Realizing the Benefits of Hypnosis

Clinical Research and Medical Applications

Sala Horowitz, Ph.D.

Because of its association with early discredited theories, stage performers, and negative, stereotyped media portrayals, hypnosis has been undervalued as a therapeutic modality in medical settings, except for those involving treatment of psychologic problems. However, integrative practitioners are increasingly regarding hypnotherapy as a valuable adjunct treatment for a variety of other conditions involving pain and stress management.

While the mechanism of action of this mind–body approach is still not well-understood, the National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health is among the institutions that are becoming increasingly involved in clinical trials using hypnosis for medical purposes.

Defining Hypnosis

The American Psychological Association's Division of Psychological Hypnosis defines hypnosis as a therapeutic procedure in which a health professional makes suggestions that will help a patient experience posthypnotic alterations in perception, sensation, emotion, thought, and/or behavior. Patients vary in their hypnotizability and assessment scales are available to measure the depth of hypnosis attained.[1]

Contrary to the popular images of hypnosis as either a sleep-like state or form of mind control, experienced hypnotherapists—such as Ursula James, B.A., F.B.A.M.H. (an instructor at Oxford University Medical School in Oxford, England)—define hypnosis as a natural state of focused consciousness accompanied by a relaxed body. Ms. James, who is also an officer of the British Society of Clinical Hypnosis and the British Association of Medical Hypnosis, views clinical hypnosis as "the use of hypnosis or the hypnotic state, in a medical framework, for the alleviation of physical, psychological or behavioural problems."[2]

Hypnotherapy is typically practiced as an adjunct to other forms of psychotherapy or medical treatment; therapists coordinate treatment with patients' other health care providers.

There are many different schools of hypnosis, including conventional, Ericksonian, neurolinguistic programming, and age-regression hypnosis. In addition, there is self-hypnosis, in which patients are trained by practitioners to enter the hypnotic state by themselves via mental imagery and other techniques.

A Mesmer-izing History

The roots of hypnosis (derived from *Hypnos*, the Greek god of sleep) date back to ancient Greece, where physicians would walk among patients at healing temples making suggestions about the way to achieve well-being, which the patients interpreted as messages from the gods. In many cultures, both past and present, traditional healers have used trance and similar practices as parts of healing rituals.

In the eighteenth century, Anton Franz Mesmer (1730–1815), an Austrian physician, put forth the idea that disease resulted from an imbalance in the flow of animal magnetism. ("Animal" in this case referred to "vital" or "live.") He used "mesmeric passes" with magnets to try to rebalance this force. Although Mesmer's theory and methods were discredited—his impressive results with psychosomatic illnesses were ironically judged to be "merely the results of the imagination"—his ideas influenced other people who took a more scientific approach to the practice.[3]

James Braid (1795–1860), a Scottish physician, was influenced by Mesmer and coined the term *neurypnosis*, which was later transformed to hypnosis. Initially, hypnosis was used by Freudian psychoanalysts to access patients' unconscious thoughts.

A British surgeon, James Esdaile (1808–1859), successfully reduced mortality resulting from surgery and postsurgical complications by using hypnosis as the sole anesthetic. Ultimately, however, the advent of chemical anesthesia led to the decline of hypnosis for this purpose. However, in 1891, the British Medical Association accepted hypnosis as an effective therapeutic agent for relieving pain, achieving sleep, and alleviating many functional ailments.[1]

Contemporary theories on clinical hypnosis branch into state and nonstate theories. State theorists view hypnosis as a specific altered state of awareness while nonstate theorists explain the phenomenon in terms of complex learned behaviors. A newer position regards the hypnotic state as points along a consciousness continuum instead of as a specific state of consciousness.[3]

With advances in psychoneuroimmunology, behavioral medicine, and integrative medicine, research has been focusing on the physiologic correlates of the hypnotic state and its effects and efficacy as an adjunctive treatment modality.

