Some studies done at universities and hospitals that show how hypnosis helps with various medical issues.

. Dementia / Alzheimer's Disease

In 2007, a study done by researchers in two care homes in the United Kingdom found that dementia patients who received regular weekly hypnosis sessions over a 9-month period showed improvements in all 7 aspects of their "quality of life": concentration, relaxation, motivation, activities of daily living, immediate memory, memory of significant events, and socialization. In fact, some of those improvements were maintained for a period of time after the study – such as for 21 months or more from the start date of the study.^[1,1]

References

1.1. Alternative Approaches to Supporting Individuals with Dementia: Enhancing Quality of Life Through Hypnosis

Results: This pilot study explored the use of hypnosis to influence 7 aspects of quality of life in individuals with dementia: concentration, relaxation, motivation, activities of daily living, immediate memory, memory of significant events, and socialization. The results indicate that hypnosis has a beneficial impact on quality of life on both a short-term and long-term basis. Unlike the other study participants, the participants in the hypnosis group showed improvement in all 7 items – some of which were maintained over a period of time, such as 21 months or more.

The study authors hypothesize that perhaps an individual with dementia is aware of his or her gradual loss of abilities. That awareness leads to increased levels of anxiety and depression – which are known to involve active cognitive processing. Because the individual's limited cognitive resources are being used up by anxiety and depression, even greater loss of memory, motivation and ability takes place. The authors further hypothesize that hypnosis may decrease an individual with dementia's anxiety and depression (through positive suggestion and relaxation), which – in turn – may free up otherwise engaged resources so they are available for the individual to use to successfully accomplish cognitive tasks.

Notes: Eighteen participants were recruited from 2 care homes and were randomly allocated into 1 of 3 groups, the hypnosis group (HG), the discussion group (DG), and the treatment-as-usual group (TG). The HG received weekly individual sessions of hypnosis carried out in their single-occupancy bedrooms at their residential or nursing home. Each session lasted approximately 1 hour. Thus, over the 9-month period each HG participant received a total of 36 hours of hypnosis in 36 sessions. Prior to the first hypnosis session, each participant received 1-hour consultation and interview to customize the terminology used during the hypnosis sessions. This ensured that the language used was familiar and personalized for each participant and to ensure comprehension of suggestions that were to be used. Participants were also introduced to the process of progressive muscle relaxation. Participants were induced into hypnosis in 3 phases: (i) eye closure, (ii) progressive muscle relaxation. Participants were inductions "ask" each participant to allow oneself to become more relaxed. After deepening, the HG participants were given direct suggestions relating to the 7 items described earlier, along with additional "CRC" suggestions (Calmness, Relaxation, and Confidence). Examples of the statements are provided below.

At the end of this session, and between now and the next time I see you, you will feel more relaxed and at ease, more motivated to do the things you want to do.

You will have clarity of thought; you will be able to concentrate for longer periods of time.

You will have fewer concerns and less feelings of anxiousness.

Spending time with others will have meaning and you will want to spend time chatting with others.

For each of the 7 items, all participants were rated on a 7-point scale, assessed once at the start of the study period and then at weekly intervals.

Alzheimer's Care Today 2007; 8(4):321-331

By: Simon Duff, Ph.D., is a chartered forensic psychologist and a trained hypnotherapist, working at the Division of Clinical Psychology, University of Liverpool, and the Mersey Forensic Psychology Service, Liverpool, United Kingdom. Daniel Nightingale, Ph.D., was first trained in social work, then as a registered nurse in learning disabilities before completing a doctorate in both learning disabilities and transitional shock. He is a trained hypnotherapist and head of dementia services at Southern Cross Healthcare, The Alton Centre, Northampton, United Kingdom.

 http://dementiatherapyspecialists.com/wp-content/uploads/2012/08/Alzheimers-Care-Todayarticle.pdf

2. Arthritis

In 2000, researchers from the Institute of Medical Psychology, Ludwig-Maximilian-University in Germany conducted a study involving 66 Rheumatoid Arthritis patients. The patients who used hypnosis experienced clinically significant improvements in both subjective measurements (e.g., to assess the severity of joint pain/function) and objective measurements (e.g. testing blood samples for indicators of inflammation). The patients who used hypnosis improved more than the patients in the study who used other techniques – such as relaxation. And, improvements became even more significant if one of the patients in the study practiced hypnosis regularly during follow-up periods.^[2,1]

References

2.1. The Effect of Hypnosis Therapy on the Symptoms and Disease Activity in Rheumatoid Arthritis

Results: Results indicate that the hypnosis therapy produced more significant improvements in both the subjective and objective measurements, above relaxation and medication. Improvements were also found to be of clinical significance and became even more significant when patients practiced the hypnosis regularly during the follow-up periods.

Notes: The present study aimed to assess the effectiveness of clinical hypnosis on the symptoms and disease activity of Rheumatoid Arthritis (RA). Sixty-six RA patients participated in a controlled group design. Twenty-six patients learnt the hypnosis intervention, 20 patients were in a relaxation control group and 20 patients were in a waiting-list control group. During hypnosis, patients developed individual visual imagery aimed at reducing the autoimmune activity underlying the RA and at reducing the symptoms of joint pain, swelling and stiffness. Subjective assessments of symptom severity and body and joint function, using standardized questionnaires and visual

analogue scales, were obtained. Objective measures of disease activity via multiple blood samples during the therapy period and at the two follow-ups were also taken. These measurements were of erythrocyte sedimentation rate. C-reactive protein, hemoglobin and leukocyte total numbers.

