

Bruni Brewin - Attachment Hypnotherapy Research Articles

1. Research: hypnosis and the treatment of IBS

University of Gothenburg (2012, April 2). Hypnosis provides effective treatment for irritable bowel syndrome, study suggests. *ScienceDaily*. Retrieved April 3, 2012, from <http://www.sciencedaily.com/releases/2012/04/120402124446.htm>

Perjohan Lindfors, Peter Unge, Patrik Arvidsson, Henry Nyhlin, Einar Björnsson, Hasse Abrahamsson, Magnus Simrén. **Effects of Gut-Directed Hypnotherapy on IBS in Different Clinical Settings—Results From Two Randomized, Controlled Trials.** *The American Journal of Gastroenterology*, 2011; 107 (2): 276 DOI: [10.1038/ajg.2011.340](https://doi.org/10.1038/ajg.2011.340)

Perjohan Lindfors, Peter Unge, Henry Nyhlin, Brjánn Ljótsson, Einar S. Björnsson, Hasse Abrahamsson, Magnus Simrén. **Long-term effects of hypnotherapy in patients with refractory irritable bowel syndrome.** *Scandinavian Journal of Gastroenterology*, 2012; 47 (4): 414 DOI: [10.3109/00365521.2012.658858](https://doi.org/10.3109/00365521.2012.658858)

Hypnotherapy is one of the most successful treatment methods, giving 80+% success rate for abdominal pain and distension. It often results in assisting with other problems such as migraine and tension headaches. With patients who have severe chronic IBS, it was Hypnotherapy patients that showed dramatic improvement in all measures, and they maintained that improvement at a two year follow-up.

2. Cognitive Behavioral Hypnotherapy in the Treatment of Irritable Bowel Syndrome–Induced Agoraphobia

There are a number of clinical studies and a body of research on the effectiveness of hypnotherapy in the treatment of irritable bowel syndrome (IBS). Likewise, there exists research demonstrating the efficacy of cognitive-behavioral therapy (CBT) in the treatment of IBS. However, there is little written about the integration of CBT and hypnotherapy in the treatment of IBS and a lack of clinical information about IBS-induced agoraphobia. This paper describes the etiology and treatment of IBS-induced agoraphobia. Cognitive, behavioral, and hypnotherapeutic techniques are integrated to provide an effective cognitive-behavioral hypnotherapy (CBH) treatment for IBS-induced agoraphobia. This CBH approach for treating IBS-induced agoraphobia is described and clinical data are reported.

References:

Whorwell P.J; Prior A; Faragher E.B. (1988 & 1987). Whorwell, P.J., Prior, A. & Faragher, E.B. (1984). "Controlled Trial of Hypnotherapy in the Treatment of Severe Refractory Irritable-Bowel Syndrome." Lancet, pp. 1232-1234. Whorwell, P.J., Prior, A. & Colgan, S.M. (1987). "Hypnotherapy in Severe Irritable Bowel Syndrome: Further Experience." Gut, 28, 423-425.

Golden W.L. (2000) The International Journal of Clinical and Experimental Hypnosis; Volume 55, Number 2 – April 2000

3. Research: hypnosis and the treatment of cancer

Women with metastatic breast cancer who received group Hypnosis therapy were able to reduce their pain experience by 50% compared to a control group.

At a 10-year follow-up of these same women, the Hypnosis treatment group had double the survival rate of the control group.

Both adolescent and adult cancer patients undergoing chemotherapy have fewer symptoms of anticipatory nausea and vomiting following Hypnotic interventions.

References:

Spiegel, D. & Bloom, J.R. (1983b). "Group therapy and Hypnosis Reduce Metastatic Breast Carcinoma Pain." *Psychosomatic Medicine*, 45, 333-339.

Spiegel, D., Bloom, J.R., Kraemer, H.,C. & Gottheil, E. (1989a) "Effect of Psychosocial Treatment on Survival of Patients with Metastatic Breast Cancer." *Lancet* pp. 888-891.

Zeltzer, L.; LeBaron, S. & Zeltzer, P.M. (1984). *The Effectiveness of Behavioral Intervention for Reduction of Nausea and Vomiting in Children and Adolescents Receiving Chemotherapy.* " *Journal of Clinical Oncology*, 2, 683-690. Cotanch, P., Hockenberry, M. & Herman, S. (1985). "Self-Hypnosis Antiemetic Therapy in Children Receiving Chemotherapy." *Oncology Nursing Forum*, 12, 41- 46. Zeltzer, L., LeBaron, S. & Zeltzer, P.M. (1984).

4. Research: hypnosis and childbirth

Hypnotherapy has been used successfully to prolong pregnancy and prevent premature delivery. In Britain 55% of birthing women using hypnosis required no medication for pain relief, compared with 22% of women in non-hypnosis groups. In two other reports 58% of women using hypnotic analgesia required no medication. And five other reports quoted 60-79% of women using hypnosis required no medication.

Check out www.easybirthing.com/science_and_research. In another study subjects given hypnosis reported reduced pain, shorter stage 1 labours, less medication, higher Apgar scores, more frequent spontaneous deliveries than other group. Some had lower depression scores after birth than the other groups.

References:

Schwartz, M. (1963) *The Cessation of Labor Using Hypnotic Techniques.* " *American Journal of Clinical Hypnosis*, 5, 211-213.

Harmon, T.M., Hynan, M., & Tyre, T.E. (1990). "Improved obstetric outcomes using hypnotic analgesia and skill mastery combined with childbirth education." *Journal of Consulting and Clinical Psychology*, 58, 525, 530, 1990.

5. Research: hypnosis and quitting smoking

In a recent stop smoking study, where smokers attended individual hypnotherapy for stop smoking over three sessions, 81% had stopped smoking after the treatment ended, and at a 12 month follow-up nearly 50% remained smoke free. And 95% of the people were satisfied with their treatment.

References:

(1) Elkins GR, Rajab MH. (2004) "Clinical hypnosis for Smoking Cessation: preliminary results of a three session intervention." *International Journal of Clinical and Experimental Hypnosis* 2004 Jan; 52 (1):73-81

90.6% Success Rate for Smoking Cessation Using Hypnosis

Of 43 consecutive patients undergoing this treatment protocol, 39 reported remaining abstinent from tobacco use at follow-up (6 months to 3 years post-treatment). This represents a 90.6% success rate using hypnosis.

University of Washington School of Medicine, Depts. of Anesthesiology and Rehabilitation Medicine, *Int J Clin Exp Hypn.* 2001 Jul;49(3):257-66. Barber J.

87% Reported Abstinence From Tobacco Use With Hypnosis

A field study of 93 male and 93 female CMHC outpatients examined the facilitation of smoking cessation by using hypnosis. At 3-month follow-up, 86% of the men and 87% of the women reported continued abstinence from the use of tobacco using hypnosis.

Performance by gender in a stop-smoking program combining hypnosis and aversion. Johnson DL, Karkut RT. Adkar Associates, Inc., Bloomington, Indiana. *Psychol Rep.* 1994 Oct;75(2):851-7. PMID: 7862796 [PubMed - indexed for MEDLINE]

6. 81% Reported They Had Stopped Smoking After Hypnosis

Thirty smokers enrolled in an HMO were referred by their primary physician for treatment. Twenty-one patients returned after an initial consultation and received hypnosis for smoking cessation. At the end of treatment, 81% of those patients reported that they had stopped smoking, and 48% reported abstinence at 12 months post-treatment.

Texas A&M University, System Health Science Center, College of Medicine, College Station, TX USA. *Int J Clin Exp Hypn.* 2004 Jan;52(1):73-81. Clinical hypnosis for smoking cessation: preliminary results of a three-session intervention. Elkins GR, Rajab MH.

7. Hypnosis Patients Twice As Likely To Remain Smoke-Free After Two Years

Study of 71 smokers showed that after a two-year follow up, patients that quit with hypnosis were twice as likely to remain smoke-free than those who quit on their own.

Guided health imagery for smoking cessation and long-term abstinence. Wynd, CA. *Journal of Nursing Scholarship*, 2005; 37:3, pages 245-250.

8. Hypnosis More Effective Than Drug Interventions For Smoking Cessation

Group hypnosis sessions, evaluated at a less effective success rate (22% success) than individualized hypnosis sessions. However, group hypnosis sessions were still demonstrated here as being more effective than drug interventions.

Ohio State University, College of Nursing, Columbus, OH 43210, USA Descriptive outcomes of the American Lung Association of Ohio hypnotherapy smoking cessation program. Ahijevych K, Yerardi R, Nedilsky N.

9. Hypnosis Most Effective Says Largest Study Ever: 3 Times as Effective as Patch and 15 Times as Effective as Willpower.

Hypnosis is the most effective way of giving up smoking, according to the largest ever scientific comparison of ways of breaking the habit. A meta-analysis, statistically combining results of more than 600 studies of 72,000 people from America and Europe to compare various methods of quitting. On average, hypnosis was over three times as effective as nicotine replacement methods and 15 times as effective as trying to quit alone.

University of Iowa, *Journal of Applied Psychology*, How One in Five Give Up Smoking. October 1992. (Also *New Scientist*, October 10, 1992.)

10. Research: hypnosis and arthritis

Following Hypnotherapy, patients with arthritis achieved significant decreases in pain, anxiety, and depression, and an increases in beta-endorphin-like immunoreactive material.

References:

Domangue, B.B., Margolis, C.G., Lieberman, D. & Kaji, H. (1985). "Biochemical Correlates of Hypnoanalgesia in Arthritic Pain Patients." Journal of Clinical Psychiatry, 46, 235-238.

11. Research: hypnosis and depression

Cognitive Hypnotherapy for Depression: An Empirical Study: To investigate the effectiveness of cognitive hypnotherapy (CH), hypnosis combined with cognitive behavior therapy (CBT), on depression, 84 depressives were randomly assigned to 16 weeks of treatment of either CH or CBT alone.

At the end of treatment, patients from both groups significantly improved compared to baseline scores. However, the CH group produced significantly larger changes in Beck Depression Inventory, Beck Anxiety Inventory, and Beck Hopelessness Scale. Effect size calculations showed that the CH group produced 6%, 5%, and 8% greater reduction in depression, anxiety, and hopelessness, respectively, over and above the CBT group.

The effect size was maintained at 6-month and 12-month follow-ups. This study represents the first controlled comparison of hypnotherapy with a well-established psychotherapy for depression, meeting the APA criteria for a "probably efficacious" treatment for depression.

Alternative Treatments for Long-Term Depressed Mood: Meditation and Hypnosis The purpose of this study is to examine the effectiveness to two alternative treatments for long-term depressed mood: mindfulness meditation and hypnosis. The need to find effective treatments for those suffering from long-term low-to-moderate level depression has been known for over a century.

Although, there have been some recent advances in the types of drug and psychotherapy treatments available for this condition, some people do not respond to such interventions, have considerable side effects (from the drugs), or are not satisfied for other reasons with these treatment options.

The present study represents an innovative investigation into two alternatives to traditional treatments for long-term depressed mood: mindfulness meditation (plus gentle hatha yoga) and hypnosis in a group therapy format. Although both meditation and hypnosis have shown success in treating stress, anxiety, and pain in studies of non-clinical populations, neither has been systematically investigated as a possible treatment for long-term depressed mood.

References:

Assen Alladin and Alisha Alibhai (2000) The International Journal of Clinical and Experimental Hypnosis; Volume 55, Number 2 – April 2000.

Spiegel, D. MD; Butler, L.D. Ph.D. Xin-Hua Chen; Abramson, M. DDS, Waelde, L. Ph.D. Mental Insight Foundation

13 Review of the Efficacy of Clinical Hypnosis with Headaches and Migraines

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.

References:

(1) Anderson, J.A., Basker, M.A, Dalton, R. (1975). "Migraine and Hypnotherapy." International Journal of Clinical and Experimental Hypnosis, 23, 48-58.

(2) Hammond C. (2000) The International Journal of Clinical and Experimental Hypnosis; Volume 55, Number 2 – April 2000

1. Research: hypnosis and stress management

A trial compared Hypnosis with biofeedback or a combination of both. All groups had significant reduction in blood pressure.

However, at six-month follow-up only patients receiving Hypnosis had maintained the reduction.

References:

Friedman, H. & Taub, H. (1977). "The Use of Hypnosis and Biofeedback Procedures for Essential Hypertension." International Journal of Clinical and Experimental Hypnosis, 25, 335-347.

Friedman, H. & Taub, H. (1978). "A Six Month Follow-up of the Use of Hypnosis and Biofeedback Procedures in Essential Hypertension." American Journal of Clinical Hypnosis, 20, 184-188

2. Research: hypnosis and bone fracture

The Harvard Medical School conducted research on the use of hypnosis to enhance physical healing. Twelve people with a recent bone fracture were divided into two groups. One group received hypnosis and the other group served as control. Both groups received standard orthopedic treatment.

The hypnosis group had individual hypnotic sessions and listened to audio tapes designed to increase bone healing. Xray and orthopedic evaluations were made during the 12 weeks of the experiment.

The results showed a faster healing for the hypnosis group at week 9 of the experiment. Xrays revealed a notable difference at the edge of the fracture at week 6 of the experiment. The hypnosis group also had better mobility and used less pain killers. The researchers conclude by saying that “despite a small sample size.... these data suggest that hypnosis may be capable of enhancing both anatomical and functional fracture healing, and that further investigation of hypnosis to accelerate healing is warranted.

References:

Ginandes, CS, Rosenthal, DI.1999, “Using hypnosis to accelerate the healing of bone fractures: a randomized controlled pilot study”, Therapy Health Medicine, March, 5(2), pp.67-75.

3. Research: hypnosis and skin conditions

Most clinicians and researchers agree that stress affects the course of dermatitis and eczema, and reducing stress levels has a positive effect on the course of the disease.

Emotional factors have been shown to have a strong correlation with onset of the disease and also with flare-ups. Further more, several documented case studies have revealed that hypnosis can offer a successful treatment for sufferers.

References:

Kantor, S.D. (1990).Stress and psoriasis. Psoriasis Research Institute, Palo Alto, California 94301. Cutis (USA) Oct 1990, 46 (4) p321-2

4. Research: hypnosis and pain management

Hypnosis was found to be effective in reducing pain and discomfort associated with repeated unpleasant medical interventions in a study of children with cancer.

A significant reduction of pain and dysphoria was found following Hypnosis in a study of 19 patients with a variety of musculoskeletal disorders.

References:

Hilgard, E.R. (1977). “Divided Consciousness: Multiple Controls in Human Thought and Action”. NY: John Wiley. 1977

Domangue, B.B., Margolis, C.G., Lieberman, D. & Kaji, H. (1985). Biochemical Correlates of Hypnoanalgesia in Arthritic Pain Patients.” Journal of Clinical Psychiatry, 46, 235-238

5. Research: hypnosis and recovery from surgery

Patients trained with Hypnosis before surgery had significantly shorter stays in hospital. Research shows that Hypnosis methods have been used successfully for anxiety associated with medical procedures.

References:

Rapkin, D.A., Straubing, M., Singh, A. & Holroyd, J.C. (1988). “Guided Imagery and Hypnosis: Effect on Acute Recovery from Head and Neck Cancer Surgery” Paper presented at the Annual Meeting of the Society for Clinical and Experimental Hypnosis, Asheville, N.C. Spiegel, D, (1998). Report in the Harvard Mental Health Letter, September 1998, vol. 15, p. 5-6.

6. Research: hypnosis and the treatment of cancer

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Spiegel, D., Bloom, J.R., Kraemer, H.,C. & Gottheil, E. (1989a) "Effect of Psychosocial Treatment on Survival of Patients with Metastatic Breast Cancer." *Lancet* pp. 888-891.

Zeltzer, L.; LeBaron, S. & Zeltzer, P.M. (1984). *The Effectiveness of Behavioral Intervention for Reduction of Nausea and Vomiting in Children and Adolescents Receiving Chemotherapy.* *Journal of Clinical Oncology*, 2, 683-690. Cotanch, P., Hockenberry, M. & Herman, S. (1985). "Self-Hypnosis Antiemetic Therapy in Children Receiving Chemotherapy." *Oncology Nursing Forum*, 12, 41- 46. Zeltzer, L., LeBaron, S. & Zeltzer, P.M. (1984).

7. Research: hypnosis and haemophilia

Haemophiliac patients taught self-hypnosis significantly reduced both their level of self-reported distress and the amount of the factor concentrate required to control bleeding when compared with a control group of patients who did not undergo Hypnosis.

References:

Swirsky-Saccetti, T.; Margolis, C.G. (1986). "The Effects of a Comprehensive Self- Hypnosis Training Program on the Use of Factor VIII in Severe Hemophilia." *International Journal of Clinical and Experimental Hypnosis*, 34, 71-83.

8. Research: hypnosis and phobias

Student test anxiety

Students taught self-hypnosis showed a significant reduction in anxiety scores (maintained at 6-month follow-up) then a control group.

9. Public speaking

The group who received hypnosis had a greater expectation for change and that change was achieved, than those who had non-hypnotic treatment.

10. Fear of flying

50% of patients afraid of flying were improved or cured after Hypnosis treatment.

References:

Stanton, H. E. (1994)

Schoenberger, N. E.; Kirsch, I.; Gearan, P.; Montgomery, G.; Pastyrnak, S.L. (1997).

Spiegel, D. (1998) *Report in the Harvard Mental Health Letter, September 1998, vol. 15, p. 5-6*

11. Research: hypnosis and the treatment of warts

Prepubertal children respond to Hypnotherapy almost without exception, although adults sometimes do not. Clinically, many adults who fail to respond to hypnotherapy will heal with individual hypnoanalytic (combination of hypnotherapy and psychotherapy) techniques. By using hypnoanalysis on those who failed to respond to hypnotherapy, 33 of 41 (80%) consecutive patients were completely cured. Self-hypnosis was not used.

There was a particularly interesting report of hypnosis used to treat a 7-year-old girl who had 82 common warts. The warts had been present for 12-18 months and were not amenable to any of the routine medical treatments. Hypnotic suggestions were given for the facial warts to disappear before warts from the rest of the body. After 2 weeks, eight of 16 facial warts were gone, with no other changes. After three additional biweekly sessions, all 82 warts were gone. This was, to our knowledge, the first reported case of systematic wart removal in children and the researchers concluded that there is an intimate relationship between psychological mechanisms and the immune system.

References:

Ewin DM Hypnotherapy for warts (verruca vulgaris): 41 consecutive cases with 33 cures. Tulane Medical School, New Orleans, LA. Am J Clin Hypn (UNITED STATES) Jul 1992, 35(1) p1-10

12. hypnosis for weight loss.

In a 9-week study of two weight management groups (one using hypnosis and one not using hypnosis), the hypnosis group continued to get results in the two-year follow-up, while the non-hypnosis group showed no further results (*Journal of Clinical Psychology*, 1985).

In a study of 60 women separated into hypnosis versus non-hypnosis groups, the groups using hypnosis lost an average of 17 pounds, while the non-hypnosis group lost an average of only .5 pounds (*Journal of Consulting and Clinical Psychology*, 1986).

In a meta-analysis, comparing the results of adding hypnosis to weight loss treatment across multiple studies showed that adding hypnosis increased weight loss by an average of 97% during treatment, and even more importantly increased the effectiveness POST TREATMENT by over 146%. This shows that hypnosis works even better over time (*Journal of Consulting and Clinical Psychology*, 1996).

Reference:

Cited at; www.hypnosisresearch.org/

13. WEIGHT LOSS

Cochrane, Gordon; Friesen, J. (1986). Hypnotherapy in weight loss treatment. *Journal of Consulting and Clinical Psychology*, 54, 489-492.

Kirsch, Irving (1996). Hypnotic enhancement of cognitive-behavioral weight loss treatments--Another meta-reanalysis. *Journal of Consulting and Clinical Psychology*, 64 (3), 517-519.

Allison, David B.; Faith, Myles S. Hypnosis as an adjunct to cognitive-behavioral psychotherapy for obesity: A meta-analytic reappraisal. *Journal of Consulting and Clinical Psychology*. 1996 Jun Vol 64(3) 513-516

Stradling J, Roberts D, Wilson A, Lovelock F. Controlled trial of hypnotherapy for weight loss in patients with obstructive sleep apnoea. *International Journal of Obesity Related Metabolic Disorders*. 1998 Mar;22(3):278-81.

14. HYPNOSIS AND HEADACHE PAIN

In a study conducted by Mr. Anderson (1975), migraine patients treated with hypnosis had a significant reduction in the number of attacks and in their severity compared to a control group who were treated with traditional medications. The difference did not become statistically significant until the second six-month follow-up period. In addition, at the end of one year, the number of patients in the hypnosis group who had experienced no headaches for over three months was significantly higher.

In a controlled trial conducted by Mr. Olness (1987), self-hypnosis was shown to be significantly more effective than either propranolol or placebo in reducing the frequency of migraine headaches in children between the ages of six and twelve years of age.

In a research conducted by Mr. Schlutter (1980), hypnosis was also found to be effective in dealing with the relief of tension headache.

Alladin (1988) reviewed the literature on hypnosis, identifying fully a dozen different hypnotic techniques that have been used in the treatment of chronic migraine headaches. Of these, hypnotic training emphasizing relaxation, hand warming (which, according to Anderson, 1975) seems the simplest method of establishing increased voluntary control of the sensitive vasomotor system) and direct hypnotic suggestions of symptom removal have all been shown to be effective in reducing the duration, intensity and frequency of migraine attacks during a ten-week treatment course and at thirteen-month follow-up when compared to controls.

A study (Gutfeld, G. and Rao, L., 1992) was conducted on 42 patients suffering from chronic headaches. These patients, all of whom had responded poorly to conventional treatments, were split into two groups. One received hypnotherapy to relieve their daily headaches; the rest acted as a comparison group. The hypnotherapy group experienced reduced frequency and duration of headaches, cutting the intensity by about 30%. "These results are impressive in such a difficult, hard-to-treat group of patients," commented Egilius Spierings, M.D., Ph.D. director of the headache section, division of neurology at Brigham and Women's Hospital.

References:

- Alladin, A. (1988). "Hypnosis in the Treatment of Severe Chronic Migraine. In M. Heap (ed.), *Hypnosis: Current clinical, Experimental and Forensic Practices*. London: Croom Helm. pp. 159-166.
- Anderson, J.A., Basker, M.A. & Dalton, R. (1975). "Migraine and Hypnotherapy." *International Journal of Clinical and Experimental Hypnosis*, 23, 48-58.
- Gutfeld, G. and Rao, L. (1992). "Use of Hypnosis with Patients Suffering from Chronic Headaches, Seriously Resistant to Other Treatment," As reported in *Prevention*, 44, 24-25.
- 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.
- Schlutter, L.C., Golden, C.J. & Blume, H.G. (1980). "A Comparison of Treatments for Prefrontal Muscle Contraction Headache." *British Journal of Medical Psychology*, 53, 47-52.

University of Iowa News Release
March 14, 2005

15. Brain Imaging Studies Investigate Pain Reduction By Hypnosis

Although hypnosis has been shown to reduce pain perception, it is not clear how the technique works. Identifying a sound, scientific explanation for hypnosis' effect of pain-reduction option in clinical settings.

The results are reported in the November-December 2004 issue of *Regional Anesthesia and Pain Medicine*.

They show an objective, measurable change in brain activity linked to a reduced perception of pain," he added.

Referece:

In addition to Schulz-Stubner, the research team included Timo Krings, M.D., Ingo Meister, M.D., Stefen Rex, M.D., Armin Thron, M.D., Ph.D. and Rolf Rossaint, M.D., Ph.D., from the Technical University of Aachen, Germany.

University of Iowa Health Care describes the partnership between the UI Roy J. and Lucille A. Carver College of Medicine and UI Hospitals and Clinics and the patient care, medical education and research programs and services they provide. Visit UI Health Care online at www.uihealthcare.com.

STORY SOURCE: University of Iowa Health Science Relations, 5135 Westlawn, Iowa City, Iowa 52242-1178

16. HYPNOSIS AND HEALING

**Hypnosis helps healing:
Surgical wounds mend faster**

A radiologist who evaluated the X-rays did not know which patients underwent hypnosis. The result stood out like a sore ankle. Those who were hypnotized healed faster than those who were not. Six weeks after the fracture, those in the hypnosis group showed the equivalent of eight and a half weeks of healing.

Reference: William J. Cromie - Harvard University Gazette

18 breast surgery patients, randomly separated into three groups. All got the same surgical care by the same doctors. Six received standard care only, six also received attention and support and from a psychologist, and six underwent hypnosis before and after their surgery.

Hypnosis sessions occurred once a week for eight weeks. Psychological soothing took place on the same schedule.

The result was clear. Marie Mc Brown and the women who had undergone hypnosis healed significantly faster than the others. Those who received supportive attention came in second. Due to the small number of patients, this will require more studies.

17. HYPNOTHERAPY AND SKIN CONDITIONS

Hypnosis- psycho-therapeutic options for skin disorders

Hypnosis has been found useful to treat a number of skin disorders including acne excoriee, alopecia areata, atopic dermatitis, congenital ichthyosiform erythroderma, dyshidrotic dermatitis, erythromelalgia, furuncles, glossodynia, herpes simplex, hyperhidrosis, ichthyosis vulgaris, lichen planus, neurodermatitis, nummular dermatitis, postherpetic neuralgia, pruritus, psoriasis, rosacea, trichotillomania, urticaria, verruca vulgaris, and vitiligo.

Hypnosis can also help individuals feel more comfortable about having their skin diseases. Hypnotic relaxation utilizing self-guided imagery reduces anxiety and discomfort during dermatologic procedures. For resistant skin disorders, hypnoanalysis using ideomotor signaling and the affect bridge technique can often identify original incidents and promote healing. Subtle energy intuitive techniques are an almost lost art that have so far been relatively difficult to explore on a scientific basis. They are still utilized by various indigenous practitioners and shamans, and are sometimes capable of clearing or improving otherwise refractory skin disorders. A psychiatrist has described their modern use. This area has potential for significant future development.

Refernce: Shenefelt, P.D (2006), Nondrug Psychotherapeutic Options for Skin Disorders Trends in Psychotherapy Research. Abelian, M. E. (Ed). 2006, pp. 33-51

18. HYPNOSIS IN THE OPERATING ROOM

Saving Money With Hypnosis - San Francisco (Reuters Health) - Using hypnosis in the operating room could cut costs of some medical procedures in half, Harvard researchers reported at the annual meeting of the American Psychological Association.

The National Institutes of Health National Center funded the research for Complementary and Alternative Medicine. The study followed 241 patients undergoing various medical procedures such as clearing blocked arteries.