Structure of a Typical Clinical Session

A modern standard hypnotherapeutic session entails the following stages: introduction; induction; deepening; therapeutic suggestions; awakening; and posthypnosis feedback and patient debriefing.*

The introduction stage entails a structured discussion between patient and practitioner that centers on the patient's condition, how hypnosis may help, and what to expect from the process. A case history is taken at this time. The hypnotherapeutic protocol includes finding out how the patient currently manages the condition in question, assessing whether he or she is ready to make changes, and creating a safe environment for the patient to express her or his concerns. This information helps the practitioner tailor the hypnotic script to make positive suggestions about change.

The induction stage involves visual, auditory, or kinesthetic cues that focus the patient's attention to induce the hypnotic state.

Once the patient is eased into a relaxed but heightened state of awareness, the practitioner deepens that state by asking the patient to focus on physical changes (e.g., deeper breathing and dissociation from the immediate surroundings) and to become aware of formerly unconscious thoughts.

Therapeutic suggestions are made once the practitioner determines that the deepened state has stabilized. Posthypnotic suggestions consist of positively phrased instructions for physical and emotional health based on the patient's case history, perspective on hypnosis, and session goals. For example, a suggestion for smoking cessation might be: "You can look forward to enjoying life now that you no longer smoke." Instructions for self-hypnosis may be given at this time because, as Ms. James has noted, that is when the patient is in the most teachable state.

The patient is then guided back to a normal, awakened state of consciousness.

During the posthypnotic stage, the suggestions made during hypnosis are reinforced. Patients are encouraged to observe any changes that have occurred in themselves and are given the opportunity to ask further questions. The frequency of sessions depends on the nature of the condition and the speed of patient response.[1]

*This protocol is that of the "indirect" approach developed by Milton H. Erickson, M.D. (1901–1980), who believed that people play key roles in their own healing. His relationship-based method contrasts with the older, authoritarian, direct technique of putting patients into trances.

Indications and Contraindications for Hypnotherapy

Indications
- Stress-mediated disorders
- Pain management (e.g., childbirth, oncology care)
- Anesthesia
- Addiction and behavior change (e.g., smoking cessation, weight loss)
- Insomnia and other sleep disorders
- Fear of invasive medical procedures
- Neuromuscular relaxation
- Complex conditions unresponsive to single-treatment approaches

Contraindications
- Using medications intended to change brain chemistry (e.g., antidepressants)
- Being under the influence of alcohol or illegal drugs
- Having a condition (e.g., major mental illness) with symptoms that may be provoked by hypnosis
- Seeking hypnotherapy for entertainment

The Power of Suggestion

Today, therapeutic hypnosis is used mainly in cases of stress-mediated disorders. Some applications include pain control (e.g., in childbirth, as a form of anesthesia, or for oncology care); smoking cessation; and treating anxiety disorders, depression, irritable bowel syndrome [IBS], sleep disorders, eating disorders, and some dermatologic conditions (e.g., warts).

Hypnosis is often used to enhance the efficacy of other psychotherapeutic or medical treatments. It has been shown to be beneficial for treating pediatric or fearful patients. Recently, hypnosis has also been applied to reducing the stress of in-vitro fertilization treatment.[1]

Despite the successful application of hypnotherapy for a variety of disorders, research findings regarding its efficacy either as a monotherapy or as an adjunct to cognitive behavioral therapy (CBT) have been mixed. Several studies conducted in the 1980s comparing CBT with hypnosis to CBT without hypnosis found no significant differences in outcomes among people attempting to stop smoking.[3]

Hypnosis is contraindicated for patients who use medications intended to change brain chemistry (e.g., antidepressants), have conditions with symptoms that may be evoked by hypnosis (e.g., major mental illness), are under the influence of alcohol or drugs, or want to be hypnotized solely for entertainment purposes.[1]

Tissue Healing

The ability of the hypnotic state to alter autonomic processes suggests that it may play a role in immune functioning and healing. Nonetheless, despite numerous case reports, little controlled research has been conducted on the potential of hypnosis to accelerate tissue healing.