Psychol Health. 2000 Nov;14(6):1089-104 By: J. R. Horton-Hausknecht, U. Mitzdorf, D. Melchart, Institute of Medical Psychology, Ludwig-Maximilian-University, Goethestr, 31, 80336, Munich, Germany

https://www.ncbi.nlm.nih.gov/pubmed/22175264

3. Asthma

In 2000, researchers from the University of California analyzed numerous studies that had previously been conducted about the effect of hypnosis on asthmatic patients. Those researchers concluded that the studies that have already been done consistently demonstrate the power of hypnosis to help someone with asthma. Children in particular seemed to respond well to hypnosis as a tool.^[3,1]

In 2007, a Harvard Medical School Ph.D. reviewed the evidence from various controlled outcome studies on hypnosis for asthma. The review concluded that hypnosis may be successfully used to treat asthma symptom severity as well as emotional states that can exacerbate airway obstruction.^[3,2]

References

3.1. Hypnosis and Asthma: Critical Review

Results: This report concluded that studies conducted to date have consistently demonstrated an effect of hypnosis with asthma. Existing data suggest that hypnosis efficacy is enhanced in subjects who are susceptible to the treatment modality (hypnosis), with experienced investigators, when administered over several sessions, and when reinforced by patient self-hypnosis. Children in particular appear to respond well to hypnosis as a tool for improving asthma symptoms.

Notes: This report analyzed numerous studies that were conducted on the effect of hypnosis on asthmatic patients.

Journal of Asthma, Volume 37, Issue 1 February 2000, pages 1-15 By: R. M. Hackman, J. S. Stern, M. E. Gershwin, University of California

• <u>https://pubmed.ncbi.nlm.nih.gov/10724294/</u>

3.2. Evidence-Based Hypnotherapy for Asthma: A Critical Review

Results: This review concludes that hypnosis is possibly efficacious for treatment of asthma symptom severity and illness-related behaviors and is efficacious for managing emotional states that exacerbate airway obstruction. Hypnosis is also possibly efficacious for decreasing airway obstruction and stabilizing airway hyper-responsiveness in some individuals.

Notes: This paper reviewed evidence primarily from controlled outcome studies on hypnosis for asthma.

International Journal of Clinical and Experimental Hypnosis 2007 April.55(2)220-49 By: Daniel Brown, Ph.D., Harvard Medical School

• <u>https://www.tandfonline.com/doi/abs/10.1080/00207140601177947?journalCode=nhyp20</u>

4. Blood Pressure

In 2007, a University of Paris Ph.D. in clinical psychology studied 30 participants with high blood pressure and concluded that hypnosis is effective in reducing blood pressure both in the short term and long term.^[4:1]

References

4.1. Effectiveness of Hypnosis in Reducing Mild Essential Hypertension: A One-Year Follow-Up

Results: The present study investigates the effectiveness of hypnosis in reducing mild essential hypertension. Results show that hypnosis is effective in reducing blood pressure in the short term but also in the middle and long terms.

Notes: Thirty participants who were suffering from mild essential hypertension were randomly assigned to either a control group (which did not receive any treatment) or a hypnosis group (where each person received 8 individually tailored hypnosis sessions).

International Journal of Clinical and Experimental Hypnosis, Vol. 55, Issue 1, 2007 By: M. C. Gay, Univ. of Paris, France

- <u>https://www.tandfonline.com/doi/abs/10.1080/00207140600995893</u>
- https://www.researchgate.net/project/Nurse-Led-Hypnosis-Service

5. Cancer

In a study of 150 participants concluding in 2015, a nurse and researcher at the City of Hope Cancer Center studied 150 cancer patients and found that 78% of those who used hypnosis experienced significant, lasting reduction in symptoms such as anxiety, pain, sleeplessness, fatigue, nausea and vomiting.^[51]

In 2013, researchers from the Mount Sinai School of Medicine and the City of Hope Cancer Center reviewed the empirical literature on hypnosis as a cancer prevention and control technique. They concluded that hypnosis has strong support for use in surgery and other invasive procedures and shows promise to help with chemotherapy, radiotherapy, and metastatic disease.^[52]

In 2005, researchers from hospitals and hospices in the United Kingdom studied the impact of hypnosis on 20 hospice cancer patients. They found that hypnotherapy did help the cancer patients with insomnia, frequent bowel actions, itchiness, pain, chemotherapy side effects like nausea and fatigue, and anxiety. They also concluded that the "best time for hypnotherapy to be offered to cancer patients is right at the time of diagnosis."^[5,3]

References

5.1. Nurse-Led Hypnosis Service

This independent nursing practice provides hypnosis services to cancer patients for the management of cancer and cancer treatment-related side-effects including pain, anxiety, nausea and vomiting, depression, insomnia, and fatigue. In addition, behavioral change (smoking and weight management) may be addressed.

• <u>https://www.researchgate.net/project/Nurse-Led-Hypnosis-Service</u>

5.2. Hypnosis for Cancer Care: Over 200 Years Young

Notes: Hypnosis has been used to provide psychological and physical comfort to individuals diagnosed with cancer for nearly 200 years. The goals of this review are: 1) to describe hypnosis and its components and to dispel misconceptions; 2) to provide an overview of hypnosis as a cancer prevention and control technique (covering its use in weight management, smoking cessation, as an adjunct to diagnostic and treatment procedures, survivorship, and metastatic disease); and 3) to discuss future research directions. Overall, the literature supports the benefits of hypnosis for improving quality of life during the course of cancer and its treatment.

