

REVIEW OF THE EFFICACY OF CLINICAL HYPNOSIS WITH HEADACHES AND MIGRAINES

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Abstract: The 12-member National Institute of Health Technology Assessment Panel on Integration of Behavioral and Relaxation Approaches into the Treatment of Chronic Pain and Insomnia (1996) reviewed outcome studies on hypnosis with cancer pain and concluded that research evidence was strong and that other evidence suggested hypnosis may be effective with some chronic pain, including tension headaches. This paper provides an updated review of the literature on the effectiveness of hypnosis in the treatment of headaches and migraines, concluding that it meets the clinical psychology research criteria for being a well-established and efficacious treatment and is virtually free of the side effects, risks of adverse reactions, and ongoing expense associated with medication treatments.

Hypnosis has an impressive history in the treatment of pain beginning with reports in the mid-1800s (Elliotson, 1843; Esdaile, 1846/1976) of major surgeries that were performed with hypnosis as sole anesthesia. More recently, a meta-analytic review of contemporary research (Montgomery, DuHamel, & Redd, 2000) documented that hypnosis meets the American Psychological Association Clinical Psychology Division's criteria (Chambless et al., 1998; Chambless & Hollon, 1998) as an efficacious and specific treatment for pain, showing superiority to pill and psychological placebos, as well as other treatments. The 12-member National Institute of Health Technology Assessment Panel on Integration of Behavioral and Relaxation Approaches into the Treatment of Chronic Pain and Insomnia (1996) representing family medicine, social medicine, psychology, psychiatry, public health, nursing, and epidemiology, along with 23 expert consultants who presented data to the panel, examined behavioral and relaxation approaches to insomnia and pain. After an extensive literature search, they reached the conclusion that a number of well-defined behavioral and relaxation

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techniques now exist and are effective in treating chronic pain and insomnia.

The evidence supporting the effectiveness of hypnosis in alleviating chronic pain associated with cancer seems strong. In addition, the panel was presented with other data suggesting the effectiveness of hypnosis in other chronic pain conditions, which include irritable bowel syndrome, oral mucositis, temporomandibular disorders, and tension headaches. (p. 315)

The remainder of this article will review the literature on the effectiveness of hypnosis with tension and migraine headaches. Research on autogenic training will also be included as it represents a structured German form of self-hypnosis training.

LITERATURE REVIEW

In a controlled study, Anderson, Basker, and Dalton (1975) compared outcomes in 47 patients (age 14 or older) who were randomly assigned to receive either medication treatment ($n = 24$) with prochlorperazine (Stemetil) and ergotamine (which was to be taken at the first warning of a migraine) or to hypnotherapy ($n = 23$). All patients had suffered with migraines for a minimum of 1 year. Hypnotic treatment consisted of six sessions at intervals of 10 to 14 days. Only experienced hypnotherapists provided treatment, which consisted of induction, deepening, suggestive therapy, and ego-strengthening following Hartland's (1971) model. Hypnotic suggestions included having less tension, anxiety, and apprehension. They were also told to visualize the arteries in the neck and head as being swollen and throbbing and to then imagine them becoming smaller and more comfortable. Patients were instructed in self-hypnosis to avert migraine attacks and asked to practice self-hypnosis daily. Outcome measures included the number of migraines, how many were Grade 4 (defined as "blinding and totally incapacitating"), and the number of patients who were free from migraines at monthly intervals. Follow-up was done for 1 year. The pretreatment frequency of migraines was not significantly different between the two experimental groups. The results found that the number of migraines per month was significantly ($p < .0005$) less in the hypnosis group and the number of "blinding attacks" was also significantly ($p < .005$) lower in the hypnosis group. Medication treatment was found to significantly lower the frequency of migraines or of Grade 4 migraines. In the second 6 months of treatment, the hypnosis group averaged only .5 migraines per month compared with 2.9 per month in the medication group. At 1-year follow-up, the number of hypnosis patients who had experienced complete remission of migraines during the previous 3 months was 43.5% (10 patients)

compared with 12.5% (3) of the patients in the medication treatment condition; a difference that was also significant ($p < .039$).