Resources

American Society of Clinical Hypnosis (ASCH)
140 North Bloomingdale Road
Bloomingdale, IL 60108-1017
Phone: (630) 980-4740
Fax: (630) 351-8490
Website: www.asch.net
e-mail: info@asch.net
Founded in 1957 as a multidisciplinary organization by Milton H. Erickson, M.D., the ASCH promotes greater acceptance of hypnosis as a clinical tool with broad applications and as a focus for scientific research. The ASCH offers a free research database at www.hypnosis-research.org

Society for Clinical and Experimental Hypnosis (SCEH)
Massachusetts School of Professional Psychology
221 Rivermoor Street
Boston, MA 02132
Phone: (617) 469-1981
Fax: (617) 469-1889
Website: www.sceh.us
e-mail: sceh@mspp.edu
Since 1949, this multidisciplinary, international organization has been promoting high standards in the clinical application of hypnosis, scientific research in the field, and education of health care professionals and the general public about the nature of hypnosis and its ethical use. The SCEH publishes the *International Journal for Clinical and Experimental Hypnosis.*

To that end, Carol Ginandes, Ph.D., a clinical instructor of psychology at Harvard Medical School in Boston, Massachusetts, has researched whether or not targeted hypnotic suggestions can accelerate postsurgical healing. According to Dr. Ginandes, "hypnotic practice can be utilized as behavioral entrainment and rehearsal of the psychophysiology needed for reestablishing mind/body homeostasis. . . ."[4]

In a randomized clinical trial, Dr. Ginandes' research team studied 18 women undergoing recommended reduction mammoplasty. At 1 and 7 weeks postoperatively, the patients treated with hypnosis showed evidence of significantly faster healing in their surgical incisions than did controls receiving either standard care or extra staff support in addition to standard care. This was true for both subjective and objective outcome measures.[5]

Accelerated healing also occurred in 12 otherwise-healthy young adult patients who were treated with a multisession hypnotic intervention at the orthopedic emergency service of Massachusetts General Hospital in Boston for nondisplaced ankle fractures. These patients were followed for 12 weeks. At 6 weeks postfracture, those receiving hypnosis as an adjunctive treatment demonstrated evidence of bone healing typical of 8-and-1/2 weeks postfracture compared to the controls in this randomized, controlled pilot study. The treatment subjects also reported reductions in pain and use of analgesics. Because these patients also exhibited a greater ability to descend stairs than the controls did, the investigators concluded that hypnosis is capable of enhancing both anatomical and functional healing.[6]

Functional Healing

Since the 1980s, the University Hospital of South Manchester, United Kingdom, has been utilizing hypnosis with a "gut-directed" objective as an adjunct treatment for IBS. Patients are taught self-hypnosis skills, such as imagery and hand warmth on the abdomen, in an attempt to improve gut function and reduce cramping, bloating, diarrhea, and constipation.[7]

The first study on the long-term benefits of hypnosis for IBS, involving 204 patients at the same U.K. hospital, found that the positive effects of hypnosis lasted at least 5 years.[8]

A recent evaluation of 14 published studies also found hypnosis efficacious in the treatment of IBS.[9] Changes in colonic motility and rectal sensitivity are among the mechanisms of action that were demonstrated; changes in central processing and psychologic effects most likely also play roles.[10]

Cancer Care

According to Daniel L. Handel, M.D., a staff clinician in the pain and palliative care service at the National Institutes of Health's Clinical Care Center in Bethesda, Maryland, "[t]here is strong scientific evidence of the efficacy of hypnosis for control of pain, anxiety, sleep problems, and nausea and vomiting associated with chemotherapy."[11] A paper in the *Journal of the American Medical Association* urged practitioners to venture beyond pharmacology and to consider modalities such as hypnosis for treating the pain many patients with cancer experience.[12]

