



Psychotherapeutic Approaches in the Treatment of Pain

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PAIN IS BEST CONCEPTUALIZED AS a perceptual, rather than a sensory, phenomenon. As a purely sensory event, pain is a response to tissue damage generated by a stimulus to a nociceptor. Patients, however, have vastly different responses to very similar pain-generating stimuli, suggesting that the patients' perception of pain cannot be caused solely by the intensity of the initial stimulus. Viewing pain in a perceptual framework allows a much greater recognition of the attentional, cognitive, affective, and social components to the pain experience. Psychotherapeutic approaches to patients in pain utilize a perceptual framework and will be the focus of this article.

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Depression is extremely common in patients suffering from chronic pain conditions.¹ A detailed psychiatric examination is necessary to assess the severity of the underlying depression and to determine the appropriate treatment. Often, antidepressants chosen to alleviate underlying depression can be helpful in treating the underlying pain complaints as well. In a similar vein, cognitive behavioral techniques shown to be helpful in depression can also be utilized in patients suffering from pain.

Aggressively addressing both the depression and pain is necessary for recovery to occur. Otherwise, a vicious cycle can ensue, where pain may exacerbate the underlying depression and depression may worsen the pain complaints.

Psychotherapeutic approaches to patients in pain vary depending on whether the patient is suffering from acute, continuous, or chronic pain (Table 1). Patients with acute pain have suffered a recent noxious insult that generally can explain the patient's pain complaint. Often, adequate pharmacologic analgesic relief is sufficient to treat the pain, and the course of treatment is uncomplicated. When typical analgesic doses fail to alleviate the pain, psychiatric consultation may be requested.

Psychosocial components to the pain should be explored. Addressing these issues may sometimes prove helpful in alleviating the pain.

A variety of psychotherapeutic techniques may be offered in the treatment of the patient with acute

pain. Supportive therapy is used most often in such cases. Allowing the patient to know that someone "is in his corner" and that he is not suffering alone may offer great comfort. Little exploration of underlying unconscious processes occurs, but instead the therapist attempts to shore up the patient's existing healthy defenses by offering reassurance and allowing the patient to express his or her fears and concerns to a nonjudgmental party. Concrete strategies to help control pain may be taught by the supportive therapist as well.

Patients who have pain from an obvious nociceptive source that has been present for over six months are said to suffer from continuous pain. The classic example of such pain is cancer pain from bone metastases. These patients may suffer some degree of pain no matter how aggressively they are treated with narcotic medications, and they pose a different set of challenges to the psychotherapist. Supportive therapy is often utilized again, but a variety of other psychotherapies have been found to be helpful in such cases as well. Hypnosis and cognitive-behavioral therapy have been found to be useful in such patients and will be described in further depth later.²⁻⁴ The goal of such therapies is to help the patient to learn to live with his or her pain. These therapies may also permit the patient to decrease the amount of pain medications he or she needs to take on a daily basis and thereby lower the overall side effect burden of his or her treatment.

In patients with chronic pain, the original nociceptive source of

the pain is no longer sufficient to explain the pain that the patient is currently experiencing. Physicians sometimes doubt the veracity of the pain complaints because the patient will sometimes appear to be comfortable and only cry out when a nurse or physician walks by his or her hospital room. Such pain behavior results from an expected adaptation to living with chronic pain and should not suggest to treating providers that the patient is exaggerating symptoms. If patients feel they are not believed by their physician, treatment efforts may be further complicated. Psychiatric consultation in such patients may pose the peril of exacerbating the problem by suggesting to the patient that his or her treating physician thinks his or her underlying problem is mental, rather than physical, in nature. This problem can be avoided by a careful explanation that consultation is being requested to help the patient deal with his or her pain problem, and not because the physician doubts its underlying veracity. The consulting psychiatrist should emphasize this as well. In addition, the consultant should clearly discuss that the goal of treatment is not to cure the pain, but to help the patient live with the pain better.

Depression and anxiety are frequently found in patients suffering from chronic pain. Pharmacologic strategies must address both the pain complaints and any underlying psychiatric issue to be successful. Psychotherapeutic interventions must do the same as described next.