**All the patients were given standard medical care, including the option of self-medicating drugs for pain.

**One-third was also given empathic attention from a health professional in addition to standard care.

**Another third were given self-hypnotic relaxation techniques in addition to standard care as part of preparation for the procedure.

The hypnotized group reported significantly less pain during the procedure. The hypnotized group

also took significantly less time to complete their procedures and used half as much pain medication. Based on these and other findings, The average cost calculation for a procedure using standard care was \$638, while the cost for a procedure using adjunct hypnosis would cost \$300, cutting the cost by more than half. Even if hypnosis added nearly an hour to the preparation time, it would still save money.

19. HYPNOSIS AND THE IMMUNE SYSTEM

Self-Hypnosis Can Cut Stress and Boost Your Immune System

A number of studies have suggested stress can hinder the body's immune system defenses. Now researchers say people may be able to fight back with the stress-relieving techniques of self-hypnosis. In a study of 33 medical students under exam-time stress, investigators found that those who received "hypnotic-relaxation training" did not show the same reduction in key immune system components that their untrained counterparts did. The data from this study provide encouraging evidence that interventions may reduce the immunological dis-regulation associated with acute stressors.

Reference: Journal of Consulting and Clinical Psychology 2001;69

20. HYPNOSIS STUDIES ON ATTENTION/CONFLICT

Some of the most interesting recent hypnosis research has examined the effects of hypnosis and suggestion upon attentional control. Attentional skills are closely related to hypnosis, and a number of models have proposed that differences in executive attention-control account for differences in hypnotic susceptibility (see Theories). Gruzelier's (1998) neurophysiological model of hypnosis proposes that selective attention must be engaged in order for a subject to focus upon the first stages of a hypnotic induction, and that this selective attention is more effective in high susceptible subjects. And some traditional views of hypnosis contend that the hypnotic 'state' is characterised by strongly focussed attention (see Jamieson & Sheehan, 2002). Other models have proposed that high hypnotizable subjects efficiently focus attention while un-hypnotized subjects (Kallio et al, 2001), but that their attention-control is compromised following a hypnotic induction (Gruzeler, 1990; Crawford & Gruzeler, 1992; Woody & Bowers, 1994; Kaiser et al, 1997). These theories, and the intrinsic studies which test them, are covered in more detail in a separate section.

21. Blood Pressure

In a study of the blood-pressure-lowering effects of relaxation training in patients with essential hypertension, instructions concerning the relaxation procedure were varied so that one group was told to expect delayed blood-pressure-lowering and the other group immediate lowering. The systolic blood pressure decrease during the training period in the immediate lowering group was 17.0 mm Hg, compared with 2.4 mm Hg for the delayed group ($p = 0.001$). Diastolic blood pressure changes were not significantly different. Measures of therapy credibility and perceived relaxation failed to differentiate the groups. The implications of these findings for future research and for clinical practice are considered.

Referece: Agras WS. Horne M. Taylor CB. *Expectation and the blood-pressure lowering effects of relaxation*. Psychosomatic Med. 1982; 44(4):389-95

22. MIGRAINE

Random allocation of 47 patients was made to one or other prophylactic measure, followed by monthly assessments and independent evaluation of 1 yr of continuous care. Criteria of improvement were the number of attacks/month, number who had Grade 4 attacks, and complete remission. Results show that the number of attacks and the number who suffered blinding attacks were significantly lower for the group receiving hypnotherapy than for the group receiving prochlorperazine. For the group on hypnotherapy, these 2 measures were significantly lower when on hypnotherapy than when on previous treatment. Prochlorperazine seemed about as effective as previous treatment. 10 out of 23 patients on hypnotherapy achieved complete remission during the last 3 mo of the trial, compared to

only 3 out of 24 on prochlorperazine. It is concluded that further trials of hypnotherapy are justified against some other treatment not solely associated with the ingestion of tablets. (German, French, & Spanish summaries)

Reference: Anderson JA, Basker MA, Dalton R Migraine and hypnotherapy International Journal of Clinical & Experimental Hypnosis 1975;23(1):48-58 Compared the treatment of migraine by hypnosis and autohypnosis with the treatment of migraine by the drug prochlorperazine (Stemetil).

23. ASTHMA

Investigated the use of hypnosis in the treatment of asthma in patients, 10-60 yr. old with paroxysmal attacks of wheezing or tight chest capable of relief by bronchodilators. 1 group was given hypnosis monthly and used autohypnosis daily for 1 yr. Comparisons were made with a control group prescribed a specially devised set of breathing exercises aimed at progressive relaxation. Treatment was randomly allocated and Subjects were treated by physicians in 9 centers. Results were assessed by daily diary recordings of wheezing and the use of bronchodilators, and by monthly recordings of forced expiratory volume (FEV) and vital capacity (VC). Independent clinical assessments were made by physicians unaware of Subjects' treatment. 176 out of 252 patients completed the program. Both treatment groups showed some improvement. Among men the assessments of wheezing score and use of bronchodilators showed similar improvement in the 2 groups; among women, however, those treated by hypnosis showed improvement similar to that observed in the men, but those given breathing exercises made much less progress, the difference between the 2 groups reaching statistical significance. Changes in FEV and VC between the control and hypnosis groups were closely similar. Independent clinical assessors considered the asthma to be better in 59% of the hypnosis group and in 43% of the controls, the difference being significant. There was little difference between the sexes. Physicians with previous experience of hypnosis obtained significantly better results than did those without such experience.

Reference: Anonymous. Hypnosis for asthma--a controlled trial. A report to the Research Committee of the British Tuberculosis Association. BMJ 1968;4(623):71-6

24. Coronary Artery Bypass Surgery

OBJECTIVE: The role of complementary medicine techniques has generated increasing interest in today's society. The purpose of our study was to evaluate the effects of one technique, self-hypnosis, and its role in coronary artery bypass surgery. We hypothesize that self-hypnosis relaxation techniques will have a positive effect on the patient's mental and physical condition following coronary artery bypass surgery. **CONCLUSION:** This study demonstrates the beneficial effects self-hypnosis relaxation techniques on patients undergoing coronary artery bypass surgery. It also provides a framework to study complementary techniques and the limitations encountered.

Reference: Ashton C Jr. Whitworth GC. Seldomridge JA. Shapiro PA. Weinberg AD. Michler RE. Smith CR. Rose EA. Fisher S. Oz MC. Self-hypnosis reduces anxiety following coronary artery bypass surgery. A prospective, randomized trial. Journal of Cardiovascular Surgery 1997;38(1):69-75

25. Coronary Artery Bypass Surgery

The effects of complementary techniques and alternative medicine on allopathic therapies is generating much interest and research. To properly evaluate these techniques, well controlled studies are needed to corroborate the findings espoused by individuals practicing complementary medicine therapies. To this end, we evaluated the role of one of these therapies, self-hypnosis relaxation techniques, in a prospective, randomized trial to study its effects on quality of life after coronary artery bypass surgery. Subjects were randomized to a control group or a study group. Study group patients were taught self-hypnosis relaxation techniques the night prior to surgery. The control group received no such treatment. Patients then underwent routine cardiac management and care. The main endpoint of our study was quality of life, assessed by the Profile of Moods Scale. Results demonstrated that patients undergoing self-hypnosis the night prior to coronary artery bypass surgery were significantly more relaxed than the control group ($p = 0.0317$). Trends toward improvement

were also noted in depression, anger, and fatigue. This study demonstrates the beneficial effects of self-hypnosis relaxation techniques on coronary surgery. This study also identifies endpoints and a study design that can be used to assess complementary medicine therapies. Results of this preliminary investigation are encouraging and demonstrate a need for further well-controlled studies.

Reference: Ashton RC Jr. Whitworth GC. Seldomridge JA. Shapiro PA. Michler RE. Smith CR. Rose EA. Fisher S. Oz MC. The effects of self-hypnosis on quality of life following coronary artery bypass surgery: preliminary results of a prospective, randomized trial. *Journal of Alternative & Complementary Medicine* 1995;1(3):285-90

26. TINNITUS

The efficacy of self-hypnosis (SH), masking (MA) and attentiveness to the patient's complaints (AT) in the alleviation of tinnitus was evaluated. Forty-five male patients close in age with chronic tinnitus related to acoustic trauma were assigned to three matched subgroups: SH, AT or MA. The therapeutic stimuli in the SH and MA sessions, recorded on audio cassettes, were given to the patients for use when needed. SH significantly reduced the tinnitus severity; AT partially relieved the tinnitus; MA did not have any significant effect.

Reference: Attias J, Shemesh Z, Sohmer H, Gold S, Shoham C, Faraggi D Comparison between self-hypnosis, masking and attentiveness for alleviation of chronic tinnitus. *Audiology* 1993;32(3):205-12

27. Non-Organic Male Sexual Dysfunction

We have examined the effects of acupuncture and hypnotic suggestions, and compared them with placebo in the treatment of male sexual dysfunction with no detectable organic cause. The study comprised 15 men (mean age 36.7 +/- 10.43 years) who received acupuncture treatment, 16 men (mean age 38.4 +/- 10.75 years) who underwent hypnosis (mean age 35.3 +/- 11.52 years) and 29 men (mean age 36.2 +/- 11.38 years) who served as controls. They were interviewed periodically; the patients' reports were verified by interviewing their partners. Men who received placebo had a 43-47% improvement in sexual function, while the rates of improvement in the treated groups were higher, but not significantly so. The success rates of acupuncture and hypnotic suggestions were 60% and 75% respectively. Although the improvement was not statistically significant, treatment with acupuncture could be used as an adjuvant therapy in non-organic male sexual dysfunction. The only treatment superior to placebo seemed to be hypnosis. A more effective treatment may be obtained by combining these therapeutic modalities, but this needs further study.

Reference: Aydin S. Ercan M. Caskurlu T. Tasci AI. Karaman I. Odabas O. Yilmaz Y. Agargun MY. Kara H. Sevin G. Acupuncture and hypnotic suggestions in the treatment of non-organic male sexual dysfunction. *Scandinavian Journal of Urology & Nephrology* 1997;31(3):271-4

28. Impotence

OBJECTIVE: To examine the effects of hypnotic suggestions or the administration of testosterone or trazodone to impotent men with no detectable organic cause for the impotence. **PATIENTS AND METHODS:** The study comprised 79 men in whom clinical and laboratory examinations revealed no organic cause for their impotence: 20 men (mean age 38.7 +/- 11.47 years) received testosterone, 21 men (mean age 39.5 +/- 10.73 years) received trazodone, 20 men (mean age 34.2 +/- 11.69 years) underwent hypnosis and 18 men (mean age 39.1 +/- 11.46 years) served as controls. They were assessed by interview 4, 6 and 8 weeks after starting treatment: the patient's reports were verified by interviewing their partners. **RESULTS:** Men who received a placebo had a 39% improvement in sexual function, while the rates of improvement in the treated groups were higher, but not significantly so. The success rates of testosterone and trazodone treatment and hypnotic suggestions were 60%, 67% and 80%, respectively. **CONCLUSION:** Although the improvement was not statistically significant, treatment with testosterone and trazodone could be used as an adjuvant therapy in nonorganic male sexual dysfunction. The only treatment superior to placebo seemed to be hypnosis. A more effective treatment may be obtained by combining these therapeutic modalities, but this needs further study.

Reference: Aydin S. Odabas O. Ercan M. Kara H. Agargun MY. Efficacy of testosterone, trazodone and hypnotic suggestion in the treatment of non-organic male sexual dysfunction. *British Journal of Urology*. 1996;77(2):256-60

29. PAIN

It took place a study of painful perception and psycho-emotional component in two groups of patients in a random selection. It was made bone marrow biopsy and iliac crest myelogram in the patients. In the control group received a session of hypnosis of forty minutes; in this session were trained in autohypnosis technique to be applied in the moment of the painful tests. The comparison of outcomes shows a significant reduction of algesia and unpleasant emotions in the experimental group. The application of this technique was workable, effective and inexpensive.

Reference: Baltar Lopez E La autorrelajacion como medio para reducir la algesia en pruebas diagnosticas dolorosas *Natura Medicatrix* 1995;41:12-8

30. Enuresis

therapeutic modalities have been used for treating enuresis due to the lack of a single identifiable cause. We carried out a comparative study of imipramine and direct hypnotic suggestions with imagery used for the management of functional nocturnal enuresis. Enuretic children, ranging in age from 5 to 16 years, underwent 3 months of therapy with imipramine (N = 25) or hypnosis (N = 25). After termination of the active treatment, the hypnosis group continued practicing self-hypnosis daily during the follow-up period of another 6 months. Of the patients treated with imipramine, 76% had a positive response (all dry beds); for patients treated with hypnotic strategies, 72% responded positively. At the 9-month follow-up, 68% of patients in the hypnosis group maintained a positive response, whereas only 24% of the imipramine group did. Hypnosis and self-hypnosis strategies were found to be less effective in younger children (5-7 years old) compared to imipramine treatment. The treatment response was not related to the hypnotic responsivity of the patient in either group.

Reference: Banerjee S. Srivastav A. Palan BM. Hypnosis and self-hypnosis in the management of nocturnal enuresis: a comparative study with imipramine therapy. *American Journal of Clinical Hypnosis* 1993;36(2):113-9 Various

31. Mild Depressive Neurosis

Investigated the influence of suggestion on recovery in the treatment of sleep disturbances by cerebral electrotherapy (CET). 60 adult psychiatric outpatients (diagnostic classification--mild depressive neurosis) were randomly assigned to 4 groups. Group A received CET only; Group B received a CET placebo; Group C received CET with hypnosis; and Group D received a CET placebo with hypnosis. Group A reported a significantly higher recovery than Group B, Group C a significantly higher recovery than Group A, and Group D a significantly higher recovery than Group B. No significant differences were found between Group C and Group D or between Group A and Group D. Findings support suggestion via passive hypnosis with CET as a powerful variable in the treatment of sleep disturbances with depressed patients.

Reference: Barabasz AF. Treatment of insomnia in depressed patients by hypnosis and cerebral electrotherapy. *American Journal of Clinical Hypnosis* 1976;19(2):120-2

32. Smoking

Adult volunteers were assigned to one of 3 treatment conditions and treated for their cigarette smoking over a 2-wk period. These conditions were group rapid smoking, group hypnosis, and an attention-placebo control group. All treatments produced significant reductions in average daily smoking rates during the treatment phase, but all Subjects returned to near baseline levels of smoking by the 6-wk follow-up. The rapid smoking and hypnosis groups did not differ from the control group in smoking rates at treatment termination or at the 6-wk follow-up. They also did not differ from the control group in the number of Subjects abstaining from smoking by treatment termination but did

differ at follow-up. Eventually, at the 9-mo follow-up, only Subjects from the rapid smoking condition had significantly more abstainers than the control group. Results suggest that rapid smoking can work as effectively in group procedures as previous individualized approaches had demonstrated. Group hypnosis, while less effective than some previous individualized approaches had indicated, was only marginally less effective than the rapid smoking procedure. The use of abstinence rates as opposed to average rates of smoking is strongly recommended as the best measure of treatment effectiveness for future research in this area. (German, French & Spanish summaries)

Barkley RA. Hastings JE. Jackson TL. The effects of rapid smoking and hypnosis in the treatment of smoking behavior. *International Journal of Clinical & Experimental Hypnosis* 1977;25(1):7-17. 29 young

33. Lactulose oro-caecal transit time

The ability of hypnosis to modulate the oro-caecal transit time of 10 g lactulose was tested in six healthy volunteers. Oro-caecal transit time was measured by the hydrogen breath test during three periods in random order. During the control period the subjects remained throughout the test in a semirecumbent position without moving. During the hypnotic relaxation period subjects were hypnotised before lactulose ingestion and were instructed to experience relaxation till the oro-caecal transit time had elapsed. During the acceleration suggestion period subjects were hypnotised before lactulose ingestion and were repeatedly instructed to imagine the acceleration of lactulose through the intestine until transit time had elapsed. The mean oro-caecal transit time was significantly longer during the hypnotic relaxation period (mean (SEM) 133 (8) min) than during the control period (93 (13) min). The mean oro-caecal transit time during the acceleration suggestion period was 105 (26) minutes and was not significantly different from the mean transit time during the control period. The individual values during the acceleration suggestion period were scattered. We conclude that lactulose oro-caecal transit time is delayed during hypnotic relaxation.

Reference: Beaugerie L. Burger AJ. Cadranet JF. Lamy P. Gendre JP. Le Quintrec Y. Modulation of oro-caecal transit time by hypnosis. *Gut* 1991;32(4):393-4

34. Anxiety

We have investigated prospectively the efficacy of two nonpharmacologic relaxation techniques in the therapy of anxiety. A simple, meditational relaxation technique (MT) that elicits the changes of decreased sympathetic nervous system activity was compared to a self-hypnosis technique (HT) in which relaxation, with or without altered perceptions, was suggested. 32 patients with anxiety neurosis were divided into 2 groups on the basis of their responsivity to hypnosis: moderate-high and low responsivity. The MT or HT was then randomly assigned separately to each member of the two responsivity groups. Thus, 4 treatment groups were studied: moderate-high responsivity MT; low responsivity MT; moderate-high responsivity HT; and low responsivity HT. The low responsivity HT group, by definition largely incapable of achieving the altered perceptions essential to hypnosis, was designed as the control group. Patients were instructed to practice the assigned technique daily for 8 weeks. Change in anxiety was determined by three types of evaluation: psychiatric assessment; physiologic testing; and self-assessment. There was essentially no difference between the two techniques in therapeutic efficacy according to these evaluations. Psychiatric assessment revealed overall improvement in 34% of the patients and the self-rating assessment indicated improvement in 63% of the population. Patients who had moderate-high hypnotic responsivity, independent of the technique used, significantly improved on psychiatric assessment ($p = 0.05$) and decreased average systolic blood pressure from 126.1 to 122.5 mm Hg over the 8-week period ($p = 0.048$). The responsivity scores at the higher end of the hypnotic responsivity spectrum were proportionately correlated to greater decreases in systolic blood pressure ($p = 0.075$) and to improvement by psychiatric assessment ($p = 0.003$). There was, however, no consistent relation between hypnotic responsivity and the other assessments made, such as diastolic blood pressure, oxygen consumption, heart rate and the self-rating questionnaires. The meditational and self-hypnosis techniques employed in this investigation are simple to use and effective in the therapy of anxiety.

Reference: Treatment of anxiety: a comparison of the usefulness of self-hypnosis and a meditational relaxation technique. An overview. *Psychotherapy & Psychosomatics*. 1978;30(3-4):229-42

35. Weight Release

Investigated the efficacy of a covert modeling/hypnosis treatment package in the control of obesity. 48 overweight female volunteers (who had been administered the Harvard Group Scale of Hypnotic Susceptibility, Eating Patterns Questionnaire, and Rotter's Internal-External Locus of Control Scale) were randomly assigned to 1 of the following groups: (a) covert modeling/hypnosis, (b) covert modeling, (c) no-model scene control, and (d) minimal treatment (where Subjects received a shortened version of the covert modeling/hypnosis procedure following an 8-wk no-treatment period). Results indicate a significant effect for weight loss from pretreatment to follow-up across all groups combined. Proportion weight loss measures indicated significantly greater weight loss only for the covert modeling/hypnosis group as compared to the no-model controls. Implications for combining behavior therapy and hypnotic techniques are discussed.

Reference: Bornstein PH. Devine DA. Covert modeling-hypnosis in the treatment of obesity. *Psychotherapy: Theory, Research Practice* 1980;17(3):272-276.

36. Weight

Investigated the effects of hypnosis as a treatment for weight loss among women. The sample consisted of 60 women (aged 20-65 yrs) who were at least 20% overweight and were not in any other treatment program. Six client variables (suggestibility, self-concept, quality of family origin, age of obesity onset, education level, and socioeconomic status (SES)) and 1 process variable (multimodal imagery) were analyzed in relation to the dependent variable (weight loss). Two experimental groups, hypnosis plus audiotapes and hypnosis without audiotapes, and the control group were investigated for weight loss immediately after treatment and again after a 6-mo follow-up. The primary hypothesis that hypnosis is an effective treatment for weight loss was confirmed, but the 7 concomitant variables and the use of audiotapes were not significant contributors to weight loss.

Reference: Cochrane G. Friesen J. Hypnotherapy in weight loss treatment. *Journal of Consulting & Clinical Psychology* 1986;54(4):489-92

37. Relapsing Duodenal Ulceration

30 patients with rapidly relapsing duodenal ulceration were studied to assess the possible benefit of hypnotherapy in relapse prevention. After the ulcer had healed on treatment with ranitidine, the drug was continued for a further 10 weeks during which time patients received either hypnotherapy or no hypnotherapy. The two randomly selected groups were comparable in terms of age, sex, smoking habits, and alcohol consumption. Follow-up of both groups of patients was continued for 12 months after the cessation of ranitidine. After 1 year, 8(53%) of the hypnotherapy patients and 15(100%) of the control subjects had relapsed. The results of this study suggest that hypnotherapy may be a useful therapeutic adjunct for some patients with chronic recurrent duodenal ulceration.

Reference: Colgan SM, Faragher EB, Whorwell PJ Controlled trial of hypnotherapy in relapse prevention of duodenal ulceration *Lancet* 1988;1(8598):1299-300

38. Breast Surgery

A prospective, randomized and blinded study. *Acta Anaesthesiologica Scandinavica* 1997;41(8):1028-32
BACKGROUND: Postoperative nausea and vomiting (PONV) after general anesthesia and surgery may have an incidence as high as 70% irrespective of antiemetic drug therapy. The use of preoperative hypnosis and mental preparation by means of an audio tape was investigated in the prophylaxis of nausea and vomiting before elective breast reduction surgery. Similar interventions have not been found in the literature. METHODS: Fifty women were randomized to a control group or a hypnosis group; the latter listened to an audio tape daily 4-6 days prior to surgery. A hypnotic induction was followed by suggestions as to how to relax and experience states incompatible with nausea and vomiting postoperatively (e.g. thirst and hunger). There was a training part on the tape

where the patients were asked to rehearse their own model for stress reduction. Premedication and anesthetic procedures were standardized. RESULTS: Patients in the hypnosis group had significantly less vomiting, 39% compared to 68% in the control group, less nausea and less need of analgesics postoperatively. CONCLUSIONS: Preoperative relaxation and/or hypnotic techniques in breast surgery contribute to a reduction of both PONV and postoperative analgesic requirements.

Reference: Enqvist B. Bjorklund C. Engman M. Jakobsson J. Preoperative hypnosis reduces postoperative vomiting after surgery of the breasts.

39. Removal of third Mandibular Molars

The effects of hypnosis in connection with surgery have been described in many clinical publications, but few controlled studies have been published. The aim of the present study was to evaluate the effects of preoperative hypnotic techniques used by patients planned for surgical removal of third mandibular molars. The patients were randomly assigned to an experimental (hypnotic techniques) or a control (no hypnotic techniques) group. During the week before the surgery, the experimental group listened to an audiotape containing a hypnotic relaxation induction. Posthypnotic suggestions of healing and recovery were given on the tape together with advice regarding ways to achieve control over stress and pain. The control group received no hypnotic intervention. Only one surgeon who was not aware of patient group assignments performed all the operations. Thirty-six patients in the control group were compared to 33 patients in the experimental group. Anxiety before the operation increased significantly in the control group but remained at baseline level in the experimental group. Postoperative consumption of analgesics was significantly reduced in the experimental group compared to the control group.

Reference: Enqvist B. Fischer K. Preoperative hypnotic techniques reduce consumption of analgesics after surgical removal of third mandibular molars: a brief communication. *International Journal of Clinical & Experimental Hypnosis* 1997;45(2):102-8

40. Maxillofacial surgery

The basic assumption underlying the present study was that emotional factors may influence not only recovery but also blood loss and blood pressure in maxillofacial surgery patients, where the surgery was performed under general anesthesia. Eighteen patients were administered a hypnosis tape containing preoperative therapeutic suggestions, 18 patients were administered hypnosis tapes containing pre- and perioperative suggestions, and 24 patients were administered a hypnosis tape containing perioperative suggestions only. The patients who received taped suggestions were compared to a group of matched control patients. The patients who received preoperative suggestions exhibited a 30% reduction in blood loss. A 26% reduction in blood loss was shown in the group of patients receiving pre- and perioperative suggestions, and the group of patients receiving perioperative suggestions only showed a 9% reduction in blood loss. Lower blood pressure was found in the groups that received pre- and perioperative and perioperative suggestions only. Rehabilitation was facilitated in the group of patients receiving perioperative suggestions only.

Reference: Enqvist B. von Konow L. Bystedt H. Pre- and perioperative suggestion in maxillofacial surgery: effects on blood loss and recovery. *International Journal of Clinical & Experimental Hypnosis* 1995;43(3):284-94

41. Bronchial Hypereactivity

A prospective, randomised, single blind, and controlled trial of a hypnotic technique was undertaken in 39 adults with mild to moderate asthma graded for low and high susceptibility to hypnosis. After a six week course of hypnotherapy 12 patients with a high susceptibility score showed a 74.9% improvement (p less than 0.01) in the degree of bronchial hyper-responsiveness to a standardised methacholine challenge test. Daily home recordings of symptoms improved by 41% (p less than 0.01), peak expiratory flow rates improved by 5.5% (p less than 0.01), and use of bronchodilators decreased

by 26.2% (p less than 0.05). The improvement in bronchial hyper-reactivity occurred without a change in subjective appreciation of the degree of bronchoconstriction. A control group of 17 patients and 10 patients undergoing treatment with low susceptibility to hypnosis had no change in either bronchial hyper-responsiveness or any of the symptoms recorded at home. This study shows the efficacy of a hypnotic technique in adult asthmatics who are moderately to highly susceptible to hypnosis.