Another excellent prospective, randomized, double-blind, placebo-controlled study with classic juvenile migraine was conducted by Olness, MacDonald, and Uden (1987). Children (aged 6–12) were included in a 4-week baseline period, a 1-week period (Period 1) to begin placebo or propranolol medication treatment, a 1-week washout period, followed by a similar 12-week treatment period (Period 2). At the end of Period 2, all children were instructed in self-hypnosis and were followed for another 12 weeks (Period 3). During Periods 1 and 2, the children were randomly assigned to either Group 1 (placebo–placebo–self-hypnosis), Group 2 (propranolol–placebo–self-hypnosis), or Group 3 (placebo–propranolol–self-hypnosis). Compliance was excellent and was assessed every 4 weeks by counting pills, and headache diaries were kept. Five sessions were conducted where self-hypnosis training occurred. In the first visit, a progressive relaxation induction was used along with pleasant imagery of the child's choosing. They were asked to practice self-hypnosis twice daily for 10 minutes. One week later the exercise was done again but included several techniques being offered for self-regulation of pain from which the patient could choose things to incorporate into their self-hypnosis practice. In the third visit, 2 weeks later, the practice also involved glove anesthesia. Two further visits were held at 1-month intervals. At the end of 1 year, the mean number of migraines per child in the placebo group was 13.3 ($SD = 9.5$), 14.9 ($SD = 12.9$) in the medication treatment group, and 5.8 ($SD = 5.8$) in the hypnosis group, which was statistically significant ($p < .045$).

Emmerson and Trexler (1999) utilized group hypnosis with relaxation and vascular manipulation (imagery of a cool helmet with freezer coils behind the protective cover) to evaluate the effectiveness of hypnosis in reducing migraine duration, frequency, severity, and need for medication. Pretreatment trend and posttreatment effect were evaluated using a single-group, time-series design. During the 12-week pretreatment baseline period, the 32 patients recorded details about their migraines and medication use. Twelve weeks of treatment began with a group hypnosis session, and patients were provided with prerecorded self-hypnosis tapes. Post-treatment duration of migraine was found to be significantly shorter ($p < .0005$), frequency of migraines was significantly lower ($p < .0001$), migraine severity was significantly reduced ($p < .0005$), and medication usage was reduced by almost 50% ($p < .0005$). The posttreatment duration of migraine per participant was 155.54 hours, in comparison with 260.28 hours for the same period of time prior to treatment (a 40.25% reduction). The group mean frequency of migraines during the 12-week pretreatment phase was 22.88, while in the posttreatment phase it was 16.8. The severity on a 1 to 3 scale went from an average 1.99 to 1.35 at the same time medication was reduced by about half.

Andreychuk and Skriver (1975) randomly assigned 33 migraine subjects to one of three experimental treatment groups: self-hypnosis training, biofeedback training for hand-warming combined with listening to autogenic training tapes, or biofeedback training with a bipolar EEG montage connection in the left and right occipital area that was designed to enhance alpha brain waves. Each treatment group received one 45-minute session a week for 10 weeks. Subjects in each group were encouraged to practice twice a day between sessions. All three treatment groups experienced a significant reduction in migraines from pretreatment levels, reaching significance at the .025 level for alpha training and self-hypnosis training groups and .01 level for the hand-temperature training group. The Hypnotic Induction Profile (Spiegel & Spiegel, 1978) was administered to all subjects, and, cutting across all treatment groups, high hypnotizable subjects demonstrated significant ($p < .05$) reduction in migraine rates compared with low hypnotizable subjects. The common denominator in all three treatment groups was that they all emphasized learning and practicing relaxation.

