Use of Preoperative Hypnosis to Reduce Postoperative Pain and Anesthesia-Related Side Effects

Michael W. Lew \textsuperscript{a}, Kathy Kravits \textsuperscript{a}, Carlos Garberoglio \textsuperscript{b} & Anna Cathy Williams \textsuperscript{a}

\textsuperscript{a} City of Hope, Duarte, California, USA
\textsuperscript{b} Loma Linda Medical Center, California, USA

Published online: 25 Aug 2011.


To link to this article: http://dx.doi.org/10.1080/00207144.2011.594737

Taylor & Francis makes every effort to ensure the accuracy of all the information (the “Content”) contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-
USE OF PREOPERATIVE HYPNOSIS TO REDUCE POSTOPERATIVE PAIN AND ANESTHESIA-RELATED SIDE EFFECTS¹

MICHAEL W. LEW AND KATHY KRAVITS²

City of Hope, Duarte, California, USA

CARLOS GARBEROGLIO

Loma Linda Medical Center, California, USA

ANNA CATHY WILLIAMS

City of Hope, Duarte, California, USA

Abstract: The purpose of this pilot project was to test the feasibility of hypnosis as a preoperative intervention. The unique features of this study were: (a) use of a standardized nurse-delivered hypnosis protocol, (b) intervention administration immediately prior to surgery in the preoperative holding area, and (c) provision of hypnosis to breast cancer surgery patients receiving general anesthesia. A mixed-method design was used. Data collected from the intervention group and historical control group included demographics, symptom assessments, medication administration, and surgical, anesthesia, and recovery minutes. A semi-structured interview was conducted with the intervention group. A reduction in anxiety, worry, nervousness, sadness, irritability, and distress was found from baseline to postintervention while pain and nausea increased. The results support further exploration of the use of nurse-led preoperative hypnosis.

In 2009, an estimated 192,370 women were diagnosed with breast cancer. Breast cancer accounts for one in four cancers diagnosed in women in the United States (American Cancer Society, 2009). The majority of women with breast cancer seek surgical intervention

¹Funding was provided for this study by the Sheri and Les Biller Patient and Family Center of the City of Hope.
²Address correspondence to Kathy Kravits, Nursing Research and Education, Population Sciences Building, Room 180, City of Hope, 1500 E. Duarte Road, Duarte, CA 91010, USA. E-mail: KKraivits@coh.org
for either diagnosis and/or definitive therapy. Despite advances in minimally invasive surgical techniques, radical surgery, and newer anesthetic agents designed to minimize side effects, women continue to experience postoperative pain, nausea/vomiting, preoperative anxiety, and distress. Complementary and alternative medicine (CAM) interventions that are both cost effective and that affirm the patients’ ability to influence their own health care can provide additional relief from these symptoms and are coming to the forefront. Evidence suggests that hypnosis, a CAM intervention, is effective in managing the symptoms associated with breast cancer surgery, is cost effective and, when employed as self-hypnosis, enhances patients’ perceptions of self-efficacy (Neron & Stephenson, 2007).

The purpose of this pilot project was to test the feasibility of hypnosis as a preoperative intervention. The unique features of this study were: (a) use of a standardized nurse-delivered hypnosis protocol; (b) intervention administration immediately prior to surgery in the preoperative holding area; and (c) provision of hypnosis to breast cancer surgery patients receiving general anesthesia. The results of this study will be used to design a randomized clinical trial.

**Purpose and Aims**

The purpose of this pilot project was to test the feasibility of hypnosis as a preoperative intervention for the reduction of surgical- and anesthesia-related symptoms in women undergoing lumpectomy with sentinel node biopsy, mastectomy, or mastectomy with lymph node dissection for the treatment of cancer. This pilot project was the first step in developing the background for designing and conducting a randomized clinical trial of hypnosis (see Figure 1). The primary aims of the project were:

Aim 1: Identify the physical symptoms (i.e., pain and nausea) and psychological symptoms (i.e., anxiety and distress) of those patients receiving hypnosis.

Question 1.1: What levels of anxiety, distress, pain, and nausea will breast cancer patients experience after receiving preoperative hypnosis?