Referece: Ewer TC, Stewart DE Improvement in bronchial hyper-responsiveness in patients with moderate asthma after treatment with a hypnotic technique: a randomised controlled trial BMJ Clinical Research Edition. 1986;293(6555):1129-32

42. Faymonville ME, Mambourg PH, Joris J, Vrijens B, Fissette J, Albert A, Lamy M. Psychological approaches during conscious sedation. Hypnosis versus stress reducing strategies: a prospective randomized study. *Pain* 1997;73(3):361-7 Stress reducing strategies are useful in patients undergoing surgery. Hypnosis is also known to alleviate acute and chronic pain. We therefore compared the effectiveness of these two psychological approaches for reducing perioperative discomfort during conscious sedation for plastic surgery. Sixty patients scheduled for elective plastic surgery under local anesthesia and intravenous sedation (midazolam and alfentanil upon request) were included in the study after providing informed consent. They were randomly allocated to either stress reducing strategies (control: CONT) or hypnosis (HYP) during the entire surgical procedure. Both techniques were performed by the same anesthesiologist (MEF). Patient behavior was noted during surgery by a psychologist, the patient noted anxiety, pain, perceived control before, during and after surgery, and postoperative nausea and vomiting (PONV). Patient satisfaction and surgical conditions were also recorded. Peri- and postoperative anxiety and pain were significantly lower in the HYP group. This reduction in anxiety and pain were achieved despite a significant reduction in intraoperative requirements for midazolam and alfentanil in the HYP group (alfentanil: 8.7 +/- 0.9 microg kg(-1)/h(-1) vs. 19.4 +/- 2 microg kg(-1)/h(-1), P < 0.001; midazolam: 0.04 +/- 0.003 mg kg(-1)/h(-1) vs. 0.09 +/- 0.01 mg kg(-1)/h(-1), P < 0.001). Patients in the HYP group reported an impression of more intraoperative control than those in the CONT group (P < 0.01). PONV were significantly reduced in the HYP group (6.5% vs. 30.8%, P < 0.001). Surgical conditions were better in the HYP group. Less signs of patient discomfort and pain were observed by the psychologist in the HYP group (P < 0.001). Vital signs were significantly more stable in the HYP group. Patient satisfaction score was significantly higher in the HYP group (P < 0.004). This study suggests that hypnosis provides better perioperative pain and anxiety relief, allows for significant reductions in alfentanil and midazolam requirements, and improves patient satisfaction and surgical conditions as compared with conventional stress reducing strategies support in patients receiving conscious sedation for plastic surgery.
43. Fellows BJ, Creamer M. An investigation of the role of 'hypnosis', hypnotic susceptibility and hypnotic induction in the production of age regression. *British Journal of Social & Clinical Psychology* 1978;17(2):165-71 In response to criticisms of the methodology of Barber's(1969)experiments, a 2x2 factorial design, varying hypnotic susceptibility and hypnotic treatment, was used to study the role of 'hypnosis' in the production of age regression by suggestion. Twenty subjects of high hypnotic susceptibility and 20 subjects of low hypnotic susceptibility were randomly allocated to one of two treatment conditions:hypnotic induction procedure or motivational instructions. Both treatments were followed by suggestions to regress to the age of seven years. Two measures of age regression were taken:the Draw-A-Man-Test and a subjective rating of the reality of the experience. The results showed significant effects of both variables, with high suceptibility and induction treatment producing better regression on both measures than low susceptibility and motivation treatment. Hypnotic susceptibility was the stronger of the two variables. The ranking of the four conditions corresponded with predictions of hypnotic depth from the state theory of hypnosis, but the findings were not inconsistent with the non-state theory. The

drawings of all regressed groups were more mature than the norms for the age of seven and the drawings of a group of seven year old children.

44. Freeman RM, Macaulay AJ, Eve L, Chamberlain GV, Bhat AV. Randomised trial of self hypnosis for analgesia in labour. *BMJ Clinical Research Edition*. 1986;292(6521):657-8 We undertook a randomised trial to evaluate the effect of selfhypnosis on pain relief, satisfaction, and analgesic requirements for women in their first labour.
- Fry L, Mason AA, Pearson RS Effect of hypnosis on allergic skin responses in asthma and hayfever *BMJ* 1964; i: 1145-8
45. Gearan P, Kirsch I. Response expectancy as a mediator of hypnotizability modification: a brief communication. *International Journal of Clinical & Experimental Hypnosis*. 1993;41(2):84-91 The role of response expectancy in bringing about increases in hypnotic susceptibility by use of the Carleton Skill Training Program (CSTP) was assessed with 27 subjects selected for their low hypnotizability scores. Subjects were randomly assigned to one of two conditions: 13 received the CSTP to increase their hypnotic susceptibility, and 14 received no training. In addition to assessing hypnotizability, hypnotic response expectancies were assessed before and after training. With pretreatment hypnotizability controlled, subjects in the training group scored significantly higher than control subjects on all self-report measures of hypnotizability but not on a measure of observed behavioral response. Changes in response expectancy were found to be highly correlated with changes in hypnotizability. With changes in expectancy controlled, no significant differences between the trained and control groups were found.
46. Gearan P, Schoenberger NE, Kirsch I. Modifying hypnotizability: a new component analysis. *International Journal of Clinical & Experimental Hypnosis* 1995;43(1):70-89 The effects of the Carleton Skills Training Program (CSTP) on hypnotizability were compared to those of a modified training program in which instructions for physical enactment of the response were omitted. After training, subjects in the original CSTP reported an increase in the extent to which they intentionally enacted suggested behaviors. In contrast, subjects in the modified training program reported increased fantasy without voluntary physical enactment. Nevertheless, both training programs increased behavioral and subjective responsiveness to suggestion, and there were no significant differences in response enhancement between the two programs. Across conditions, increases in behavioral and subjective responses to suggestion were correlated with increased use of fantasy. In contrast, increases in enactment were correlated only with compliance. The modified training program is recommended as a means of enhancing suggestibility with less likelihood than the original CSTP of engendering compliance.
47. Godeby J, Erdt G, Canavan T, Revenstorf D. Experimental hypermnesia: Effects of hypnosis on learning and memory processes *Experimentelle und Klinische Hypnose* 1993;9(2):71-95. Studied the effects of hypnosis on learning and memory to test the hypothesis that hypnotic trance facilitates learning and memory processes by changing the form and depth of verbal processing. Subjects included 36 normal male and female German adults (aged 21-45 yrs) (university students). Subjects were randomly assigned to 1 of 4 experimental groups. Group 1 learned a list of 48 neutral words in a waking state and had to recall it later under hypnosis. Group 2 learned the list under hypnosis and was tested during a waking state. Group 3 learned and recalled the list under hypnosis, and Group 4 learned and recalled the list in a waking state. Intergroup differences in recall performances were analyzed. (English abstract)
48. Goldmann L, Ogg TW, Levey AB. Hypnosis and daycase anaesthesia. A study to reduce pre-operative anxiety and intra-operative anaesthetic requirements. *Anaesthesia* 1988;43(6):466-9 Fifty-two female patients who underwent gynaecological operations as day cases received either a short pre-operative hypnotic induction or a brief discussion of equal duration. Hypnotized patients who underwent vaginal termination of pregnancy required significantly

less methohexitone for induction of anaesthesia. They were also significantly more relaxed as judged by their visual analogue scores for anxiety. Less than half of the patients were satisfied with their knowledge about the operative procedure even after discussions with the surgeon and anaesthetist. A significant correlation was found between anxiety and perceived knowledge of procedures. The results suggest that pre-operative hypnosis can provide a quick and effective way to reduce pre-operative patient anxiety and anaesthetic requirements for gynaecological daycase surgery.

49. Greenberg RP. Land JM. Influence of some hypnotist and subject variables on hypnotic susceptibility. *Journal of Consulting & Clinical Psychology* 1971;37(1):111-5 Randomly assigned 48 21-56 yr. Old females to 1 of 4 groups given different information with regard to a hypnotist's warmth and experience. The 6 male graduate student hypnotists had previously been judged on their objective warmth and competent appearance. Following structuring, all ss underwent individual hypnotic induction. As predicted, ss run by the objectively warmer, more competent appearing es obtained significantly higher susceptibility scores. Structured warmth produced significant differences only in ss run by the objectively less warm es. Both structured warmth and experience affected ss' subjective impressions of whether they thought they had been hypnotized. The complex relationship between antecedent variables and the various objective and subjective dependent indicators of hypnotic phenomena are discussed.
50. Greenleaf M. Fisher S. Miaskowski C. DuHamel K. Hypnotizability and recovery from cardiac surgery. *American Journal of Clinical Hypnosis* 1992;35(2):119-28 We studied 32 coronary bypass patients to examine the effect of hypnosis on recovery from surgery. The patients were assessed for hypnotizability with the Hypnotic Induction Profile (HIP) and assigned to experimental groups with a random stratification procedure to equate for differences in hypnotizability, age, and severity of illness. We taught patients in groups one and two formal hypnosis with different treatment strategies; patients in group three were not taught formal hypnosis or a treatment strategy. Scores on the HIP were significant predictors of recovery, independent of experimental treatment with formal hypnosis. Patients who scored "Midrange" stabilized more quickly in the intensive care unit (ICU) than those who scored "High" or "Low" ($p < .05$). Patients who scored "High" had more labile blood pressure in the ICU compared to the "Midrange" and "Lows" ($p < .05$). Measured hypnotizability was associated with the recovery sequence from surgery.
51. Gregory J. Diamond MJ. Increasing hypnotic susceptibility by means of positive expectancies and written instructions. *Journal of Abnormal Psychology* 1973;82(2):363-7 Investigated the extent to which hypnotic susceptibility could be modified by means of induced positive expectancies and written instructions that were designed to correct misconceptions concerning hypnosis as well as to provide concrete methods for experiencing hypnosis. 40 undergraduates were given a baseline test of hypnotic susceptibility and then randomly assigned to 1 of 4 conditions. Subjects receiving the positive expectancy were given false personality test feedback that they were good hypnotic Subjects prior to a criterion hypnotic scale. Subjects receiving the written instructions were given 10 min to read the information prior to the hypnotic test. Other Subjects browsed through magazines prior to testing in hypnosis. Both positive expectancies and written instructions were significantly effective in increasing susceptibility in comparison with practice only. Theoretical explanations are advanced and the implications of these findings are considered.
52. Griffiths RA, Channon-Little L The hypnotizability of patients with bulimia nervosa and partial syndromes participating in a controlled treatment outcome study *Contemporary Hypnosis* 1993;10(2):81-7 This is a report of the hypnotizability of a large sample of bulimia nervosa and partial syndromes ($n = 113$) who participated in a controlled treatment outcome study. Data from the HGSHS:A (Harvard Group Scale of Hypnotic Susceptibility, Form A) confirmed previous findings of high hypnotizability in these patients compared with normal populations. Furthermore, there was evidence that the responses of bulimia nervosa and

partial syndrome patients differed significantly to the responses of the normal population on seven of the 12 items of the HGSHS:A.

53. Griffiths RA, Hadzi Pavlovic D, Channon Little L A controlled evaluation of hypnobeavioural treatment for bulimia nervosa: Immediate pre post treatment effects *Eur Eating Disord Rev.* 1994;2(4):202-220 The study reports the pre post findings from a controlled comparative evaluation of treatments for bulimia nervosa. These pre post results allow comparison of the hypnobehevioural and cognitive behavioural treatments with a waiting list control group and a comparison of the immediate effects of the two modalities. One hundred and thirty subjects were screened to enter the study. Seventy eight subjects entered the investigation after being randomly allocated to either a waiting list control group, or to hypnobeavioural or cognitive behavioural groups. The treatments were delivered individually and matched in duration (8 weeks) and the number of sessions. Pre to posttreatment outcome indicated significant differences between the control group and the two treatments in reductions in bulimic behaviours and related eating pathology. The immediate effects of both treatments were equal. There were no differences at posttreatment between the treatments in abstinence from either bingeing or purging. The treatment effects were also similar to the immediate effects obtained by longer therapeutic approaches.
54. Grond M. Pawlik G. Walter H. Lesch OM. Heiss WD. Hypnotic catalepsy-induced changes of regional cerebral glucose metabolism. *Psychiatry Research.* 1995;61(3):173-9 In an attempt to elucidate the physiological basis of hypnosis, we investigated the changes of whole-brain and regional cerebral glucose metabolism, from a state of resting wakefulness to a hypnotized state with whole-body catalepsy, using positron emission tomography and the 2[18F]fluorodeoxyglucose method in 15 highly hypnotizable adults. Neither the random order of study conditions nor any of the other experimental factors had a measurable effect, and there was no statistically significant global activation or metabolic depression. However, repeated measures analysis of variance revealed a statistically significant heterogeneity of symmetric regional responses: Mainly the occipital areas, including visual and paraviscual cortex, became relatively deactivated, while some metabolic recruitment was found in structures involved in sensorimotor functions. The observed pattern of changes of regional cerebral activity corresponds with the shift of attention away from normal sensory input that hypnosis is known to produce.
55. Groth-Marnat G. Mitchell K. Responsiveness to direct versus indirect hypnotic procedures: the role of resistance as a predictor variable. *International Journal of Clinical & Experimental Hypnosis* 1998;46(4):324-33 Empirical research attempting to demonstrate that indirectly phrased hypnotic suggestions result in greater responsiveness than do direct approaches generally has not shown any differences on formal hypnotizability scales. However, empirical research in related areas along with clinical observation suggests that client resistance might be a crucial moderating variable. Specifically, participants with greater resistance would be expected to be more responsive to indirect approaches, whereas those with low levels of resistance would be more responsive to direct hypnotic procedures. To test this hypothesis, participants were given either a standardized test of hypnotic responsiveness that used direct suggestions (Harvard Group Scale of Hypnotizability) or a comparable indirect scale (Alman Wexler Indirect Hypnotic Susceptibility Scale) followed by administration of a measure of resistance (Therapeutic Reactance Scale). The hypothesis was not confirmed, in that those with higher (or lower) reactance/resistance did not score differently than those on either the indirect or direct hypnotizability measures.
56. Grunberger J. Linzmayer L. Walter H. Hofer C. Gutierrez-Lobos K. Stohr H. Assessment of experimentally-induced pain effects and their elimination by hypnosis using pupillometry studies. *Wiener Medizinische Wochenschrift* 1995;145(23):646-50 Hypnotherapeutical technique were often used for control of pain. However, an objective examination of this phenomenon was seldom carried out. The aim of the study was the psychophysiological

objectivation of the effect of experimental induced pain and the elimination of pain by means of hypnosis. 22 healthy volunteers (11 female and 11 male) aged between 22 and 35 years participated in the study. In the 1st phase of the experiment static pupillometry was carried out before randomized presentation of a light stimulus (143 lux, 0.3 sec) and of a pain stimulus (coldness-spray, -50 degrees C, 0.5 sec) respectively. Afterwards the dynamic pupillary measurement was done. Additionally the Fourier analyses of pupillary oscillations reflecting central nervous activation during the static measurement (25,6 sec) was calculated. In the 2nd phase the subjects were investigated by means of the same techniques during hypnosis with specific suggestions for elimination of pain. Under light condition as well as after induction of pain an autonomic deactivation could be observed during hypnosis. Furthermore under pain condition a central deactivation could also be found, reflecting the depth of the hypnosis and the reduced perception of pain.

57. Haanen HC. Hoenderdos HT. van Romunde LK. Hop WC. Mallee C. Terwiel JP. Hekster GB. Controlled trial of hypnotherapy in the treatment of refractory fibromyalgia. *Journal of Rheumatology* 1991;18(1):72-5 In a controlled study, 40 patients with refractory fibromyalgia were randomly allocated to treatment with either hypnotherapy or physical therapy for 12 weeks with followup at 24 weeks. Compared with the patients in the physical therapy group, the patients in the hypnotherapy group showed a significantly better outcome with respect to their pain experience, fatigue on awakening, sleep pattern and global assessment at 12 and 24 weeks, but this was not reflected in an improvement of the total myalgic score measured by a dolorimeter. At baseline most patients in both groups had strong feelings of somatic and psychic discomfort as measured by the Hopkins Symptom Checklist. These feelings showed a significant decrease in patients treated by hypnotherapy compared with physical therapy, but they remained abnormally strong in many cases. We conclude hypnotherapy may be useful in relieving symptoms in patients with refractory fibromyalgia.
58. Haddock CK. Rowan AB. Andrasik F. Wilson PG. Talcott GW. Stein RJ. Home-based behavioral treatments for chronic benign headache: a meta-analysis of controlled trials. *Cephalalgia* 1997;17(2):113-8 Controlled clinical trials have consistently demonstrated that behavioral treatments for chronic benign headache produce clinically beneficial outcomes both post-treatment and at follow-up. Given these results there is interest in cost-reduction and redesign of these treatments to improve their accessibility. One promising approach in this regard is home-based headache treatment. These treatments seek to provide the same amount of treatment as clinic-based treatments; however, some of the material typically presented to the patient by a clinician is presented through home-study materials (e.g., manuals, audiotapes). To date, the published literature contains 20 controlled clinical trials which have examined the outcomes produced by home-based treatments. This article presents the first comprehensive meta-analysis of these clinical outcome studies. Results of the quantitative analyses suggest that home-based treatments produce comparable, or with certain outcome measures, superior results to clinic-based treatments. Moreover, costeffectiveness scores of home-based treatments were found to be more than five times larger than those of clinic-based therapies. Methodological analyses are also presented along with suggestions for future research.
59. Hammarstrand G. Berggren U. Hakeberg M. Psychophysiological therapy vs. hypnotherapy in the treatment of patients with dental phobia. *European Journal of Oral Sciences* 1995;103(6):399-404 The aim of this study was to compare two different modes of behaviorally-oriented therapies for dental fear. The subjects were chosen consecutively from the waiting-list of a Dental Fears Research and Treatment Clinic. In addition, a control group was selected from patients treated under general anesthesia to compare levels of dental and general fear with the experimental groups. Twenty-two women, with a mean age of 31.8 yr, were included and randomly assigned to two groups. The median time of avoidance of dental care was 9.5 yr. One group received hypnotherapy (HT) and one group a behavioral treatment based on psychophysiological principles (PP). Both therapies included eight sessions

followed by standardized conventional dental test treatments. Pre- and posttreatment measures were dental fear, general fear, mood, and patient behavior. Nine patients were not able to conclude the treatment sessions (6 HT and 3 PP); these patients did not differ significantly from the remaining patients before treatment. The PP group reported a statistically significant decrease in dental fear as well as a rise in mood during dental situations, as opposed to the HT group. General fear levels decreased but not significantly. Eleven patients completed conventional dental treatment according to a dentist's behavioral rating scale, indicating that they were relaxed, and no problems occurred during the treatments. These patients were referred to general practitioners within the community dental service. In conclusion, this small size study showed that a majority of the patients, who accomplished the behavioral therapy and the dental test treatments, became less fearful of dental care and were able to manage conventional dental care, including changing dentist.

60. Hammond DC. Haskins-Bartsch C. Grant CW= Jr. McGhee M. Comparison of self-directed and tape-assisted self-hypnosis. *American Journal of Clinical Hypnosis* 1988;31(2):129-37 48 inexperienced adult volunteers were hypnotized and taught self-hypnosis by posthypnotic suggestion and immediate practice in the office. Subjects were randomly assigned to 1 of 2 experimental orders to practice self-directed and tape-assisted self-hypnosis. No differences were found between heterohypnosis or either type of self-hypnosis in response to behavioral suggestions. Experiential ratings, however, consistently favored heterohypnosis over either type of self-hypnosis. Tape-assisted self-hypnosis was consistently evaluated as superior to self-directed practice by newly trained Subjects.
61. Harmon TM. Hynan MT. Tyre TE. Improved obstetric outcomes using hypnotic analgesia and skill mastery combined with childbirth education. *Journal of Consulting & Clinical Psychology* 1990;58(5):525-30 The benefits of hypnotic analgesia as an adjunct to childbirth education were studied in 60 nulliparous women. Subjects were divided into high and low hypnotic susceptibility groups before receiving 6 sessions of childbirth education and skill mastery using an ischemic pain task. Half of the Ss in each group received a hypnotic induction at the beginning of each session; the remaining control Ss received relaxation and breathing exercises typically used in childbirth education. Both hypnotic Ss and highly susceptible Ss reported reduced pain. Hypnotically prepared births had shorter Stage 1 labors, less medication, higher Apgar scores, and more frequent spontaneous deliveries than control Ss' births. Highly susceptible, hypnotically treated women had lower depression scores after birth than women in the other 3 groups. We propose that repeated skill mastery facilitated the effectiveness of hypnosis in our study.
62. Hartman BJ. Hypnotizability as Affected by Attitudinal and Motivational Variables. *International Journal of Clinical & Experimental Hypnosis* 1967;15(2):86-91 Attempted to discover whether task-motivated subjects would be more hypnotizable than those not given task-motivation instructions, and whether the attitude of the E would affect subjects' hypnotizability. The Barber suggestibility scale was employed for measuring susceptibility to hypnosis. Subjects were divided randomly into 6 groups of 10: task-motivated, E neutral; non-task-motivated, E neutral; task-motivated, E friendly; task-motivated, E harsh; non-task-motivated, E friendly; and non-task-motivated, E harsh. Analyses of variance, both for objective and subjective scores, did not yield significant results for the task-motivation variable but did yield significant results ($p = .01$) for the variable dealing with E attitude.
63. Harvey RF. Hinton RA. Gunary RM. Barry RE. Individual and group hypnotherapy in treatment of refractory irritable bowel syndrome. *Lancet* 1989;1(8635):424-5 33 patients with refractory irritable bowel syndrome were treated with four 40-minute sessions of hypnotherapy over 7 weeks. 20 improved, 11 of whom lost almost all their symptoms. Short-term improvement was maintained for 3 months without further formal treatment. Hypnotherapy in groups of up to 8 patients was as effective as individual therapy.

64. Hendler CS, Redd WH Fear of hypnosis: The role of labeling in patients' acceptance of behavioral interventions *Behav Ther.* 1986;17(1):2-13 One hundred and five outpatient cancer chemotherapy patients were interviewed to assess their attitudes toward hypnosis and relaxation as well as to determine their beliefs in and willingness to try a behavioral procedure. Patients were randomly assigned to groups receiving identical descriptions labeled 'hypnosis', 'relaxation', or 'passive relaxation with guided imagery'. The description stressed the behavioral components of hypnosis and relaxation rather than the nonbehavioral techniques often associated with hypnosis such as age regression and posthypnotic suggestion. Patients believed hypnosis to be a powerful process that involved loss of control and altered states of consciousness. When compared with a group of college students, patients held significantly more fearful, conservative views about hypnosis. Patients who received a description of an intervention labeled 'hypnosis' were significantly less likely to believe the procedure would effectively control their nausea and vomiting and were significantly less likely to state they would try the procedure than patients in the other two label conditions. This reaction to the label occurred independently of patients' degree of nausea, vomiting, and pain due to their chemotherapy treatments.
65. Hockenberry-Eaton MJ, Cotanch PH. Evaluation of a child's perceived self-competence during treatment for cancer. *Journal of Pediatric Oncology Nursing* 1989;6(3):55-62 The purpose of this study was to evaluate the effect of self-hypnosis on the perceived self-competence of children undergoing treatment for cancer and to determine longitudinal differences in perception of self-competence over time. Twenty-two children were randomized into an experimental group (taught self-hypnosis) and a control group (given standard care). Data were collected using the Harter Perceived Self-Competence Profile (HPSCP) during four courses of chemotherapy. A decrease in mean scores for the control group was found compared with the hypnosis group, which showed an increase in mean scores in five of six domains. Both groups showed a statistically significant increase in the scholastic cognitive domain and social acceptance domain from the time of diagnosis compared with the second test period. Ten children had a visible physical disability. These children were found to have significant decreases in the domains of athletic competence, social acceptance, and global self-worth. Decreases remained significant throughout all test periods in the athletic competence domain for the children with a visible physical disability. This study is unique in that the researchers evaluated children's perception of self-competence over time. These findings support previous studies and identify the need for nurses to become actively involved in helping children develop effective coping skills during chemotherapy for cancer.
66. Houle M, McGrath PA, Moran G, Garrett OJ. The efficacy of hypnosis- and relaxation-induced analgesia on two dimensions of pain for cold pressor and electrical tooth pulp stimulation. *Pain* 1988;33(2):241-51 This study evaluated the efficacy of hypnosis- and relaxation-induced suggestions for analgesia for reducing the strength and unpleasantness dimensions of pain evoked by noxious tooth pulp stimulation and by cold pressor stimulation. The Tellegen Absorption Questionnaire was used to assess hypnotic susceptibility for 28 subjects in order to match treatment groups according to sex and susceptibility scores. Tooth pulp stimulation consisted of a 1 sec train of 1 msec pulses at a frequency of 100 Hz, applied at 20 sec intervals to the central incisor. Six stimuli, selected between subject's pain and tolerance thresholds, were presented 3 times each in random order. Cold pressor stimulation consisted of forearm immersion in a circulating water bath maintained at 0-1 degrees C. Subjects made threshold determinations of pain and tolerance and used Visual Analogue Scales to rate the strength and the unpleasantness of both noxious stimuli before and after receiving either hypnosis- or relaxation-induced analgesia. There were no significant differences in pain reductions between hypnosis- and relaxation-induced interventions. However, the percent reduction in both strength and unpleasantness varied significantly as a function of the type of pain. Both hypnosis and relaxation significantly reduced the strength

and the unpleasantness of tooth pulp stimulation, but only the unpleasantness dimension of cold pressor pain. The pain reductions were not correlated with subjects' hypnotic susceptibility levels. The results indicate that the extent and the quality of the analgesia produced by these cognitive-based therapies vary not only according to subjects' characteristics and the efficacy of the intervention, but also according to the nature of the noxious stimuli. Tooth pulp and cold pressor stimulation represent qualitatively different stimuli with respect to both the type of nerves activated and the mode of stimulus application. Discrete, randomly presented levels of noxious electrical stimulation to the teeth activate predominantly small fibers and produce brief pain sensations that vary unpredictably in intensity. In contrast, continuous cold stimulation to the forearm activates a variety of nociceptive and non-nociceptive fibers and produces progressive cold and pain sensations with a predictable increase in intensity from cold sensations to paresthesia and severe pain.

