

# Hypnosis in Medicine

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For/ English 402  
Professor Leonard Orr, PhD/ 22 January 2001

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Throughout history, there has been a struggle for each human to overcome fear in his or her attempt to survive pain. This survival has taken place through a variety of discoveries, both internally, through reason and thought, and externally, through machines and constructions.

The limits of our abilities have been tested by experimentation, trial and tragedy. Of these limitations, fear of the unknown has been the gravest limitation of growth.

Discoverers and explorers have pushed our knowledge of the outer world while doctors and philosophers increased our knowledge of the inner world. With each new discovery, society has tested theories, accepted a few as consistent, adapted these into practice, and transcended the fears of old with a fresh, bold hunger to learn more.

Over time, unusual mental phenomena have occurred which allow people to overcome pain by turning off their abilities to sense stimulations. Such controls have allowed people to survive what would otherwise be undesirable or unbelievably cruel levels of pain.

Phenomena of survival have commonly been dismissed as miracles or freaks of nature. For centuries, such were never seriously considered as solid scientific discovery (BSMDHW).

Ever since 1836, when a method was developed by which one could induce the phenomenon, a new terminology was coined to describe this thought-provoking process. The term has been in use to describe it to this very day: "Hypnosis" (BSMDHW).

Hypnosis is the ability to put oneself into a trance-like state by autosuggestion (Mosby). So, as defined by Mosby, "autosuggestion by oneself" means that hypnosis is actually self-induced. Therefore all hypnosis is self-hypnosis.

Hypnosis use in the medical field needed to radiate more authenticity. Thus, in the use specifically for the reduction of pain, the medical terminology is called "hypnoanesthesia" (Defechereux, 1938).

For a patient to achieve pain reduction through hypnosis, the patient must become an integral member of the surgical team (Mutter, 705 [4]), for the patient becomes his or her own anesthesiologist. However, in the rare case that a patient slips out of hypnoanesthesia, the standard anesthesiologist will step in and administer general anesthesia (Defechereux, 1938).

Based upon the procedures noted, there were basically two types of induction approaches used, both of which induce intense levels of boredom (the key which unlocks the entrance to the subconscious):

- Eyes open suggestion/fixation (Whorell, 69[4]) or Erickson's method (Defechereux, 1938; Havens) require the patient to focus his or her eyes on a single point or spot on the wall (often a single beam of light on a wall in a dark room) until the patient is bored into a subconscious state.
- Eyes closed suggestion (Halligan, 986) or scripted (Lang, 1486), which also place a patient in a calm or dark room (Loitman, 118), but allow the patient to use his or her imagination while a monotonous repetition of words (Mosby "Self-Hypnosis") coax a person into a subconscious state.

It has been found that hypnosis does not increase endorphin production as it was once thought to occur (Anonymous, 313[6]). In plain language, this means that the brain is not being affected by the morphine-like drug, endorphin, that the brain is known to have the ability to create. Thus, such pain relief is not clearly understood, though there are many technical theories.

One theory has been hypothesized that hypnosis blocks pain from entering the consciousness by activating frontal-limbic attention systems to inhibit pain impulse transmissions (Anonymous, 313[6]). What this means is that the state-of-mind which is created by hypnosis keeps the signal of pain from entering the conscious mind. The hypnosis does this by shifting the attention systems away from the stimulation that pain creates. By shifting attention, the brain does not process the stimulation or note that anything in the body's operating environment is abnormal. Under normal conditions, when the body notes a problem, it will then turn on the signaling sensation of pain, noting that some part of the body is hurt, broken, or ill.

It has been found that hypnosis does not actually stop the signaling of pain. When this discovery was first made, there was a concern that people who underwent hypnosis were actually feeling the pain but masking their emotions. However, further studies revealed that although the pain signals were being generated by the body, these sensations were not being processed by the brain. Thus, the patient was not "feeling" the pain. It is this distinction which is essential to understand how a patient, who has had hypnoanesthesia, does not go into post-surgical shock (Wolkes, 22[6]).

Hypnosis began its use in surgery in 1837 when Dr. James Esdaile, a Scottish surgeon, adapted and used it as his sole anesthesia for painless surgery in India (Mutter, 705(4); BSMDHW). From his experimentation and use, post-surgical shock dropped from 50% to only 5%, but his credibility amongst his peers lapsed, due to their distrust of something as mysterious as hypnosis (BSMDHW). The stigma hypnosis has had was recently shattered by medical doctors who tested it extensively and found similar successes.