Studies on the value of hypnosis-induced relaxation have illustrated that hypnosis not only reduces the symptoms of pain, anxiety, depression, and anticipatory emesis—all of which are commonly associated with the disease, its conventional treatment, and its sequelae—but is also well-accepted by patients.[13]

Self-hypnosis seems to be particularly effective in this field, perhaps because the shift in the locus of control allows patients to feel empowered. Countering the stereotype of hypnosis as loss of control, David Spiegel, M.D., professor of psychiatry at Stanford University School of Medicine (Stanford, California), says that "it's actually a way of enhancing people's control, of teaching them how to control aspects of their [bodies'] function and sensation that they thought they couldn't."[14] In one of Dr. Spiegel's landmark studies, he and his colleagues demonstrated that group support—plus self-hypnosis—results in significantly less pain in women with metastatic breast cancer.[15]

A recent Japanese study found hypnosis beneficial for treating quality-of-life issues, such as fatigue and anorexia in patients with cancer anorexia–cachexia syndrome.[16]

The "matrix model" of hypnotherapy intervention recommends that hypnosis be tailored to patients' needs at each stage of cancer care. For example, in the initial stages of cancer, hypnosis can help patients harness their inner resources to cope with the diagnosis of a potentially life-threatening disease. At later stages, specific hypnotic suggestions can be made to accept treatment or palliative care.[13]

Other Conditions

Hypnosis has long been utilized in addressing such health issues as smoking cessation, pain relief, insomnia, and weight-control disorders. While the literature is replete with clinical case

reports of success, some researchers express concerns about whether or not the benefits of hypnosis extend beyond the placebo effect, and recommend randomized studies with adequate placebo controls.[17]

A meta-analysis of nine studies with fourteen different control interventions did not support claims for hypnotherapy's effects on smoking quit rates at 6 months. However, the reviewers noted that the studies yielded conflicting results for hypnosis' effectiveness compared to no intervention.[18]

Another study with mixed results found that, while hypnosis provided pain relief for 33 adults with chronic pain from disabilities, the pain relief was mediated somewhat by patient expectations, with expectations and treatment outcome being moderately correlated.[19] An investigation of pain reduction in 60 patients found no difference between those receiving hypnotic and nonhypnotic suggestions.[20]

Another area in which hypnosis can be applied is in dealing with postsurgical neurologic and psychiatric problems associated with open-heart surgery. Indeed, the Complementary Medicine program at Columbia–Presbyterian Medical Center, in New York City, has offered hypnosis among its alternative and complementary medicine (ACM) treatment options for such patients since 1994.[21]

A review of studies of hypnosis for childbirth found evidence for reducing pain and the need for analgesics.[22]

Clinical Studies Sponsored by the NCCAM

The NCCAM is sponsoring several studies on the efficacy of hypnosis in treating diverse conditions. (See Table 1: Recent Clinical Trials on Hypnosis Sponsored by the National Center of Complementary and Alternative Medicine.)

Hot Flashes in Patients with Breast Cancer

Because of the increased risk of recurrence of their disease, survivors of breast cancer cannot be given prescriptions for the estrogen replacement therapy often given to other women to treat hot flashes during menopause. Hot flashes that result from using the selective estrogen-receptor modulator tamoxifen is also a significant problem for many survivors of breast cancer.[23]

To address this issue, a recent NCCAM randomized, open-label, placebo-controlled efficacy study recruited approximately 60 women who have survived breast cancer to determine whether hypnosis is effective for reducing hot flashes in this population. Participants will be randomly assigned to receive either five weekly sessions of hypnosis or no treatment, and will be asked to complete weekly self-report questionnaires monitoring anxiety, depression, sleep quality, and sexual functioning. The researchers are also exploring whether or not patients who can be hypnotized more easily have less-frequent and less-severe hot flashes following hypnosis.[24]