67. Howard WL. Reardon JP. Changes in the self concept and athletic performance of weight lifters through a cognitive-hypnotic approach: an empirical study. *American Journal of Clinical Hypnosis* 1986;28(4):248-57 Examined the effects of a cognitive-hypnotic-imagery approach (CHI), cognitive restructuring, and hypnosis only treatments on neuromuscular performance, muscular growth, reduction of anxiety, and enhancement of self-concept in 32 male weightlifters (mean age 22.5 yrs). Subjects were randomly assigned to 4 treatment conditions conducted over a 4-wk period. The CHI group showed significant treatment effects over the other groups on 6 dependent variables from pretest to posttest 1. From posttest 1 to posttest 2, a 1-mo period in which no treatment was conducted, self-concept and muscular growth measures for CHI Subjects showed significance. The CHI group was superior to the other conditions. Neuromuscular performance and muscular growth were positively modified by CHI. Data suggest that combining hypnotic relaxation and imagery with cognitive restructuring enhances both the immediate and long-range effects of treatment.
68. Hughes JA. Sanders LD. Dunne JA. Tarpey J. Vickers MD. Reducing smoking. The effect of suggestion during general anaesthesia on postoperative smoking habits. *Anaesthesia*. 1994;49(2):126-8 In a double-blind randomised trial, 122 female smokers undergoing elective surgery were allocated to receive one of two prerecorded messages while fully anaesthetised. The active message was designed to encourage them to give up smoking whilst the control message was the same voice counting numbers. No patient could recall hearing the tape. Patients were asked about their postoperative smoking behaviour one month later. Significantly more of those who had received the active tape had stopped or reduced their smoking ($p < 0.01$). This would suggest a level of preconscious processing of information.
69. Hurley AE. The effects of self-esteem and source credibility on self-denying prophecies. *Journal of Psychology* 1997;131(6):581-94 Self-fulfilling prophecies are a well-studied phenomenon. The study of self-denying prophecies, however, is rare. Self-denying prophecies shift people's behavior in the direction opposite to the prophecy. The existence of self-denying prophecies was investigated in 222 students. The effects of self-esteem and the source of the prophecy were also investigated. The results suggest that self-denying prophecies exist and that self-esteem is an important moderator of self-denying prophecies. If managers and industrial/organizational psychologists had an understanding of self-denying prophecies, they might be better able to structure negative performance reviews in a way that could lead to improved employee performance.
70. Hurley JD. Differential effects of hypnosis, biofeedback training, and trophotropic responses on anxiety, ego strength, and locus of control. *Journal of Clinical Psychology* 1980;36(2):503-7 Pretested 60 college students on three scales: The IPAT Anxiety Scale, the Barron Ego-strength scale, and the Rotter I-E scale. The Ss then were assigned randomly to one of four treatment groups designated: Hypnotic treatment, biofeedback treatment, trophotropic treatment, and control. Three of these groups met separately for 60 minutes once a week for 8 weeks. The control group did not meet during this time. During the sessions, each group was

trained in a different technique for self-regulation. At the end of the 8-week period the scales were readministered to all groups. A series of covariance analyses indicated that hypnosis was a more effective self-regulatory technique for lowering anxiety levels when compared to biofeedback or trophotropic response procedures. With regard to increasing ego strength, both the hypnotic training group and the biofeedback training group proved to be significant. No significant difference was found between the experimental and control groups on the I-E scores.

71. Hyman GJ, Stanley RO, Burrows GD, Horne DJ. Treatment effectiveness of hypnosis and behaviour therapy in smoking cessation: a methodological refinement. *Addictive Behaviors* 1986;11(4):355-65 Studies in smoking cessation have generally failed to adequately control for active treatment effects and have assumed that measures of smoking behaviour (i.e., estimated smoking rate, self-monitoring and chemical analysis) are equally reliable measures. Sixty smokers were randomly assigned to one of four different smoking cessation treatment groups: hypnosis, focussed smoking, attention placebo and a waiting list control. Subjects were asked to estimate and monitor their own smoking behaviour. Blood samples were also taken for thiocyanate analysis before treatment. Smoking rates were similarly measured directly, at 3 months and 6 months after treatment. The results indicate that the three measures of smoking behaviour were all highly correlated. No significant differences were found between treatments, directly after treatment or at the 3- and 6-month follow-ups. These results suggest that active treatment effects may not be responsible for behavioural change in a smoking cessation program. The implications of these findings are discussed.
72. Jacknow DS, Tschann JM, Link MP, Boyce WT. Hypnosis in the prevention of chemotherapy-related nausea and vomiting in children: a prospective study. *Journal of Developmental & Behavioral Pediatrics* 1994;15(4):258-64 To study the effectiveness of hypnosis for decreasing antiemetic medication usage and treatment of chemotherapy-related nausea and vomiting in children with cancer, we conducted a prospective, randomized, and controlled single-blind trial in 20 patients receiving chemotherapy for treatment of cancer. Patients were randomized to either hypnosis or standard treatment. The hypnosis group used hypnosis as primary treatment for nausea and vomiting, using antiemetic medication on a supplemental (p.r.n.) basis only, whereas the control group received a standardized antiemetic medication regimen. Nausea, vomiting, and p.r.n. antiemetic medication usage were measured during the first two courses of chemotherapy. Anticipatory nausea and vomiting were assessed at 1 to 2 and 4 to 6 months postdiagnosis. Patients in the hypnosis group used less p.r.n. antiemetic medication than control subjects during both the first ($p < .04$) and second course of chemotherapy ($p < .02$). The two groups did not differ in severity of nausea and vomiting. The hypnosis group experienced less anticipatory nausea than the control group at 1 to 2 months postdiagnosis ($p < .02$). Results suggest self-hypnosis is effective for decreasing antiemetic medication usage and for reducing anticipatory nausea during chemotherapy.
73. Jacobs AL, Kurtz RM, Strube MJ Hypnotic analgesia, expectancy effects, and choice of design: a reexamination. *Int J Clin Exp Hypn* 1995 Jan;43(1):55-69 Previous research by Stam and Spanos suggests that if waking analgesia is followed by hypnotic analgesia, subjects refrain from maximally responding during the waking trial so they report less pain under hypnosis (i.e., a holdback effect). This hypothesis was re-examined using more stringent controls. Thirty-six highly susceptible subjects chosen by a combination of the Harvard Group Scale of Hypnotic Susceptibility, Form A and the Stanford Hypnotic Susceptibility Scale, Form C were randomly assigned to one of three treatment groups (waking analgesia followed by hypnotic analgesia, waking analgesia followed by waking analgesia, or hypnotic analgesia followed by waking analgesia). Each group received three 60-second immersions of cold pressor pain stimulation (baseline, Immersion 1, Immersion 2) and rated pain using a magnitude estimation and a category rating scale. The obtained results failed to support the hypotheses of a holdback effect or a reverse-order holdback effect. Properties of within-

subjects and between-subjects designs were considered in explaining the superiority of hypnotic analgesia over waking analgesia typically found in within-subjects models.

74. Jansen CK. Bonke B. Klein J. van Dasselaaar N. Hop WC. Failure to demonstrate unconscious perception during balanced anaesthesia by postoperative motor response. *Acta Anaesthesiologica Scandinavica* 1991;35(5):407-10 Eighty patients undergoing a standardized balanced anaesthesia were randomly assigned to either a suggestion group (N = 38) or a control group (N = 42), in a double-blind design. Anaesthesia was maintained with nitrous oxide, enflurane and fentanyl. Patients in the suggestion group were played seaside sounds, interrupted by statements of the importance of touching the ear during a postoperative visit, by means of a prerecorded audiotape and headphones. Tapes containing these suggestions were played from 30 min after the first incision, for a duration of 15 min. Patients in the control group were only played seaside sounds. There were no significant differences between the groups in either the number of patients touching their ears postoperatively or the number and duration of ear touches.
75. Jasiukaitis P. Nouriani B. Spiegel D. Left hemisphere superiority for event-related potential effects of hypnotic obstruction. *Neuropsychologia*. 1996;34(7):661-8 Twenty-two highly hypnotizable subjects were run in a visual target detection task which compared hypnotic obstruction of the left and right visual fields over separate blocks. The visual event-related potentials (ERPs) to non-target stimuli revealed that hypnotic obstruction reduced the P200 component to stimuli in the right hemifield, but did not affect P200 for stimulation in the left hemifield. The earlier P100 and N100 were also reduced to hypnotic obstruction but not as preferentially for either hemifield, while the P300 was not significantly changed. Right visual field left hemisphere P200 reduction predicted suppression of behavioral response (button press) to hypnotically obstructed targets in both hemifields. The results are discussed in terms of Farah's model of a left hemisphere mechanism for image generation, and how highly hypnotizable subjects might use this mechanism to comply successfully with the suggestion of a hallucinated visually opaque barrier.
76. Javel AF. One-session hypnotherapy for smoking: a controlled study. *Psychological Reports* 1980;46(3 Pt 1):895-9 Not randomised
Jeffrey LK. Jeffrey TB. Exclusion therapy in smoking cessation: a brief communication. *International Journal of Clinical & Experimental Hypnosis* 1988;36(2):70-4 Investigated the effect of exclusion therapy on the outcome of a 5-session treatment protocol for smoking cessation. 120 adult Subjects were randomly assigned to a group hypnotic and behavioral program that required 48 hrs of pretreatment abstinence from use of tobacco products, or to an identical treatment that encouraged, but did not include, this pretreatment stipulation. Results indicate no significant differences between groups in dropout rates or number of Subjects abstinent from smoking. For all Subjects, including dropouts, the abstinence rate was 59.2% upon completion of treatment. It was 45.5% and 36.7% at 1- and 3-mo follow-up, respectively.
77. Johnson LS. Johnson DL. Olson MR. Newman JP. The uses of hypnotherapy with learning disabled children. *J Clinical Psychology*. 1981; 37(2):291-9
Three hypnotic training sessions and instructions for 6 weeks of daily self-hypnotic practice that contained suggestions for imagery related to improvement in these areas were given to 15 children (12 males and 3 females, ages from 7 to 13), their reading teacher, and both their parents, and their responses were compared to a similar but untreated control group of 18. No overall differences were observed between groups. A multiple regression analysis revealed important predictors of self-esteem improvement for the experimental group. The child's hypnotic susceptibility score and self-hypnotic practice by children and parents were the most relevant. These LD children were at least as hypnotically susceptible as a normative sample. Hypnotherapy is seen as feasible in group administration by persons only moderately trained in hypnosis and of potential benefit to self-esteem improvement in LD children, depending on individual difference factors.

78. Johnson PR, Thorn BE. Cognitive behavioral treatment of chronic headache: group versus individual treatment format. *Headache* 1989;29(6):358-65

Two hypotheses were tested in this study: (1) that a short course of cognitive behavioral therapy (CBT) is effective in the treatment of chronic headache; and (2) that group CT is as effective as individually administered CBT. Twenty-two chronic headache sufferers were randomly assigned to one of three treatment conditions: group administered CBT, individually administered CBT, or no treatment (wait list) control. Wait list subjects ultimately received treatment identical to that offered to subjects in the group treatment condition. Treatment outcome measures included the Brief Symptom Inventory, the McGill Pain Questionnaire, and several measures calculated from self-monitoring data. Tentative support was found for the hypothesis that CBT as provided in this study is effective in the treatment of chronic headache. There was no evidence that group versus individually treated subjects differed significantly on any of the measures used, although the small N and large variance among subjects limit us to preliminary conclusions for our findings. Clinical implications and suggestions for future research are discussed.

79. Johnson RL, Johnson HC. Effects of anxiety-reducing hypnotic training on learning and reading-comprehension tasks. *Journal of the National Medical Association* 1984;76(3):233-235.

15 college students who reported having test-taking anxiety were randomly assigned to an experimental or a control group. The experimental group received hypnotic training to reduce anxiety prior to taking a learning and reading-comprehension test. No significant difference was found between the experimental and the control group on the simple-recall task. However, on the reading-comprehension test the experimental group scored significantly higher than the control group. Further examination of the total score revealed that the experimental group difference was due to superior performance on the inference items. There was no difference between groups on items that required the recall of information from the passage. Findings support the notion that hypnotic training may be useful to reduce anxiety and improve test performance.

80. Johnson VC, Walker LG, Heys SD, Whiting PH, Eremin O Can relaxation training and hypnotherapy modify the immune response to stress, and is hypnotizability relevant?

Contemporary Hypnosis 1996;13(2):100-8 A study was carried out with the following aims: (1) to evaluate the psychological and immunological effects of 3 weeks' relaxation practice; (2) to investigate the effects of relaxation training and hypnosis on the modulation of the immune response to an experimental stressor, and (3) to relate changes to hypnotic susceptibility. Twenty-four healthy volunteers were assigned, according to a stratified, permuted blocks, random allocation procedure, to relaxation training with hypnosis or to a control condition. Subjects attended on three occasions: day 1, day 21 and day 22 or 23. Various psychological tests were carried out on each of the occasions and, in addition, samples of urine and blood were collected for immunological and biochemical analysis. Two samples of blood were taken at the second visit, one before exposure to an experimental stressor on day 21 and one immediately thereafter. Relaxation had several effects including improvement on a number of measures of mental state and a reduction in lymphocyte responsiveness and IL-1 secretion. However, on exposure to the stressor, previous relaxation training and pre-exposure hypnotic suggestion led to increased lymphocyte responsiveness and IL-1 secretion. The extent to which IgA increased as a result of relaxation therapy for 3 weeks was positively correlated with Creative Imagination Scale (CIS) scores (changes in the control group during the same period were not correlated with CIS scores). Moreover, immediate changes in IL-1 following exposure to the stressor were positively correlated with CIS scores in the experimental groups and negatively in the control group. Hypnotizability, as assessed by the CIS, may be an important moderator of the psychoneuroimmunological response to relaxation training and exposure to acute stress.

Johnston M, Voge C Benefits of psychological preparation for surgery: A meta analysis *Ann Behav Med.* 1993;15(4):245-256 There is now substantial agreement that psychological preparation for surgery is beneficial to patients. It is important, however, to establish which benefits can be achieved by psychological preparation and if all forms of preparation are equally effective. The results of randomized controlled trials of psychological methods of preparing adult patients for surgery were analyzed in terms of eight outputs (negative affect, pain, pain medication, length of stay, behavioral

and clinical indices of recovery, physiological indices, and satisfaction). In order to reduce publication bias, published as well as unpublished studies were included in the meta analysis. It was concluded that significant benefits can be obtained on all of the major outcome variables that have been explored. Procedural information and behavioral instructions show the most ubiquitous effects in improving measures of post-operative recovery. The results have implications for the improvement of patient care in surgical units.

81. Kaplan GM, Barabasz AF Enhancing hypnotizability: differential effects of flotation restricted environmental stimulation technique and progressive muscle relaxation *Australian Journal of Clinical & Experimental Hypnosis* 1988 May;16(1):39-51

Investigated the effectiveness of flotation restricted environmental stimulation technique (REST) for enhancing hypnotizability. 30 Subjects were randomly assigned to flotation REST, progressive muscle relaxation (PMR), or no-treatment control conditions. Subjects were tested with the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C), and readministered the SHSS:C after treatment and at follow-up. Results show that PMR enhanced hypnotizability more than no-treatment control. Flotation REST was not found to enhance hypnotizability more than PMR. Both REST and PMR Subjects significantly increased hypnotizability over time while control Subjects did not. The role of relaxation in hypnosis is discussed.

82. Katcher A. Segal H. Beck A. Comparison of contemplation and hypnosis for the reduction of anxiety and discomfort during dental surgery. *American Journal of Clinical Hypnosis* 1984;27(1):14-21

Used complex moving visual stimuli to induce states of relaxation, hypnosis, and revery in 42 dental patients (aged 21-60 yrs). To test the efficacy of using aquarium contemplation to induce relaxation, Subjects were randomly assigned to 1 of 5 treatments prior to elective oral surgery: contemplation of an aquarium, contemplation of a poster, poster contemplation with hypnotic induction, aquarium contemplation with hypnosis, and a nonintervention control. Subjects were administered 5 tests of susceptibility adapted from the Stanford Hypnotic Susceptibility Scale; blood pressure, heart rate, and subjective and objective measures of anxiety were also taken. It was found that pretreatment with aquarium contemplation and hypnosis, either alone or in combination, produced significantly greater degrees of relaxation during surgery than poster contemplation or the control procedure. Two-way ANOVA demonstrated that a formal hypnotic induction did not augment the relaxation produced by aquarium contemplation. Findings suggest that aquarium contemplation can alter patients' subjective experiences and overt behavior during oral surgery. Other clinical applications of the contemplation procedure are discussed.

83. Katz ER. Kellerman J. Ellenberg L. Hypnosis in the reduction of acute pain and distress in children with cancer. *Journal of Pediatric Psychology* 1987;12(3):379-94

12 female and 24 male 6-11 yr olds with acute lymphoblastic leukemia who were undergoing repeated bone marrow aspirations (BMAs) were randomized to hypnosis or play comparison groups. Subjects were selected on their behavioral performance on baseline procedures and received interventions prior to their next 3 BMA procedures. Major results indicate an improvement in self-reported distress with both interventions. Girls exhibited more distress behavior than boys on 3 of 4 dependent measures. Suggestions of an interaction effect between sex and treatment groups were noted. The role of rapport between patient and therapist in therapeutic outcome is discussed.

84. Katz NW. Hypnotic inductions as training in cognitive self-control. *Cognitive Therapy Research* 1978;2(4):365-369.

Compared the efficacy of the traditional trance induction, the author's cognitive training induction, and a combination of cognitive training and active-alert instructions. In the context of a guest lecture on hypnosis, volunteer undergraduates were randomly assigned to 1 of 3 groups. The Harvard Group Scale of Hypnotic Susceptibility and a measure of attitudes toward hypnosis and conceptions of the hypnotic process were used. Results show the following: (a) The 2 inductions containing training procedures were significantly more effective than the trance induction in enhancing suggestibility but

did not differ from each other. (b) Subjects exposed to the combined training and fantasy inductions saw themselves as more hypnotizable in the future than Subjects exposed to training alone.

85. Kaufert JM. Rabkin SW. Syrotuik J. Boyko E. Shane F. Health beliefs as predictors of success of alternate modalities of smoking cessation: results of a controlled trial. *Journal of Behavioral Medicine* 1986;9(5):475-89

The primary objective of this study was to determine whether health beliefs influenced the outcome of the three alternate modalities of reducing cigarette consumption. The study randomized volunteers either to a control group or to one of three cessation programs, using behavior modification, health education, or hypnosis. A questionnaire was used to document health beliefs, demographic characteristics, and smoking history. Blood samples were taken before and after the completion of intervention programs to measure changes in serum thiocyanate. A follow-up questionnaire was used to assess smoking behavior after 6 months. Statistically significant decreases in serum thiocyanate levels followed participation in each of the three programs. Factor analysis and reliability tests were used to identify four scales reflecting major variable dimensions in the health belief model. Significant correlations between change in serum thiocyanate and two of the scales (general health concern and perceived vulnerability) were found only for the group randomly assigned to the health education intervention program.

86. Kirsch I. Hypnotic enhancement of cognitive-behavioral weight loss treatments--another meta-reanalysis *Journal of Consulting & Clinical Psychology* 1996;64(3):517-9

In a 3rd meta-analysis of the effect of adding hypnosis to cognitive-behavioral treatments for weight reduction, additional data were obtained from authors of 2 studies, and computational inaccuracies in both previous meta-analyses were corrected. Averaged across posttreatment and follow-up assessment periods, the mean weight loss was 6.00 lbs. (2.72 kg) without hypnosis and 11.83 lbs. (5.37 kg) with hypnosis. The mean effect size of this difference was 0.66 SD. At the last assessment period, the mean weight loss was 6.03 lbs. (2.74 kg) without hypnosis and 14.88 lbs. (6.75 kg) with hypnosis. The effect size for this difference was 0.98 SD. Correlational analyses indicated that the benefits of hypnosis increased substantially over time ($r = .74$).

87. Kirsch I. Montgomery G. Sapirstein G. Hypnosis as an adjunct to cognitive-behavioral psychotherapy: a meta-analysis. *Journal of Consulting & Clinical Psychology* 1995;63(2):214-20

A meta-analysis was performed on 18 studies in which a cognitive-behavioral therapy was compared with the same therapy supplemented by hypnosis. The results indicated that the addition of hypnosis substantially enhanced treatment outcome, so that the average client receiving cognitive-behavioral hypnotherapy showed greater improvement than at least 70% of clients receiving nonhypnotic treatment. Effects seemed particularly pronounced for treatments of obesity, especially at long-term follow-up, indicating that unlike those in nonhypnotic treatment, clients to whom hypnotic inductions had been administered continued to lose weight after treatment ended. These results were particularly striking because of the few procedural differences between the hypnotic and nonhypnotic treatments.

88. Klein KB. Spiegel D. Modulation of gastric acid secretion by hypnosis. *Gastroenterology* 1989;96(6):1383-7

The ability of hypnosis to both stimulate and inhibit gastric acid secretion in highly hypnotizable healthy volunteers was examined in two studies. In the first, after basal acid secretion was measured, subjects were hypnotized and instructed to imagine all aspects of eating a series of delicious meals. Acid output rose from a basal mean of 3.60 +/- 0.48 to a mean of 6.80 +/- 0.02 mmol H⁺/h with hypnosis, an increase of 89% ($p = 0.0007$). In a second study, subjects underwent two sessions of gastric analysis in random order, once with no hypnosis and once under a hypnotic instruction to experience deep relaxation and remove their thoughts from hunger. When compared to the no-hypnosis session, with hypnosis there was a 39% reduction in basal acid output (4.29 +/- 0.93 vs. 2.60 +/- 0.44 mmol H⁺/h, p less than 0.05) and an 11% reduction in pentagastrin-stimulated peak acid output (28.69 +/- 2.34 vs. 25.43 +/- 2.98 mmol H⁺/h, p less than 0.05). We have shown that different cognitive states induced by hypnosis can promote or inhibit gastric acid production, processes clearly

controlled by the central nervous system. Hypnosis offers promise as a safe and simple method for studying the mechanisms of such central control.

89. Kohen DP Relaxation-mental imagery (self-hypnosis) for childhood asthma: behavioral outcomes in a prospective, controlled study *Hypnos* 1995 Sep;22(3):132-44

Twenty-eight (28) 7-12 yr old children entered a controlled study of the effects of self-hypnosis on asthma. Asthma belief and behavioural inventories were collected before, and at one and two yrs after intervention. Asthma diaries were kept daily and mailed monthly. Subjects were randomly assigned to (1) Experimental (self-hypnosis), (2) Waking suggestion (no Hypnosis), (3) attention placebo (no hypnosis or asthma discussion), or (4) traditional control groups. Twenty four (24) completed 1 month follow-up, 16 completed 6 months, and 13 completed 2 yrs. Results included fewer Emergency Room visits in the experimental group (p greater than 0.05); (2) less school missed in the experimental group compared to the traditional controlled group (p greater than 0.001) and to the waking suggestion group (p greater than 0.005); (3) no differences in psychological evaluations between groups, and (4) surprising findings regarding hypnotic and hypnotic-like experiences among subjects.

90. Kohen DP Relaxation/mental imagery (self-hypnosis) for childhood asthma: behavioural outcomes in a prospective, controlled study *Australian Journal of Clinical & Experimental Hypnosis* 1996 May;24(1):12-28

Twenty-eight 7-12-year-old children entered a controlled study of the effects of self-hypnosis on asthma. Asthma belief and behavioural inventories were collected before, and at one and two years after intervention. Asthma diaries were kept daily and mailed monthly. Subjects were randomly assigned to (a) experimental (self-hypnosis), (b) waking suggestion (no hypnosis), (c) attention placebo (no hypnosis or asthma discussion) or (d) traditional control groups. Twenty-four completed one-month follow-up, 16 completed six months, and 13 completed two years. Results included: (a) fewer emergency room visits in the experimental group; (b) less school missed in the experimental group compared to the traditional control group and to the waking suggestion group; (c) no difference in psychological evaluations between groups; and (d) surprising findings regarding hypnotic and hypnotic-like experiences among subjects.

91. Kurtz RM. Strube MJ. Multiple susceptibility testing: is it helpful?. *American Journal of Clinical Hypnosis*. 1996;38(3):172-84

This study explored whether or not the use of combined group and individually administered susceptibility tests improve the predictive power over the use of a singly administered test. Two hundred and eighty undergraduates were assigned to one of five groups: Group 1 received the HGSHS: A and then the SHSS:C; Group 2 the CIS and SHSS:C; Group 3 the HGSHS: A and the SHCS:A; Group 4 received the CIS and the SHCS:A; and Group 5 was tested on the SHSS:C alone. After the susceptibility screening the subjects were hypnotized and tested on four types of target hypnotic behaviors. From the RSPSHS:I&II the following four factors were chosen (1) cognitive distortion, (2) positive hallucination, (3) negative hallucination, (4) dreams and regression. The items were matched on difficulty level. The data were subjected to a series of stepwise multiple regression and logistic regression analyses. The results confirmed previous research; i.e., (1) The SHSS:C is the best single measure, (2) the SHCS:A is a poor substitute for the SHSS:C; (3) the HGSHS:A is not adequate substitute for SHSS:C; (4) the CIS is weak in predictive power compared to the HGSHS:A; (5) Only for a weak measure such as SHCS:A does combined testing produce an advantage; (6) There appear to be no warm-up effects for SHSS:C when preceded by HGSHS:A.

92. Kuttner L. Bowman M. Teasdale M. Psychological treatment of distress, pain, and anxiety for young children with cancer. *Journal of Developmental & Behavioral Pediatrics* 1988;9(6):374-81

The study compared the efficacy of hypnotic "imaginative involvement," behavioral distraction and standard medical practice for the reduction of pain, distress and anxiety in children with leukemia, during bone marrow aspirations. Two age groups of children, 3 to 6, and 7 to 10 years, were randomized to the three treatment groups. Two intervention sessions were given. At first intervention, observational ratings of distress indicated significant reductions for the younger

group in the hypnotic treatment, whereas the older group achieved significant reductions in both treatment conditions for observer-rated pain and anxiety. At second intervention, all groups showed reductions and the control group appeared to be contaminated. The hypnotic method with its internal focus had an all-or-none effect, whereas distraction appeared to require that coping skills be learned over one session or more.

93. Lambe R. Osier C. Franks P. A randomized controlled trial of hypnotherapy for smoking cessation. *Journal of Family Practice* 1986;22(1):61-5

A randomized controlled study in a family practice setting was conducted on the use of hypnosis in helping people quit smoking. In the hypnosis group 21 percent of patients quit smoking by the three month follow-up compared with 6 percent in the control group. By six months there were no significant differences between the two groups, and at one year 22 percent in the hypnosis group and 20 percent in the control group had quit. The only significant predictor of success with quitting was having a college education.

94. Lambert SA. The effects of hypnosis/guided imagery on the postoperative course of children. *Journal of Developmental & Behavioral Pediatrics*. 1996;17(5):307-10

Hypnosis, guided imagery, and relaxation have been shown to improve the postoperative course of adult surgical patients. Children have successfully used hypnosis/guided imagery to significantly reduce the pain associated with invasive procedures and to improve selected medical conditions. The purpose of this study was to examine the effect of hypnosis/guided imagery on the postoperative course of pediatric surgical patients. Fifty-two children (matched for sex, age, and diagnosis) were randomly assigned to an experimental or control group. The experimental group was taught guided imagery by the investigator. Practice of the imagery technique included suggestions for a favorable postoperative course. Significantly lower postoperative pain ratings and shorter hospital stays occurred for children in the experimental group. State anxiety was decreased for the guided imagery group and increased postoperatively for the control group. This study demonstrates the positive effects of hypnosis/guided imagery for the pediatric surgical patient.

