validates the medical and physical realities of the patient's suffering will the patient be open to examining the emotional issues. The pain patient is hypersensitive to having the authenticity of his or her pain complaints questioned, and this sets up an initial roadblock that must be negotiated successfully for therapy to proceed.

"First things first" requires that the psychotherapist be available as a sort of medical case manager. Discussing previous diagnoses and treatment and reviewing medical treatment options is the first step. Examining patients' usage of pain medications and educating them about drug indications and contradictions is another important component in medical management. For the non-physician psychotherapist, it is useful to consult with the patient's physician.

Providing some guidance to help patients improve their level of physical conditioning is important, as is conducting interventions that address the mind-body connection and the pain-tension cycle. These interventions (e.g., relaxation training and biofeed-

back), have already been discussed in the section on re-regulating sensory-physiological dysregulation.

This paper has elaborated a comprehensive multimodal approach to psychotherapy with the chronic pain patient, and points to a unique tension or polarity in the psychotherapeutic context. On the one hand, effective therapy necessitates a high level of therapist activity, direction, and medical relevance. Yet on the other hand, adequate timing requires that the therapist be patient in allowing the patient to progress at his or her own pace, especially early in the treatment. Chronic pain patients present a unique therapeutic challenge. The work is often very trying and necessitates a great deal of empathy on the therapist's part. Yet the potential rewards are great. The therapist is in a position to appreciate the predicament of formerly functional individuals who feel let down by the medical system and by their significant others, and to teach self-help techniques for coping more effectively and rebuilding a debilitated life. This is a very heart-warming role to play as a psychotherapist.

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