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TABLE 1. Types of Pain

Pain Types	Obvious Source of Pain	Response to Narcotics	Time Course of Symptoms	Associated with Psychologic Symptoms	Psychotherapeutic Approach
Acute	Yes	Good	Less than 1 Month	No	Supportive
Continuous	Yes	Good	Over 6 Months	Occasional	Supportive and CBT
Chronic	No	Fair to Poor	Over 6 Months	Often	Supportive and CBT

COGNITIVE-BEHAVIORAL THERAPY

Cognitive-behavioral therapy has been shown to be effective in patients who suffer from either continuous or chronic pain.²⁻⁴ Therapists are quite active in teaching a variety of skills to the chronic pain patient and assign homework to ensure that the lessons learned are solidified. Negative, inappropriate, catastrophic thoughts are often present in patients with pain disorders. Such thoughts are highly correlated to the intensity of pain complaints.⁵ Cognitive-behavioral therapy focuses on restructuring this negative cognitive schema into a more realistic appraisal of the patient's current condition. When a realistic perspective regarding the past, present, and future can be gained, patients may be able to more easily deal with their pain.

Examining the automatic thoughts that are present in pain patients is a major goal of cognitive-behavioral therapy. When pain worsens, automatic thoughts such as, "This pain has never been as bad as this" or "I'm getting much worse" may occur. These thoughts often lead to more physical and psychological distress. Helping the patient to recognize when an automatic thought is generated is necessary first, and then the patient needs to learn to rationally dispute his or her catastrophic cognitions.

Replacing negative cognitive schema and automatic thoughts are important techniques to address not only pain, but also anxiety and depression. Therapists must address underlying psychiatric issues, or recovery is likely to be less than optimal.

Homework assignments. The cognitive-behavioral therapist will generally assign homework for the patient to complete between therapy sessions. Homework assignments should start easier and grow progressively harder as the therapy continues. If homework starts too difficult, the patient may grow discouraged and not participate fully in the therapy. When the assignments are easier at first, the patient often is encouraged by the success of completing them and is more likely to be motivated to attempt the more difficult tasks. For patients with pain disorders, a typical homework assignment is the completion of a pain journal. Patients are asked to track which specific thoughts, actions, and behaviors exacerbate the pain and are also asked to consider what helped it. By specifically focusing on this, the patient may become more aware of what he or she can do to gain control over the pain. Feelings of helplessness, so often present in pain patients, may dissipate when patients feel they have some control over their illness.⁶

Relaxation. Relaxation training is often a component of cognitive-

behavioral therapy for pain patients. Progressive muscle relaxation, stretch-based relaxation, deep breathing, and autogenic training are all relaxation techniques that may be learned. Techniques learned during the therapy sessions are practiced at home until they are mastered. Developing mastery over techniques that offer some relief from pain symptoms enables patients to feel that they have some control over their illness, and this may help combat the learned helplessness that is so often a part of the life of a patient living with pain.

Progressive muscle relaxation involves tensing a muscle group for several seconds, and passively focusing on how the tensed muscle feels. The tensed muscle is then released, and the patient is asked to focus on how the muscle feels as the relaxation takes place. This sequence is then applied to all the major muscle groups of the body. This technique can only be utilized if the patient is able to tense and relax muscles without exacerbating the pain. For patients immobilized by their pain, a stretch-based relaxation program is used. Here, a series of muscles is gently stretched without the tensing and relaxing techniques utilized in progressive muscle relaxation. As patients become more mobile and their pain more tolerable, progressive muscle relaxation can slowly be added to a stretch-based relax-

TABLE 2. Differences in Therapy for Pain Disorders

Type of Therapy	Automatic Thoughts	Relaxation Technique Utilized	Homework Assigned	Family Involvement	Induction of Trance State	Monitoring of Physiological Process
Cognitive Behavioral	Yes	Yes	Yes	Yes	No	No
Operant-Behavioral	No	No	Yes	Yes	No	No
Biofeedback	No	Yes	Yes	No	No	No
Hypnosis	No	Yes	No	No	Yes	Yes
Self Hypnosis	No	Yes	Yes	No	Yes	Yes
Meditation	No	Yes	Yes	No	No	No

ation program.