95. Lang EV. Joyce JS. Spiegel D. Hamilton D. Lee KK.

Self-hypnotic relaxation during interventional radiological procedures: effects on pain perception and intravenous drug use. *International Journal of Clinical & Experimental Hypnosis* 1996;44(2):106-19
The authors evaluated whether self-hypnotic relaxation can reduce the need for intravenous conscious sedation during interventional radiological procedures. Sixteen patients were randomized to a test group, and 14 patients were randomized to a control group. All had patient-controlled analgesia. Test patients additionally had self-hypnotic relaxation and underwent a Hypnotic Induction Profile test. Compared to controls, test patients used less drugs (0.28 vs. 2.01 drug units; $p < .01$) and reported less pain (median pain rating 2 vs. 5 on a 0-10 scale; $p < .01$). Significantly more control patients exhibited oxygen desaturation and/or needed interruptions of their procedures for hemodynamic instability. Benefit did not correlate with hypnotizability. Self-hypnotic relaxation can reduce drug use and improve procedural safety.

96. Larison G. Exploring an experimental method for producing the spontaneous repressions of impulses. *Proceedings of the 81st Annual Convention of the American Psychological Association, Montreal Canada* 1973;8:1097-1098.

Attempted to identify the necessary and sufficient conditions for producing psychopathology upon the posthypnotic motivation of anger in a study with 16 female Subjects. Subject's feelings and amnesia for the paramnesia serving as a matrix for the anger were assessed. A paramnesia which previously had not produced psychopathology was used in a 2 * 2 randomized design. Mild symptoms of psychopathology were elicited, but neither of the variables was significant. However, the amnesia condition was associated with significantly greater repression of the posthypnotically activated anger and significantly less GSRs. The success in producing psychopathology is discussed in the light of earlier failures with this paramnesia.

97. Lee DY. Barak A. Uhlemann MR. Patsula P. Effects of preinterview suggestion on counselor memory, clinical impression, and confidence in judgments. *Journal of Clinical Psychology* 1995;51(5):666-75

This study examined the effects of schematic preinterview suggestion on counselors' (a) recognition memory of the information presented by the client; (b) clinical impression rating of the client; and (c) confidence in rating clinical impression. Fifty-two Master's-level counselor-trainees were assigned randomly to two conditions of preinterview suggestion about the status of the client (i.e., depression and no depression). After subjects had received appropriate preinterview information (i.e., depression or no-depression content) and had viewed a videotaped counseling interview, information was gathered from them. The results indicated that the preinterview suggestion (a) did not affect counselor-trainees' clinical impression rating of the client; (b) did not affect confidence of rating; and (c) yielded a weak, but significant, confirmatory memory. Implications for the interview setting are discussed.

98. Lieberman J. Lavoie G. Brisson A. Suggested amnesia and order of recall as a function of hypnotic susceptibility and learning conditions in chronic schizophrenic patients. *International Journal of Clinical & Experimental Hypnosis* 1978;26(4):268-280.

Investigated the influence on suggested amnesia of hypnotic susceptibility and active vs passive learning. 36 chronic schizophrenic patients, 18 low in hypnotic susceptibility and 18 medium or high in hypnotic susceptibility, were randomly assigned to active or passive learning conditions. Subjects were first tested in a hypnosis condition (Day 1) and were retested in a nonhypnosis condition (Day 2) with the presence of waking suggestion. Results for the hypnosis condition indicate that (a) there were no differences between low and medium-high susceptible Subjects on recall amnesia and reversibility, (b) recall amnesia and reversibility were significantly higher in passive than active learning conditions, and (c) in all conditions recall was consistently ordered. Results for the nonhypnosis condition were similar, except that reversibility was not significantly higher in passive than active learning conditions. A secondary analysis, which partitioned high susceptible from medium susceptible Subjects, revealed that reversibility was significantly higher in the high than in the low susceptible Subjects; medium susceptible Subjects did not differ from either high or low susceptible Subjects. The data suggest that the chronic schizophrenics' failure to recall hypnotic events may involve different mechanisms from those that account for posthypnotic amnesia in normal Subjects. (German, French & Spanish summaries)

99. Lieberman LR. Fisher JR. Thomas R. King W. Use of tape recorded suggestions as an aid to probationary students. *American Journal of Clinical Hypnosis* 1968;11(1):35-41.

A controlled study of the effectiveness of tape recorded hypnotic-like techniques on probationary students was performed. 35 pairs of probationary students, matched in curriculum predicted grade, sex, marital status, and age, were randomly assigned to control and experimental conditions. Both groups were tested for intelligence and hypnotic susceptibility; no differences were found. Results showed no significant difference in final grades for the 2 groups; however, there were significantly more experimental Subjects (14 to 8) removed from probation at the end of the quarter.

Linton CP, Sheehan PW The relationship between interrogative suggestibility and susceptibility to hypnosis *Australian Journal of Clinical & Experimental Hypnosis* 1994 May;22(1):53-64 Using the Gudjonsson Suggestibility Scale (GSS; Gudjonsson, 1984) and Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A, Shor and Orne, 1962) as measures of interrogative suggestibility and hypnotic susceptibility, 117 subjects were tested to examine the hypothesis that a relationship exists between these two measures of suggestibility. Subjects were assigned randomly to conditions within a 2 (susceptibility: high, low) x 2 (state instruction: hypnosis, waking) x 2 (feedback on the GSS: neutral, negative) design. The data suggest that the two types of suggestibility are, in fact, associated. Analyses indicated that suggestibility scores on the GSS differed appreciably for high versus low susceptible subjects, and the HGSHS:A was significantly correlated with yield scores on the interrogative suggestibility scale. Results challenge previous claims that the two types of suggestibility are independent of one another and have forensic implications that may be usefully explored.

100. Liu WH. Standen PJ. Aitkenhead AR. Therapeutic suggestions during general anaesthesia in patients undergoing hysterectomy. *British Journal of Anaesthesia* 1992;68(3):277-81

In a double-blind, randomized study, we have examined the influence of positive therapeutic suggestions, presented to anaesthetized patients undergoing total abdominal hysterectomy, on postoperative morbidity and duration of hospital stay. Seventy-five patients were allocated randomly to be exposed to one of three tapes containing positive therapeutic suggestions, a modified history of the Queen's Medical Centre, or no message. We found that neither therapeutic suggestions nor the presence of a voice during anaesthesia improved postoperative outcome or reduced duration of hospital stay after total abdominal hysterectomy.

101. Llana-Ramos ML. Hypnotherapy in the treatment of chronic headaches. *Philippine Journal of Psychology* 1989;22:17-25.

35 chronic headache patients were assessed on frequency, duration, intensity, amount of medication, and number of difficulties associated with headaches. 25 Subjects were randomly assigned to 2 psychotherapists who administered Ericksonian hypnotherapy; 10 Subjects became the comparison group. Prior to treatment, all 25 Subjects were nonsignificantly different on their baseline measures. Posttreatment measures showed all Subjects with complete relief from headaches. Two months later, 20 Subjects experienced complete recovery while 5 had a single attack of headache. For the 2 experimental groups, there were no significant differences in symptomatic manifestations before and after treatment. At the delayed posttreatment period, post hoc test analysis evidenced a shared pattern of significant differences between each of the 2 treatment groups and the comparison group.

102. Maher-Loughnan GP, McDonald M, Mason AA, Fry L. Controlled trial of hypnosis in the symptomatic treatment of asthma *BMJ* 1962; ii: 371-6

Manganiello AJ. A comparative study of hypnotherapy and psychotherapy in the treatment of methadone addicts. *American Journal of Clinical Hypnosis* 1984;26(4):273-9 This study sought to examine the effects of hypnotherapy on the ability of methadone maintained patients to reduce and/or eliminate their drug taking behavior. Seventy adult volunteers at a methadone maintenance program were randomly assigned to experimental and control groups. The experimental group received hypnotherapy for six months in addition to the psychotherapy offered as standard clinic treatment. The control group received only psychotherapy. After treatment, a six month follow up was conducted by interviews. Groups were compared to determine significant differences in the number of successful withdrawals, the mean change in methadone dose level, incidence of illicit drug use, and degree of discomfort. Significant differences were found on all measures. The experimental group had significantly less discomfort and illicit drug use, and a significantly greater number of withdrawals. At six month follow up, 94% of the subjects in the experimental group who had achieved withdrawal remained narcotic free.

103. Marks NJ. Karl H. Onisiphorou C. A controlled trial of hypnotherapy in tinnitus. *Clinical Otolaryngology* 1985;10(1):43-6

A group of 14 patients with unilateral tinnitus were selected because of the constant nature of their tinnitus, and its resistance to all other forms of therapy. They were subjected to hypnosis in three forms in random order. The induction of a trance state alone formed the control arm of the trial. Compared to this were the effects of 'ego boosting' and active suppression of tinnitus whilst in a trance state. One of the 14 patients showed a highly significant response to the latter treatment as judged by visual analogue scales. Five of the 14 patients (36%) found the induction of a hypnotic state of value. This seemed to help them tolerate their tinnitus better, although its loudness and quality were unaltered.

104. Maroof M. Ahmed SM. Khan RM. Bano SJ. Haque AW. Intra-operative suggestions reduce incidence of post hysterectomy emesis. *JPMA - Journal of the Pakistan Medical Association* 1997;47(8):202-4

The influence of therapeutic intraoperative auditory suggestions on the incidence and severity of emetic episodes was investigated in 50 adults ASA I and II patients undergoing elective abdominal

hysterectomy. The patients were randomly divided into two groups, each consisting of 25 patients. In group I, a blank tape was played and in group II, positive suggestion was played via headphones throughout the anaesthetic period. It was observed that there was statistically significant difference ($P < 0.05$) between the incidence of vomiting in group I (60%) and group II (36%). The number of vomiting episodes per patient in group I was 3.1 ± 1.2 as compared to 1.7 ± 0.6 in group II. This difference was statistically significant. The patients requiring rescue antiemetic was significantly higher ($P < 0.05$) in group I (66.6%) as compared to group II (22.2%). It is concluded that positive therapeutic suggestion may be considered as an alternative to antiemetic therapy.

105. McCauley JD. Thelen MH. Frank RG. Willard RR. Callen KE. Hypnosis compared to relaxation in the outpatient management of chronic low back pain. *Arch Phys Med Rehab* 1983;64(11):548-52 Chronic low back pain (CLBP) presents a problem of massive dimensions.

While inpatient approaches have been evaluated, outpatient treatment programs have received relatively little examination. Hypnosis and relaxation are two powerful techniques amenable to outpatient use. Seventeen outpatient subjects suffering from CLBP were assigned to either Self-Hypnosis ($n = 9$) or Relaxation ($n = 8$) treatments. Following pretreatment assessment, all subjects attended a single placebo session in which they received minimal EMG feedback. One week later the subjects began eight individual weekly treatment sessions. Subjects were assessed on a number of dependent variables at pretreatment, following the placebo phase, one week after the completion of treatment, and three months after treatment ended. Subjects in both groups showed significant decrements in such measures as average pain rating, pain as measured by derivations from the McGill Pain Questionnaire, level of depression, and length of pain analog line. Self-Hypnosis subjects reported less time to sleep onset, and physicians rated their use of medication as less problematic after treatment. While both treatments were effective, neither proved superior to the other. The placebo treatment produced nonsignificant improvement.

106. McGarry J Mesmerism vs hypnosis: a comparison of relaxation responses and evaluation of mental and psychophysiological outcomes *Aust J Clin Hypnother Hypn* 1987 Nov;8(1):7-36

Examined the concept put forward by L. Pulos (see PA, Vol 66:5078) that a distinction may be made between hypnotic and mesmeric phenomena. To test for psychophysiological differences in these 2 states, 45 undergraduates were randomly allocated to 1 of 3 groups that received a hypnotic induction, a hypnotic induction with mesmeric passes, or no induction and no passes. It was found that the mesmerism group showed a relaxation response similar to the hypnosis group in terms of muscle tension. However, heart rate readings for the groups were divergent, and both groups differed from the control group on both measures. Subjective reports also indicated a difference between mesmerism and hypnosis. Findings demonstrate that hypnosis alone does not produce the same physiological measures as hypnosis and mesmerism combined.

107. McKelvie SJ. Pullara M. Effects of hypnosis and level of processing on repeated recall of line drawings. *Journal of General Psychology* 1988;115(3):315-29

Moderately susceptible subjects ($N = 30$) initially judged 30 line drawings of objects for pleasantness (deep processing) and 30 line drawings for visual complexity (shallow processing), after which they were given two immediate recall tests. Following a 48-hr delay, subjects were allocated randomly to hypnosis, simulation, or neutral control conditions and were tested four more times. Subjects produced more correct and incorrect responses over the six trials and gave a higher number of correct responses for deep items than for shallow items. Over the last four trials, hypnosis had no general facilitative effect relative to the other two treatments, but the effect of depth was strongest for hypnotized subjects, who recalled more deep items than did the controls. Finally, both hypnotized and simulating subjects rated their recall as more involuntary and their experimental treatment as more helpful than did the controls. Caution is urged in the forensic use of hypnosis as a retrieval device.

108. McLintock TT. Aitken H. Downie CF. Kenny GN. Postoperative analgesic requirements in patients exposed to positive intraoperative suggestions. *BMJ* 1990;301(6755):788-90 **OBJECTIVE**--To establish whether positive suggestions given to a patient under general anaesthesia reduce postoperative pain and analgesic requirements. **DESIGN**--Prospective double blind randomised study. **SETTING**--Operating theatre and gynaecology ward of a teaching hospital. **PATIENTS**--63 Woman undergoing elective abdominal hysterectomy were randomised to be played either a tape of positive suggestions or a blank tape during the operation through a personal stereo system. **INTERVENTIONS**--Three women were withdrawn from the study. Anaesthesia was standardised for all of the women. Postoperative analgesia was provided through a patient controlled analgesia system for the first 24 hours. Pain scores were recorded every six hours. **MAIN OUTCOME MEASURES**--Morphine consumption over the first 24 hours after the operation; pain scores. **RESULTS**--Mean morphine requirements were 51.0 mg (95% confidence interval 42.1 to 60.0 mg in the women played positive suggestions; and 65.7 mg (55.6 to 75.7 mg) in those played a blank tape. The point estimate (95% confidence interval) for the difference of means was 14.6 mg (22.4%) (1.9 (2.9%) to 27.3 mg (41.6%]) ($p = 0.028$). Pain scores were similar in the two groups. **CONCLUSION**--Positive intraoperative suggestions seem to have a significant effect in reducing patients' morphine requirements in the early postoperative period.

109. Melis PM. Rooimans W. Spierings EL. Hoogduin CA. Treatment of chronic tension-type headache with hypnotherapy: a single-blind time controlled study. *Headache* 1991;31(10):686-9
We investigated the effectiveness of a special hypnotherapy technique in the treatment of chronic tension-type headache. A waitinglist control group was used to control for the changes in headache activity due to the passage of time. The results showed significant reductions in the number of headache days (p less than 0.05), the number of headache hours (p less than 0.05) and headache intensity (p less than 0.05). The improvement was confirmed by the subjective evaluation data gathered with the use of a questionnaire and by a significant reduction in anxiety scores (p less than 0.01).

110. Miller LS, Cross-HJ Hypnotic susceptibility, hypnosis, and EMG biofeedback in the reduction of frontalis muscle tension *Int J Clin Exp Hypn.* 1985;33(3):258-272
Biofeedback and hypnosis have been used in the treatment of similar disorders. While each has been useful, it is unclear whether they involve similar or conflicting processes. Bowers and Kelly (1979) have hypothesized that high hypnotizable Ss are more likely to benefit from hypnosis and similar procedures, than moderate and low hypnotizable individuals. In contrast, Qualls and Sheehan (1979, 1981a, b, c) have argued that hypnosis and biofeedback involve antithetical abilities. In the present study, high, moderate, and low hypnotizable individuals ($N = 60$) were randomly assigned to either EMG biofeedback or hypnosis conditions and instructed to relax. It was found that the mean percent reduction in frontalis muscle tension over the last 5 trials was significantly greater for the high hypnotizable Ss during hypnosis than the moderate and low hypnotizable Ss. The moderate and low hypnotizable Ss demonstrated greater reductions in frontalis muscle tension during EMG biofeedback than during hypnosis. These findings are partly supportive of the predictions of Qualls and Sheehan (1979, 1981a, b, c) that hypnosis and biofeedback involve antithetical processes

111. Miller ME. Bowers KS. Hypnotic analgesia and stress inoculation in the reduction of pain. *Journal of Abnormal Psychology* 1986;95(1):6-14
The influence of hypnotic ability on three methods of reducing cold pressor pain was investigated. Following a baseline immersion, 30 high and 30 low hypnotizable undergraduates were randomly assigned to one of three treatment groups: stress inoculation training, stress inoculation training defined as hypnosis, or hypnotic analgesia. Analysis of pain reports indicated a significant Hypnotic Ability X Treatment interaction. Among subjects receiving hypnotic analgesia, high hypnotizables reported significantly less intense pain than lows. There was no differential response for high and low hypnotizable subjects receiving stress inoculation training, whether or not it was defined as hypnotic. Moreover, subjects in the stress inoculation condition (whether or not defined as hypnosis) reported

using cognitive strategies to reduce pain, whereas this was not the case for subjects in the hypnotic analgesia condition. The present findings seem inconsistent with the social psychological account of hypnosis and are discussed from a dissociation perspective, which views hypnosis as involving changes in the way information is processed.

112. Moller AT. Kotze HF. Sieberhagen KJ. Comparison of the effects of auditory subliminal stimulation and rational-emotive therapy, separately and combined, on self-concept. *Psychological Reports*. 1993;72(1):131-45

The present study investigated the effects on self-concept of Rational-Emotive Therapy and auditory subliminal stimulation (separately and in combination) on 141 undergraduate students with self-concept problems. They were randomly assigned to one of four groups receiving either Rational-Emotive Therapy, subliminal stimulation, both, or a placebo treatment. Rational-Emotive Therapy significantly improved scores on all the dependent measures (cognition, self-concept, self-esteem, anxiety), except for behavior. Results for the subliminal stimulation group were similar to those of the placebo treatment except for a significant self-concept improvement and a decline in self-concept related irrational cognitions. The combined treatment yielded results similar to those of Rational-Emotive Therapy, with tentative indications of continued improvement in irrational cognitions and self-concept from posttest to follow-up.

113. Montgomery G. Kirsch I. The effects of subject arm position and initial experience on Chevreul pendulum responses. *American Journal of Clinical Hypnosis*. 1996;38(3):185-90

Some clinicians maintain that responses to the Chevreul pendulum illusion are facilitated by resting one's elbow on a table. Others claim the reverse. We compared these two methods in a counterbalanced crossover design by having 32 university students perform the Chevreul pendulum illusion with their elbows supported on a table and with their elbows unsupported. Although there was no main effect for method (elbow supported versus elbow unsupported), subjects who rested their elbows on a table on the first trial were more successful in responding on both trials. This suggests that supporting the elbow does facilitate responding, but only on the initial trial. Performance on subsequent trials is determined by degree of success on the first trial. Similar data from a previous study comparing different hypnotic inductions suggests that this phenomenon is generalizable beyond the Chevreul pendulum illusion and supports the hypothesis that the test-retest reliability of suggestibility scales may be due to a stabilization of response expectancy by a person's first experience of imaginative suggestions.

114. Moore LE. Wiesner SL. Hypnotically-induced vasodilation in the treatment of repetitive strain injuries. *American Journal of Clinical Hypnosis*. 1996;39(2):97-104

The study examined the effectiveness of behaviorally-induced vasodilation (hypnosis with biofeedback and autogenics) in the treatment of upper extremity repetitive strain injuries (RSI). Thirty patients with recent onset of upper extremity RSI symptoms were randomly assigned to 1 of 2 treatment conditions, i.e., hypnotically-induced vasodilation or a waiting-list control. Treatments were given on an individual basis, once a week for 6 weeks. Patients in the treatment condition showed highly significant increases in hand temperature between pre- and post-treatment. Patients in the treatment condition also showed highly significant reductions in pain in comparison to the waiting list condition.

115. Moore ME. Berk SN. Acupuncture for chronic shoulder pain. An experimental study with attention to the role of placebo and hypnotic susceptibility. *Annals of Internal Medicine* 1976;84(4):381-4

One half of 42 subjects treated for painful shoulders received classic acupuncture, and one half received a placebo in which the needles did not penetrate the skin. Half of each of these groups was treated in a positive setting to encourage the subject, and half in a negative setting designed to keep encouragement at a minimum. All patients were independently rated for susceptibility to hypnosis. Although range of motion did not improve, the majority of patients reported significant improvement in shoulder discomfort to a blind evaluator after treatment; placebo and acupuncture groups did not differ in this respect, however. The positive and negative settings did not affect treatment outcome. In

all groups, those who were not rated as highly susceptible to hypnosis tended to fail to achieve the highest levels of relief, but such differences were not statistically significant.

116. Moret V, Forster A, Laverriere MC, Lambert H, Gaillard RC, Bourgeois P, Haynal A, Gemperle M, Buchser E Mechanism of analgesia induced by hypnosis and acupuncture: is there a difference? *Pain* 1991 May;45(2):135-40

Hypnosis and acupuncture can alleviate experimentally induced pain but the mechanism of analgesia remains unclear for both techniques. Experimental pain was induced by cold pressor test (CPT) in 8 male volunteers. Analgesic effect of hypnosis (HA) and acupuncture (AA) was assessed before and after double-blind administration of placebo or naloxone, in a prospective, cross-over study. We found that pain intensity was significantly lower with HA as compared with AA, both with naloxone (P less than 0.001) and placebo (P less than 0.001). Within HA or AA groups, pain scores did not differ significantly when naloxone or placebo was administered. During AA, however, pain scores were similar to control values when naloxone was given (P = 0.05) but decreased significantly with placebo (P less than 0.002). Analog scales for pain intensity and pain relief showed a good correlation (r = 0.94). Plasma levels of beta-endorphins did not change significantly in any combination. Heart rate, peripheral arterial blood pressure and skin conductance were very insensitive indices to assess pain intensity or relief, as well as intensity of acupuncture stimulation or depth of hypnotic trance. We conclude: (1) HA and AA can significantly reduce pain from CPT, and HA is more effective than AA; (2) HA and AA are not primarily mediated by the opiate endorphin system; and (3) plasmatic levels of beta-endorphins are not significantly affected by either HA or AA nor by naloxone or placebo administration.

117. Mount GR. et al. The effects of relaxation techniques on normal blood pressure. *Behavioral Engineering* 1978;5(1):1-4.

Randomly assigned 30 normotensive and medication-free college students to 1 of 2 control and 4 treatment groups. Control Group 1 relaxed for 20 min while control Group 2 received noncontingent EMG feedback via a hidden tape recorder. Treatment Group 1 received contingent EMG feedback, Group 2 received hypnosis with A. A. Meares' (1960) suggestions for well-being, Group 3 received hypnosis and EMG feedback in a counterbalanced presentation, and Group 4 received E. Jacobson's (1938) deep muscle relaxation training. All Subjects attended 6 sessions during a 3-wk period. Pre/post blood pressure readings were taken for all Subjects. Results indicate that both diastolic and systolic blood pressure scores decreased significantly for all groups across the 6 sessions. Pre- minus postscore analysis failed to show significant differences in blood pressure scores.

118. Myles PS. Cessation of smoking following tape suggestion under anaesthesia. *Anaesthesia & Intensive Care* 1992;20(4):540-1

Myles PS, Hendrata M, Layher Y, Williams NJ, Hall JL, Moloney JT, Powell J. Double-blind, randomized trial of cessation of smoking after audiotape suggestion during anaesthesia. *British Journal of Anaesthesia*. 1996;76(5):694-8 We studied the use of intraoperative tape suggestion to improve the rate of cessation of smoking in 363 smokers who wanted to stop smoking. They were allocated randomly to hear a taped message encouraging them to stop smoking or to a blank tape, played during general anaesthesia. Overall 56 patients (15.4%, 95% confidence interval (CI) 11.7-19.1%) had claimed to have stopped smoking at 2 months and 29 patients (8.0%, 95% CI 5.9-10.1%) were confirmed to have stopped smoking at 6 months. There was no significant difference between the groups at either 2 or 6 months (risk ratios 1.06 and 1.09, respectively, P = 0.78). A preoperative:postoperative ratio of a visual analogue scale measuring the patient's motivation to stop smoking was not significantly different (control group 1.13 vs message group 1.10, P = 0.55). This study does not support the hypothesis that intraoperative tape suggestion can change smoking behaviour.

119. Newcombe PA, Siegal M. Explicitly questioning the nature of suggestibility in preschoolers' memory and retention. *Journal of Experimental Child Psychology* 1997;67(2):185-203

In research designed to investigate children's suggestible responses on memory tests, 190 preschoolers were read a short story. The same day or six days later, they were exposed to information that was either consistent with the original story details or inconsistent and misleading. One and seven weeks after hearing the story, the children were tested on two types of recognition tasks that involved a choice either between the original and misleading information or between the original and new information with questions that were either explicit or nonexplicit as to the time of the information to be reported. At the 1-week test, children who were exposed to misleading information were significantly less accurate under nonexplicit questioning in recognizing the original from the misleading information than were children presented with consistent information. With explicit questioning, this difference was not significant. When the choice for the children was between original and new items following exposure to delayed misleading postevent information, explicit questioning resulted in significantly more accurate responses at the 7-week test than did nonexplicit questioning. Children questioned explicitly rather than nonexplicitly were more likely to maintain correct responses on both tests. The results are discussed in terms of conversational processes and competing forms of representation in memory retention.

120. Nilsson KM. The effect of subject expectations of "hypnosis" upon vividness of visual imagery. *International Journal of Clinical & Experimental Hypnosis* 1990;38(1):17-24
This study explored how the expectation of hypnosis and the expectation of relaxation affected the vividness of visual imagery. 63 Ss who volunteered for a visual imagination study were randomly assigned to 4 groups. Ss were administered the vividness subscale (VS) of the Vividness and Control of Imagery Scale twice. In the 3 experimental groups, expectations were varied during the 2 VS administrations. All 3 groups were presented with a relaxation exercise between VS administrations. In 2 groups, it was labeled "hypnosis," and in the third group it was correctly labeled "relaxation." A control group listened to a neutral tape between their VSs. All groups were administered the Harvard Group Scale of Hypnotic Susceptibility, Form A (Shor & E. C. Orne, 1962) after the 2 imagery tests. The results indicated that the vividness of visual imagery was significantly enhanced (equally) in the experimental groups but not in the control group.