Spanos and colleagues (1993) randomly assigned a sample of 136 chronic-headache patients to either one or four sessions of imagery-based hypnotic treatment, one or four sessions of a placebo treatment ("subliminal reconditioning"), or to a no-treatment control group. Daily headache activity was monitored for a 3-week baseline and for an 8-week follow-up. Of the total sample, 15% were classified as having migraines, 54% as suffering with tension headaches, and 32% as having mixed tension/migraine headaches. Control patients reported no significant changes in headache activity, whereas hypnotic and placebo subjects reported significant ($p < .05$) but equivalent changes. Medication usage in treated subjects decreased significantly ($p < .001$). Similar to Andreychuk and Skriver (1975), this study demonstrated that hypnotic treatments incorporating relaxation and imagery are more effective than no treatment in reducing chronic headache activity and in decreasing medication usage (and improvements could not be accounted for in terms of any increased use of analgesic medication). The outcome shows, however, that nonspecific factors may be operative. Nonetheless, the results do not support a sociocognitive theoretical perspective (e.g., Kirsch, 1985), because expectations of treatment success obtained after one session and after four sessions of treatment were not found to be predictors of outcome, even though the hypnotic treatment produced significantly stronger expectations of treatment success than the placebo treatment. A possible limitation of the study was that it was based on a student volunteer sample rather than a clinical sample, particularly since patient motivation has been found to be a significant predictor of successful headache treatment (Gallagher & Warner, 1984).

The effectiveness of four sessions of hypnosis and self-hypnosis training in comparison with a wait-list control group in the treatment

of chronic tension headaches was evaluated by Melis, Rooimans, Spierings, and Hoogduin (1991) in a single-blind study. The 1-hour hypnosis sessions utilized eye fixation and relaxation inductions, followed by imagery modification in which the patient visualized an image of the headache gradually changing. Suggestions were also given to transform the pain into sensations that were easier to tolerate and for transferring the pain from the head to a less disabling part of the body. Each patient received a self-hypnosis tape that was made during each of the four sessions. Patients coming to a headache clinic after previously unsuccessful treatment were randomly assigned to a hypnosis ($n = 11$) or a wait-list control condition ($n = 15$). Patients were unaware of the existence of the wait-list control condition. A 4-week baseline, data-gathering period preceded randomized assignment, and the therapist never inspected data that was gathered. Outcome measures included number of headache days, number of headache hours per day, and intensity of headaches. At 4-week follow-up, the hypnosis group was found to be experiencing significant reductions ($p < .05$) in number of headache days, hours, and intensity of headaches compared to the wait-list control group. They also showed a significant ($p < .01$) reduction in anxiety as measured by Zung's Self-Rating Anxiety Scale (Zung, 1971). Improvement was confirmed by subjective evaluation and questionnaire data showing a significant reduction in anxiety scores ($p < .01$). Hypnosis patients reported that the training made it easier for them to relax, gave them a sense of control over the headaches, changed their perception of the pain, and prevented tension from building up during the day.

Mannix, Chandurkar, Rybicki, Tusek, and Solomon (1999) evaluated the effect of guided imagery on 129 patients with chronic tension headaches. The subjects completed the Headache Disability Inventory and the Medical Outcomes Study Short Form (SF-36) at their initial visit to a specialty headache center and again a month after the visit. In addition to individualized headache therapy (administered by a physician and that could include abortive and prophylactic pharmacological treatments, physical therapy, biofeedback, and dietary instruction), patients were instructed to listen daily to a 20-minute commercially available guided-imagery audiotape during the month. A control group of 131 patients received the individualized headache-clinic therapy but without guided imagery. Both the traditional medical treatment controls and the patients who listened to the guided-imagery tape improved in headache frequency, headache severity, global assessment, quality of life, and disability caused by headache. The overall improvements in the two groups in comparison to baseline were highly significant ($p = .004$). However, significantly ($p < .05$) more guided-imagery patients (21.7%) than controls (7.6%) indicated that their headaches were much better. The guided-imagery patients had

significantly more improvement than the controls in three of the eight SF-36 domains: bodily pain ($p < .049$), vitality ($p < .009$), and mental health ($p < .034$). No adverse effects were reported in patients using guided imagery. It was concluded that guided imagery is an effective adjunct therapy for the management of chronic tension-type headache.