Nonpharmacologic Analgesia for Invasive Procedures

Hypnosis is a frequently cited form of nonpharmacologic cognitive pain control for both procedurally induced and chronic pain. This phase II randomized, open-label, active-control clinical trial is addressing the problems of pain, stress, and complications in patients undergoing minimally invasive surgical procedures for tumor embolizations. Of the some 8 million patients undergoing invasive procedures annually, it

Recommended Reading

For you

Clinical Hypnosis Textbook: A Guide for Practical Intervention
By Ursula James, B.A., F.B.A.M.H.
Oxford, England: Radcliffe Publishing, 2005

For your patients

Hypnosis: Secrets of the Mind
By Michael Streeter
Hauppauge, NY: Barron's Educational Series, 2004

Table 1. Recent Clinical Trials on Hypnosis Sponsored by the National Center for Complementary and Alternative Medicine

Trial name	Dates	N/patient population	Reference
Hot Flashes in Breast Cancer Survivors	Recruiting as of 2005[a]	60 women ages 18+	Ref. 24
Nonpharmacologic Analgesia for Invasive Procedures	1997–2006	390 patients; males and females; ages 18–90	Ref. 25
Self-Hypnotic Relaxation Therapy During Invasive Procedures	Recruiting as of 2005[a]	390 patients; males and females; ages 18–90	Ref. 28
Prospective Studies of the Use of Self-Hypnosis, Acupuncture, and Osteopathic Manipulation on Muscle Tension in Children with Spastic Cerebral Palsy	Recruiting closed in 2005	N unspecified; children; (ages 4–21) and their parents	Ref. 30

[a]Latest information available at press time.

is estimated that 47,000 patients suffer serious cardiorespiratory complications and 2600 die; psychologic damage afflicts many other patients.

Seeking a means of providing a safer, less-stressful experience, investigators from Beth Israel Deaconess Medical Center in Boston are following up on previous work indicating that self-hypnotic relaxation might reduce cognitive and physiologic distress during a procedure as well as postoperatively, and also might promote coping skills for future procedures. The study began in 1997 with 390 patients (males and females), ages 18–90; the expected completion date is April 2006.[25]

A nonblinded study of 44 children undergoing voiding cystourethrography found that hypnosis and self-hypnosis training for both pediatric patients and their parents increased patients' relaxation and cooperation during this common invasive procedure for evaluating urinary-tract problems. The duration of the procedure was also shortened.[26]

A cost analysis determined that hypnotic sedation costs less than half that of intravenous conscious sedation during radiologic procedures.[27]

Self-Hypnosis Relaxation Therapy During Invasive Procedures

Another phase II clinical trial on the application of hypnosis in invasive procedures is designed to study its efficacy during minimally invasive surgical procedures for excising uterine neoplasms and benign fibroids. Expected total enrollment is 390 patients between ages 18 and 90 at medical centers in Boston and in Providence, Rhode Island.[28]

In a study on 27 bariatric surgical patients, those who listened to a taped cognitive-therapeutic message during and immediately following surgery exhibited greater compliance to a postoperative regimen and reduced the length of their hospital stays.[29]

Use of Self-Hypnosis in Children with Spastic Cerebral Palsy

Based on observations that spasticity in children with cerebral palsy can be lessened by having their mothers soothe them, University of Arizona in Tucson researchers are studying the compliance and acceptance of several ACM modalities, including self-hypnosis, by parents of such pediatric patients.[30] This research also stems from evidence that hypnosis is capable of producing improvements in normal and abnormal neuromuscular functioning in patients with multiple sclerosis or who have had strokes.[4]

Additional Clinical Studies

Other institutions are currently sponsoring studies on the efficacy of hypnosis. The sections below cover some of these studies.

Nonpharmacologic Therapy for Neurocardiogenic Syncope

The objective of this phase II study sponsored by the National Institute of Neurological Disorders and Stroke (NINDS), in Bethesda, Maryland, is to examine if patients' symptoms of recurrent fainting in neurocardiogenic syncope can be reduced by nonpharmacologic procedures including hypnosis.