121. O'Brien RM. Kramer CE. Chiglinsky MA. Stevens GE. Nunan LJ. Fritzo JA. Moral development examined through hypnotic and task motivated age regression. *American Journal of Clinical Hypnosis* 1977;19(4):209-13
Thirty 17-28 yr old volunteers who had scored above 8 on the Stanford Hypnotic Susceptibility Scale, Form C, were randomly assigned to 3 groups (hypnosis, task motivation, and control). The 2 treatment groups were age regressed to the 1st grade. They were then examined through 5 moral dilemma stories to ascertain their level of functioning on L. Kohlberg's (1968) stage theory of moral development. The control group experienced the same examination without age regression. Results show that both treatment groups were at a significantly lower moral stage than the control group but that there was no significant difference between the 2 groups of age-regressed Subjects. In addition, it was found that a group of 10 actual 1st graders gave answers that were at a much lower level than those of the age-regressed Subjects. These results demonstrate cognitive age regression on Kohlberg's stages of moral development. They also suggest that task motivation situations are as efficient as hypnosis in producing this phenomenon.

122. Oddby-Muhrbeck E. Jakobsson J. Enquist B. Implicit processing and therapeutic suggestion during balanced anaesthesia. *Acta Anaesthesiologica Scandinavica* 1995;39(3):333-7
The effect of therapeutic suggestion--implicit processing during balanced anaesthesia was studied in 70 female patients scheduled for elective breast surgery. The patients were randomly allocated to listen to a message with reassuring information focused on minimising postoperative nausea and vomiting, or just a blank tape during surgery. Occurrence of nausea and vomiting was studied during the postoperative period. No patient recalled any explicit memories during the peroperative period. No major differences were observed in the number of patients who experienced nausea or vomiting during the 24 hour observation period. The patients exposed to positive suggestion did, however, have a lower frequency of recall for nausea and vomiting compared to those just listening to the blank tape.

We did not observe any major effect of peroperative suggestion for postoperative nausea and vomiting. However, we cannot rule out some implicit processing during balanced anaesthesia.

123. Olness K, Culbert T, Uden D. Self-regulation of salivary immunoglobulin A by children. *Pediatrics* 1989;83(1):66-71

In a prospective randomized controlled study, the possibility that children could regulate their own salivary immunoglobulins was investigated using cyberphysiologic techniques. Fifty-seven children were randomly assigned to one of three groups. Group A subjects learned self-hypnosis with permission to increase immune substances in saliva as they chose; group B subjects learned self-hypnosis with specific suggestions for control of saliva immunoglobulins; group C subjects were given no instructions but received equal attention time. At the first visit, saliva samples (baseline) were collected, and each child looked at a videotape concerning the immune system and was tested with the Stanford Children's Hypnotic Susceptibility Scale. At the second visit, an initial saliva sample was collected prior to 30 minutes of self-hypnosis practice or conversation. At the conclusion of the experiment, a third saliva sample was obtained. Salivary IgA and IgG levels for all groups were stable from the first to the second sampling. Children in group B demonstrated a significant increase in IgA (P less than .01) during the experimental period. There were no significant changes in IgG. Stanford Children's Hypnotic Susceptibility Scale scores were stable across groups and did not relate to immunoglobulin changes.

124. Olness K, Hall H, Schmidt W, Theoharides T Mast cell activation in child migraine patients before and after training in self regulation *Alternative Therapies in Health and Medicine* 1997;3(2):100-1

Olness K, MacDonald JT, Uden DL.

Comparison of self-hypnosis and propranolol in the treatment of juvenile classic migraine. *Pediatrics* 1987;79(4):593-7 In a prospective study we compared propranolol, placebo, and self-hypnosis in the treatment of juvenile classic migraine. Children aged 6 to 12 years with classic migraine who had no previous specific treatment were randomized into propranolol (at 3 mg/kg/d) or placebo groups for a 3-month period and then crossed over for 3 months. After this 6-month period, each child was taught self-hypnosis and used it for 3 months. Twenty-eight patients completed the entire study. The mean number of headaches per child for 3 months during the placebo period was 13.3 compared with 14.9 during the propranolol period and 5.8 during the self-hypnosis period. Statistical analysis showed a significant association between decrease in headache frequency and self-hypnosis training ($P = .045$). There was no significant change in subjective or objective measures of headache severity with either therapy.

125. Patterson DR, Ptacek JT. Baseline pain as a moderator of hypnotic analgesia for burn injury treatment. *Journal of Consulting & Clinical Psychology* 1997;65(1):60-7

Sixty-one patients hospitalized for severe burns were randomly assigned to conditions in which they received either hypnosis or a control condition in which they received attention, information, and brief relaxation instructions from a psychologist. The posttreatment pain scores of the 2 groups did not differ significantly when all patients were considered. However, when a subset of patients who reported high levels of baseline pain were examined, it was found that patients in the hypnosis group reported less posttreatment pain than did patients in the control group. The findings are used to replicate earlier studies of burn pain hypnoanalgesia, explain discrepancies in the literature, and highlight the potential importance of motivation with this population.

126. Pederson LL, Schrimgeour WG, Lefcoe NM Incorporation of rapid smoking in a community service smoking withdrawal program *International Journal of the Addictions* 1980;15(5):615-29

Post-treatment abstinence rates of 50% had been found in a smoking withdrawal program which included group hypnosis and group counseling. A session of rapid smoking was added to the procedures with the intention of further increasing abstinence rates. Only 13% of the smokers exposed to the combined program quit smoking as compared to 38% of the smokers who participated in the same program but with the session of group hypnosis excluded. Possible explanations of the obtained

results include motivational reduction, procedural deviations, and medical screening. Suitability of rapid smoking for community service programs is discussed.

127. Pederson LL, Scrimgeour WG, Lefcoe NM. Comparison of hypnosis plus counseling, counseling alone, and hypnosis alone in a community service smoking withdrawal program. *Journal of Consulting & Clinical Psychology* 1975;43(6):920

Pederson LL, Scrimgeour WG, Lefcoe NM. Variables of hypnosis which are related to success in a smoking withdrawal program. *International Journal of Clinical & Experimental Hypnosis* 1979;27(1):14-20

65 habitual smokers were randomly assigned to 1 of 4 groups: live hypnosis plus counseling, videotape hypnosis plus counseling, relaxation hypnosis plus counseling, and counseling alone. The content and mode of presentation of the hypnosis session varied among the 1st 3 groups. At 6 mo posttreatment, the live hypnosis plus counseling group contained significantly more abstainers than the other 3 groups. The importance of the specific content of the hypnosis session and the presence of the hypnotherapist for the effectiveness of the procedure is discussed. (German, French & Spanish summaries)

128. Philipp RL, Wilde GJS, Day JH Suggestion and relaxation in asthmatics *J Psychom Res* 1972; 16: 193-204 Podolnick EE, Field PB. Emotional involvement, oral anxiety, and hypnosis. *International Journal of Clinical & Experimental Hypnosis* 1970;18(3):194-210.

48 undergraduates were randomly assigned to either a high or low emotional arousal manipulation and then underwent a tape-recorded hypnotic induction and test of depth. The high-arousal group was exposed to infantile oral objects and were led to believe that they would have to suck on them as part of a physiological psychology experiment in which the cutaneous sensitivity of the human mouth was being mapped. The low-arousal group believed they only had to blow on whistles or pipes. While both groups were anticipating these experiences, hypnosis was induced. Subjects in the high-arousal group were significantly more hypnotizable ($p < .001$) than their counterparts in the low-arousal group. Subjects in the high-arousal group were significantly less anxious after hypnosis than they were before hypnosis, while the low-arousal Subjects did not show a reduction in anxiety. The groups did not differ on several background personality tests given as checks on the randomization. (Spanish & German summaries)

129. Puente AE, Beiman I. The effects of behavior therapy, self-relaxation, and transcendental meditation on cardiovascular stress response. *Journal of Clinical Psychology* 1980;36(1):291-5

Compared Behavior Therapy (BT), self-relaxation (SR), transcendental meditation (TM), and a waiting-list control group (WL) on measures of cardiovascular and subjective stress response. Male and female respondents ($N = 60$) to an ad for therapy were evaluated in assessment sessions before and after treatment. The results indicate that BT and SR were more effective than either TM or WL in reducing cardiovascular stress response. These data were interpreted as resulting from therapeutic suggestion and positively reinforced client progress.

130. Rabkin SW, Boyko E, Shane F, Kaufert J. A randomized trial comparing smoking cessation programs utilizing behaviour modification, health education or hypnosis. *Addictive Behaviors* 1984;9(2):157-73

The purpose of this study was to determine the efficacy of hypnosis, health education, and behaviour modification programs for cigarette smoking cessation. A randomized clinical trial comparing these three programs and a control group was conducted in 168 volunteers. Follow-up data three weeks after completion was available in 140 subjects. Each program showed significant reductions in reported cigarette consumption and serum thiocyanate levels, an indicator of long-term cigarette consumption, compared to entry and to the control group. However, there were no significant differences between the hypnosis, health education, or behaviour modification groups with respect to the proportion who reported quitting smoking, the number cigarettes smoked or change in serum thiocyanate levels. Reported cigarette consumption ascertained six months later again showed no significant differences between these three approaches. Factors such as subject age, age at starting

cigarette smoking, educational level, marital status, spouse or partners smoking did not identify subgroups with differences between treatment responses. Thus, hypnosis, health education, and behaviour modification are each effective programs for changing cigarette smoking and each is equally effective in this regard.

131. Radtke-Bodorik HL. Spanos NP. Haddad MG. The effects of spoken versus written recall on suggested amnesia in hypnotic and task-motivated subjects. *American Journal of Clinical Hypnosis* 1979;22(1):8-16

80 undergraduates and other volunteers chosen for moderate to high scores on the Harvard Group Scale of Hypnotic Susceptibility were randomly assigned to 1 of 4 treatments in a 2 * 2 factorial design (hypnosis/task-motivation * spoken/written recall). Subjects were administered the learning-amnesia suggestion sequence employed by N. P. Spanos and H. L. Bodorik (1977). Partially amnesic Subjects who wrote their recall had continued visual access to the words they had already recalled. It was hypothesized that the written words would serve as cues and facilitate further recall. Therefore, it was predicted that Subjects in the written recall condition would show less partial amnesia than those in the spoken recall condition. Results fail to confirm the prediction; Subjects in written and spoken recall conditions were equally likely to exhibit partial amnesia. However, previous findings replicated are as follows: (a) Hypnotic Subjects showed more amnesia than task-motivated Subjects; (b) partially amnesic Subjects showed disorganized recall, whereas full recall Subjects did not; (c) nonrecall Subjects obtained higher susceptibility scores than full recallers; and (d) hypnotic Subjects rated themselves as more deeply hypnotized than task-motivated Subjects.

132. Rapkin DA. Straubing M. Holroyd JC. Guided imagery, hypnosis and recovery from head and neck cancer surgery: an exploratory study. *International Journal of Clinical & Experimental Hypnosis* 1991;39(4):215-26

The value of a brief, preoperative hypnosis experience was explored with a sample of 36 head and neck cancer surgery patients. 15 patients volunteered for the experimental hypnosis intervention. 21 patients who received usual care (no hypnosis) were followed through their hospital charts and were used as a comparison group. Hypnotic intervention and usual care groups were comparable in terms of relevant demographic variables. Postoperative hospitalizations for the hypnotic intervention group were significantly shorter than for the usual care group. Within the hypnotic intervention group, hypnotizability was negatively correlated with surgical complications and there was a trend toward a negative correlation between hypnotizability and blood loss during surgery. Findings suggest that imagery-hypnosis may be prophylactic, benefitting patients by reducing the probability of postoperative complications and thereby keeping hospital stay within the expected range. Recommendations are presented for a controlled, randomized, clinical trial with a sufficiently large sample to provide the opportunity for statistical analysis with appropriate power.

133. Ready DJ. Bothwell RK. Brigham JC. The effects of hypnosis, context reinstatement, and anxiety on eyewitness memory. *International Journal of Clinical & Experimental Hypnosis*. 1997;45(1):55-68

The effects of hypnosis, context reinstatement, and motivational instructions on accuracy of recall for factual information and facial recognition accuracy following a stressful event were assessed. None of the three techniques had a significant effect on factual memory or susceptibility to suggestion as assessed by true-false and multiple-choice tests. However, participants high in hypnotic susceptibility showed somewhat better memory on the true-false test, and hypnosis affected performance on the two photograph line-ups. In addition, hypnosis appeared to enhance facial recognition accuracy for participants who were low in anxiety, but not for those high in anxiety. Finally, there was evidence of a curvilinear relationship between self-reported anxiety at time of retrieval and facial recognition accuracy.

134. Reed SB. Kirsch I. Wickless C. Moffitt KH. Taren P. Reporting biases in hypnosis: suggestion or compliance?. *Journal of Abnormal Psychology*. 1996;105(1):142-5

The tendency of highly hypnotizable participants to bias their retrospective perceptual reports in response to instructional demands was reexamined with the addition of low-hypnotizable control

participants instructed to simulate hypnosis. Mean scores of high-hypnotizable participants and simulators did not differ, but the responses of simulators to the demand instruction was less variable than those of high-hypnotizable participants, and the shape of the response distribution was different. Unlike simulators, some high-hypnotizable participants who had reported changes in perception that were consistent with a hypnotic suggestion subsequently reported changes opposite to those suggested by a demand instruction. These data were interpreted as suggesting that the responses of high-hypnotizable participants to both the demand instruction and the preceding hypnotic suggestion were not entirely due to compliance.

135. Reid WH, Ahmed I, Levie CA. Treatment of sleepwalking: a controlled study. *American Journal of Psychotherapy* 1981;35(1):27-37

A single-blind, rater-blind, modified crossover design was used to evaluate a simple, practical method of clinical treatment of sleepwalking. Subjects who had severe somnambulism, but were otherwise free of psychiatric illness, responded well to six brief sessions of specialized hypnotherapy. Follow-up at one year has revealed lasting improvement of both subjective and objective symptoms. A brief review of the subject of sleepwalking, as well as detailed information concerning histories of sleep symptoms and emotional problems in these and other sleepwalkers, is presented.

136. Richardson MA, Post-White J, Grimm EA, Moye LA, Singletary SE, Justice B. Coping, life attitudes, and immune responses to imagery and group support after breast cancer treatment. *Alternative Therapies in Health and Medicine* 1997;3(5):62-70

BACKGROUND: The pilot study used clinical trial methodology to differentiate the effects of imagery and support on coping, life attitudes, immune function, quality of life, and emotional well-being after breast cancer. **METHODS:** Women (N = 47) who completed treatment for primary breast cancer, excluding stage IV, were randomly assigned to standard care (n = 15) or six weekly support (n = 16) or imagery (n = 16) sessions. Self-report measures included Ways of Coping-Cancer, Life Attitude Profile, Quality of Life (FACT-B), Profile of Mood States, and Functional Support. Immune measures included natural killer cell activity, plasma neopterin, interferon-gamma, interleukins 1 alpha, 1 beta, and 2, and beta-endorphin levels. Differences between groups over time were tested using general linear models, adjusted for pretest score and covariates (age, stage, and months posttreatment). **RESULTS:** For all women, interferon-gamma increased, neopterin decreased, quality of life improved, and natural killer activity remained unchanged. Compared with standard care, both interventions improved coping skills (seeking support) and perceived social support, and tended to enhance meaning in life. Support boosted overall coping and death acceptance. When comparing imagery with support, imagery participants tended to have less stress, increased vigor, and improved functional and social quality of life. **CONCLUSION:** Although imagery reduced stress and improved quality of life, both imagery and support improved coping, attitudes, and perception of support. The clinical implications of these changes warrant further testing.

137. Ruzyla-Smith P, Barabasz A, Barabasz M, Warner D. Effects of hypnosis on the immune response: B-cells, T-cells, helper and suppressor cells. *American Journal of Clinical Hypnosis*. 1995;38(2):71-9

This study tested the effects of hypnosis on the immune response. High and low hypnotizable Ss were exposed to hypnosis, relaxation or control conditions. Blood samples obtained before treatment and twice thereafter were subjected to flow cytometry analysis. Significant alteration of the immune response as measured by B-cells and helper T-cells was shown only for highly hypnotizable Ss exposed to hypnosis.

138. Sackeim HA, Paulhus D, Weiman AL. Classroom seating and hypnotic susceptibility. *Journal of Abnormal Psychology* 1979;88(1):81-4

Conducted 2 experiments to investigate the relations among hypnotic susceptibility (Stanford Hypnotic Susceptibility Scale), lateralization of actual seating behavior, and seating preference. In Exp I, it was found that females who sat on the right side of a classroom were more hypnotically susceptible than females who sat on the left. Males who preferred right-side seating were more susceptible than males with left-side p In Exp II, 55 Subjects were randomly assigned to seats to

determine whether seating location itself affected responsiveness to hypnosis. No association between lateralization of actual seating and hypnotic susceptibility was found. Replicating Exp I, males who preferred right-side seating were more hypnotically susceptible than males with left-side p Lateralization of seating behavior has been found previously to be a function of hemisphericity. The results of both experiments indicate that lateralization of seating behavior may be used to investigate the relation between hemisphericity and hypnotic susceptibility.

139. Sakata KI. Anderson JP. The effects of posthypnotic suggestion on test performance. *International Journal of Clinical & Experimental Hypnosis* 1970;(1):61-71.

Tested 45 undergraduates preselected for hypnotizability on 2 learning tasks by E and retested on the tasks by other Es a mo. later. Before being retested Subjects were randomly assigned to 1 of 3 treatment conditions: (a) a posthypnotic suggestion condition, (b) a waking suggestion condition, and (c) a hypnosis-no-suggestion condition in which Subjects were merely dehypnotized without exhortative instructions. Es were blind to the experimental design. Analyses of covariance indicate that the posthypnotic suggestion group performed more rapidly and accurately on a Rational Learning Test (RLT), but not on a Digit Symbol Test (DST), than the waking suggestion group. The posthypnotic suggestion group did not differ from the hypnosis-no-suggestion group, which also performed more accurately but not more rapidly than the waking suggestion group on the RLT. There were indications that posthypnotic suggestions had interfered with performance on the DST, which involved motor manipulations. Findings supported previous studies indicating differences between a posthypnotic and waking suggestion group in task performance. No definite conclusions to account for the differences could be offered. (Spanish & German summaries)

140. Schnyer DM. Allen JJ. Attention-related electroencephalographic and event-related potential predictors of responsiveness to suggested posthypnotic amnesia. *International Journal of Clinical & Experimental Hypnosis* 1995;43(3):295-315

Higher frequency electroencephalographic (EEG) activity around 40 Hz has been shown to play a role in cognitive functions such as attention. Furthermore, event-related brain potential (ERP) components such as N1 and P1 are sensitive to selective attention. In the present study, 40-Hz EEG measures and early ERP components were employed to relate selective attention to hypnotic response. Participants were 20 low hypnotizable individuals, half assigned as simulators, and 21 high hypnotizable individuals. Each of these groups was subsequently divided into two groups based on recognition amnesia scores. The four groups differed in 40-Hz (36-44 Hz) EEG spectral amplitude recorded during preinduction resting conditions but not in EEG amplitude postinduction. The groups also differed in N1 amplitudes recorded during hypnosis. Regression analysis revealed that these effects only distinguish the high hypnotizable participants who experienced recognition amnesia from all other groups. The findings support the role of selective attention in hypnotic responsiveness, and the utility of subdividing high hypnotizable individuals is discussed.

141. Schreiber EH. Use of group hypnosis to improve college students' achievement. *Psychological Reports* 1997;80(2):636-8

To examine whether group hypnosis would improve college students' achievement examination grades, including a midterm and final test of 30 educational psychology students who were hypnotized were compared with those of two control groups of 34 and 32 students. Analysis indicated for these intact classes the hypnotized group had a significantly higher mean score on final examination than those of the control groups, although differences in examination scores were nonsignificant at midterm. Suggestions for further research are made.

142. Schubert DK. Comparison of hypnotherapy with systematic relaxation in the treatment of cigarette habituation. *J Clinical Psychology*. 1983;39(2):198-202

Because of the methodological deficiencies in this area of research, it is impossible to make any valid conclusions about whether hypnosis itself is effective in the treatment of cigarette habituation. In this study, 87 volunteers who wanted to quit cigarette smoking were assigned randomly to the experimental hypnosis group, the comparison relaxation group, and the waiting list control group. Ss in the treatment groups had four weekly 50-minute, individual sessions. Four months after the completion of treatment, Ss were administered a questionnaire and a hypnotic susceptibility scale. Ss

in the hypnosis group who were in the upper two-thirds of the group in terms of hypnotic susceptibility reduced their cigarette consumption substantially more than Ss in the relaxation group who were in the upper two-thirds of the group in terms of hypnotic susceptibility. Therefore, the hypnotic state appears to be therapeutic for individuals who can enter medium or deep states of hypnosis.

143. Sellick SM, Zaza C Critical review of 5 nonpharmacologic strategies for managing cancer pain *Cancer Prev Control* 1998 Feb;2(1):7-14

Purpose: Health care professionals at 2 Ontario cancer centres were surveyed to determine their familiarity with, perceptions of and interest in learning more about nonpharmacological strategies for the management of cancer pain. Evidence-based education sessions were subsequently developed for the 5 strategies in which participants were most interested. This article presents the results of critical literature reviews concerning the effectiveness of the 5 strategies: acupuncture, massage therapy, hypnosis, therapeutic touch and biofeedback. Methods: The databases MEDLINE (1966 to June 1997) CINAHL (1982 to June 1997) and PsycholINFO Lit (1980 to June 1979) were searched systematically for randomized controlled trials (RCTs) of the 5 nonpharmacologic strategies. The authors' personal files and reference lists of relevant papers and main texts were also searched. The quality of the trials was reviewed according to established criteria. Results: The search yielded 1 RCT of acupuncture, 1 of massage therapy and 6 of hypnosis. The studies of hypnosis suggested that there is much support for its use in the management of cancer pain. The evidence was either lacking or less clear for the other therapies examined. Conclusion: Because patients use a wide variety of nonpharmacologic strategies regardless of their effectiveness, clinicians need to be familiar with available research and able to discuss those strategies for which the evidence is strong, weak or nonexistent. More research on the effectiveness of nonpharmacologic strategies for pain management is needed.

144. Serewel A, Haggie JA, Cade D. A randomised controlled trial of medroxyprogesterone acetate in mastalgia. *Annals of the Royal College of Surgeons of England* 1990;72(4):273

Sharav Y, Tal M Masseter inhibitory periods and sensations evoked by electrical tooth-pulp stimulation in subjects under hypnotic anesthesia *Brain Res* 1989; 479(2): 247-54
Sensation and masseter inhibitory periods (MIP) to electrical tooth pulp stimulation were recorded under hypnotic anesthesia and placebo to local anesthesia. In the first experiment, 8 subjects were tested for the effect of hypnotic anesthesia on sensory detection and MIP at non painful stimulus levels ($x = 42.1 \mu A$) and painful levels ($x = 86.5 \mu A$). The percentage of detection for non-painful stimuli changed from 94.3% to 14.1% and for painful stimuli from 100% to 28%; both changes were significant ($P < 0.001$). Hypnotic anesthesia blocked sensation without interrupting the initiation of the early component of the MIP, but did suppress its late component. In the second experiment, 8 subjects were tested for the perceived intensity of 5 levels of electrical tooth pulp stimulation under hypnotic anesthesia and placebo. Sensory intensity was measured by the visual analog scale (VAS). Hypnotic anesthesia was significantly more effective than placebo ($P < 0.001$) in reducing sensation. The differential effect of hypnotic anesthesia on the early and late component of the MIP lends further support to the hypothesis that hypnotic anesthesia operates primarily at suprasegmental, higher levels in the brain.

145. Simon MJ, Salzberg HC The effect of manipulated expectancies on posthypnotic amnesia *Int J Clin Exp Hypn.* 1985;33(1):40-51

The effects of manipulated S expectancy and direct suggestions for amnesia on posthypnotic amnesia were assessed. 120 undergraduate students were randomly assigned to 6 groups: negative expectancy (for amnesia)/suggestions (for amnesia); no expectancy/suggestions; negative expectancy/no suggestions; no expectancy/no suggestions; and 2 control groups. The results indicated that the expectancy manipulation had no effect on the occurrence of posthypnotic amnesia measured by the Stanford Hypnotic Susceptibility Scale, Form A (Weitzenhoffer & Hilgard, 1959), whereas suggestions for amnesia were found to have a significant effect. Hypnotized suggestion and no

suggestion Ss remembered significantly less than Ss in the nonhypnotized control groups. The implications of the findings were discussed.

146. Sokel B, Kent CA, Lansdown R, Atherton D, Glover M, Knibbs J A comparison of hypnotherapy and biofeedback in the treatment of childhood atopic eczema *Contemporary Hypnosis* 1993;10(3):145-54

44 children (aged 5-15 yrs) with atopic eczema took part in a controlled trial in which they were treated with hypnotherapy or encouraged to use a biofeedback device based on galvanic skin resistance (as relaxation techniques) to control their symptoms. A 3rd group discussed the problems of having eczema without being given specific suggestions to help reduce the symptoms. Complete data were available for 31 Subjects. The total amount of body surface affected by eczema was not altered in any of the groups. 20 wks after entry to the trial, Subjects in the 2 relaxation groups showed a significant reduction in the severity of surface damage and lichenification compared with the control group. Girls in the hypnotherapy group showed greater improvement than the girls in other groups and showed greater improvement than the boys in the hypnotherapy group.

147. Spanos NP, McNeil C, Gwynn MI, Stam HJ. Effects of suggestion and distraction on reported pain in subjects high and low on hypnotic susceptibility. *Journal of Abnormal Psychology* 1984;93(3):277-84

84 18-30 yr old undergraduates high or low in hypnotic susceptibility (the Carleton University Responsiveness to Suggestion Scale) immersed an arm in ice water on 2 separate trials. Within susceptibility levels, Subjects were randomly assigned to 3 groups, with an equal number in each group. Between trials, Subjects in 1 group were administered a suggestion to imagine their hand as numb and insensitive, those in a 2nd group practiced a distraction task to be used during the 2nd trial (shadowing words), and those in a 3rd group (controls) received no special instructions. The suggestion significantly lowered rated pain in high but not in low susceptibles. Contrary to dissociation accounts of hypnotic susceptibility and suggested analgesia, low-susceptible shadowers showed as much reduction in rated pain as high susceptibles given suggestion. The social psychology of the experimental pain assessment situation is discussed.

148. Spanos NP, Williams V, Gwynn MI. Effects of hypnotic, placebo, and salicylic acid treatments on wart regression. *Psychosomatic Medicine* 1990;52(1):109-

14 Subjects with warts on their hands and/or feet were randomly assigned to a hypnotic suggestion, topical salicylic acid, placebo, or no treatment control condition. Subjects in the three treated groups developed equivalent expectations of treatment success. Nevertheless, at the six-week follow-up interval only the hypnotic subjects had lost significantly more warts than the no treatment controls. Theoretical implications are discussed.