CA: A Cancer Journal for Clinicians, Volume 63, Issue 1, pages 31-44, January/February 2013 By: Guy H. Montgomery Ph.D., Director, Integrative Behavioral Medicine Program, Associate Professor, Department of Oncological Sciences, Mount Sinai School of Medicine, New York, NY Julie B. Schnur Ph.D., Co-Director, Integrative Behavioral Medicine Program, Assistant Professor, Department of Oncological Sciences, Mount Sinai School of Medicine, New York, NY Kate Kravits MA, RN, HNB-BC, LPC, NCC, ATR-BC, Senior Research Specialist, Division of Nursing Research and Education, Department of Population Sciences, City of Hope, Duarte, CA

https://acsjournals.onlinelibrary.wiley.com/doi/full/10.3322/caac.21165

5.3. Efficacy of Hypnotherapy as a Supplement Therapy in Cancer Intervention

Results: Of the 20 patients who completed the three sessions of hypnotherapy all reported varying degrees of anxiety. 5 patients wanted to have hypnotherapy for insomnia as a primary presenting complain, 1 for excessive itchiness during night time, 1 for excessively frequent bowel actions - 8 to 10 times a day for the last year, which invariably interfered with his social life and prevented him from going out, 8 wanted to have hypnotherapy for pain control, 3 patients opted for hypnotherapy to prevent the side effects of chemotherapy and 2 patients had it specifically for severe anxiety and panic attacks.

The 5 patients who had hypnotherapy for insomnia all reported improved sleeping patterns even after the first session. After the third session none of them complained of insomnia and this result was sustained till the followup, which was 3 to 4 months after the first session. They also reported

increased energy levels, less tiredness and improved appetite. 2 of the patients with insomnia have been on Temazepam 10mg before bed, which they voluntarily stopped taking after the first session.

The patient with nighttime itchiness reported that their itchiness stopped after the first session and she continued with the remaining two hypnotherapy sessions working towards pain control.

The patient with frequent bowel action reported that he managed to half the number of times he went to the toilet after the second session.

Of the 8 patients who had hypnotherapy for pain control, all reported that the intensity of pain has significantly been reduced and as a result they have reduced heir dose of opiate analgesics taken daily.

The 3 patients, who took part in the study to prevent the side effects of chemotherapy, also reported very good results with no nausea, sickness and less loss of energy, which was in contrast with their previous experience with chemotherapy.

Most of the patients (19 out of 20) reported that after the first two hypnotherapy sessions they were able to relax for the first time in a very long period, felt less tired and more energetic, had more refreshing night sleep and as a result were able to cope better with their daily activities.

It appears that the best time for hypnotherapy to be offered to cancer patients is right at the time of diagnosis. In that way, patients will be able to develop better coping skills much earlier in the disease process, which will help them to possibly prevent severe anxiety, depression and panic attacks from developing. They will have better treatment compliance and generally will have a more positive psychological response to their illness, which has been suggested as a good prognostic factor with an influence on survival.

Notes: All the patients who took part in the trial were day hospice patients of Ann Delhom Centre, Wisdom Hospice, Rochester, UK. Patients were offered three hypnotherapy sessions and were assessed before the first session and after the third one together with a follow up after 3/4 months after the last session. On the first session all the patients were taught "progressive muscle relaxation" and self- hypnosis. Short ego boosting was also incorporated at the end of the session. The second and third sessions were different for every patient depending on the expressed symptoms and because of that were always individually tailored. Most of the sessions included guided imagery and direct therapeutic suggestions.

European Journal of Clinical Hypnosis: 2005 Volume 6 - Issue 1

By: Dr Rumi Peynovska, Dr Jackie Fisher, Dr David Oliver, Prof V.M. MathewStone House Hospital, Dartford, West Kent NHS and Social Care Trust, Wisdom Hospice, Rochester, Medway NHS Trust Dr Rumi Peynovska MD, MSc, FBAMH – Research Fellow, Stone House Hospital, Dartford, West Kent NHS Trust

Dr Jackie Fisher BSc, MRCGP – Consultant in Palliative Medicine, Wisdom Hospice, Rochester, Medway NHS Trust

Dr David Oliver BSc, FRCGP – Consultant and Medical Director, Wisdom Hospice, Rochester, Medway NHS Trust

Prof. V.M. Mathew MBBS, MPhil, MRCPsych – Clinical Director, Stone House Hospital, Dartford, West Kent NHS Trust

 http://bscw.rediris.es/pub/bscw.cgi/d4431493/Peynovska-Efficacy_hypnotherapy_supplement_therapy_cancer

6. Diabetes

In 2008, researchers from Lund University in Sweden concluded that empirical research shows promising results for hypnosis as an adjunct therapy to insulin treatments in the management of diabetes.^[6,1]

References

6.1. Hypnosis as an Adjunct Therapy in the Management of Diabetes

Results: The research literature shows promising results for hypnosis as an adjunct therapy in the management of diabetes that merit further exploration. Multimodal treatments seem especially promising, with hypnosis as an adjunct to insulin treatments in the management of both Type 1 and Type 2 diabetes for stabilization of blood glucose and decreased peripheral vascular complications.

Notes: Because diabetes has important psychological components, it seems reasonable to consider hypnosis as an adjunct therapy for diabetes. This paper examines the empirical literature on the effectiveness of hypnosis in the management of diabetes, including regulation of blood sugar, increased compliance, and improvement of peripheral blood circulation.