A group from the Netherlands published a series of studies on tension headaches. Van Dyck, Zitman, Linssen, Corry, and Spinhoven (1991) investigated the relative efficacy of autogenic training versus self-hypnosis training utilizing future-oriented hypnotic imagery in the treatment of tension headaches. It also sought to evaluate the extent to which therapy factors such as relaxation, imagery skills, and hypnotizability mediated therapy outcome. Fifty-five patients were randomly assigned to the two therapy conditions (28 to autogenic training and 27 to hypnosis). Each group completed four therapy sessions and two assessment sessions and were to practice at home. The two procedures were found to be equally effective in reducing headache pain, usage of pain medication, depression, and state anxiety. In the self-hypnosis condition, pain reduction was associated with depth of relaxation that was achieved during home practice (as assessed with diaries) and imagery capacity (assessed with the Dutch version of the Creative Imagination Scale). Interestingly, pain reduction from autogenic training appeared to be mediated differently from self-hypnosis and was unrelated to imagery skills, degree of relaxation, or hypnotizability. After statistically controlling for relaxation and imagery, hypnotizability scores on the Stanford Hypnotic Clinical Scale (Morgan & Hilgard, 1975) were significantly correlated with ratings of pain reduction.

Zitman, Van Dyck, Spinhoven, Linssen, and Corrie (1992) compared an abbreviated form of autogenic training (six exercises learned in fixed order) to a hypnosis group that used a technique of future-oriented hypnotic imagery (imagining the self in the future, pain-free), and to still a third condition that used the future-oriented hypnotic imagery but without presenting it as being hypnosis. Patients were described as having headache complaints for at least 6 months (76% had been suffering for over 2 years). All three interventions emphasized muscular and mental relaxation, and tapes were used for home practice. Treatment lasted 8 weeks, and, of 96 patients, 17 dropped out prior to follow-up (none from future-oriented hypnosis, with the others equally divided between the other two conditions). The three treatments were equally effective in reducing headaches at posttreatment, but, after a 6-month follow-up period, the future-oriented hypnotic imagery that had been explicitly presented as hypnosis was found to be superior to autogenic training. Contrary to common belief, it could be demonstrated that the therapists were as effective with the treatment modality they preferred as with the treatment modality they felt to be less remedial. They concluded, "Our data indicate that at least in tension

headache patients, defining a procedure explicitly as hypnotherapy may not lead to greater effects at posttreatment, but does lead to longer lasting effects" (p. 226).

Spinhoven, Linssen, Van Dyck, and Zitman (1992) compared manualized treatment with various self-hypnotic techniques or autogenic training in 56 chronic tension-headache patients who had been evaluated by a neurologist. Patients served as their own controls with the first assessment session occurring after a wait-list period of 8 weeks. There were no differences between treatment groups at conclusion of treatment or at 6-month follow-up. Patients in both conditions significantly ($p < .05$) reduced their headaches and psychological distress ($p < .05$) (SCL-90; Derogatis, 1992) compared to the wait-list period. Improvements were maintained at follow-up. Both long-term and short-term pain reductions were accompanied by an increase in perceived pain control, and those patients attributing the pain reduction to their own efforts demonstrated long-term pain reduction.

In a randomized, controlled study, ter Kuile, Spinhoven, Linssen, Zitman, Van Dyck, and Rooijmans (1994) evaluated autogenic training in comparison to cognitive self-hypnosis training and a wait-list control condition in treating chronic headache patients. They also examined the influence of subject recruitment (neurological outpatient clinic or students or community members responding to a newspaper advertisement) on treatment outcome and whether level of hypnotizability was related to outcome. Treatment consisted of seven individual manualized treatment sessions once weekly, with three reinforcement sessions at 2, 4, and 6 months, with encouragement to use a 15-minute tape twice daily. Cognitive self-hypnosis training included relaxation, imaginative inattention, pain displacement and transformation, and hypnotic analgesia. Autogenic training was an extended version of previous studies by this group, with standard autogenic exercises for arm heaviness, arm warming, steady and regular heartbeat, easy breathing, pelvic warming and relaxation, and comfortable coolness of the forehead. At the conclusion of treatment, there was a significant ($p < .004$) reduction in Headache Index scores for both treatment groups compared with the wait-list controls, and no significant differences were observed between the two conditions or the three referral sources. At 35-week follow-up, the improvements were maintained and there were also no significant differences between the treatment groups on the Headache Index, medication usage, or in referral sources. In both treatment conditions, the high hypnotizable subjects achieved a greater reduction in headache pain at posttreatment and follow-up than did the low hypnotizable subjects. The authors speculated that because the autogenic training used in this study was more extended and may have tapped more specific imagery and hypnotic skills, this may have been the reason for the relationship with hypnotizability, in contrast to a previous study (Van Dyck