149. Spiegel D, Albert LH. Naloxone fails to reverse hypnotic alleviation of chronic pain. *Psychopharmacology* 1983;81(2):140-3

The hypothesis that the alleviation of chronic pain with hypnosis is mediated by endorphins was tested. Six patients with chronic pain secondary to peripheral nerve irritation were taught to control the pain utilizing self-hypnosis. Each subject was tested at 5-min intervals during four 1-h sessions for the amount of reduction of pain sensation and suffering associated with hypnosis while being given, in a random double-blind crossover fashion, an IV injection of either 10 mg naloxone or a saline placebo through an indwelling catheter. The patients demonstrated significant alleviation of the pain with hypnosis, but this effect was not significantly diminished in the naloxone condition. These findings contradict the hypothesis that endorphins are involved in hypnotic analgesia.

150. Staats P, Hekmat H, Staats A. Suggestion/placebo effects on pain: negative as well as positive. *Journal of Pain & Symptom Management* 1998;15(4):235-43

This study explores the effect of positive and negative placebo suggestions on pain induced by hand exposures to ice water. Thirty-six participants were randomly assigned to one of the following interventions: (a) positive placebo suggestion, (b) negative placebo suggestion, and (c) control. The positive placebo-suggestion participants were given favorable messages about the beneficial effects of

ice-water hand immersion. The negative placebo-suggestion group was given messages depicting the negative effects of exposure to ice water. The control groups were given neutral messages about exposure to ice water. Participants rehearsed the messages and focused on them during their second hand exposures. Results indicate that both the positive and negative placebo-suggestion interventions significantly altered participants' pain threshold, pain tolerance, and pain endurance. Participants exposed to a positive placebo condition tolerated pain better than a neutral condition. Participants exposed to a negative placebo did not tolerate pain as well as participants with a neutral condition.

151. Stam HJ. McGrath PA. Brooke RI. The effects of a cognitive-behavioral treatment program on temporo-mandibular pain and dysfunction syndrome. *Psychosomatic Medicine* 1984;46(6):534-45

Sixty-one patients clearly diagnosed as suffering from Temporomandibular Pain and Dysfunction Syndrome (TMPDS) were randomly assigned to one of three groups, 1) hypnosis and cognitive coping skills, 2) relaxation and cognitive coping skills, or 3) a no-treatment control group. All patients were evaluated with a standard hypnotic susceptibility scale before treatment. The two treatment groups received four weekly sessions of their respective treatments. Patients in the hypnosis and relaxation groups reported equivalent decrements in pain, abnormal sounds in the temporomandibular joint, and limitations of jaw mobility. Hypnotic susceptibility was significantly correlated with reductions in reported pain for the treatment groups. Patients' age and the duration of pain before treatment were not related to treatment outcome. Patients who dropped out of treatment had fewer limitations in jaw movement but did not differ in any other variable from patients who remained in treatment. These findings are discussed in relation to the hypothesis that Temporomandibular Pain and Dysfunction Syndrome is stress-related muscular pain and dysfunction.

152. Stanton HE A comparison of the effects of an hypnotic procedure and music on anxiety level *Australian Journal of Clinical & Experimental Hypnosis* 1984 Nov;12(2):127-32

A hypnotic procedure involving a relaxing induction, positive suggestion, and mental imagery was compared with music as a means of reducing anxiety level defined in terms of scores on the Willoughby Questionnaire. Sixty adults seeking help in handling their anxiety were divided, at random, into three groups, one experiencing three weekly half hour sessions of the hypnotic procedure, another listening to music for the same amount of time, and the third serving as a non treatment control. Results indicated that both experimental treatments reduced anxiety level with the hypnotic procedure being significantly more effective. A 6 months follow up confirmed this superiority.

153. Stanton HE Overcoming fear of public speaking with the diagnostic trance *Australian Journal of Clinical & Experimental Hypnosis* 1991 May;19(1):41-7

24 male executives (aged 34-53 yrs) were matched on their fear of public speaking thermometer scores and allocated at random to either an experimental or a control group. Controls read articles describing how performance anxiety might be overcome, while the experimental Subjects had 2 treatment sessions learning a diagnostic trance procedure. After the 1st stage of the study had been completed, controls experienced the same 2 treatment sessions as had the experimental group. Subjects in both the experimental group of the 1st stage and the control group of the 2nd stage were able to reduce their fear of public speaking level significantly through use of the diagnostic trance procedure. Three months later, this improvement had been maintained.

154. Stanton HE Self-hypnosis: one path to reduced test anxiety *Contemporary Hypnosis* 1994;11(1):14-8

Examined the efficacy of a 5-step self-hypnosis technique in reducing test anxiety among 40 high school students (aged 12-15 yrs). Subjects were paired on the basis of sex and scores on the Test Anxiety Scale for Children (TASC), and were randomly allocated to experimental and control groups. Subjects in the experimental group learned the self-hypnosis technique in 2 50-min sessions, spaced 1 wk apart. The TASC was administered following the intervention period and once again 6 mo later. Results indicate a significant reduction of TASC scores in the experimental group, maintained over a 6-mo period, which was not matched by the control group.

155. Stanton HE. Is hypnotic induction really necessary?: A study of ego-enhancing suggestions and their effects. *Psychotherapy Psychosomatics* 1975;26(6):330-336. 60 university students in an experiment involving ego enhancement through the use of positive suggestion were randomly allocated to 3 groups. Group A experienced a hypnotic induction before hearing a series of ego-enhancing suggestions, Group B simply closed their eyes and listened, and the control group had no exposure to suggestions. All Subjects completed the Willoughby Questionnaire, the Assertiveness Scale (A. A. Lazarus, 1971), and 2 social interaction scales before and after the experiment which involved 4 20-min sessions over a period of 2 wks. Subjects of the 2 experimental groups experienced significant gains, as operationalized by inventory scores. Differences between these groups were apparent only on the social interaction scales, where Group A showed significantly greater improvement. Reasons for this are discussed, and implications for hypnotherapy outlined.

156. Stanton HE. Reduction of performance anxiety in music students. *Australian Psychologist* 1994;29(2):124-127. Investigated the use of hypnotherapy for music students with stage fright. 40 2nd- and 3rd-yr students at a music conservatory were paired by their scores on the Performance Anxiety Inventory (PAI) by J. Nagle et al (1981). One member of each pair was randomly assigned to the experimental group (EG), and the other was placed in the control group (CG). The EG Subjects received 2 50-min treatment sessions (TSs) of hypnotic relaxation suggestions, 1 wk apart. The TSs included breathing induction, visual imagery (clouds and a lake), and verbal suggestions linking the images to increased mental control. The CG met for 2 50-min discussion sessions. The PAI was administered before and after the TSs and 6 mo later. A significant improvement in the EG PAI scores was noted after the TSs, but not in the CG scores. Follow-up scores showed a modest improvement by the CG and continued improvement by the EG.

157. Stanton HE. Hypnosis and rational-emotive therapy--a de-stressing combination: a brief communication. *International Journal of Clinical & Experimental Hypnosis* 1989;37(2):95-9. It has been suggested that teacher stress might be reduced through cognitive restructuring which is aimed at improving the rationality of their thinking. To test this hypothesis, 40 high school teachers were paired on their level of reasonable thinking, operationalized in terms of scores on the Teacher Idea Inventory (Bernard, Joyce, & Rosewarne, 1983), and allocated at random to one of 2 groups. They also completed the Face Valid Stress Test. The experimental group participated in 4 weekly treatment sessions involving a hypnotic induction and suggestions derived from key elements of Rational-Emotive Therapy. These focused on the reduction of what Ellis (Ellis & Grieger, 1977), the originator of this treatment, calls "irrational thinking." The control group spent the same amount of time discussing stress reduction methods. Both the Face Valid Stress Test and the Teacher Idea Inventory were re-administered at the end of this period and again 12 months after conclusion of the experiment. Results indicated that both the experimental and control groups significantly reduced their levels of irrational thinking and stress, although the former's improvement was more marked, particularly at the 12-month follow-up.

158. Stanton HE. Hypnotic relaxation and the reduction of sleep onset insomnia. *International Journal of Psychosomatics* 1989;36(1-4):64-8. In the present study, a hypnotic relaxation technique was compared to stimulus control and placebo conditions as a means of reducing sleep onset latency (SOL). Forty-five subjects (Ss) were matched on their baseline SOL as measured through sleep diaries. They were randomly assigned to one of three groups: hypnotic relaxation; stimulus control; and placebo. These groups experienced four weekly sessions of 30-minutes duration with demand effects being controlled through the use of counter-demand instructions. Data generated by the study suggested that the particular hypnotic relaxation treatment used was effective in helping Ss go to sleep more quickly. Neither stimulus control nor placebo groups recorded similar improvement.

159. Stradling J. Roberts D. Wilson A. Lovelock F. Controlled trial of hypnotherapy for weight loss in patients with obstructive sleep apnoea. *International Journal of Obesity & Related Metabolic Disorders* 1998;22(3):278-81

OBJECTIVE: To assess if hypnotherapy assists attempts at weight loss. DESIGN: Randomised, controlled, parallel study of two forms of hypnotherapy (directed at stress reduction or energy intake reduction), vs dietary advice alone in 60 obese patients with obstructive sleep apnoea on nasal continuous positive airway pressure treatment. SETTING: National Health Service hospital in the UK. MEASURES: Weight lost at 1, 3, 6, 9, 12, 15 and 18 months after dietary advice and hypnotherapy, as a percentage of original body weight. RESULTS: All three groups lost 2-3% of their body weight at three months. At 18 months only the hypnotherapy group (with stress reduction) still showed a significant ($P < 0.02$), but small (3.8 kg), mean weight loss compared to baseline. Analysed over the whole time period the hypnotherapy group with stress reduction achieved significantly more weight loss than the other two treatment arms ($P < 0.003$), which were not significantly different from each other. CONCLUSIONS: This controlled trial on the use of hypnotherapy, as an adjunct to dietary advice in producing weight loss, has produced a statistically significant result in favour of hypnotherapy. However, the benefits were small and clinically insignificant. More intensive hypnotherapy might of course have been more successful, and perhaps the results of the trial are sufficiently encouraging to pursue this approach further.

160. Sullivan DS. Johnson A. Bratkovitch J. Reduction of behavioral deficit in organic brain damage by use of hypnosis. *Journal of Clinical Psychology* 1974;30(1):96-8 Assessed the effects of "catastrophic anxiety" on the functioning of organically brain-damaged 15-35 yr olds.

Subjects were randomly assigned to either a control group, a relaxation group, or a hypnosis group. All Subjects were pre- and posttested on the Bender-Gestalt Test and the WAIS Picture Completion subtest. On the WAIS, the hypnosis group performed significantly better than the other 2 groups. On the Bender-Gestalt, there were similar differences between groups when those Subjects who were less susceptible to hypnosis were not included in the analysis. There was a highly significant correlation between hypnotic susceptibility and improvement on the dependent measures.

161. Surman OS. Hackett TP. Silverberg EL. Behrendt DM. Usefulness of psychiatric intervention in patients undergoing cardiac surgery. *Archives of General Psychiatry* 1974;30(6):830-5

Syrjala KL, Cummings C, Donaldson GW Hypnosis or cognitive behavioral training for the reduction of pain and nausea during cancer treatment: a controlled clinical trial *Pain* 1992; 48(2): 137-46 Few controlled clinical trials have tested the efficacy of psychological techniques for reducing cancer pain or post-chemotherapy nausea and emesis. In this study, 67 bone marrow transplant patients with hematological malignancies were randomly assigned to one of four groups prior to beginning transplantation conditioning: (1) hypnosis training (HYP); (2) cognitive behavioral coping skills training (CB); (3) therapist contact control (TC); or (4) treatment as usual (TAU; no treatment control). Patients completed measures of physical functioning (Sickness Impact Profile; SIP) and psychological functioning (Brief Symptom Inventory; BSI), which were used as covariates in the analyses. Biondemographic variables included gender, age and a risk variable based on diagnosis and number of remissions or relapses. Patients in the HYP, CB and TC groups met with a clinical psychologist for two pre-transplant training sessions and ten in-hospital "booster" sessions during the course of transplantation. Forty-five patients completed the study and provided all covariate data, and 80% of the time series outcome data. Analyses of the principal study variables indicated that hypnosis was effective in reducing reported oral pain for patients undergoing marrow transplantation. Risk, SIP, and BSI pre-transplant were found to be effective predictors of inpatient physical symptoms. Nausea, emesis and opioid use did not differ significantly between the treatment groups. The cognitive behavioral intervention, as applied in this study, was not effective in reducing the symptoms measured.

162. Talone JM, Diamond MJ, Steadman C. Modifying hypnotic performance by means of brief sensory experiences. *International Journal of Clinical & Experimental Hypnosis* 1975;23(3):190-199.

Examined the extent to which hypnotic performance could be modified by means of 2 types of prehypnosis sensory experiences: (a) auditory stimulation in the form of recorded music and (b) a variant of sensory restriction in the form of a short period of silence with eyes closed. 39 university students were administered the Harvard Group Scale of Hypnotic Susceptibility, Form A, as a baseline test of susceptibility and were then randomly assigned to 1 of 3 conditions. Subjects in the music and silence groups were exposed to 10 min of either recorded music or silence prior to completing an adaptation of the tape recorded posttest version of the Stanford Scale of Hypnotic Susceptibility, Form C. Control-group Subjects were exposed only to the hypnotic test scale. All Subjects reported their experienced hypnotic sensations. Music- and silence-group Subjects completed a self-report scale assessing the role played by relaxation and receptive perception in the manipulation. Although the results were not consistent, both music and silence were significantly effective in increasing responsivity in comparison with practice only. Findings are discussed with reference to possible mediating mechanisms, and implications of these findings with regard to modifying hypnotic ability, along with the need for replication studies, are considered.

163. Tamalons AM, Mitchell J An empirical comparison of Ericksonian and traditional hypnotic procedures *Aust J Clin Hypnother Hypn* 1997 Mar;18(1):5-16

Researchers have investigated the effect of direct and indirect hypnotic procedures upon performance of various tasks. None, however, had used thoroughly stringent controls nor examined the effect of these procedures upon improving memory of visual stimuli. This study compares these procedures with a memory task using 80 high to low susceptible female subjects randomly assigned to 4 experimental groups. Taped traditional hypnosis (TH); taped Ericksonian hypnosis (EH); Ericksonian hypnosis presented by an experimenter (LEH) and control group (CG). The visual data recalled was significantly greater in the EH and LEH than that of the TH and CG groups. These results are discussed in terms of how a conversational induction with an indirect suggestion phase which accessed prior unconsciousness associations contributes to the power of the Ericksonian technique. Directions for further research and implications for more effective hypnosis are discussed.

164. Taylor DN. Effects of a behavioral stress-management program on anxiety, mood, self-esteem, and T-cell count in HIV positive men. *Psychological Reports*. 1995;76(2):451-7

This study evaluated the effects of a behavioral stress-management program on anxiety, mood, self-esteem, and T-cell count in a group of HIV-positive men who were asymptomatic except for T-cell counts below 400. The program consisted of 20 biweekly sessions of progressive muscle relaxation and electromyograph biofeedback-assisted relaxation training, meditation, and hypnosis. Ten subjects were randomly assigned to either a treatment group or a no-treatment control group, and the 2 groups were compared on pre- to posttreatment changes in the dependent measures. Analysis showed that, compared with the no-treatment group, the treatment group showed significant improvement on all the dependent measures, which was maintained at a 1-mo. follow-up. Since stress is known to compromise the immune system, these results suggest that stress management to reduce arousal of the nervous system and anxiety would be an appropriate component of a treatment regimen for HIV infection.

165. Tebecis AK, Provins KA. Further studies of physiological concomitants of hypnosis: skin temperature, heart rate and skin resistance. *Biological Psychology* 1976;4(4):249-58

Forehead skin temperature, heart rate and palmar skin resistance were recorded during passive hypnosis and compared with corresponding data obtained during the resting awake condition in a group of highly hypnotizable subjects experienced in self-hypnosis. Similar physiological measures were also monitored during experimental periods when subjects were experiencing suggested environmental conditions of cold and heat in hypnosis as compared with imagining the stress conditions. The data from these subjects were also compared with those obtained from a randomly selected group of people who were low in waking suggestibility and had never been hypnotized. The results indicate that the differences in mean physiological parameters were greatest between the two

subject groups, although some notable differences were also apparent between hypnosis and the awake condition within the experimental group.

166. Thorne DE. Is the hypnotic trance necessary for performance of hypnotic phenomena?. *Journal of Abnormal Psychology* 1967;72(3):233-9

The performance of 2 so-called hypnotic phenomena (selective awareness and auditory hallucinations) were compared between highly susceptible subjects in the waking or hypnotic states. 40 subjects (from an original 148 paid, volunteer, university students) were trained in deep hypnosis and subsequently assigned randomly to 4 groups of 10 subjects each. Each group was tested on its performance of the 2 "hypnotic phenomena" while experiencing 1 of 4 combinations of 2 variables, namely, the waking or hypnotized state of each subject, and the suggestion to hallucinate during or after exposure to a paired-associate word list given audibly to each s. Quantitative and qualitative changes in subject responses to 2 separate administrations of a word-association test were used as an index of each subject's level of awareness to the paired-associate word list, and his objective and subjective effectiveness in auditory hallucinations. Results indicate no differences attributable to state, but significant differences attributable to the suggested time of hallucinating.

167. VanDyck R. Zitman FG. Linszen AC. Spinhoven P. Autogenic training and future oriented hypnotic imagery in the treatment of tension headache: outcome and process. *International Journal of Clinical & Experimental Hypnosis* 1991;39(1):6-23

The aim of the present study was (a) to investigate the relative efficacy of autogenic training and future oriented hypnotic imagery in the treatment of tension headache and (b) to explore the extent to which therapy factors such as relaxation, imagery skills, and hypnotizability mediate therapy outcome. Patients were randomly assigned to the 2 therapy conditions and therapists. 55 patients (28 in the autogenic therapy condition and 27 in the future oriented hypnotic imagery condition) completed the 4 therapy sessions and 2 assessment sessions. No significant main effect or interaction effects for treatment condition or therapist was revealed. A significant effect for time in analyzing scores for headache pain, pain medication usage, depression, and state anxiety was found. In the self-hypnosis condition, pain reduction proved to be associated with depth of relaxation during home practice (as assessed with diaries) and capacity to involve in imagery (as assessed with the Dutch version [van der Velden & Spinhoven, 1984] of the Creative Imagination Scale [Barber & Wilson, 1978/79; Wilson & Barber, 1978]). After statistically controlling for relaxation and imagery, hypnotizability scores (as assessed with the Dutch version [Oyen & Spinhoven, 1983] of the Stanford Hypnotic Clinical Scale [Morgan & J.R. Hilgard, 1975, 1978/79]) were significantly correlated with ratings of pain reduction. Results are discussed in the context of the neo-dissociation and social-cognitive model of hypnoanalgesia. The clinical relevance and the methodological shortcomings of the present study are also critically assessed.

168. Wagstaff GF, Royce C Hypnosis and the treatment of nail biting: a preliminary trial *Contemporary Hypnosis* 1994;11(1):9-13

Examined the efficacy of hypnotherapeutic suggestions alone or preceded by hypnotic induction in the treatment of nail biting. The influences of motivation to improve, belief in effectiveness of treatment, and level of imaginative involvement were also examined. Subjects were 17 undergraduates (aged 19-22 yrs). Results indicate that only suggestions preceded by hypnotic induction resulted in symptom improvement. Belief in efficacy predicted treatment success better than motivation, hypnotic induction, or scores on the Creative Imagination Scale. Within the group receiving hypnotic induction, hypnotic depth scores significantly correlated with treatment success.

169. Weaver DB Hypnotherapy audiotapes for the treatment of chronic insomnia *Alternative Therapies in Health and Medicine* 1996;2(4):94-5

Whitehouse WG. Dinges DF. Orne EC. Keller SE. Bates BL. Bauer NK. Morahan P. Haupt BA. Carlin MM. Bloom PB. Zaugg L. Orne MT. Psychosocial and immune effects of self-hypnosis

training for stress management throughout the first semester of medical school. *Psychosomatic Medicine*. 1996;58(3):249-63 This study was a 19-week prospective conducted to determine the effectiveness of a self-hypnosis/relaxation intervention to relieve symptoms of psychological distress and moderate immune system reactivity to examination stress in 35 first-year medical students. Twenty-one subjects were randomly selected for training in the use of self-hypnosis as a coping skill and were encouraged to practice regularly and to maintain daily diary records related to mood, sleep, physical symptoms, and frequency of relaxation practice. An additional 14 subjects received no explicit training in stress-reduction strategies, but completed similar daily diaries. Self-report psychosocial and symptom measures, as well as blood draws, were obtained at four time points: orientation, late semester, examination period, and postsemester recovery. It was found that significant increases in stress and fatigue occurred during the examination period, paralleled by increases in counts of B lymphocytes and activated T lymphocytes, PHA-induced and PWM-induced blastogenesis, and natural killer cell (NK) cytotoxicity. No immune decreases were observed. Subjects in the self-hypnosis condition reported significantly less distress and anxiety than their nonintervention counterparts, but the two groups did not differ with respect to immune function. Nevertheless, within the self-hypnosis group, the quality of the exercises (ie, relaxation ratings) predicted both the number of NK cells and NK activity. It was concluded that stress associated with academic demands affects immune function, but immune suppression is not inevitable. Practice of self-hypnosis reduces distress, without differential immune effects. However, individual responses to the self-hypnosis intervention appear to predict immune outcomes.

170. Whorwell PJ. Houghton LA. Taylor EE. Maxton DG. Physiological effects of emotion: assessment via hypnosis. *Lancet* 1992;340(8811):69-72

Assessment of the physiological effects of physical and emotional stress has been hampered by a lack of suitable laboratory techniques. Since hypnosis can be used safely to induce specific emotional states of considerable intensity, we studied the effect on distal colonic motility of three hypnotically induced emotions (excitement, anger, and happiness) in 18 patients aged 20-48 years with irritable bowel syndrome. Colonic motility index was reduced by hypnosis on its own (mean change 19.1; 95% CI 0.8, 37.3; p less than 0.05) and this change was accompanied by decreases in both pulse (12; 8, 15) and respiration (6; 4, 8) rates (p less than 0.001 for both). Anger and excitement increased the colonic motility index (50.8; 29.4, 72.2; and 30.4; 8.9, 51.9, respectively; p less than 0.01 for both), pulse rate (26; 22, 30; and 28; 24, 32; p less than 0.001 for both), and respiration rate (14; 12, 16; and 12; 10, 14; p less than 0.001 for both). Happiness further reduced colonic motility although not significantly from that observed during hypnosis alone. Changes in motility were mainly due to alterations in rate than in amplitude of contractions. Our results indicate that hypnosis may help in the investigation of the effects of emotion on physiological functions; this approach could be useful outside the gastrointestinal system. Our observation that hypnosis strikingly reduces fasting colonic motility may partly explain the beneficial effects of this form of therapy in functional bowel disorders.

171. Whorwell PJ. Prior A. Colgan SM. Hypnotherapy in severe irritable bowel syndrome: further experience. *Gut* 1987;28(4):423-5

Fifteen patients with severe intractable irritable bowel syndrome previously reported as successfully treated with hypnotherapy, have now been followed up for a mean duration of 18 months. All patients remain in remission although two have experienced a single relapse overcome by an additional session of hypnotherapy. Experience with a further 35 patients is reported giving a total group of 50. This group was divided into classical cases, atypical cases and cases exhibiting significant psychopathology. The response rates were 95%, 43%, and 60% respectively. Patients over the age of 50 years responded very poorly (25%) whereas those below the age of 50 with classical irritable bowel syndrome exhibited a 100% response rate. This study confirms the successful effect of hypnotherapy in a larger series of patients with irritable bowel syndrome and defines some subgroup variations.

172. Whorwell PJ. Prior A. Faragher EB. Controlled trial of hypnotherapy in the treatment of severe refractory irritable-bowel syndrome. *Lancet* 1984;2(8414):1232-4

30 patients with severe refractory irritable-bowel syndrome were randomly allocated to treatment with either hypnotherapy or psychotherapy and placebo. The psychotherapy patients showed a small but significant improvement in abdominal pain, abdominal distension, and general well-being but not in bowel habit. The hypnotherapy patients showed a dramatic improvement in all features, the difference between the two groups being highly significant. In the hypnotherapy group no relapses were recorded during the 3-month follow-up period, and no substitution symptoms were observed.

173. Wickramasekera I. Effects of sensory restriction on susceptibility to hypnosis: a hypothesis and more preliminary data. *Journal of Abnormal Psychology* 1970;76(1):69-75
Randomly assigned 45 young adult white male prisoners to 1 of 3 groups of equal size. Experimental Subjects (Groups 2 and 3) were exposed to 1 hr. of sensory restriction. Subjects in Group 2 were given a set of neutral instructions prior to sensory restriction, and Subjects in Group 3 were given a set of nonneutral instructions. Controls (Group 1) were exposed to conditions similar to experimentals, but without sensory restriction per se. All Subjects were tested before and after the above procedures with the Stanford Hypnotic Susceptibility Scale. On posttesting, experimental Subjects appeared to have increased in hypnotizability.

174. Williams AR. Hind M. Sweeney BP. Fisher R. The incidence and severity of postoperative nausea and vomiting in patients exposed to positive intra-operative suggestions. *Anaesthesia*. 1994;49(4):340-2
In a double-blind study, the effects of positive intra-operative suggestions on the incidence and severity of postoperative nausea and vomiting were studied in 60 patients randomly selected to undergo routine major gynaecological surgery. Patients who received positive suggestions suffered significantly less nausea and vomiting in the 24 h after surgery

175. Williams JM. Hall DW. Use of single session hypnosis for smoking cessation. *Addictive Behaviors* 1988;13(2):205-8
Twenty of sixty volunteers for smoking cessation were assigned to single-session hypnosis, 20 to a placebo control condition, and 20 to a no-treatment control condition. The single-session hypnosis group smoked significantly less cigarettes and were significantly more abstinent than a placebo control group and a no treatment control group at posttest, and 4-week, 12-week, 24-week and 48-week follow-ups.

