

Hypnosis Interventions (Cognitive-Behavioral Therapy) with Cancer Pain

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Abstract: Hypnotherapy has been used for many years in clinical settings. Hypnotherapy's role in cancer management however, is relatively new and indications are that its utilization has not been fully maximized yet. Effective cancer treatment often depends on the patient's ability to not only defeat the cancer through treatments but also to maintain their health and mental spirit throughout the painful side effects of cancer treatments such as chemotherapy and radiation. Physical pain is perhaps one of the most feared consequences for patients with cancer. Available estimates suggest that chronic pain affects 60% of adult patients with newly diagnosed or intermediate-stage cancer and up to 95% of patients with advanced disease. Indeed, the magnitude of the problem is so great that some reports indicate that 25% of individuals may actually die in significant pain.

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Introduction

Cognitive-behavioral therapy is another theoretical model that has been employed in the treatment of cancer-related pain [1,2]. As with supportive psychotherapy, it is practiced in a number of formats, with individual or group sessions tending to be more common than family or couples [3]. At its core, the cognitive-behavioral model suggests that a person's distressing physical and mental symptoms are partially a consequence of maladaptive thoughts, feelings, or behaviors [4,5]. This perspective thus focuses on recognizing and modifying the thoughts, feelings, and behaviors that contribute to physical and emotional distress. Several researchers have adapted the cognitive behavioral perspective to specifically address cancer-related pain [5,6]. That is, cancer pain is reputed to contain an objective component (the pain stimulus) and a subjective component (the perception of the pain stimulus). The subjective portion of pain is postulated to be influenced by distorted or irrational thoughts or behaviors that, in turn, generate exaggerated feeling states and an increase in the perception of pain. Intervention attempts to modify behaviors, cognitions, or a combination of the two. By changing thoughts or behaviors in a positive manner, feeling and pain states are presumed to be naturally and similarly affected. Cognitive-behavioral intervention is composed of numerous techniques that may be used singularly or collectively in a treatment package. Behavioral strategies include progressive muscle relaxation, relaxation training, and hypnosis. Cognitive strategies include guided imagery, autogenic training, distraction, thought monitoring,

and coping self-statements, and problem solving. Cognitive-behavioral strategies have been practiced extensively in the treatment of chemotherapy-related nausea and vomiting [8]. With the advent of new antiemetic drugs, however, nausea is now better controlled, and these techniques are less utilized [7]. Cognitive-behavioral treatment also has a solid history with chronic pain syndromes, whereas cancer pain literature has been slowly evolving [8]. Overall, one of the most widely used and espoused techniques for cancer-related pain is hypnosis. In the Spiegel study described above, intervention participants who were experiencing pain were further subdivided to examine the effects of hypnosis. That is, half of the intervention subjects received the group psychotherapy condition, and the remaining treatment subjects received group therapy plus a 5- to 10-minute hypnosis exercise for pain control. Results at one year revealed that intervention members who received group psychotherapy plus hypnosis reported less pain sensation than those who received only group psychotherapy. Differences between the intervention and control groups were significant, suggesting that the addition of a hypnosis procedure may produce a cumulative effect on the reduction of cancer pain. In another study by Syrjala and colleagues, [9] cancer patients with oral mucositis pain undergoing bone marrow transplantation were randomly assigned to one of four groups: (I) routine treatment, (II) a therapist attentional control, (III) hypnosis (ie, relaxation and imagery of a visual, auditory and kinesthetic nature), or (IV) a cognitive-behavioral skills package. The cognitive-behavioral