Question 1.2: What changes in levels of anxiety, distress, pain, and nausea occur between baseline and postintervention?

Aim 2: Describe the patients’ satisfaction with the hypnosis experience.

Question 2.1: How will the patients respond to the hypnotic experience?

Aim 3: Describe the demographic and treatment characteristics of the study population.
Hypnosis

A comprehensive definition based upon the current literature describes hypnosis as a state of focused attention that results in a suspension of awareness of peripheral cues (Spiegel, 2007). The therapeutic effect of a hypnotic state results in the alterations in perception and attention. Suggestions made during a hypnotic experience by the hypnotherapist (health care professional) purposely focuses attention and directs perception (Raz, Fan, & Posner, 2005; Wobst, 2007). Therapeutically constructed suggestions provide the mechanism for redirecting attention and altering perception in order to achieve a specific clinical goal (i.e., decrease pain, decrease nausea, reduce anxiety, reduce distress, etc.) (Zahourek, 2001).
**Symptom Management**

Multiple meta-analyses have been conducted of the clinical trials using hypnosis for the management of symptoms associated with invasive procedures, surgery, and cancer treatment (Mendoza & Capafons, 2009; Montgomery, David, Winkel, Silverstein, & Bovbjerg, 2002; Neron & Stephenson, 2007; Richardson, Smith, McCall, & Pilkington, 2006; Schnur, Kafer, Marcus, & Montgomery, 2008). The results of these analyzes support the use of hypnosis for symptom management specifically for pain, nausea/vomiting, anxiety, and distress.

Emotional distress was reported to be significantly improved in 82% of the patients receiving hypnosis while undergoing invasive procedures (Schnur et al., 2008). Postoperative anxiety is reported to be reduced after preoperative hypnosis combined with standard anesthesia (Sadaat et al., 2006).

Sadaat et al. (2006) conducted a small randomized, controlled study of adults undergoing ambulatory surgical procedures. The participants were randomized into hypnosis, attention control, and standard of care groups. Data were collected at baseline, postintervention, and upon transfer into the operating room. An anxiety focused Visual Analog Scale (Price, McGrath, Rafii, & Buckingham, 1983) was used at all three measurement points and the State-Trait Anxiety Inventory (Spielberger, 1983) was completed at baseline and postintervention. Those patients who received hypnosis were found to be significantly less anxious postintervention than other participants. Results supported the concept that hypnosis reduces preoperative anxiety.

Montgomery et al. (2007) conducted a randomized controlled study with 200 breast cancer surgery patients. Results showed less reported pain, nausea, fatigue, and discomfort by women receiving preoperative hypnosis. Several studies have shown hypnosis to be effective as an adjunct therapy for procedural and cancer pain management (Deng & Cassileth, 2005; Montgomery et al., 2007; Richardson et al., 2006; Lang et al., 2008).

**Integration of Hypnosis Into the Preoperative Clinical Environment**

There is sufficient evidence to support the use of hypnosis in a wide range of medical settings (Lang et al., 2000, 2006; Montgomery et al., 2002). Some of the medical environments in which hypnosis has been successfully utilized in a research context have included surgery, invasive radiology, diagnostic radiology, and gastroenterology (Flory, Martinez-Salazar, & Lang, 2007). Understanding how hypnosis may be used in multiple contexts and settings will facilitate the development of standardized treatment protocols (Amundson, Alladin, & Gill, 2003). Efforts must be made to deliver the intervention at times and in ways that are sensitive to the patient’s needs and experience (Spring et al., 2005).
Nurse-Delivered Hypnotherapy

Nurses have not historically provided hypnosis. Until recently, the hypnosis societies that set the standard for education and training in medical hypnosis did not permit nurses who did not possess a master’s degree to be trained. This was changed when the New England Society of Hypnosis, then the Society for Clinical and Experimental Hypnosis, and in 2009, the American Society of Clinical Hypnosis modified their bylaws.

A limited number of clinical trials support the use of nurse-delivered hypnotherapy. An example of one such trial conducted by Smith (2006) examined the use of nurse-led hypnotherapy for the management of irritable bowel syndrome. The participants were 75 adult men and women who reported abdominal pain as their primary symptom within the days prior to beginning the study. Quality of Life (QOL), anxiety, and depression were assessed before the intervention. The hypnosis intervention was consistent with medical guidelines and provided by a nurse. The results of the study showed statistically significant improvement in measures of QOL including pain relief, anxiety, and depression.

