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The Effectiveness of Hypnosis in Treating Pain

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The Effectiveness of Hypnosis in Treating Pain

 People with chronic pain often feel hopeless in their attempts to alleviate their pain. If traditional analgesics fail to work, an individual may turn to alternative methods. In the past few decades, the idea of using hypnosis to treat pain has emerged. Hypnosis is used to both treat chronic and acute pain and to aid in painful surgical procedures. Clinical studies, such as those by Askay, Patterson, and Jensen (2007), Patterson and Ptacek (1997), and Smith, Barabasz, and Barabasz (1996) explore these areas. A review of the literature follows, with results that find hypnosis as an effective treatment for pain. A summary of potential biases, methodological issues, and future implications of the body of research is also included.

 Harandi, Esfandani, and Shakibaei (2004) conducted a trial in which 44 female burn patients were randomly assigned into treatment and control group. Twenty-two of the participants received four hypnotherapy sessions, while the control group received no hypnotherapy. On the morning of the first hypnotherapy session, questioners measured the levels of anxiety and pain in the participants in both groups by administering the Visual Analogue Scale, which consists of a vertical line for pain and a vertical line for anxiety, with “no pain/no anxiety” at the bottom and “worst possible pain/worst possible anxiety” at the top. Each participant was measured again following the fourth hypnotherapy session. The researchers found that after the intervention, there was a significant difference between the two groups. The means of pain and anxiety relief for the treatment and control groups are 37.9 and 7 respectively. The probability that these results were due to chance is less than 0.0001.

Potential problems with this study are that different hypnotherapists and lengths of sessions may skew the results. There was also no placebo group to serve as a comparison. It may prove difficult to generalize the results to male burn patients or patients with other causes of pain, as all female burn patients were used in the study. There may be potential bias on the authors’ part as well, as the article was published in *Contemporary Hypnosis*. The authors do not suggest that hypnosis should be the only aspect of therapy but propose that hypnosis should be used in addition to traditional approaches to pain management as to treat both the physiological and psychological causes of pain.

In another experiment studying burn patients, Askay, Patterson, Jensen, and Sharar (2007) had 46 participants randomly assigned to either the treatment group or the control group. The treatment group received hypnosis while the control group received visits from psychologists who talked to them about their burns and what to expect on the day of wound care. Those who underwent hypnosis listened to a tape of hypnosis induction during their wound care as well. The nurses were unaware of who was in each group, and some of the participants who had never received hypnosis previously did not know if they were receiving hypnosis or not.

The Short Form of the McGill Pain Questionnaire was used to evaluate levels of pain before and after treatment. Other measures were also used, but the SF-MPQ was the only one with statistically significant results, p = 0.008. Those receiving hypnosis had significantly greater decreases in pain. Most participants fell in the medium range of hypnotizability, warranting the question of whether highly hypnotizable patients would reap more benefits from this therapy. The authors suggest that a limitation of the study was sample size and that a larger sample size may have produced more noticeable differences across all measures.

 Patterson and Ptacek (1997) conducted a study in which burn patients received either hypnosis or attention, information, and brief relaxation instruction from a psychologist. Using the VAS to assess pain pre- and post-treatment, no significant difference was found between the two groups overall. However, when a high level of baseline pain (higher than a 50 on the 100 point VAS) was reported, subsequent measures of pain were lower for those who received hypnosis than those who received attention and information, p < 0.05. Those who reported high baseline pain were similar to the entire group in age, length of hospitalization, and percentage of body covered by burns.

 An important implication of this study is further research on hypnosis as an effective treatment for high levels of pain. The authors suggest that hypnosis should be used in conjunction with pain medication. They do not feel it should be used independently, except in cases where medication is contraindicated or the patient shows a great response to hypnosis. One limitation of this study is that the researchers did not measure level of susceptibility to hypnosis, which could have provided further insight into who can benefit most from hypnotic interventions.

 Williamson (2002) describes the case of a man referred to as M. M was a patient of Williamson who had complained of pain in his right knee for years. He had multiple surgeries on the knee, culminating in knee replacement surgery. Doctors felt there was no physical reason for his level of pain, which he consistently rated an eight on a scale of 0-10, with 10 being the most intense pain. M informed doctors that acupuncture had previously been effective in treating pain in his hip but had failed when attempted on his knee. Williamson assessed M using clinical outcomes in routine evaluation (CORE) scores. M scored significantly higher, which corresponds to worse condition, on the feelings of well-being, functioning, and level of perceived problems sections of the CORE than a sample taken from patients awaiting or receiving interventions for psychological problems. M seemed very angry at doctors for having failed him in previous attempts to relieve his pain. Williamson then decided that M would be a good candidate for hypnotherapy.

The hypnotherapy session consisted of having M concentrate on calming thoughts and to describe a time when he felt very calm. He was then instructed to recall the time he had acupuncture on his hip and the feelings that went along with it. When he did this, he became noticeably more relaxed in his chair. He was then instructed to imagine a rocky place and to destroy the rocks that surrounded him. When asked what he wanted to do with the little pieces, he replied that he wanted to sweep them away, which he then did. M was now in a calm, relaxed state and had no barriers between himself and pain relief. Williamson then asked M to focus his attention on his knee and describe how to make it more comfortable. M replied that his pain level was now a zero.