International Journal of Clinical and Experimental Hypnosis, 2008, Jan. 56(1): 63-72 By: Y. Xu, E. Cardeña, Lund University, Lund, Sweden

• https://www.tandfonline.com/doi/abs/10.1080/00207140701673050#preview

7. Headaches

In 2007, a Professor at the University of Utah School of Medicine reviewed numerous studies on hypnosis for headaches and concluded that hypnosis is a well-established, effective treatment for headaches and migraines.^[7,1]

In 2007, a researcher from the University of Minnesota studied 144 children and adolescents who were taught self-hypnosis to help with recurrent headaches. The results showed the hypnosis significantly helped with frequency of headaches, intensity of headaches, and duration of headaches.^[7,2]

References

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

Results: Concluded that hypnosis meets the criteria to be considered a well-established, effective treatment for headaches and migraines. Furthermore, hypnosis does not carry any risk of causing an adverse reaction.

Notes: This was a review of the numerous studies on hypnosis for headaches. The author also recommends the following for those who frequently wake up in the morning with a headache or migraine: a self-hypnosis tape (that is left open-ended at its conclusion) can be used at bedtime to promote calming and deep relaxation, with repetitive suggestions that "As you sleep, your jaw will

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

Int'l Jrnl of Clinical and Experimental Hypnosis, Vol. 55(2), April 2007; 207-219 By: Corydon Hammond, University of Utah School of Medicine, Salt Lake City, Utah, USA

 <u>http://bscw.rediris.es/pub/bscw.cgi/d4531149/Hammond-</u> <u>Review_efficacy_clinical_hypnosis_headaches_migraines.pdf</u>

7.2. Self-Hypnosis Training for Headaches in Children and Adolescents

Results: Data were available for 144 patients in this patient self-selected and uncontrolled observation. Compared with self-reports before learning self-hypnosis, children and youths who learned self-hypnosis for recurrent headaches reported reduction in frequency of headache from an average of 4.5 per week to 1.4 per week (P < .01), reduction in intensity (on a self-rating scale of 0 to 12) from an average of 10.3 to 4.7, P < .01, and reduction in average duration from 23.6 hours to 3.0 hours, (P < .01). There were no adverse side effects of self-hypnosis. **Conclusion:** training in self-hypnosis is associated with significant improvement of chronic recurrent headaches in children and adolescents.

Notes: A retrospective review was conducted of outpatient clinical records of 178 consecutive youths referred to the Behavioral Pediatrics Program (University of Minnesota) from 1988 to 2001 for recurrent headaches. All patients were taught self-hypnosis for self-regulation. Intensity, frequency, and duration of headaches before, during, and after treatment were measured. Outcomes included number and frequency of visits, types of medication, and nature of self-hypnosis practice.

Induction (initiation) of hypnosis was typically easily begun with simple focus on eye closure and imagination of any one of the patient's several favorite activities. Intensification or deepening of the hypnotic experience was accomplished with suggestions for multisensory imagery (eg, encouraging the patient to imagine being in their favorite place, enjoying what they see, hear, feel, taste, and smell there), progressive relaxation (eg, head to toe or toe to head), or both.

Hypnotic suggestions for control of headaches ("HA") were offered as a "menu" from which the patient could choose, for example, "When you have a HA, let yourself imagine you are somewhere where you never have a HA, and go there," "When you have a HA, picture in your mind that ruler from 0 to 12 on which you measure your HA... Notice what number it is on, perhaps 8 or 6 or 3 or 9 or 7... and then watch the number go lower. Maybe you will do that as though you were on an elevator... if your HA is a 7, push the button to ride down to 6, and then and... then... 4... and... then... all the way to 0," "OR maybe you will imagine your HA is a certain shape and color and in another part of your mind is the color and shape of happy and comfortable... and you can watch the HA shape and color in your mind get smaller and smaller and smaller while the happy and comfort shape get bigger and bigger until it fills the screen in your imagination," "OR perhaps you will have another way in your mind. Whichever works best for you is the best for you." Before conclusion of the first hypnotic session, all patients were taught precisely how to do SH at home and were encouraged to practice this two to three times daily.

J Pediatr. 2007 Jun;150(6):635-9

By: D. P. Kohen, R. Zajac, Department of Pediatrics, University of Minnesota, Minneapolis, Minnesota, USA

- http://ebookbrowse.com/gdoc.php?id=435252039&url=ac2894a8b2be0660279800264f0ac8
 21
- https://pubmed.ncbi.nlm.nih.gov/17517250/

8. Healing – Healing of Broken Bones, Post-Surgical Wound Healing

In 1999, researchers at Harvard Medical School studied 11 people with fractured bones and concluded that those participants who used hypnosis healed faster (by 2½ weeks), required less pain medication, showed more improvement in ankle mobility, and had an easier time descending stairs.^[8,1]

In 2003, researchers at Harvard Medical School studied 18 patients who had breast reduction surgery. They concluded that those participants who used hypnosis healed significantly faster than those who did not use hypnosis.^[82]

References

8.1. Using Hypnosis to Accelerate the Healing of Bone Fractures: A Randomized Controlled Pilot Study

Results: Radiographs taken at 6 weeks showed that the hypnosis group were healing much faster than the control group (it was estimated that it took the control group another 2½ weeks to achieve the same level of healing). Other assessments also revealed that those who had used hypnosis required less medication for the pain, had a significant improvement in the mobility of their ankle, and had an easier time descending stairs then did those in the control group. The authors concluded that hypnosis can accelerate the healing of fractured bones and: ...this preliminary study reinforces findings of a fascinating link between mind and body in augmenting healing. If the mind can be harnessed to accelerate the speed of healing in a difficult test – that is, the relatively fixed, normative course and time frame of a non-displaced bone fracture – it may be even more effective in other applications in which the course of healing is presumed more variable.