skills package was quite extensive and included progressive muscle relaxation, autogenic training, cognitive restructuring, distraction, coping self-statements, problem solving, and exploration of the patients' interpretations of their illnesses and treatments[10]. Additionally, psychoeducation specific to transplantation pain was provided. Guided imagery, however, was specifically *excluded* from the cognitive-behavioral skills package. Patients assigned to the hypnosis and the cognitive-behavioral groups participated in two individualized verbal training sessions prior to the transplant procedure, and they received written and audiotaped instructions to practice their skills prior to hospital admission. Therapy sessions to reinforce training were provided twice a week for the first five weeks of hospitalization. Patients in the therapist attention control condition met with a mental health professional to discuss general, non-pain-related topics for the equivalent amount of time and session frequency as the hypnosis and cognitive-behavioral groups. Results indicated that only the hypnosis-alone group reported significantly less posttransplant pain than that reported by controls. This was particularly true during weeks 2 and 3 posttransplant. Indeed, reported peak pain for the hypnosis group was lower in intensity and of a shorter duration. There were no differences among the four groups in terms of opioid usage, suggesting that decreased pain report in the hypnosis group was not simply a function of additional pain medication. As the authors suggest, the superiority of the hypnosis group over the cognitive-behavioral skills program implies that the guided imagery component may be pivotal to effective treatment. However, this result may have been influenced by the extraordinary degree of pain associated with oral mucositis and transplantation. In support of this, the article does comment that the patients who received the cognitive-behavioral skills package began to refuse sessions. Those patients engaging in hypnosis did not rebuff intervention, but they required active, engaging imagery to stay involved. Thus, patients experiencing severe levels of pain may require an intensely distracting approach to pain management such as that provided by guided imagery. Additionally, as noted by the researchers, the lack of success with the cognitivebehavioral skills training also may have been compromised by the number of techniques used, which may have surpassed what patients could master in such a short period of time. In a subsequent study by many of the same researchers, 28 bone marrow transplant patients were again assigned to several conditions: (I) treatment as usual, (II) therapist support, which comprised a psychoeducation component and reassurance but not the training of new coping skills,

(III) relaxation, imagery, and autogenic training (called hypnosis in the previous study), and (IV) a cognitive-behavioral skills program. This time, the package of cognitive-behavioral techniques was more limited in scope. It included the relaxation program provided to group 3 as well as the techniques of coping self-statements, distraction, and problem solving. Patient training and therapy administration were identical to the companion study. As noted, the relaxation training in this study was a near duplicate of the hypnosis procedure in the prior study. Apparently, the authors had chosen to use a different label to increase patient acceptance of the procedure. Indeed, there has been some inconsistencies in terminology in the literature, with researchers labeling identical procedures differently. According to Jay and associates,[11]this has been due not only to patient resistance, but also to a lack of clear definition of terms and standardization of procedures, making similar techniques (eg, "relaxation with guided imagery" and "hypnosis") and their associated outcomes in studies difficult to compare. As a consequence, the strategies of relaxation with guided imagery and hypnosis with cancer pain have not been proven to differ empirically at this time[12]. Data analysis from the second Syrjala study revealed that patients in the relaxation/imagery/autogenic training group and in the cognitive-behavioral skills group reported significantly less pain than those in the treatment-as-usual control group. However, there were no differences between the relaxation/imagery/autogenic training group and the cognitive-behavioral skills group in terms of pain levels. Thus, findings suggest that the addition of cognitive-behavioral techniques to relaxation/imagery/autogenic training did not further reduce pain levels. In addition, those participants who received therapist support also reported less pain than the treatment-as-usual controls. However, the difference was a trend and did not reflect a statistically significant effect. Again, no differences were detected among the groups in terms of opioid use. As psychological distress was measured only prior to transplant, no data were available to examine changes in this variable that occurred during intervention. However, the authors did report that emotional distress prior to transplantation was found to be a significant predictor of subsequent pain reports and opioid usage. One other methodically sound study supports the idea that relaxation and guided imagery produce significant effects on cancer-related pain. Sloman et al[13] randomly assigned hospitalized cancer patients who were experiencing physical pain to one of three conditions for a 2-week regimen of routine care (ie, a control condition), progressive muscle relaxation and guided imagery by audiotape, or progressive muscle

relaxation and guided imagery by live nurse instruction. Subjects in the audiotaped and live intervention groups received two relaxation and imagery sessions each week, and they were directed to practice twice a day. In comparison to controls, results indicated that both of the intervention groups reported a significant reduction in the intensity and overall severity of pain. The live instruction group also reported less pain sensation than the control group, suggesting that live intervention may yield some additional benefits. Lastly, participants in the audiotaped and live-instruction groups required less as-needed nonopioid medication than did the control subjects. Psychological research suggests that relaxation with guided imagery (ie, hypnosis) is an effective treatment strategy for the relief of cancer pain. In fact, in a meta-analysis that examined cancer pain, relaxation interventions consistently produced a positive and large effect on cancer pain[14]. However, the analysis did not compare relaxation with and without imagery. Data are less clear on the efficacy of cognitive-behavioral techniques without the benefit of relaxation with imagery. A meta-analysis of cognitive-behavioral strategies utilized for non-cancer-related pain found that all techniques were effective[15]. Further research is needed to delineate the effect of these techniques on cancer-related pain.

Conclusions

Patient psychoeducation has empowered patients to actively participate in pain control strategies. Supportive psychotherapy can assist patients in managing the stressors associated with cancer, and cognitive-behavioral therapy helps patients to recognize and modify the factors that contribute to physical and emotional distress.

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