Rationale

Symptom Management

The benefits of preoperative hypnosis are well established. Psychological and physical symptoms (i.e., pain, nausea/vomiting, anxiety, and distress) are reduced by preoperative hypnosis (Aapro, Molassiotis, & Oliver, 2005; Montgomery et al., 2007; Neron & Stephenson, 2007; Wobst, 2007). As a noninvasive intervention with virtually no side effects, hypnosis may be successfully employed with most people (Schnur et al., 2008).

Nurse-Delivered Hypnotherapy

The National Conference on Medical and Nursing Education Blue Ribbon Panel and the White House Commission on Complementary and Alternative Medicine Policy has recommended that nursing education include curriculum addressing Complementary and Alternative Medicine (CAM). Such content includes Mind Body Therapies such as hypnosis (Gordon et al., 2005; Kreitzer & Jensen, 2000). Holistic nursing theories provide a framework for the use of hypnosis by nurses (American Holistic Nurses Association and American Nurses Association, 2007; Dossey & Guzzetta, 1994; Reed, 2007; Watson & Smith, 2002). Practices currently identified as Mind Body Therapies that include distraction, breathing, imagery, and relaxation have historically
been considered part of nursing practice (Halcon, Chlan, Kreitzer, & Leonard, 2003; Heinschel, 2002). Breathing, imagery, and relaxation techniques are also included in the practice of hypnosis.

The scope of practice of nursing is defined by individual states and as such there are variations in permitted practices from state to state. A number of states have generated position papers to specifically address the issue of CAM therapies including the use of Mind Body Therapies. California has taken a clear, positive stand affirming that the nursing scope of practice includes CAM therapies in general and hypnosis specifically and that nurses may provide those therapies as long as they have appropriate education and training and can demonstrate competence in those therapies (Halcon et al., 2003).

Nurses, by virtue of training and educational background, focus on the holistic care of patients and families. Nursing care includes symptom management, psychosocial support, and attention to issues of quality of life. Nurses are well prepared to receive education in Mind Body Therapies and hypnosis and to integrate those therapies into practice.

**Significance**

This study seeks to establish the feasibility of hypnosis as an intervention in a clinical setting with little to no special arrangements made other than those that are part of normal preoperative patient preparation. The unique features of this study are:

1. A standardized nurse-delivered hypnosis protocol is used.
2. The protocol is delivered immediately prior to surgery in the preoperative holding area.
3. The protocol is provided to breast cancer surgery patients receiving general anesthesia.

This effort contributes to the development of a strategy for the implementation of standardized hypnosis protocols that may be used in other surgical environments. The combination of a useful, low-risk intervention with a successful model for implementation provides patients and providers more options for managing symptoms and reducing distress.

**Method**

The intervention team consisted of a single anesthesiologist, a single surgeon, a single hypnotic interventionist, and a single data collection
nurse. This structure was selected to promote a consistent delivery of standard anesthesia care and surgery for all study participants.

Design

A mixed-method design was used with quantitative data collected in the form of demographics, symptom assessments, medication administration, and surgical, anesthesia, and recovery minutes. Qualitative data were collected in the form of a semi-structured interview focusing on the participants’ perception of the experience. Baseline and postintervention, postoperative data were collected.

Data were collected on a historical control group via retrospective medical record review that included demographics, pain assessments, medication administration, and surgical, anesthesia, and recovery minutes.

Eligibility

Breast cancer surgery patients were recruited for this pilot study. The study participants were at least 18 years of age, able to speak and read English and agreed to participate. Those individuals who were ineligible to participate were those who had uncontrolled major comorbid mental conditions (i.e., thought disorders) or uncontrolled major physical conditions (i.e., untreated congestive heart failure), were unable to follow instructions and were having simultaneous reconstruction surgery.