After coming out of the trance, M still described his pain level as a zero, and at follow-ups two and eight weeks later, the pain had not returned. A week after the session, M stopped taking medication for his knee, and at four and ten month follow-ups, he was still not taking medication and his knee was not presenting any problems.

There are many potential problems with this case study, namely that it is a case study. It is a single account of a patient receiving hypnotherapy and was written by his therapist. The risk of bias is very high in this example, however it is widely accepted that psychological causes can contribute to pain. M felt a high degree of anger, and by addressing this in his session, he addressed a potential cause of his pain. The measure of pain was also taken on a subjective scale, but the final score of zero is absolute, or corresponding to no pain whatsoever.

Oakley and Halligan (2002) describe the phenomenon of phantom limb pain. It is believed that 70-100% of amputees still feel the sensation of their missing limb, and 50-85% of those amputees report pain as well. This has been explained through the idea of brain structuring. A specific area on the somatosensory and motor cortex of the brain corresponds to a specific area on the body. So while a limb may be missing, the brain area that corresponds to it may still be structurally and functionally intact.

The authors then describe the case of NB, whose left arm was pulled out of the shoulder joint with enough force to sever the nerves. The arm was still attached but was immobile and insensitive. NB was tested using a mirror method. His right arm was put in a box with a mirror in it, so that any movement made with it also looked as if it were occurring in his left arm. The perception of his left arm moving around with no pain led to a temporary relief of the pain, from a seven to a zero on a scale of 0-10. When the session was over, NB rated his pain a 2.

Since this intervention proved successful through active participation, hypnosis using the same scenario was employed. NB was asked to imagine the mirror method in which he had previously participated. He was asked to look at the mirror while his right arm moved, and he reported feeling sensation in his left arm as well. He again reported a zero level of pain, down from a four. The therapist also used age regression, in which he had NB imagine a time before he lost sensation in his arm. NB reported zero pain during this experience as well. When the hypnosis session ended, NB rated his pain a 2.5.

Again, this is a single case study published in a journal dedicated to the study of hypnosis. While there may be bias in the research, there may not. A potential problem with this scenario is that NB was exposed to the mirror method before attempting it during hypnosis. If it had been a novel idea, the results may have been different. The results may not be generalizable to the greater population of those experiencing phantom limb pain, as many of them do not still have their limb, albeit an immobile and insensitive one.

In another study focusing on phantom limb pain, Bamford (2006) used 25 amputees who had been on medications including antidepressants, anti-epileptics, and analgesics for phantom limb pain for years despite unsuccessful relief. Four therapies were used in their treatments. These were hypnotic analgesia, visualization and movement of an imaginary limb, psychological therapies, and self-hypnosis. Not all participants used self-hypnosis and those who did showed an almost significantly higher rate of improvement, p = 0.07, than those who did not. Bamford suggests that using self-hypnosis to reduce pain is an area that warrants more study.

Bamford’s study was very comprehensive. It used males and females who had either upper or lower body amputations from trauma, vascular problems, or cancer. Pain was felt in the upper portion of the limb for some participants, the middle for others, and the bottom for the rest. For all varieties of phantom limb pain, there was improvement. An additional benefit of the treatment was that after hypnosis, some participants that still had a physical limb were able to wiggle the toes or fingers of the limb. Some participants with prosthetic limbs reported feeling as if they were walking on the limb, not a prosthetic.

 Smith, Barabasz, and Barabasz (1996) explored the use of hypnosis and distraction in low- and high-hypnotizable children with cancer or blood disorders. The 27 children were tested for level of hypnotizability. The children were randomly assigned to either hypnosis or distraction treatments. The hypnosis and distraction were performed by the parents, who were trained by professionals. The children all took the Children’s Global Rating Scale for Pain, a self-rating scale suitable for children. The child points to a line (1 being a flat line—no pain, 5 being a high frequency wave—intense pain) that corresponds to their level of pain, before and after treatment.

 Results show that those receiving hypnosis and those receiving distraction did not differ significantly in reduction of pain. However, those children who show a high level of hypnotizability benefit significantly more from hypnosis than those children who show a low level of hypnotizability. Those who aren’t as hypnotizable benefit significantly more from distraction. The interaction between condition and hypnotizability is very significant with a probability less than 0.001.

 While this study used a relatively small sample, the results will aid in the treatment of pain in the future. The findings suggest that highly hypnotizable patients can benefit greatly from hypnotic interventions. Likewise, those who are less hypnotizable may benefit from such interventions as distraction. While other studies suggest that level of hypnotizability are not important, this study illustrates the importance of measuring the level pre-treatment to tailor the treatment to the patient. Hypnosis can be attempted even in those who do not show a high level of susceptibility to hypnosis if no other option seems to decrease pain in the patient.

 The study of hypnosis as treatment for pain is still relatively new. There are those who feel that pain is mostly physiological and can therefore not be treated psychologically. However, the body of research in support of hypnosis is so large and diverse, it at least warrants more study to corroborate the validity and reliability of the results. Longitudinal studies should be conducted in the future to determine if the effects of hypnosis are lasting or if hypnosis needs to be ongoing or repeated to be effective. More kinds of pain also need to be addressed, as a large portion of the literature presently focuses on burn patients and those experiencing phantom limb pain. People with chronic pain now have an alternative to traditional treatments such as analgesic medications that may reduce pain more effectively than anything previously attempted.

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