Notes: In this study, 11 subjects who had fractured bones were randomly assigned to a control or a hypnosis group. All subjects received the standard care for orthopedic patients (which included clinical assessments and radiographs over the 12 weeks following the fracture). The hypnosis group received a series of individual office visits as well a audiotapes reinforcing the content of the hypnotic sessions. Direct and indirect suggestions were given to reduce inflammation and swelling, alleviate pain, stimulate tissue growth and fusion at the injury site and counteract the psychological distress associated with injury. Hypnotic mental rehearsal of increased ankle mobility, enhanced bone strength, and recovery of normal activities for rehabilitation were included.

Altern Ther Health Med. 1999 Mar;5(2):67-75

By: C. S. Ginandes, Clinical Instructor, Dept. of Psychiatry, Harvard Medical School and Senior Attending Psychologist, McLean Hospital

D. I. Rosenthal, Professor of Radiology at Harvard Medical School, Director of Dept. of Bone and Joint Radiology at Massachusetts General Hospital in Boston

8.2. Can Medical Hypnosis Accelerate Post-Surgical Wound Healing? Results of a Clinical Trial

Results: The researchers found that during the 7 weeks following surgery, those who were in the hypnosis group healed significantly faster then those in the other two groups. This study concluded that hypnosis can significantly accelerate the healing of surgical wounds.

Notes: Eighteen patients who were due to have surgery to reduce the size of their breasts were randomly assigned to one of three groups. The first group (the control group) received standard care; the second group received 8 "supportive" sessions (to make sure that the outcome was not simply the result of the extra attention paid to the patients); while the third group received 8 hypnosis sessions that focused on accelerating the healing of their surgical wounds. Digital photographs were taken and various objective techniques were used to measure the rate of healing.

Am J Clin Hypn. 2003 Apr;45(4):333-51

By: C. Ginandes, P. Brooks, W. Sando, C. Jones, J. Aker, Department of Psychology, Harvard Medical School, McLean Hospital, 115 Mill Street Belmont, MA 02478, USA

- https://pubmed.ncbi.nlm.nih.gov/12722936/
- http://news.harvard.edu/gazette/2003/05.08/01-hypnosis.html

9. HPV – Human Papillomavirus

In 2009, researchers from Washington State University and Eastern Washington University studied the effect of hypnosis on human papillomavirus (HPV), which is the most common sexually transmitted diseases and can lead to cervical and other cancers. Hypnosis resulted in statistically significant reduction in areas and numbers of lesions. Hypnosis also was more effective than medical treatment in achieving complete clearance of warts.^[9,1]

References

9.1. Efficacy of Hypnosis in the Treatment of Human Papillomavirus (HPV) in Women: Rural and Urban Samples

Results: Both hypnosis and medical therapy resulted in a statistically significant (p < .04) reduction in areas and numbers of lesions. Yet, at the 12-week follow-up, complete clearance rates were 5 to 1 in favor of hypnosis.

Notes: This article investigates the effect of hypnosis on immunity and whether this is the key mechanism in the hypnotic treatment of the genital infection caused by human papillomavirus (HPV). HPV is the most common sexually transmitted disease and can lead to cervical and other cancers. Current medical treatments are aimed at tissue assault (acids, freezing, surgery). Medical wart clearance rates are only 30% to 70% and reoccurrence is common. This research contrasted hypnosis-only with medical-only therapies, using both urban hospital and rural community samples.

International Journal of Clinical and Experimental Hypnosis, Volume 58, Issue 1, 2009, Pages 102-121

By: Arreed Barabasz, Linda Higley, Ciara Christensen and Marianne Barabasz, Washington State University, Pullman, Washington, USA, Eastern Washington University, Riverpoint, Washington, USA

• https://www.tandfonline.com/doi/abs/10.1080/00207140903310899#.UiB2JRavszl

10. Medical Tests – Hypnosis to Make Tests Easier and More Comfortable

In 2010, researchers in Brazil studied 20 claustrophobic patients to evaluate the use of hypnosis for management of claustrophobia in patients submitted to magnetic resonance imaging (MRI). They found that 15 of the 16 hypnotizable subjects who were submitted to magnetic resonance imaging could complete the examination under hypnotic trance, with no sign of claustrophobia and without need of sedative drugs.^[10,1]

In 2006, researchers, including ones from Baylor University and Texas A & M University College of Medicine, studied hypnosis for pain and anxiety management in 6 colonoscopy patients who received a hypnotic induction and instruction in self-hypnosis on the day of their colonoscopy. Their results suggest that hypnosis appears to be a feasible method to manage anxiety and pain associated with colonoscopy, reduces the need for sedation, and may have other benefits such as reduced vasovagal events and recovery time.^[10,2]

In 2008, researchers from Mount Sinai School of Medicine studied 90 patients who were having breast biopsies and concluded that brief presurgery hypnosis is an effective way of controlling distress in women awaiting diagnostic breast cancer surgery.^[10,3]

References

10.1. Hypnosis for Management of Claustrophobia in Magnetic Resonance Imaging

(Study developed at Hospital e Maternidade São Camilo Pompeia, São Paulo, SP, Brazil)

Results: Out of the sample, 18 (90%) patients were susceptible to the technique. Of the 16 hypnotizable subjects who were submitted to magnetic resonance imaging, 15 (93.8%) could complete the examination under hypnotic trance, with no sign of claustrophobia and without need of sedative drugs.

Conclusion: Hypnosis is an alternative to anesthetic sedation for claustrophobic patients who must undergo magnetic resonance imaging.