Instruments

At the time consent was obtained, personal preference and demographic data were collected by the interventionist using a Demographic Survey Questionnaire and a Personal Preference Assessment. The Demographic Survey Questionnaire was based upon a typical demographic data collection instrument used in our research. It consists of 7 items and requires 5–7 minutes to complete. It addresses age, gender, ethnicity, marital/partnered status, and spiritual practice.

The Personal Preference Assessment, a 5-item instrument developed by this research team for use in this study, measures experience with the continuum of imagery/hypnosis practices, perceptions of concentration abilities, and favorite aromas, colors, and scenes from nature. It requires 5–7 minutes to complete.

Baseline assessments of pain, nausea, vomiting, distress, and anxiety were done using the Condensed Memorial Symptom Assessment Scale–Modified (CMSAS–M). The CMSAS–M is an 8-item instrument that evaluates psychological and physical symptoms. The symptoms are measured as present or absent and are then ranked on a 5-point scale of experience as never (0), rarely (1), occasionally (2), frequently
(3), and almost constantly (4). The CMSAS–M is highly correlated with quality of life measures and clinical status. This instrument has established reliability and validity and takes 5–10 minutes to complete.

Postintervention, postoperative data collected by the data collection nurse included pain, nausea, vomiting, distress, and anxiety ratings as measured by the CMSAS–M. Patient satisfaction with the hypnosis experience was assessed using a semi-structured interview. Surgical and anesthesia time, recovery time, medications, levels of consciousness, levels of anesthesia, and significant surgical events were obtained from the medical record and recorded on a medical record audit tool.

Procedures

The study participants were recruited with collaboration of the surgeon at the time surgery was scheduled. The interventionist obtained informed consent. At the time consent was obtained, a demographic data collection instrument and an inventory of symptoms were also completed.

The hypnosis intervention consisted of a 15-minute scripted hypnotic experience provided within an hour of surgery in the preoperative holding area of the surgery suite. The hypnosis script was modified for this study from a published script (Lang et al., 2006; Palsson, 2006) provided as an Appendix at the end of this article. The modification consisted of incorporation of individual participant imagery preferences into the induction.

The usual standard of care for the anesthesia regimen was used barring any circumstance that medically required deviation. If a deviation occurred, it was noted.

A laryngeal mask airway (LMA) was placed most of the time for simple procedures. If the woman was at risk for aspiration, then she was intubated. The level of consciousness was measured utilizing a Bispectral Index (BIS) Monitor. The BIS Monitor noninvasively measures the electroencephalogram and determines the level of consciousness. The anesthetic agents were titrated to maintain a BIS Index between 40 and 60, which signifies that a general anesthetic has been achieved.

A follow-up interview after surgery and prior to discharge from the PostAnesthesia Care Unity was conducted by the data collection nurse. A semi-structured interview of four open-ended questions was completed and the CMSAS–M was administered.

Data Collection

Baseline and postintervention, postoperative data were collected by the data collection nurse. Data was collected on a historical control group via retrospective medical record review.
Data Analysis

All data were coded, entered and verified. Data analysis included descriptive statistics and parametric statistics to compare differences within and between groups.

RESULTS

Demographics

The study participants consisted of females between the ages of 30 and 79 years. The participants were largely over the age of 50 (75%) with ages 50–59 years representing 40% of the sample and ages 60–79 years representing 35% of the sample. The majority of the participants identified themselves as Caucasian (65%) followed by Latina (20%), Asian (10%), and Native American (5%). Married/partnered individuals made up 65% of the participants (see Table 1).

Assessment

The participants reported previous experience with Mind Body Techniques with prayer (90%), Deep Breathing (45%), and Relaxation

Table 1
Intervention Group Demographics (N = 20)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>Age 50–59</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>60–79</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>30–49</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>Latina</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Native American</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Partnered</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>Single/ Widowed</td>
<td>3</td>
<td>35%</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protestant</td>
<td>9</td>
<td>45%</td>
</tr>
<tr>
<td>Catholic</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>Unspecified</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Buddhist</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Spiritual</td>
<td>1</td>
<td>5%</td>
</tr>
</tbody>
</table>
(40%) being the most commonly cited. The least commonly cited techniques included Guided Imagery (15%), Hypnosis (15%), and Mindfulness Practice (5%). Self-report by the participants indicated that 90% of them were confident that they could sustain their concentration for at least 15 minutes.