et al., 1991), which did not find such a relationship. It was concluded that "simple and more complex procedures yield comparable therapy results" (p. 357) and that "apparently, presenting multiple strategies to subjects, including cognitive stress and pain coping strategies, did not enhance the efficacy of treatment" (p. 338).

There have also been other studies of autogenic training that found it equivalent to progressive relaxation (Friedman & Taub, 1984, 1985; Janssen & Neutgens, 1986), to biofeedback (thermal or EMG) (Friedman & Taub, 1984, 1985; Labbe, 1995; Sargent, Solbach, Coyne, Spohn, & Segerson, 1986), or to autogenic training combined with biofeedback (Labbe) in significantly reducing migraine or tension headaches. The Labbe study with migraines in children was randomized, included a wait-list control group and 6-month follow-up, and found significant reductions in headache frequency ($p < .01$) compared with wait-list children. Friedman and Taub (1984, 1985) also used randomized assignment to biofeedback, relaxation, and wait-list control groups compared with high and low hypnotizability groups. Cott, Parkinson, Fabich, Bedard, and Marlin (1992) found that autogenic training combined with EMG biofeedback was significantly more effective than autogenic training alone or autogenic training combined with thermal biofeedback. One study (Collet, Cottraux, & Juenet, 1986) did not find autogenic training significant in comparison with galvanic skin response biofeedback, but the autogenic training was only administered via a tape recording. In a randomized study (Reich, 1989) in which autogenic training was used in some cases along with cognitive therapy, hypnosis, or progressive relaxation in comparison to thermal or EMG biofeedback versus transcutaneous electrical nerve stimulator (TENS) or cerebral electrical stimulation versus a multimodal treatment combining several of these modalities, there were significant pre-, posttreatment, and follow-up reductions of tension and migraine headaches and over-the-counter medication in all groups. Finally, still one other study (Schlutter, Golden, & Blume, 1980) found equivalence in outcomes with tension headaches using hypnosis, EMG biofeedback, or EMG biofeedback combined with progressive muscle-relaxation training. The basic equivalency of biofeedback and autogenic training in the treatment of headache or migraine that has been noted in these more recent studies continues to provide further support for the same conclusions reached in an older meta-analysis (Blanchard, Andrasik, Ahles, Teders, & O'Keefe, 1980) of 35 studies.

SUMMARY AND CONCLUSIONS

Chambless et al. (1998) established the following criteria to obtain the status of a "well-established treatment." First, there must be at least two experiments that show efficacy through demonstrating (a) that it is superior statistically to another treatment *or* to a pill or psychological placebo

or (b) that it is "equivalent to an already established treatment in experiments with adequate sample sizes" (p. 4). Alternatively, a treatment may be considered well established through "a large series of single case design experiments ($n > 9$) demonstrating efficacy" (p. 4) that must have used good experimental designs and compared the treatment to another intervention. Further, a well-established treatment must have been conducted with a treatment manual, clearly specify the characteristics of the client samples, and the positive outcomes must have been demonstrated by at least two different investigators or research teams.

According to these standards for judging efficacy of clinical psychology treatments, the use of hypnosis with headaches and migraines qualifies as a well-established treatment that is both efficacious and specific. The efficacy of hypnosis with headaches has been demonstrated to be statistically superior or equivalent in comparison with commonly used medication treatments, in a double-blinded placebo-controlled study, in comparison to established biofeedback treatments, and in research performed by many different investigators. The consensus of the outcome studies is that hypnotically facilitated relaxation and imagery (or imagery-modification) techniques, combined with encouraging the daily practice of self-hypnosis (e.g., with assistance of a self-hypnosis tape), are usually effective without requiring more complex or multifaceted hypnotic techniques. The hypnotic methodology of using a series of structured and extended autogenic training exercises seems equivalent to other self-hypnotic techniques.