Notes: The objective was to evaluate the efficacy of hypnosis for management of claustrophobia in patients submitted to magnetic resonance imaging (MRI). Twenty claustrophobic patients referred for magnetic resonance imaging under sedation were submitted to hypnosis The patients susceptible to hypnosis were submitted to magnetic resonance imaging under hypnotic trance without using sedative drugs.

After hypnotic induction, the patients underwent ideosensory activities, with induction of vivid, pleasant visual and kinesthetic sensations (walk through a relaxing, safe and welcoming landscape) associated with a sensation of peace, tranquility and safety. After the establishment of the hypnogenic signal, the patients were dehypnotized for assessment of the depth and efficacy of the induced hypnotic trance. Subsequently, hypnosis was induced again, this time by means of the hypnogenic signal. In this second procedure (double induction technique), the patients were introduced to the different phases of the MRI examination which are resignified and associated with the relaxing sensation achieved in the previous ideosensory activity. On the occasion of the

procedure, the patient was hypnotized with utilization of the hypnogenic signal in a preparation room, and taken on a wheelchair to the MRI equipment, being dehypnotized once the procedure was completed.

Radiologia Brasileira, Vol. 43, No. 1, São Paulo Jan./Feb. 2010

By: Luiz Guilherme Carneiro Velloso (Maternidade São Camilo Pompeia, São Paulo, SP, Brazil); Maria de Lourdes Dupratll (Psychologist, Group of Medical Hypnosis and Hypnotherapy of Hospital e Maternidade São Camilo Pompeia, São Paulo, SP, Brazil); Ricardo Martins (Biomedical Scientist, Unit of Imaging Diagnosis - Hospital e Maternidade São Camilo Pompeia, São Paulo, SP, Brazil); Luiz Scoppetta (MD, Radiologist, Unit of Imaging Diagnosis - Hospital e Maternidade São Camilo Pompeia, São Paulo, SP, Brazil)

 <u>http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0100-</u> <u>39842010000100007&Ing=en&nrm=iso&tIng=en</u>

10.2. Hypnosis to Manage Anxiety and Pain Associated with Colonoscopy for Colorectal Cancer Screening: Case Studies and Possible Benefits

Results: Results suggest that hypnosis appears to be a feasible method to manage anxiety and pain associated with colonoscopy, reduces the need for sedation, and may have other benefits such as reduced vasovagal events and recovery time.

Notes: This study explored using hypnosis for pain and anxiety management in 6 colonoscopy patients (5 men, 1 woman), who received a hypnotic induction and instruction in self-hypnosis on the day of their colonoscopy. Patients' levels of anxiety were obtained before and after the hypnotic induction using Visual Analogue Scales (VAS). Following colonoscopy, VASs were used to assess anxiety and pain during colonoscopy, perceived effectiveness of hypnosis, and patient satisfaction with medical care. Hypnotizability was assessed at a separate appointment. The authors also obtained data (time for procedure, number of vasovagal events, and recovery time) for 10 consecutive patients who received standard care.

International Journal of Clinical and Experimental Hypnosis, Volume 54, Issue 4, 2006 By: Gary Elkins, Joseph White, Parita Patel, Joel Marcus, Michelle M. Perfect und Guy H. Montgomery

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 - https://www.tandfonline.com/doi/abs/10.1080/00207140600856780#preview

10.3. Hypnosis Decreases Presurgical Distress in Excisional Breast Biopsy Patients

Results: Post intervention, and before surgery, patients in the hypnosis group had significantly lower mean values for presurgery VAS emotional upset (16.5 vs 38.2, P < 0.0001, d = .85), VAS

depressed mood (6.6 vs 19.9, P < 0.02, d = .67), and SV-POMS anxiety (10.0 vs 5.0, P < 0.0001, d = 0.85); and significantly higher levels for VAS relaxation (75.7 vs 54.2, P < 0.001, d = -0.76) than attention controls. The study results indicate that a brief presurgery hypnosis intervention can be an effective means of controlling presurgical distress in women awaiting diagnostic breast cancer surgery.

Notes: Excisional breast biopsy is associated with presurgical psychological distress. Such distress is emotionally taxing, and may have negative implications for postsurgical side effects and satisfaction with anesthesia. We investigated the ability of a brief hypnosis session to reduce presurgical psychological distress in excisional breast biopsy patients. Ninety patients presenting for excisional breast biopsy were randomly assigned to receive either a 15-minute presurgery hypnosis session (n = 49, mean age: 46.4 (95% CI: 42.3-50.4)) or a 15-minute presurgery attention control session (n = 41, mean age: 45.0 (95% CI: 40.8-49.2)). The hypnosis session involved suggestions for increased relaxation and decreased distress. The attention control session involved nondirective empathic listening. Presurgery distress was measured using visual analog scales (VAS) and the short version of the Profile of Mood States (SV-POMS). Data were analyzed using analysis of variance and chi2 procedures.

Anesth Analg. 2008 Feb;106(2):440-4

By: J. B. Schnur, D. H. Bovbjerg, D. David, K. Tatrow, A. B. Goldfarb, J. H. Silverstein, C. R. Weltz, G. H. Montgomery, Department of Oncological Sciences, Box 1130, Mount Sinai School of Medicine, 1 Gustave L. Levy Place, New York City, NY 10029-6574, USA Am Psychol. 2014 Feb-Mar;69(2):167-77. doi: 10.1037/a0035644

• https://pubmed.ncbi.nlm.nih.gov/18227298/

11. Pain

In 2014, researchers from the University of Washington reviewed recent clinical trials regarding studies hypnosis for pain management and found that hypnosis is effective for reducing chronic pain. They conclude that: "Chronic pain management remains one of the largest challenges in health care, and hypnosis is an undeveloped but highly promising intervention that can help to address this problem."