The most frequently identified favorite scenes from nature included scenes of ocean/beach (25%), forests/trees/redwoods (25%), and rivers/waterfalls/streams/lakes (20%). Most frequently identified favorite colors were green (25%), red (25%), and blue (20%). Most often cited favorite aromas were foods (50%) and flowers (40%).

The most frequently identified symptoms measured at baseline were anxiety (60%), worry (60%), and nervousness (50%) (see Table 2). Pain was reported by 8 out of 20 (40%) of the participants, which is consistent with the number of participants undergoing needle localization prior to surgery. No participants reported nausea at baseline.

Postintervention measures indicated a decrease in anxiety (20%), worry (30%), and nervousness (20%). The decreases were statistically significant (see Table 3). Pain reports increased to 60% and nausea reports increased to 20%.

Table 2  
Presence of Symptoms in Intervention Group (N = 20)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Baseline</th>
<th>Postoperative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety</td>
<td>12 (60%)</td>
<td>4 (20%)</td>
</tr>
<tr>
<td>Worried</td>
<td>12 (60%)</td>
<td>6 (30%)</td>
</tr>
<tr>
<td>Nervous</td>
<td>10 (50%)</td>
<td>4 (20%)</td>
</tr>
<tr>
<td>Pain</td>
<td>8 (40%)</td>
<td>12 (60%)</td>
</tr>
<tr>
<td>Sad</td>
<td>7 (35%)</td>
<td>2 (10%)</td>
</tr>
<tr>
<td>Irritable</td>
<td>6 (30%)</td>
<td>2 (10%)</td>
</tr>
<tr>
<td>Distress</td>
<td>5 (25%)</td>
<td>2 (10%)</td>
</tr>
<tr>
<td>Nausea</td>
<td>0 (0%)</td>
<td>4 (20%)</td>
</tr>
</tbody>
</table>

Table 3  
Correlations and Significance of Psychological Symptoms

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Correlations</th>
<th>Sig. (two-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Preintervention</td>
<td>.408</td>
<td>.002</td>
</tr>
<tr>
<td>Anxiety Postintervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worried Preintervention</td>
<td>.535</td>
<td>.010</td>
</tr>
<tr>
<td>Worried Postintervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous Preintervention</td>
<td>.500</td>
<td>.010</td>
</tr>
<tr>
<td>Nervous Postintervention</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pre- and postintervention intensity ratings of anxiety, worry, and nervousness decreased in a manner consistent with the binary scores for these symptoms. Anxiety demonstrated the most change with no ratings of frequently (3) and almost constantly (4), and only 1 person reporting occasionally (2).

The postintervention interview produced very positive results. Responses to Question A ("Tell me about your experience with the pre-operative hypnosis") included "Relaxing"; "Beautiful"; "The only good thing that happened to me today." No negative comments were made.

Question B ("What aspects of the experience were useful to you?") produced comments that focused on the use of language during the hypnotic induction and the overall experience.

Question C ("What aspects of the experience were not useful to you?") generated two specific comments. The first was that a private room was needed to reduce the level of noise and the second was that the hypnosis should be done prior to the needle localization procedure.

Responses to Question D ("If you could add something to the experience, what would you add?") continued to support the themes of providing the intervention earlier in the treatment process and using a private room. In addition, several participants requested a CD of the intervention for home use and to increase the length of the intervention.

**Historical Control**

Data were collected via medical record review from a historical control group matched for date of procedure, type of procedure, and age. Anesthesiologist and standard anesthesia care varied for the control group. The intervention group used less anesthesia and surgical and recovery minutes than the control group (see Table 4). This difference between groups does not reach statistical significance and cannot be attributed to the intervention due to the lack of control of other confounding variables such as variations in anesthesia care. Mean postoperative pain intensity ratings were essentially the same for both groups.