It should be noted that in my almost 30 years of clinical experience, it has likewise been invaluable to inquire about the frequency with which the patient awakens in the morning with a headache or migraine. When this is a frequent occurrence, a self-hypnosis tape (that is left open-ended at its conclusion) can be used at bedtime to promote calming and deep relaxation, with repetitive suggestions that

As you sleep, your jaw will remain relaxed and at ease throughout the night, free from tension and tightness. And if there is a need to clench anything, your mind will cause you to clench a hand into a fist, but your jaw will remain loose and limp, relaxed and at ease as you sleep.

Hypnosis for bruxism and clenching has been documented to have significant effectiveness (Clarke & Reynolds, 1991) in reducing EMG activity.

The issue of whether there is a relationship between hypnotizability and outcome in the treatment of headache still remains unclear. Several studies have failed to find a correlation between hypnotizability and treatment outcome (Primavera & Patterson, 1991; Smith, Womack, & Chen, 1989; Spanos et al., 1993), while others have found a positive relationship between hypnotizability and headache-treatment outcome (Andreychuk & Skriver, 1975; Friedman & Taub, 1984; ter Kuile et al., 1994; Van Dyck et al., 1991).

In conclusion, not only has hypnosis been shown to be efficacious with headache and migraine but it is also a treatment that is relatively brief and cost effective. At the same time, it has been found to be virtually free of the side effects, risks of adverse reactions, and the ongoing expense associated with the widely used medication treatments. Hypnosis should be recognized by the scientific, health care, and medical insurance communities as being an efficient evidence-based practice.

REFERENCES

- Anderson, J. A. D., Basker, M. A., & Dalton, R. (1975). Migraine and hypnotherapy. *International Journal of Clinical & Experimental Hypnosis*, 23, 48–58.
- Andreychuk, T., & Skriver, C. (1975). Hypnosis and biofeedback in the treatment of migraine headache. *International Journal of Clinical & Experimental Hypnosis*, 23, 172–183.
- Blanchard, E. B., Andrasik, F., Ahles, T., Teders, S., & O'Keefe, D. (1980). Migraine and tension headache: A meta-analytic review. *Behavior Therapy*, 11, 613–631.
- Chambless, D. L., Baker, M. J., Baucaom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Christoph, P., et al. (1998). Update on empirically validated therapies II. *The Clinical Psychologist*, 51, 3–16.
- Chambless, D., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting & Clinical Psychology*, 66, 7–18.
- Clarke, J. H., & Reynolds, P. J. (1991). Suggestive hypnotherapy for nocturnal bruxism: A pilot study. *American Journal of Clinical Hypnosis*, 33, 248–253.
- Collet, L., Cottraux, J., & Juenet, C. (1986). GSR feedback and Schultz's relaxation in tension headaches: A comparative study. *Pain*, 25, 205–213.
- Cott, A., Parkinson, W., Fabich, M., Bedard, M., & Marlin, R. (1992). Long-term efficacy of combined relaxation: Biofeedback treatments for chronic headache. *Pain*, 51, 49–56.
- Derogatis, L. R. (1992). *SCL-90R: Administration, scoring and procedures manual - II*. Baltimore, MD: Clinical Psychometric Research.
- Elliottson, J. (1843). *Numerous cases of surgical operations without pain in the mesmeric state*. Philadelphia: Lea & Blanchard.
- Emmerson, G. H., & Trexler, G. (1999). An hypnotic intervention for migraine control. *Australian Journal of Clinical & Experimental Hypnosis*, 27, 54–61.
- Esdaile, J. (1976). *Mesmerism in India and its practical application in surgery and medicine*. New York: Arno Press. (Original work published in 1846)
- Friedman, H., & Taub, H. A. (1984). Brief psychological training procedures in migraine treatment. *American Journal of Clinical Hypnosis*, 26, 187–200.
- Friedman, H., & Taub, H. A. (1985). Extended follow-up study of the effects of brief psychological procedures in migraine therapy. *American Journal of Clinical Hypnosis*, 28, 27–33.
- Gallagher, R. M., & Warner, J. B. (1984). Patient motivation in the treatment of migraine: A non-medical study. *Headache*, 24, 269–271.
- Hartland, J. (1971). *Medical and dental hypnosis* (2nd ed.). London: Bailliere Tindall.
- Janssen, K., & Neutgens, J. (1986). Autogenic training and progressive relaxation in the treatment of three kinds of headache. *Behavior Research & Therapy*, 24, 199–208.
- Kirsch, I. (1985). Response expectancy as a determinant of experience and behavior. *American Psychologist*, 40, 1189–1202.
- Labbe, E. E. (1995). Treatment of childhood migraine with autogenic training and skin temperature biofeedback: A component analysis. *Headache*, 35, 10–13.
- Mannix, L. K., Chandurkar, R. S., Rybicki, L. A., Tusek, D. L., & Solomon, G. D. (1999). Effect of guided imagery on quality of life for patients with chronic tension-type headache. *Headache*, 29, 326–334.