In 2015, researchers from the University of Rome reviewed functional neuroimaging studies focusing on pain perception under hypnosis, which supported the clinical use of hypnosis in the management of pain conditions.^[11,2]

References

11.1. Hypnotic Approaches for Chronic Pain Management: Clinical Implications of Recent Research Findings

Abstract: The empirical support for hypnosis for chronic pain management has flourished over the past two decades. Clinical trials show that hypnosis is effective for reducing chronic pain, although outcomes vary between individuals. The findings from these clinical trials also show that hypnotic treatments have a number of positive effects beyond pain control. Neurophysiological studies reveal that hypnotic analgesia has clear effects on brain and spinal-cord functioning that differ as a function of the specific hypnotic suggestions made, providing further evidence for the specific effects of

hypnosis. The research results have important implications for how clinicians can help their clients experience maximum benefits from hypnosis and treatments that include hypnotic components.

Am Psychol. 2014 Feb-Mar;69(2):167-77. doi: 10.1037/a0035644 Jensen MP, Patterson DR, Dept. of Rehabilitation Medicine, University of Washington

• <u>https://pubmed.ncbi.nlm.nih.gov/24547802/</u>

11.2. Pain Perception and Hypnosis: Findings from Recent Functional Neuroimaging Studies

Hypnosis modulates pain perception and tolerance by affecting cortical and subcortical activity in brain regions involved in these processes. By reviewing functional neuroimaging studies focusing on pain perception under hypnosis, the authors aimed to identify brain activation-deactivation patterns occurring in hypnosis-modulated pain conditions. Different changes in brain functionality occurred throughout all components of the pain network and other brain areas. The anterior cingulate cortex appears to be central in modulating pain circuitry activity under hypnosis. Most studies also showed that the neural functions of the prefrontal, insular, and somatosensory cortices are consistently modified during hypnosis-modulated pain conditions. Functional neuroimaging studies support the clinical use of hypnosis in the management of pain conditions.

Int J Clin Exp Hypn. 2015;63(2):144-70. doi: 10.1080/00207144.2015.1002371 Del Casale A1, Ferracuti S, Rapinesi C, Serata D, Caltagirone SS, Savoja V, Piacentino D, Callovini G, Manfredi G, Sani G, Kotzalidis GD, Girardi P., University of Rome

• <u>https://pubmed.ncbi.nlm.nih.gov/25719519/</u>

12. Strokes

In 2006, researchers from Harvard University and Massachusetts General Hospital conducted a clinical study of six chronic stroke subjects who were hypnotized. Measurements of motor function and brain activity were taken. After hypnosis, the six subjects exhibited qualitative improvement in motor function related to increased range of motion, increased grip strength, and reduced spasticity of the paretic upper limb. After hypnosis, the subjects also reported an improved outlook, increased motivation as well as decreased effort to perform motor tasks.^[12,1]

References

12.1. Hypnosis for Rehabilitation After Stroke: Six Case Studies

Results: After hypnosis, the six chronic stroke subjects exhibited qualitative improvements in motor function related to increased range of motion, increased grip strength, and reduced spasticity of the paretic upper limb. Subjects also consistently reported after hypnosis an improved outlook, increased motivation, as well as greater awareness of and decreased effort to perform motor tasks with the paretic limb.

Notes: This was a clinical study of six chronic stroke subjects who were hypnotized. Measurements of motor function and brain activity were taken. The researchers' hypothesis was that a hypnotic procedure would help overcome learned nonuse, which is thought to contribute to impaired motor function of the paretic upper limb in chronic stroke patients.

The hypnotic procedure involved selecting motor tasks that would challenge each subject, then (1) imagined practice of the challenging motor task revivified from prior to the stroke alternated with imagined practice in the present; (2) having the subjects imagine performing the task with eyes opened – alternating with eyes closed (imagined practice in the present alternated with imagined practice during active-alert hypnosis); and (3) active-alert imagined practice alternated with actual physical performance. Four sessions established a baseline motor function. Four sessions of the hypnotic procedure were then given. Finally, four follow-up sessions were conducted to track changes in motor function post-intervention. The hypnotic procedures were approximately one hour in duration and occurred with a frequency of once or twice per week.

Subject 1: Among other things, in hypnosis, this subject visualized entering his office and counting out money for the week's payroll – a task that requires considerable dexterity. On the fourth hypnosis session, the subject said that he tied his own shoelaces for the first time since the stroke.

Subject 2: Among other things, in hypnosis, this subject visualized operating motorcycle controls and imagined relaxing while floating on the water of a favorite lake – to reduce the tensing up that inhibited movements. After a number of hypnosis sessions, the subject reported increased sensation in his hand. He also reported less effort to squeeze his hand.

Subject 3: Among other things, in hypnosis, this subject was given suggestions for increased awareness and connectivity with her limbs. She described that she could imagine wires in her arms to connect to her hand that were in a tangled up mess. Suggestions were given to color the wires one at a time and add labels indicating which wire went to which finger. The subject reported feeling increased awareness of her hand after this process.

Subject 4: Among other things, in hypnosis, this subject visualized playing his cello with fluid movement of the bow. In time, the subject felt his paretic limb extension was improving, and he was regaining the ability to pick up cans and form a precision grip.

Subject 5: Among other things, in hypnosis, this subject visualized dribbling a basketball. He reported that he could bounce a ball after the hypnosis session about 10 times when before he could only achieve 1 or 2 bounces. Improvements were observed in the range of motion of wrist rotation and finger extension.