176. Wojcikiewicz A, Orlick T The effects of post-hypnotic suggestion and relaxation with suggestion on competitive fencing anxiety and performance *Int J Sport Psychol* 1987;18(4):303-13
Investigated the relative effectiveness of (1) post-hypnotic suggestion and (2) relaxation with suggestion, induced on site preceding a national competition. 33 fencers were randomly assigned to 1 of 3 groups: experimental hypnotic, experimental relaxation, and control. Subjects were tested and retested during 2 consecutive competitions on perceived anxiety, perception of task difficulty, and competition performance. Significant differences were found between the hypnotic group and the control group for perceived level of competition anxiety. On the estimated level of task difficulty, significant differences were found for both the hypnotic and the relaxation groups when compared with the control group. No significant differences were found on fencing performance measures. (French, Spanish, German & Italian abstracts)

177. Zachariae R. Bjerring P. Laser-induced pain-related brain potentials and sensory pain ratings in high and low hypnotizable subjects during hypnotic suggestions of relaxation, dissociated imagery, focused analgesia, and placebo. *International Journal of Clinical & Experimental Hypnosis*. 1994; 42(1):56-80
Pain reports and amplitudes of painful argon laser-induced brain potentials were obtained for 10 high and 10 low hypnotizable volunteers following placebo and a randomized sequence of four hypnotically induced conditions of (a) neutral hypnosis, (b) deep relaxation, (c) pleasant dissociated "out of body" imagery, and (d) focused analgesia of the hand. Both high and low hypnotizable

subjects exhibited significant reductions of reported pain during conditions of neutral hypnosis, relaxation, dissociated imagery, and focused analgesia. High hypnotizable subjects displayed significantly greater reductions than low hypnotizables in all conditions except placebo. Both high and low hypnotizables exhibited significant reductions of reported pain in all five conditions as well as in the posthypnotic condition, when amplitudes of evoked potentials were compared to the prehypnotic baseline. Only the high hypnotizable group showed significant reductions in amplitudes when the data were recalculated to reflect relative changes compared to the average amplitude of the pre- and postconditions to compensate for a possible habituation effect indicated by the significantly lowered amplitudes in the posthypnotic condition. The results are discussed in light of a number of hypotheses concerning mechanisms of hypnotic analgesia.

191. Zeltzer L. LeBaron S. Zeltzer PM. The effectiveness of behavioral intervention for reduction of nausea and vomiting in children and adolescents receiving chemotherapy. *Journal of Clinical Oncology* 1984;2(6):683-90

Fifty-one children 6-17 years of age rated the severity of nausea, vomiting, and the extent to which chemotherapy bothered them during each course of chemotherapy. Sixteen patients had no symptoms and the doses administered to 16 others were not constant so that matched courses could not be assessed. After baseline measurement of two matched courses, the remaining 19 patients were randomized to receive hypnosis or supportive counseling during two more matched courses. An additional course with no intervention was assessed in half of the patients. No significant reduction of symptoms was demonstrated prior to intervention. However, intervention with both hypnosis and supportive counseling was associated with significant reductions in nausea, vomiting, and the extent to which these symptoms bothered patients (all p less than 0.001). Also, after termination of intervention, symptom ratings remained significantly lower than baseline. The data indicate that chemotherapy-related nausea and emesis in children can be reduced with behavioral intervention and that reductions are maintained after intervention has been discontinued.

192. Zeltzer LK. Dolgin MJ. LeBaron S. LeBaron C. A randomized, controlled study of behavioral intervention for chemotherapy distress in children with cancer. *Pediatrics* 1991;88(1):34-42

Fifty-four pediatric cancer patients were studied to determine the relative efficacy of two forms of behavioral intervention for reducing chemotherapy-related distress. Following baseline assessment, subjects were randomly assigned to receive either hypnosis, non-hypnotic distraction/relaxation, or attention placebo (control) during the subsequent identical chemotherapy course. Observational and interview measures of anticipatory and postchemotherapy nausea, vomiting, distress, and functional disruption served as outcome data. Results indicated that treatment condition was the single best predictor of change from baseline to intervention, with children in the hypnosis group reporting the greatest reduction of both anticipatory and postchemotherapy symptoms. The cognitive distraction/relaxation intervention appeared to have a maintenance effect in which symptoms did not get much worse or much better, while children in the control group had symptoms that consistently became worse over time. Emetic potential of the chemotherapy and the prophylactic use of antiemetics each appeared to contribute to the overall severity of symptoms. While the efficacy of hypnosis in the management of chemotherapy distress is supported, the complexities of interacting biologic and psychologic factors are highlighted.

193. Zeltzer LK. Fanurik D. LeBaron S. The cold pressor pain paradigm in children: feasibility of an intervention model (Part II). *Pain* 1989;37(3):305-13

The purpose of this study was to examine the feasibility of testing a psychological approach (hypnosis) to pain reduction in children using the cold pressor paradigm. Children's pain ratings at 10 sec intervals and duration of arm immersion (40 sec maximum) in 15 degrees C ($n = 37$) and 12 degrees C water ($n = 29$) were assessed in 6-12-year-old children during 2 baseline trials (alternating arms), followed by 2 more trials after randomization to a control or hypnosis treatment condition. Hypnosis was found to reduce pain significantly more than the control condition in both 15 degrees C and 12 degrees C water. Hypnotic susceptibility was not strongly related to hypnotic pain reduction. However, age was significant, with younger children showing higher pain ratings and early arm

withdrawal rates and less response to hypnosis than older children. In 15 degrees C water, females had higher pain ratings and early withdrawal rates than males, but this sex discrepancy disappeared in 12 degrees C water. This study demonstrated the feasibility of the cold pressor paradigm for testing intervention strategies and its potential for enhancing our understanding of pain in children.

Zitman FG, van Dyck R, Spinhoven P, Linssen AC. Hypnosis and autogenic training in the treatment of tension headaches: a two-phase constructive design study with follow-up. *Journal of Psychosomatic Research* 1992;36(3):219-28 Tension headaches can form a chronic (very long duration) condition. EMG biofeedback, relaxation training and analgesia by hypnotic suggestion can reduce the pain. So far, no differences have been demonstrated between the effects of various psychological treatments. In a constructively designed study, we firstly compared an abbreviated form of autogenic training to a form of hypnotherapy (future oriented hypnotic imagery) which was not presented as hypnosis and secondly we compared both treatments to the same future oriented hypnotic imagery, but this time explicitly presented as hypnosis. The three treatments were equally effective at post-treatment, but after a 6-month follow-up period, the future oriented hypnotic imagery which had been explicitly presented as hypnosis was 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.

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 12. <http://www.news-medical.net/news/2007/10/22/31557.aspx>
Hypnotherapy effective for smoking cessation after hospital discharge
Published on October 22, 2007

http://www.trancesolutions.com/hypnosis_research_%281%29.htm

13. Asthma

Hypnosis has been shown to alleviate the subjective distress of patients with asthma: there were less frequent attacks, and less medication was required. (1)

In another study comparing Hypnosis and relaxation therapy the improvement with the Hypnotherapy group was much greater. And only Hypnosis subjects showed an improvement in physiologic measures of respiration. (2)

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395. Arthritis

Following Hypnotherapy, patients with arthritis achieved significant decreases in pain, anxiety, and depression, and an increases in beta-endorphin-like immunoreactive material.

References:

Domangue, B.B., Margolis, C.G., Lieberman, D. & Kaji, H. (1985). "Biochemical Correlates of Hypnoanalgesia in Arthritic Pain Patients." *Journal of Clinical Psychiatry*, 46, 235-238.

396. Bone Fracture

The Harvard Medical School conducted research on the use of hypnosis to enhance physical healing. Twelve people with a recent bone fracture were divided into two groups. One group received hypnosis and the other group served as control. Both groups received standard orthopaedic treatment. The hypnosis group had individual hypnotic sessions and listened to audio tapes designed to increase bone healing. X-ray and orthopaedic evaluations were made during the 12 weeks of the experiment. The results showed a faster healing for the hypnosis group at week 9 of the experiment. X-rays revealed a notable difference at the edge of the fracture at week 6 of the experiment. The hypnosis group also had better mobility and used less pain killers. The researchers conclude by saying that "despite a small sample size.... these data suggest that hypnosis may be capable of enhancing both anatomical and functional fracture healing, and that further investigation of hypnosis to accelerate healing is warranted.

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Ginandes, CS, Rosenthal, DI.1999, "Using hypnosis to accelerate the healing of bone fractures: a randomized controlled pilot study", *Therapy Health Medicine*, May, 5(2), pp.67-75.

397. Cancer

Women with metastatic breast cancer who received group Hypnosis therapy were able to reduce their pain experience by 50% compared to a control group. (1)

At a 10-year follow-up of these same women, the Hypnosis treatment group had double the survival rate of the control group.(2)

Both adolescent and adult cancer patients undergoing chemotherapy have fewer symptoms of anticipatory nausea and vomiting following Hypnotic interventions. (3)

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398. Childbirth

Hypnotherapy has been used successfully to prolong pregnancy and prevent premature delivery. (1)

In Britain 55% of birthing women using hypnosis required no medication for pain relief, compared with 22% of women in non-hypnosis groups. In two other reports 58% of women using hypnotic analgesia required no medication. And five other reports quoted 60-79% of women using hypnosis required no medication. Check out www.easybirthing.com/science_and_research .

In another study subjects given hypnosis reported reduced pain, shorter stage 1 labours, less medication, higher Apgar scores, more frequent spontaneous deliveries than other group. Some had lower depression scores after birth than the other groups.(2)

References:

(1) Schwartz, M. (1963) "The Cessation of Labor Using Hypnotic Techniques." *American Journal of Clinical Hypnosis*, 5, 211-213.

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399. Depression

Cognitive Hypnotherapy for Depression: An Empirical Study: To investigate the effectiveness of cognitive hypnotherapy (CH), hypnosis combined with cognitive behavior therapy (CBT), on depression, 84 depressives were randomly assigned to 16 weeks of treatment of either CH or CBT alone. At the end of treatment, patients from both groups significantly improved compared to baseline scores. However, the CH group produced significantly larger changes in Beck Depression Inventory, Beck Anxiety Inventory, and Beck Hopelessness Scale. Effect size calculations showed that the CH group produced 6%, 5%, and 8% greater reduction in depression, anxiety, and hopelessness, respectively, over and above the CBT group. The effect size was maintained at 6-month and 12-month follow-ups. This study represents the first controlled comparison of hypnotherapy with a well-established psychotherapy for depression, meeting the APA criteria for a "probably efficacious" treatment for depression. (1)

Alternative Treatments for Long-Term Depressed Mood: Meditation and Hypnosis The purpose of this study is to examine the effectiveness to two alternative treatments for long-term depressed mood: mindfulness meditation and hypnosis. The need to find effective treatments for those suffering from long-term low-to-moderate level depression has been known for over a century. Although, there have been some recent advances in the types of drug and psychotherapy treatments available for this condition, some people do not respond to such interventions, have considerable side effects (from the drugs), or are not satisfied for other reasons with these treatment options.

The present study represents an innovative investigation into two alternatives to traditional treatments for long-term depressed mood: mindfulness meditation (plus gentle hatha yoga) and hypnosis in a group therapy format. Although both meditation and hypnosis have shown success in treating stress, anxiety, and pain in studies of non-clinical populations, neither has been systematically investigated as a possible treatment for long-term depressed mood. (2)

References:

(1) Assen Alladin and Alisha Alibhai (2000) *The International Journal of Clinical and Experimental Hypnosis*; Volume 55, Number 2 - May 2000.

(2) Spiegel, D. MD; Butler, L.D. Ph.D. Xin-Hua Chen; Abramson, M. DDS, Waelde, L. Ph.D. Mental Insight Foundation

[More about how hypnotherapy can help overcome depression](#) ▶

400. Dermatitis

Most clinicians and researchers agree that stress affects the course of dermatitis and eczema, and reducing stress levels has a positive effect on the course of the disease. Emotional factors have been shown to have a strong correlation with onset of the disease and also with flare-ups. Further more, several documented case studies have revealed that hypnosis can offer a successful treatment for sufferers.

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Kantor, S.D. (1990). Stress and psoriasis. Psoriasis Research Institute, Palo Alto, California 94301. *Cutis (USA)* Oct 1990, 46 (4) p321-2

401. Irritable Bowel Syndrome

Hypnotherapy is one of the most successful treatment methods, giving 80+% success rate for abdominal pain and distension. It often results in assisting with other problems such as migraine and tension headaches. With patients who have severe chronic IBS, it was Hypnotherapy patients that showed dramatic improvement in all measures, and they maintained that improvement at a two year follow-up. (1)

402. Cognitive Behavioural Hypnotherapy in the Treatment of Irritable Bowel Syndrome–Induced Agoraphobia

There are a number of clinical studies and a body of research on the effectiveness of hypnotherapy in the treatment of irritable bowel syndrome (IBS). Likewise, there exists research demonstrating the efficacy of cognitive-behavioural therapy (CBT) in the treatment of IBS. However, there is little written about the integration of CBT and hypnotherapy in the treatment of IBS and a lack of clinical information about IBS-induced agoraphobia. This paper describes the aetiology and treatment of IBS-induced agoraphobia. Cognitive, behavioural, and hypnotherapeutic techniques are integrated to provide an effective cognitive-behavioural hypnotherapy (CBH) treatment for IBS-induced agoraphobia. This CBH approach for treating IBS-induced agoraphobia is described and clinical data are reported. (2)

References:

(1) Whorwell P.J; Prior A; Faragher E.B. (1988 & 1987). Whorwell, P.J., Prior, A. & Faragher, E.B. (1984). "Controlled Trial of Hypnotherapy in the Treatment of Severe Refractory Irritable-Bowel Syndrome." *Lancet*, pp. 1232-1234. Whorwell, P.J., Prior, A. & Colgan, S.M. (1987). "Hypnotherapy in Severe Irritable Bowel Syndrome: Further Experience." *Gut*, 28, 423-425.

(2) Golden W.L. (2000) *The International Journal of Clinical and Experimental Hypnosis*; Volume 55, Number 2 - May 2000

403. Migraine and Headaches

Hypnosis is highly effective in the treatment of chronic migraine headaches. All Hypnotic methods appear to be superior to standard treatment relying on pharmacological approaches alone. Patients treated with Hypnosis had a significant reduction in severity and the number of attacks compared to a control group treated with traditional medications. At the one year follow-up the number of patients in the Hypnosis group who had no headaches for over three months was significantly higher. (1)

404. Review of the Efficacy of Clinical Hypnosis with Headaches and Migraines

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. (2)

References:

(1) Anderson, J.A., Basker, M.A, Dalton, R. (1975). "Migraine and Hypnotherapy." *International Journal of Clinical and Experimental Hypnosis*, 23, 48-58.

(2) Hammond C. (2000) *The International Journal of Clinical and Experimental Hypnosis*; Volume 55, Number 2 - May 2000

405. Pain

Hypnosis was found to be effective in reducing pain and discomfort associated with repeated unpleasant medical interventions in a study of children with cancer. (1)

A significant reduction of pain and dysphoria was found following Hypnosis in a study of 19 patients with a variety of musculoskeletal disorders. (2)

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406. Smoking Cessation

In a recent stop smoking study, where smokers attended individual hypnotherapy for stop smoking over three sessions, 81% had stopped smoking after the treatment ended, and at a 12 month follow-up nearly 50% remained smoke free. And 95% of the people were satisfied with their treatment.

References:

(1) Elkins GR, Rajab MH. (2004) "Clinical hypnosis for Smoking Cessation: preliminary results of a three session intervention." *International Journal of Clinical and Experimental Hypnosis* 2004 Jan; 52 (1):73-81

407. Stress and Hypertension

A trial compared Hypnosis with biofeedback or a combination of both. All groups had significant reduction in blood pressure. (1) However, at six-month follow-up only patients receiving Hypnosis had maintained the reduction. (2)

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(2) Friedman, H. & Taub, H. (1978). "A Six Month Follow-up of the Use of Hypnosis and Biofeedback Procedures in Essential Hypertension." *American Journal of Clinical Hypnosis*, 20, 184-188

408. Surgery Recovery

Patients trained with Hypnosis before surgery had significantly shorter stays in hospital. Research shows that Hypnosis methods have been used successfully for anxiety associated with medical procedures.

References:

(1) Rapkin, D.A., Straubing, M., Singh, A. & Holroyd, J.C. (1988). "Guided Imagery and Hypnosis: Effect on Acute Recovery from Head and Neck Cancer Surgery" Paper presented at the Annual Meeting of the Society for Clinical and Experimental Hypnosis, Asheville, N.C. Spiegel, D, (1998). Report in the *Harvard Mental Health Letter*, September 1998, vol. 15, p. 5-6.

409. Warts

Prepubertal children respond to Hypnotherapy almost without exception, although adults sometimes do not. Clinically, many adults who fail to respond to hypnotherapy will heal with individual hypnoanalytic (combination of hypnotherapy and psychotherapy) techniques. By using hypnoanalysis on those who failed to respond to hypnotherapy, 33 of 41 (80%) consecutive patients were completely cured. Self-hypnosis was not used. (1)

There was a particularly interesting report of hypnosis used to treat a 7-year-old girl who had 82 common warts. The warts had been present for 12-18 months and were not amenable to any of the routine medical treatments. Hypnotic suggestions were given for the facial warts to disappear before warts from the rest of the body. After 2 weeks, eight of 16 facial warts were gone, with no other changes. After three additional biweekly sessions, all 82 warts were gone. This was, to our knowledge, the first reported case of systematic wart removal in children and the researchers concluded that there is an intimate relationship between psychological mechanisms and the immune system. (2)

References:

(1) Ewin DM Hypnotherapy for warts (*verruca vulgaris*): 41 consecutive cases with 33 cures. *Tulane Medical School, New Orleans, LA. Am J Clin Hypn (UNITED STATES)* Jul 1992, 35(1) p1-10

(2) Hypnotherapy of a child with warts. Noll RB Department of Pediatrics and Human Development, Michigan State University, East Lansing 48824. J Dev Behav Pediatr Apr 1988, 9 (2) p89-91

En.wikipedia.org/wiki/Hypnotherapy

410. Systematic reviews

In 1892, the British Medical Association (BMA) commissioned a team of doctors to undertake an evaluation of the nature and effects of hypnotherapy;

The Committee, having completed such investigation of hypnotism as time permitted, have to report that they have satisfied themselves of the genuineness of the hypnotic state. (Needham F, Outterson T. Report of the committee appointed to investigate the nature of the phenomena of hypnotism. British Medical Journal. 1892 July 23;2(1647):190-1.)

The Committee are of opinion that as a therapeutic agent hypnotism is frequently effective in relieving pain, procuring sleep, and alleviating many functional ailments [i.e., psycho-somatic complaints and anxiety disorders]. (Ibid.)

411. In 1955, the Psychological Medicine Group of the BMA commissioned a Subcommittee, led by Prof. [T. Ferguson Rodger](#), to deliver a second, and more comprehensive, report on hypnosis. The Subcommittee consulted several experts on hypnosis from various fields, including the eminent neurologist [Prof. W. Russell Brain, the 1st Baron Brain](#), and the psychoanalyst Wilfred Bion. After two years of study and research, its final report was published in the British Medical Journal (BMJ), under the title 'Medical use of Hypnotism'. The terms of reference were:

To consider the uses of hypnotism, its relation to medical practice in the present day, the advisability of giving encouragement to research into its nature and application, and the lines upon which such research might be organized. (*British Medical Journal*, 1955)

It concludes from a systematic review of available research that,

The Subcommittee is satisfied after consideration of the available evidence that hypnosis is of value and may be the treatment of choice in some cases of so-called psycho-somatic disorder and [Psychoneurosis](#). It may also be of value for revealing unrecognized motives and conflicts in such conditions. As a treatment, in the opinion of the Subcommittee it has proved its ability to remove symptoms and to alter morbid habits of thought and behavior[...]

In addition to the treatment of psychiatric disabilities, there is a place for hypnosis in the production of anesthesia or analgesia for surgical and dental operations, and in suitable subjects it is an effective method of relieving pain in childbirth without altering the normal course of labor. ("Medical use of hypnosis", *British Medical Journal*, April 1955)

According to a statement of proceedings published elsewhere in the same edition of the BMJ, the report was officially 'approved at last week's Council meeting of the British Medical Association.' (BMA Council Proceedings, BMJ, April 23, 1955:1019). In other words, it was approved as official BMA policy. This statement goes on to say that,

For the past hundred years there has been an abundance of evidence that psychological and physiological changes could be produced by hypnosis which were worth study on their own account, and also that such changes might be of great service in the treatment of patients. (*British Medical Journal*, cited)

In 1958, the American Medical Association (AMA) commissioned a similar (though more terse) report which endorses the 1955 BMA report and concludes,

That the use of hypnosis has a recognized place in the medical armamentarium and is a useful technique in the treatment of certain illnesses when employed by qualified medical and dental personnel. ("Medical use of hypnosis", JAMA, 1958)

Again, the AMA council approved this report rendering hypnotherapy an orthodox treatment, The Reference Committee on Hygiene, Public Health, and Industrial Health approved the report and commended the Council on Mental Health for its work. The House of Delegates adopted the Reference Committee report [...](AMA Proceedings, JAMA, September 1958: 57)

1990s

411. In 1995, the US [National Institute for Health](#) (NIH), established a Technology Assessment Conference that compiled an official statement entitled "Integration of Behavioral & Relaxation Approaches into the Treatment of Chronic Pain & Insomnia". This is an extensive report that includes a statement on the existing research in relation to hypnotherapy for chronic pain. It concludes that:

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 [pain and swelling of the mucus membrane], temporomandibular disorders [jaw pain], and tension headaches. (NIH, 1995)

In 1999, the British Medical Journal (BMJ) published a Clinical Review of current medical research on hypnotherapy and relaxation therapies,^[15] it concludes,

- "There is strong evidence from randomised trials of the effectiveness of hypnosis and relaxation for cancer related anxiety, pain, nausea, and vomiting, [side effects of [chemotherapy](#)] particularly in children."
- "They are also effective for panic disorders and insomnia, particularly when integrated into a package of cognitive therapy (including, for example, sleep hygiene)."
- "A systematic review has found that hypnosis enhances the effects of cognitive behavioural therapy for conditions such as [phobia](#), obesity, and anxiety."
- "Randomized controlled trials support the use of various relaxation techniques for treating both acute and chronic pain, [...]"
- "Randomized trials have shown hypnosis to be of value in asthma and in irritable bowel syndrome [...]"
- "Some practitioners also claim that relaxation techniques, particularly the use of imagery, can prolong life. There is currently insufficient evidence to support this claim."

412. Reports

In 2001, the Professional Affairs Board of the [British Psychological Society](#) (BPS) commissioned a working party of expert psychologists to publish a report entitled *The Nature of Hypnosis*.^[16] Its remit was 'to provide a considered statement about hypnosis and important issues concerning its application and practice in a range of contexts, notably for clinical purposes, forensic investigation, academic research, entertainment and training.' The report provides a concise (c. 20 pages) summary of the current scientific research on hypnosis. It opens with the following introductory remark:

"Hypnosis is a valid subject for scientific study and research and a proven therapeutic medium."

With regard to the therapeutic uses of hypnosis, the report said:

"Enough studies have now accumulated to suggest that the inclusion of hypnotic procedures may be beneficial in the management and treatment of a wide range of conditions and problems encountered in the practice of medicine, psychiatry and psychotherapy."

The working party then provided an overview of some of the most important contemporary research on the efficacy of clinical hypnotherapy, which is summarized as follows:

- "There is convincing evidence that hypnotic procedures are effective in the management and relief of both acute and chronic pain and in assisting in the alleviation of pain, discomfort and distress due to medical and dental procedures and childbirth."
- "Hypnosis and the practice of self-hypnosis may significantly reduce general anxiety, tension and stress in a manner similar to other relaxation and self-regulation procedures."
- "Likewise, hypnotic treatment may assist in insomnia in the same way as other relaxation methods."
- "There is encouraging evidence demonstrating the beneficial effects of hypnotherapeutic procedures in alleviating the symptoms of a range of complaints that fall under the heading 'psychosomatic illness.' These include tension headaches and migraine; asthma; gastro-intestinal complaints such as irritable bowel syndrome; warts; and possibly other skin complaints such as eczema, psoriasis and urticaria [hives]."

- "There is evidence from several studies that its [hypnosis] inclusion in a weight reduction program may significantly enhance outcome."^[16]

American Health Magazine - Magazine of men's health, women's health & fitness . . . Monday, February 12, 2007

Does Hypnosis Work? A Comparison Study American Health Magazine reported the following findings from a recent study

- Psychoanalysis: 38% recovery after 600 sessions
- Behavior Therapy: 72% recovery after 22 sessions
- Hypnotherapy: 93% recovery after 6 sessions

413. Meta-analysis

In 2003, a meta-analysis of the efficacy of hypnotherapy was published by two researchers from the university of Konstanz in Germany, Flammer and Bongartz. The study examined data on the efficacy of hypnotherapy across the board, though studies included mainly related to psychosomatic illness, test anxiety, [smoking cessation](#) and pain control during orthodox medical treatment. Most of the better research studies used traditional-style hypnosis, only a minority (19%) employed Ericksonian hypnosis.

The authors considered a total of 444 studies on hypnotherapy published prior to 2002. By selecting the best quality and most suitable research designs for meta-analysis they narrowed their focus down to 57 controlled trials. These showed that on average hypnotherapy achieved at least 64% success compared to 37% improvement among untreated control groups. (Based on the figures produced by binomial effect size display or BESD.)

According to the authors this was an intentional underestimation. Their professed aim was to discover whether, even under the most skeptical weighing of the evidence, hypnotherapy was still proven effective. They showed conclusively that it was. In fact, their analysis of treatment designs concluded that expansion of the meta-analysis to include non-randomized trials for this data base would also produce reliable results. When all 133 studies deemed suitable in light of this consideration were re-analyzed, providing data for over 6,000 patients, the findings suggest an average improvement in 27% of untreated patients over the term of the studies compared with a 74% success rate among those receiving hypnotherapy. This is a high success rate given the fact that many of the studies measured included the treatment of addictions and medical conditions. The outcome rates for anxiety disorders alone, traditionally hypnotherapy's strongest application, were higher still (though a precise figure is not cited). (Flammer & Bongartz, "On the efficacy of hypnosis: a meta-analytic study", *Contemporary Hypnosis*, 2003, pp179 – 197.)^[citation needed]

In 2005 and in 2007, systematic reviews from the Cochrane Collaboration showed no proper evidence that hypnotherapy was useful in the treatment of smoking addiction or in the treatment of irritable bowel syndrome (IBS) ^{[17][18]}

<http://www.ibshypnosis.com/>

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Hypnosis is only one of several approaches to treating irritable bowel syndrome and may not be the most suitable option for all patients (click [here](#) for discussion of treatment options for IBS). However, hypnosis treatment has some advantages which makes it an attractive option for many IBS sufferers with chronic and severe symptoms:

- It is one of the most successful treatment approaches for chronic IBS. The response rate to treatment is 80% and better in most published studies to date.
- The treatment often helps individuals who have failed to get improvements with other methods (see for example: Whorwell et al., 1984, 1987; Palsson et al., 1997, 2000).