NINDS researchers hypothesize that hypnosis can affect the autonomic nervous system to reduce symptoms of this condition. The study started in 2004 with an enrollment of 45 patients of both genders, ages 18 or older. Patients will be evaluated for their ability to become hypnotized and will receive six weekly hypnosis sessions. Following the outpatient intervention, patients will undergo upright tilt-table tests to measure the occurrence of symptoms.[31]

Hypnosis for Eye Surgery

The University of Heidelberg in Mannheim, Germany, is sponsoring phase I and phase II clinical studies investigating if hypnosis can reduce perioperative stress in patients undergoing cataract surgery. Of particular concern are elderly patients with comorbid conditions, in whom perioperative anxiety may provoke cardiac ischemia and hypertensive crises, as well as intraoperative noncompliance.

In this controlled, randomized, double-blind study, approximately 70 patients, ages 10–95, will receive standard topical anesthesia and placebo hypnosis with either additional hypnosis or hypnoanesthesia without topical anesthesia. The primary outcome measure will be the reduction of perioperative stress and the improvement of patient comfort and safety.[32]

Modeling How Hypnosis Works

Until recently, the success of hypnotherapy was measured mainly by subjective patient evaluation. However, as Ms. James predicts, in the not-too-distant future "breakthroughs in technology with MRI scanning and brain mapping will finally put clinical hypnosis on the neurological map. . . ."[2]

Like meditation, hypnosis seeks to attain a specific internal state. Therapeutic suggestions are similar to types of meditation that include guided imagery. Both meditation and hypnosis have been found to reduce stress by activating the left prefrontal lobe of the brain, which is linked to positive emotions and self-control, as well as the amygdala, which has been called the "alarm center of the brain." But hypnosis differs from meditation in that there is an emphasis on actively pursuing change posthypnotically.[2]

One model of brain function during hypnosis posits that the hypnotic state opens up the neurologic pathways between conscious thought processing and unconscious activity. The intense experience of hypnosis helps activate the autonomic, endocrine, and immune systems. This model helps explain why patients may not have been able previously to make positive changes in the conditions for which they seek treatment. It also suggests why hypnosis appears to play a role in pain perception.

The effects of the therapeutic relationship and patient expectations (based on personality, past history, presenting condition, and session objective) also play roles, similar to the placebo effect, in hypnosis efficacy.[2]

Hypnosis is gaining new credibility in neuroscience as the mechanisms of attention and hypnotic suggestibility are studied by advanced brain-imaging technologies. A landmark study on

altered color perception concluded that hypnosis produces measurable neural correlates such as blood-flow changes to the regions of the brain that process color and grayscale stimuli.[33] According to Michael Posner, Ph.D., emeritus professor of neuroscience at the University of Oregon in Eugene, "[t]he idea that perceptions can be manipulated by expectations is fundamental to the study of cognition."[34]

Regulating Hypnotherapists

In 1958, the American Medical Association declared hypnosis to be a safe practice. U.S. states have differing requirements for the medical practice of hypnosis. Some states have specific laws regulating the licensing of hypnotherapists. In "safe practice states," hypnosis may be practiced by anyone who is in accordance with the recommended professional standards of the American Society of Clinical Hypnosis and the Society for Clinical and Experimental Hypnosis. (See box entitled Resources.) In other states, a hypnotherapist must first be qualified to practice in some other relevant profession.[35]

Conclusions

There is a renewed focus on hypnosis as an adjunctive mind–body treatment for many common conditions, as a result of research on this modality's neurologic mechanisms and clinical applications. The outcomes of NCCAM-sponsored and other clinical trials should clarify further the efficacy of hypnosis for managing such difficult-to-treat conditions as chronic pain and anxiety related to invasive medical procedures. Based on the evidence to date, more research is warranted for this modality so that it can be integrated into a comprehensive treatment approach. □

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