Subject 6: Among other things, in hypnosis, this subject visualized a hand grip motor task. After hypnosis sessions, her performance on the task steadily improved. By the 3rd hypnosis session, it was also noticeably easier to remove the grip from her hand.

Each of the six subjects/case studies is individually described and detailed.

Contemp. Hypnosis 23(4): 173-180 (2006) Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/ch.319

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 <u>http://biorobotics.harvard.edu/pubs/2006/journal/Diamond2006%20-</u> %20Hypnosis%20stroke%20case%20studies.pdf

More Evidence of Increasing Medical Use of Hypnosis

In addition to the studies described above, there are many other examples of the increasing use of hypnosis for medical issues. Here are just a few examples:

1. In 2015, it was reported that surgeons at the Institute Curie in Paris did more than 70 cancer operations using just hypnosis and a local anesthetic – often in cases where use of a general anesthetic would be risky (like when the patient had heart or breathing problems) or where the patient needed to recover quickly.

• http://www.connexionfrance.com/Hypnosis-cancer-operation-Paris-Institut-Curie-16619-view-article.html

2. In 2016, it was reported that the burns unit of the Lausanne University Hospital in Lausanne, Switzerland, uses hypnosis on a daily basis and that hypnosis is offered to all patients. Two nurses in the Intensive Care Unit only do hypnosis. A study has shown that the hypnosis reduces anxiety, the use of drugs, the overall need for anesthetics and, on average, reduces the time spent by patients in intensive care by five days.

- <u>https://www.smh.com.au/healthcare/impact-journalism-day-healing-powers-of-hypnosis-promoted-by-swiss-20160609-gpfkpd.html</u>
- <u>http://www.smh.com.au/lifestyle</u>

3. The website of The University of Texas MD Anderson Cancer Center was updated in 2015 to include information on "Using hypnosis to cope with cancer" and how "Hypnosis can help you feel better mentally and emotionally."

• <u>https://www.mdanderson.org/publications/cancerwise/using-hypnosis-to-cope-with-cancer.h00-158990601.html</u>

4. The University of California San Diego Moore's Cancer Center now offers hospitalized cancer patients hypnotherapy.

• <u>https://health.ucsd.edu/specialties/cancer/resources/support/Pages/default.aspx</u>

5. Harvard Medical School asked a hypnotist to speak to a class of third year medical students interested in the use of hypnosis in the medical community.

• http://aplushypnosis.com/hypnosis-at-harvard-medical-school/

6. In 2015, the Providence Saint Joseph Medical Center in Burbank CA announced the creation of a job opening for a hypnotherapist to work with cancer patients in its Integrative Medicine Clinic and also at the Disney Family Cancer Center.

• http://jobs.climber.com/jobs/search?location=Burbank-CA-91506&query=Hypnotherapist-Integrative-Medicine-Per-Diem-Days

7. The University of California San Diego hired a full time hypnotherapist in 2013 to assist with and develop a hypnotherapy program for its Maternal Mental Health Clinic, to provide hypnotherapy services for its patients, and to educate the university staff and faculty about hypnotherapy.

• <u>http://http://scholarshipdb.net/scholarships-in-United-States/67863-Hypnotherapist-University-Of-California-San-Diego=gbpiesER4xGUEgAlkGUTnw.html</u>

New Studies Currently in Progress

Because of the increased interest in hypnosis for medical issues, many new studies on this topic are currently in progress or recruiting participants. Here is a list of some of those (https://clinicaltrials.gov/):

- 1. Hypnosis to Perform Awake Intubation
- 2. Hypnosis to Improve Sleep In Menopause
- 3. Hypnosis, Self-hypnosis and Weight Loss in Obese Patients
- 4. Assessment of the Contribution of Hypnosis in the Tolerance of the Bronchoscopy
- 5. DVD-Based Training Program in Self-Hypnosis for Children (program for parents to use with their children to teach self-hypnosis techniques for inducing relaxation and hypnotic analgesia; these relaxation techniques can be employed to manage anticipatory anxiety, distress, and pain during an invasive medical procedure)
- 6. Hypnosis as a Potentiation Technique for the Interventional Treatment of Chronic Lumbar Pain
- 7. Hypnosis for Pain and Itch Following Burn Injuries
- 8. Conversational Hypnosis in Women Undergoing Imaging for Breast Cancer
- 9. Hypnotherapy in Treating Chronic Pain in Cancer Survivors
- 10. Effect of Hypnosis on Dyspnea (shortness of breath)
- 11. Self-hypnosis in Patients Awaiting Lung Transplantation
- 12. Pediatric Emergency Suture Care: a Trial Comparing the Analgesic Efficacy of Hypnosis Versus MEOPA
- 13. Improving Sleep Quality in People With Insomnia Using Hypnosis
- 14. Brain-Centered Therapy Versus Medication for Urgency Urinary Incontinence: Hypnotherapy Or Pharmacotherapy
- 15. Hypnosis Efficacy for the Prevention of Anxiety During a Coronary Angiography
- 16. Randomized Controlled Study of the Efficacy of Hypnosis Versus Relaxation and Control in Neuropathic Pain
- 17. Hypnotherapy vs. Probiotics in Children With IBS and Function
- 18. Randomized Controlled Study of the Efficacy of Hypnosis Versus Relaxation and Control in Neuropathic Pain
- 19. Hypnotherapy vs. Probiotics in Children With IBS and Functional Abdominal Pain
- 20. Complementary Therapies (including hypnosis) in Spinal Fusion Patients
- 21. A Brief Laboratory-Based Hypnosis Session for Pain in Sickle Cell Disease