Between April 1994 and June 1997, 197 thyroidectomies and 21 cervical explorations for hyperparathyroidism were performed under hypnoanesthesia using Erickson's method. The surgeons all reported better operating conditions for certivotomy using hypnoanesthesia, with only two (1%) requiring General Anesthesia (Defechereux, 1938).

Biobehavioral "non-pharmacological" analgesia in the form of imagery, relaxation training and hypnosis has been used successfully to treat procedural pain (Lang, 1986). Clinical practice guidelines for acute pain management, published by the U.S. Public Health Service, mention relaxation exercises and cognitive approaches. However, other uses are now being explored.

Eighteen patients, ranging from ages 20 to 48, were monitored for the effects of hypnotically induced emotions of excitement, anger, and happiness on colonic motility (spontaneous motion). Each patient had a solid-state catheter entered into their anus via a colonoscopy. After each patient was hypnotized, he or she was then suggested to feel each intense emotion. During the suggestion of specifically intense emotions, the patient's colon motility was then measured.

During the test, the suggestion of anger, and then of excitement, each revealed high motility. However, the suggestion of happiness caused a measurement which was so low, it equated to the baseline (pre-hypnosis, fasting) measurement.

The study purported to have proven that hypnosis-based emotional suggestions indeed had effects on colonic motility. The authors further suggested that hypnosis might be effective for patients with irritable bowel syndrome (Whorell, 1994).

In another case study, a patient with longstanding conversion hysteria, which is a medical term for psychosomatic leg paralysis, was monitored by using Positronic Imaging Tomography, which is known in the medical field as a "Pet Scan." It was discovered that two distinct prefrontal areas of the brain were activated.

The doctors in the study hypothesized that if someone was hypnotized to believe he or she had leg paralysis, thereafter, that person's brain would, by Pet Scan, reveal similar prefrontal activity. So, a second patient, who did not suffer from conversion hysteria, was hypnotized using an eyes-closed relaxation and deepening involving visual imagery and the sensation of descent. After the induction, the patient was suggested that his left leg was paralyzed. The patient believed the suggestion and found he could not move his leg.

After the hypnosis suggestion was made, the PET scan that was done which revealed similar prefrontal activity in the hypnotized patient as to that of the non-hypnotized patient with actual hysterical paralysis. Thus, it was considered that this conclusion supports the growing body of evidence that shows hysterical and hypnotic paralysis share common neural systems (Halligan, 1986).

On the other hand, in treating psychosomatic conversion hysteria, hypnosis also been shown to provide a cure. A patient from Libya, who was suffering from leg paralysis, had been in and out of medical hospitals all over Europe, but no possible organic explanation or solution could be found to explain his illness.

In Paris, it was suggested that his illness may be psychosomatic, and was thus seen by Chawki Azouri, a Lebanese psychoanalyst from the Centre de Formation et de Recherche Psychanalytiques. While in a hypnotic state, it was discovered that the patient's father had abused him, both with mind-altering drugs and tormentation, in an attempt to control his behavior into accepting an arraigned marriage. He resisted, and in the process, paralyzed himself with fear, on a subconscious level, which removed him from having to deal with the situation. After two months of sessions, wherein the patient overcame his mental anguish in relation to his family problems, his paralysis disappeared, and he was deemed "cured."

One of the greater benefits of using hypnosis in medical procedures is to effect and shorten the patient's time to recover. This is not only beneficial for the patients but also for the doctors, staff, and hospitals, for every minute one patient is moved out, there is room for the next patient to move into place, especially in operating rooms.

Replacing or supplementing anesthesia with the relaxation techniques reduced the average procedure time by 17 minutes (20% of total procedure time). This, in turn, reduced the average procedure cost by \$130 per patient (Lang, 3097). Such reduction in cost was primarily the result of fewer interruptions during the procedures and avoiding over- or under-sedation of the patient that usually results in the patient being held overnight instead of being released in a few hours.

Consider Kadlec Medical Center, which has eight operating rooms. During a twenty-four hour period, assuming the average data from Lang is correct, each operation normally takes eighty-five minutes. Thus, at maximum in a single day, there are roughly sixteen completed operations per room.

If twenty percent of the operating time was eliminated by using hypnoanesthesia, the average time per operation would then be sixty-eight minutes. At this rate, a room could maximally host roughly twenty-one sessions in a twenty-four hour period.

When taken to the fact that Kadlec has eight operating rooms, the cost effects on the profitability of a hospital become clearer. Without hypnoanesthesia, the maximum number of operations in a single day Kadlec can perform is 128, but if they adapted hypnoanesthesia, they could deliver 168 surgeries per day. This is approximately a 30% increase in overall operating room effectiveness.