**Discussion**

A significant reduction in anxiety, worry, and nervousness was found in addition to a reduction in sadness, irritability, and feelings of distress in the intervention group. The decrease in severity of these symptoms is important when considering a patient’s surgical recovery, quality of life, and well-being. These results are consistent with other reports in the literature (Mendoza & Capafons, 2009; Montgomery et al., 2002; Neron & Stephenson, 2007; Richardson et al., 2006; Schnur et al., 2008).
Only two symptoms were not decreased in our study (postoperative pain and nausea). The incidence of pain reported increased from 40% of patients preoperatively to 60% of patients postoperatively resulting in an overall increase of 20%. Both intervention and control groups demonstrated essentially the same mean postoperative pain intensity rating of 2.57–2.88.

The incidence of postoperative nausea in this study was 20% of patients. Applying the nausea risk assessment described by Apfel and colleagues (Apfel, Laara, Koivuranta, Greim, & Roewer, 1999), patients whose only risk factor is that of being female have a 20% chance of developing postoperative nausea. Considering the addition of other risk factors associated with surgery (i.e., duration of the surgical procedure greater than 2 hours, previous history of postoperative nausea and vomiting, postoperative opioid use) and personal history (i.e., premenopausal, nonsmoking, a history of motion sickness), it would be expected that the risk of nausea would be likely to exceed 20%. In this study, nausea did not exceed 20%.

Nurse-led hypnosis in this study was accepted by the patients, members of the surgical team, and the perioperative staff. Patient interview data supported nurse-led hypnosis in affirmative comments about the experience as well as in the limited number of negative comments with the negative comments focusing on the noise of the environment.

The surgical team and perioperative staff worked collaboratively with the nurse interventionist to provide an optimal environment for the hypnosis despite the demands of preoperative preparation of patients. As a nurse, the interventionist was familiar with preoperative routines and was able to integrate the intervention into the workflow of the environment without causing any delays in the surgical schedule. This experience demonstrates that integration of this intervention into

---

Table 4

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Group Designation</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surgical Minutes</td>
<td>Intervention</td>
<td>98.38</td>
<td>29.68</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>174.33</td>
<td>218.74</td>
</tr>
<tr>
<td>Anesthesia Minutes</td>
<td>Intervention</td>
<td>141.61</td>
<td>30.49</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>217.27</td>
<td>230.36</td>
</tr>
<tr>
<td>Recovery Minutes</td>
<td>Intervention</td>
<td>108.11</td>
<td>69.91</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>136.50</td>
<td>87.27</td>
</tr>
<tr>
<td>Postoperative Pain Intensity Rating (0–10 Scale)</td>
<td>Intervention</td>
<td>2.88</td>
<td>2.88</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>2.57</td>
<td>2.41</td>
</tr>
</tbody>
</table>
the preoperative area is possible especially if the hypnotherapist has an understanding of the demands of this environment.

The use of a consistent team of clinicians and researchers facilitated the successful completion of this study. Genuine collegiality, adherence to the research plan, and commitment to positive patient outcomes by fully informed team members from medical and nursing disciplines demonstrated that integration of hypnosis into the routines of the surgical environment is possible as well as desirable.

**Implications for Future Research and Practice**

The result of this pilot supports further research of the use of hypnosis preoperatively for the management of anxiety, nervousness, and worry. An aspect of the delivery of hypnosis preoperatively that would benefit from clarification is the optimal timing of the hypnosis intervention. In this study, the intervention was performed within the hour of the initiation of surgery. In order to increase flexibility and ease implementation, studies evaluating the effectiveness and use of alternative schedules for providing the hypnosis are needed. For example, can the initial intervention with the hypnotist occur a week prior to the surgery and still be successful? Is daily reinforcement of the hypnosis necessary for the success of the intervention delivered a week in advance of surgery? Can a hypnosis program be incorporated into the preoperative education of a surgical patient for the purpose of cultivating an effective self-hypnosis intervention? Multiple opportunities exist to explore and develop hypnosis delivery models that are flexible enough to be implemented in varied preoperative settings.

**Summary**

Complementary and alternative medicine interventions have started to penetrate traditional medical care as effective adjuncts to a patient’s treatment plan. Though hypnosis has been used for over a century, it has not been widely adopted for several reasons. Some reasons include the “myths” of hypnosis, the historical lack of evidence-based studies addressing the effectiveness of hypnosis, the lack of education of the medical profession about hypnosis, the lack of certified hypnotherapists who are licensed health care providers, and the lack of research-based hypnosis delivery models that support implementation of the intervention in multiple health care settings.