Deep breathing is a relaxation technique that focuses on slow, patterned abdominal breathing. Patients are taught to breathe slowly and deeply, allowing their abdomen to expand. As patients inhale deeply, their abdomen should rise and their diaphragm should move downward. As inhalation continues, the lower part of the chest expands and eventually the upper part of the chest does so as well. When the breath is completed, it is held for several seconds and then slowly exhaled. After exhalation is completed, patients pause for a second or two and then repeat the cycle. Deep breathing techniques are often utilized to help patients with anxiety disorders as well.

Autogenic training consists of imagining a calm, relaxing environment and comforting bodily sensations. Patients are asked to focus on heaviness or warmth in the limbs, cardiac regulation, their breathing, warmth in the upper abdomen, or coolness in the forehead. Painful sensations are transformed to a more soothing sensation, such as warmth. Guided imagery is a related relaxation technique whereby patients are led

through a series of less threatening scenes in therapy sessions. The patient who has piercing phantom limb pain may be asked to imagine a knife stabbing their leg and can then be guided in therapy into imagining the knife becoming progressively duller and then ultimately becoming a blunt piece of wood. Patients may also be asked to focus intently on their pain, paying particular attention to its waxing and waning nature. When patients become more aware of this particular aspect of their pain, they are often more successful in utilizing imagery to help decrease their pain.

Physical activity. Another aspect of cognitive-behavioral therapy involves the practical application of skills that permit better coping with day-to-day pain. Finding an appropriate level of activity is important. When patients try to do too much on days that their pain is relatively good, they often find themselves nearly immobilized the following day. Other patients may restrict movement too much for fear of worsening their pain. Prolonged inactivity can lead to further problems with mobility and pain. Activity should be encouraged, but in a restrained manner

that is not likely to exacerbate the pain. Patients should be taught to monitor their pain during activity and to stop activity before pain becomes severe. Frequent rest periods may be helpful in allowing activity to continue without significant exacerbation of pain and may lead to increased functioning.⁷ Concrete, attainable goals should be set to enable patients to slowly become more active.

Positive affirmation. An additional coping skills technique is the development of positive affirmations, such as "I am strong enough to handle this pain." Patients may also find diversional techniques, such as reading or listening to music, to be helpful in dealing with their pain. The aforementioned pain journal can be used to track which techniques are helpful and can help the patient decide what should be done when they have a flare-up.

Relapse prevention techniques. Relapse prevention techniques taught in cognitive-behavioral therapy focus on the inevitable flare-ups that occur in patients who live with pain problems. Closely examining the events leading up to the increase in pain can sometimes help identify the

cause and help prevent future problems. Techniques learned in therapy should be reviewed on a regular basis with the patient, even when the patient is feeling well. This ensures the techniques will remain fresh in the patient's mind and the patient will be able to utilize the techniques when exacerbations occur. When patients have been feeling good for awhile, a sudden worsening of symptoms can easily lead to catastrophic cognitions, such as "I'm no better at all" or "Nothing ever really helps." Reminding patients to utilize cognitive restructuring techniques learned earlier may help, as can emphasizing that one bad day does not undo all the good days that preceded it.

Operant-behavioral therapy.

Another therapy that can be utilized to treat the pain patient is operant-behavioral therapy. This model reinforces healthy behavior and ignores pain behavior. The operant-behavioral therapist emphasizes the important role that the patient's family sometimes plays in contributing inadvertently to pain behavior. Pain behavior may have been reinforced by providing attention or by permitting the patient to avoid undesirable activity. Families are taught to ignore pain behavior, such as retreating to the bedroom, and to strongly reinforce every small step taken toward increased functioning. Homework assignments are often given to both the patient and family members. Involving family, rather than just the treating physician, can help magnify the benefits of therapy.⁸ Cognitive-behavioral techniques can be woven into the operant-behavioral treatment to provide additional benefit.