In the case of the 197 thyroidectomies and 21 cervical explorations for hyperparathyroidism, all patients having hypnoanesthesia reported a pleasant

experience and had significantly less postoperative pain and analgesic use (Defechereux, 1938). This is of recent major benefit, for drug addiction, especially for prescription drugs, is often implicated from dependency on painkillers.

Hospital stay was also significantly shorter, providing a substantial reduction in the costs of medical care (Defechereux, 1938). Using figures from Kadlec Medical Center, when a patient has to be moved to a room, even for an eight-hour stay, a room rate of \$500 is tacked on the patient's bill. When a patient recovers enough to be released without being checked into a room, the savings become very clear.

When considering pain management, dentists have found hypnosis to be effective for patients with painful tooth-root sensitivity. In a study done by the United States Air Force Dental Corps, eight patients, all of whom had suffered with this problem for an average of four and a half years, were induced into hypnosis and told that they could tolerate or ignore pain on one side of their mouth. The hypnotic suggestion was implanted once a week for three weeks, and in all, seven of the eight patients' pain sensitivity decreased, as this result was tested, and lasted for over six months.

Hypnosis has even been found useful in increasing the blood content of white blood cells. In a study done at Washington State University by Professor Arreed F. Barabasz, Ph.D., sixty-five volunteer college students were selected, had blood samples taken to determine current white blood counts, and categorized into two groups. One group of 33 students was easily able to achieve hypnosis while the other 32 had great difficulty. All volunteers then watched a video describing the immune system. Afterwards, they then listened to a hypnotic induction asking them to imagine their white blood cells attacking "germ cells," and for them to repeat the self-hypnosis process on their own time twice a day.

Students who easily underwent hypnosis revealed, in blood tests taken at the end of the study, a larger increase in two major classes of white blood cells than those students who did not take well to hypnosis. Thus, the study purported that hypnosis may prove to be helpful in the treatment of Cancer and AIDS (Bower, 152[1]).

With so many discoveries on the use of hypnosis, there has been more emphasis on learning and disseminating these approaches to others. One of the pioneers in this field has been Stanford University Professor Emeritus Ernest R. Hilgard, who opened Stanford's Laboratory of Hypnosis Research in 1957 (Wolkes, 22[6]). Dr. Hilgard believes that hypnosis is a technique, like using a stethoscope. It is based in a routine skill, which requires minimal abilities to be delivered to a patient.

One who delivers hypnosis must develop an acute awareness of the responses a hypnotized patient will deliver more precisely over that a non-hypnotized patient. According to Dr. Hilgard, who has produced the most widely used experimentally

derived scales for measuring hypnotic susceptibility; there are three primary differences a hypnotized patient delivers which a non-hypnotized patient will not:

- Intensely controlled muscular action, such as inducing temporary paralysis, is easily produced in the hypnotized patient. As noted above, a patient who accepts paralysis under suggestion will create the same neurological processes as are involved with actual conversion hysteria to induce such paralysis.
- Secondly, hallucinations that alter a patient's field of vision are accepted as real. Such suggestions test how deep the patient's belief in the hypnosis really is. A hypnotized patient, with eyes open, can either "see" things that are not real, or edit out things, that others around them can see, from their own sight.
- Finally, a patient's acceptance of a suggested imaginary activity or ability is effortless. By watching how a patient adapts, accepts, and believes in the suggested activity, the patient delivers visual signals to the hypnoanesthesia team on just how hypnotized the patient is. So, if a patient is told that he or she had just climbed Mt. Everest and needed to tell about it, the patient's imagination would rationalize the suggestion as real, augment a false memory with details so the patient would be professing "truth" because the patient was unaware the story was being generated merely by a working suggestion.

With the dissemination of information expanding on the use and acceptance of hypnosis among medical practitioners, especially with the help of internet sources, the trend for more adaptation of these techniques appears to be well supported. Combined with the testing for new avenues of use, the future of hypnosis in medicine looks to be an enterprising field.

As health care costs have skyrocketed, when one considers how hypnosis aids shorter surgical procedures, decreased anesthesia use, and faster recovery time, the financial benefits become abundantly clear. Any process which factors into lower medical costs, better pain reduction, and higher survivability for the patient must have more information generated to educate and aid the general public's acceptance and request for its use in their own medical therapy.

Hypnosis should become a standard practice in the medical field. In this way, it can better aid the survival of humankind.

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