To be diagnosed with cancer greatly affects the psyche. Even if the intent of surgery is for cure, the diagnosis impacts a patient’s mental
state often creating significant distress. Hypnosis provides a noninvasive, virtually risk-free approach to minimizing several symptoms that affect a patient’s recovery and quality of life.

References


Hypnotic Intervention Script

We want you to help us to help you to learn a concentration exercise to help you get through the procedure more comfortably. It can be a way to help your body be more comfortable through the procedure and also to deal with any discomfort that may come up during the procedure. It is just a form of concentration, like getting so caught up in a movie or reading a book.

Now what I want to do is to show you how you can use your imagination to enter a state of focused attention and physical relaxation. If you hear sounds or noises in the room, just use these to deepen your experience. And use only the suggestions that are helpful for you. There are a lot of ways to relax but here is one simple way:

On one, I want you to do one thing: look up.
On two, do two things: slowly close your eyes and take a deep breath.
On three, do three things: breathe out, relax your eyes and let your body float.

That’s good; just imagine your whole body floating each breath deeper and easier. Right now I want you to imagine that you are floating somewhere safe and comfortable, in a bath, a lake, a hot tub, or just floating in space, each breath deeper and easier . . . (Insert participant’s imagery preference). Notice how with each breath you let a little more tension out of your body as you let your whole body float, safe and comfortable, each breath deeper and easier. Good, now with your eyes closed and remaining in this state of concentration, please describe for me how your body is feeling right now. Where do you imagine yourself being, what is it like? Can you smell the air? Can you see what is around you? Good, now this is your safe and pleasant place to be and you can use it in a sense to play a trick on the doctors. Your body has to be here, but you don’t. So just spend your time being somewhere you would rather be.

Now, if there is some discomfort, you can acknowledge it and then transform that sensation. If you feel some discomfort, you might find it helpful to make that part of your body feel warmer, as if you were in a bath. Or, cooler, if that is more comfortable, as if you had ice or snow on that part of your body. This warmth and coolness becomes a protective filter between you and discomfort.

If you have any discomfort right now, imagine that you are applying a hot pack or you are putting snow or ice on it and see what it feels like. Develop the sense of warm or cool tingling numbness to filter the hurt out of the pain.
With each breath, breathe deeper and easier, you body is floating, filter the hurt out of the pain . . .

We are going to leave formally this state of concentration by counting backwards from three to one. On three get ready, on two with your eyes closed roll up your eyes, and on one let your eyes open and take a deep breath and let it out . . . when you come out of it you will still have the feeling of comfort that you felt during it. Ready, three, two, one.

Johanne Reynault
C. Tr. (STIBC)

Uso de hipnosis preoperatoria para reducir el dolor posoperativo y los efectos secundarios relacionados con la analgesia

Michael W. Lew, Kathy Kravits, Carlos Garberoglio, y Anna Cathy Williams

Resumen: El propósito de este proyecto piloto fue evaluar la viabilidad de la hipnosis como una intervención preoperatoria. Las características particulares de este estudio fueron: (a) uso de un protocolo de hipnosis estandarizado aplicado por enfermeras, (b) la intervención se administró inmediatamente antes de la operación en el área preoperatoria, y (c) la utilización de hipnosis para pacientes quirúrgicos con cáncer de mama que recibirían anestesia general. Se utilizó un diseño de métodos mixtos. Los datos colectados del grupo de intervención y el grupo control histórico incluyeron demográficos, evaluación de síntomas, administración de medicamentos, y el número de minutos de cirugía, anestesia, y recuperación. Se realizó una entrevista semi-estructurada con el grupo de intervención. Se encontró una reducción en ansiedad, preocupación, nerviosismo, tristeza, irritabilidad, y aflicción entre la línea basal y la postintervención, mientras que el dolor y las nauseas incrementaron. Los resultados sustentan mayor exploración del uso de la hipnosis preoperatoria dirigida por enfermeras.

Omar Sánchez-Armáss Cappello
Autonomous University of San Luis Potosí, Mexico