- Melis, P. M., Roomans, W., Spierings, E. L., & Hoogduin, C. A. (1991). Treatment of chronic tension-type headache with hypnotherapy: A single-blind controlled study. *Headache, 31*, 686–689.
- Montgomery, G. H., DuHamel, K. N., & Redd, W. H. (2000). A meta-analysis of hypnotically induced analgesia: How effective is hypnosis? *International Journal of Clinical & Experimental Hypnosis, 48*, 138–153.
- Morgan, A. H., & Hilgard, E. R. (1975). Stanford Hypnotic Clinical Scale (SHCS). In E. R. Hilgard & J. R. Hilgard (Eds.), *Hypnosis in the relief of pain* (pp. 209–221). Los Altos, CA: William Kaufmann.
- NIH Technology Assessment Panel on Integration of Behavioral and Relaxation Approaches into the Treatment of Chronic Pain and Insomnia. (1996). Integration of behavioral and relaxation approaches into the treatment of chronic pain and insomnia. *Journal of the American Medical Association, 276*, 313–318.
- Olness, K., MacDonald, J. T., & Uden, D. L. (1987). Comparison of self-hypnosis and propranolol in the treatment of juvenile classic migraine. *Pediatrics, 79*, 593–597.
- Primavera, J. P., & Patterson, S. (1991). A tape-recorded test of hypnotic susceptibility for screening headache patients: A feasibility study of the Harvard Group Scale of Hypnotic Susceptibility, Form A. *Headache, 31*, 619–621.
- Reich, B. A. (1989). Non-invasive treatment of vascular and muscle contraction headache: A comparative longitudinal clinical study. *Headache, 29*, 34–41.
- Sargent, J., Solbach, P., Coyne, L., Spohn, H., & Segerson, J. (1986). Results of a controlled, experimental, outcome study of nondrug treatments for the control of migraine headaches. *Journal of Behavioral Medicine, 9*, 291–323.
- Schlutter, L. C., Golden, C., & Blume, H. G. (1980). A comparison of treatments for prefrontal muscle contraction headache. *British Journal of Medical Psychology, 53*, 47–52.
- Smith, M. S., Womack, W. M., & Chen, A. C. (1989). Hypnotizability does not predict outcome of behavioral treatment in pediatric headache. *American Journal of Clinical Hypnosis, 31*, 237–241.
- Spanos, N. P., Liddy, S. J., Scott, H., Garrard, C., Sine, J., Tirabasso, A., & Hayward, A. (1993). Hypnotic suggestion and placebo for the treatment of chronic headache in a university volunteer sample. *Cognitive Therapy & Research, 17*, 191–205.
- Spiegel, H., & Spiegel, D. (1978). *Trance and treatment: Clinical uses of hypnosis*. New York: Basic Books.
- Spinhoven, P., Linssen, A. C., Van Dyck, R., & Zitman, F. G. (1992). Autogenic training and self-hypnosis in the control of tension headaches. *General Hospital Psychiatry, 14*, 408–415.
- ter Kuile, M. M., Spinhoven, P., Linssen, A. C. G., Zitman, F. G., Van Dyck, R., & Rooijmans, H. G. M. (1994). Autogenic training and cognitive self-hypnosis for the treatment of recurrent headaches in three different subject groups. *Pain, 58*, 331–340.
- Van Dyck, R., Zitman, F. G., Linssen, A., Corry, G., & Spinhoven, P. (1991). Autogenic training and future oriented hypnotic imagery in the treatment of tension headache: Outcome and process. *International Journal of Clinical & Experimental Hypnosis, 39*, 6–23.
- Zitman, F. G., Van Dyck, R., Spinhoven, P., Linssen, A., & Corrie, G. (1992). Hypnosis and autogenic training in the treatment of tension headaches: A two-phase constructive design with follow-up. *Journal of Psychosomatic Research, 36*, 219–228.
- Zung, W. W. K. (1971). A rating instrument for anxiety disorders. *Psychosomatics, 12*, 371–379.