Biofeedback. Biofeedback is a treatment method that uses monitoring devices to measure several physiologic processes, such as heart rate, muscle tension, and galvanic skin response. Biofeedback has most often been used to treat headaches, fibromyalgia, rheuma-

toid arthritis, and a number of other chronic pain disorders.⁹⁻¹² Through therapy, patients become adept at controlling these processes that were previously not under voluntary control and thereby control overall physiological arousal. Normally, biofeedback treatment involves 10 to 20 sessions and includes other cognitive-behavioral strategies such as deep breathing or progressive muscle relaxation. For biofeedback to be effective, much like the other techniques previously mentioned, it must be used outside of therapy sessions until it becomes second nature. Many of the techniques learned in biofeedback are also useful in treating anxiety problems that are often prevalent in patients with pain disorders.

Hypnosis. Another technique that can be helpful in treating the pain patient is hypnosis. Much like biofeedback, hypnosis is used to

treat a wide variety of pain disorders.^{13,14} Hypnosis is defined as the induction of a state of selective attention, generally by utilizing relaxation and imagery techniques. These techniques are quite similar to the relaxation techniques discussed earlier. When significant relaxation has been reached, the patient is maximally receptive to a suggestion from the hypnotherapist. Suggestions are usually quite specific in nature (e.g., a change in the nature of the pain from excruciating to mildly annoying). An extremely important part of hypnosis is the post-suggestion phase, where the patient continues to use the new behavior after the hypnosis is terminated.

Hypnotherapists may also teach patients to hypnotize themselves. Self-hypnosis can be an effective tool in the management of pain disorders, especially for patients who practice the technique often



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enough to master it. Once mastered, self-hypnosis can be used early in the pain cycle before the pain becomes severe enough to impair concentration. A particular advantage to self-hypnosis is that it offers patients an increased sense of control over their illness and minimizes dependency on the healthcare system.

Meditation. Meditation is similar to self-hypnosis but does not involve the induction of a trance state. Therapists may teach patients several different types of meditation techniques, including mindfulness meditation, concentration meditation, transcendental meditation, and several types of movement meditations.¹⁵ All of these techniques, once learned in therapy, can be utilized at home without the therapist present. Mindfulness meditation focuses on the development of an awareness in the present moment of bodily sensations and mental activities to permit the body to relax and the mind to calm. Concentration meditation trains the patient to passively attend to a bodily process, a word, or a stimulus. In transcendental meditation, patients focus on a particular sound or thought (the mantra) without actually attempting to concentrate on the sound or thought. Yoga is one of many movement meditations that have been used to help patients who have problems with pain. Chronic pain patients often feel quite frustrated by how much their pain seems to control their lives. A great advantage to tools, such as meditation and self-hypnosis, is that patients can utilize these techniques on their own, which allows them an increased sense that they are in control of their lives.

CONCLUSION

Therapists will generally combine several of the aforementioned techniques to treat patients suffering from pain. Relaxation techniques learned in cognitive-behavioral therapy are used in biofeed-

back to help the patient gain control over physiological processes. These same techniques are also helpful in inducing the trance state in hypnosis. The underlying presumption in cognitive-behavioral therapy, biofeedback, operant therapy, hypnosis, and meditation is that it is possible to attenuate the effects of pain through the use of the mind. Table 2 describes the similarities and differences in these therapies.

Patients with pain disorders are often hesitant to accept a referral for psychotherapy. They may resent any implication that there is an emotional overlay to their pain complaints. Therapists must be sure not to suggest that the pain is "in their head" and also need to treat the comorbid psychiatric illnesses that are often present in patients suffering from chronic pain. Many of the cognitive-behavioral strategies described above have long been used to treat depression and anxiety disorders and have been successfully employed in the treatment of patients with pain. Recognition of catastrophic cognitions and stopping the automatic thoughts so often associated with pain, anxiety, or depression can greatly aid patients suffering from these disorders. Meditation and relaxation techniques, such as progressive muscle relaxation or deep breathing, can be useful to treat anxiety as well as pain. When both pain and underlying psychiatric disorders can be addressed in psychotherapy, patients can benefit to a much greater degree than if one illness is addressed and the other ignored.¹⁶

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