Überblick über die Wirksamkeit von Klinischer Hypnose bei Kopfschmerzen und Migräne

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Zusammenfassung: Die 12-köpfige Kommission des National Institute of Health Technology Assessment für die Integration von behavioralen und

entspannungsorientierten Ansätzen bei der Behandlung von chronischem Schmerz und Insomnie (1996) hat die Forschungsergebnisse hinsichtlich des Einsatzes von Hypnose bei Krebschmerzen beurteilt und festgestellt dass die Beweislage sehr günstig sei. Darüber hinaus gebe es weitere Hinweise für die Effektivität von Hypnose bei einigen Formen von chronischem Schmerz, darunter Spannungskopfschmerzen. Dieser Bericht liefert einen aktualisierten Überblick über die vorhandene Literatur hinsichtlich der Wirksamkeit von Hypnose bei der Behandlung von Kopfschmerzen und Migräne und kommt zu dem Schluss, dass Hypnose die klinisch-psychologischen Forschungskriterien einer gut etablierten und wirksamen Therapieform erfüllt. Zugleich ist Hypnose praktisch frei von Nebenwirkungen, Risiken von ungünstigen Reaktionen und den laufenden Kosten pharmakologischer Behandlungen.

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Revue de l'efficacité de l'hypnose clinique dans le traitement de maux de tête et de migraines

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Résumé: Les 12 membres du groupe de spécialistes du NIH (National Institute of Health) pour l'évaluation technologique de l'intégration de la relaxation et de méthodes comportementales dans le traitement de la douleur chronique et de l'insomnie (1996) ont examiné des études portant sur l'issue d'hypnothérapies contre la douleur liée au cancer et en ont conclu que certains résultats étaient probants, alors que d'autres démontraient que l'hypnothérapie peut être efficace pour traiter certaines douleurs chroniques, notamment les céphalées de tension. Cet article fournit une étude à jour de la documentation existante sur l'efficacité de l'hypnose dans le traitement de maux de tête et de migraines, et conclut que l'hypnose satisfait aux critères de recherche psychologique clinique en matière de traitement efficace et bien établi, et qu'elle permet d'éviter presque totalement les effets secondaires, les risques d'effets indésirables et les dépenses à long terme associés à la prise de médicaments.

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Revisión de la eficacia de la hipnosis clínica para los dolores de cabeza y migrañas

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Resumen: Los 12 miembros del panel de la National Institute of Health Technology Assessment sobre la integración de enfoques conductuales y de relajación para el tratamiento de insomnio y dolor crónico (1996) revisaron los estudios de hipnosis para el dolor de cáncer y concluyeron que la evidencia de la investigación era fuerte y que otra evidencia sugiere que la hipnosis puede ser efectiva para dolores crónicos, incluyendo los dolores de

cabeza de tensión. Este artículo es una revisión actualizada de la literatura sobre la eficacia de la hipnosis en el tratamiento de dolores de cabeza y migrañas, y concluye que la evidencia reúne los criterios clínicos de investigación en psicología de un tratamiento eficaz y bien establecido, virtualmente libre de efectos secundarios, riesgos de reacciones adversas, y gastos asociados con los tratamientos por medicación.

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