

ABSTRACT

An Analysis of Factors Related to Seeking Clinical Hypnosis

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Hypnosis has found a broad range of clinical applications. These include management of many forms of physical pain, reducing anxiety and quitting smoking. However, hypnosis is underutilized as a treatment. Therefore it is important to understand factors affecting people's willingness to use clinical hypnosis. Little research examines the clinical conditions for which people would be willing to seek hypnosis or the referral sources and advertisements that may most influence them. Further, most research on attitudes toward hypnosis is performed using only college student samples; little is known about differences between college student and community samples. This study begins to address these gaps through a survey administered to 160 undergraduate college students and 98 community participants. Findings indicate that participants report being most likely to seek hypnosis for anxiety or as a complementary treatment to standard medical practices. Participants report that the referral and information source they would find most influential is their primary care physician. When asked to rate phonebook style listings for clinical hypnotherapy services, there were positive main effects for the presence versus absence of noting the clinician's extended credentials, board certification in clinical hypnosis, and indication of a range of hypnosis services provided. Few differences were found between the student and community

groups, save the students were more influenced by extended credentials than were community members. Implications of these findings for the promotion of clinical hypnosis are discussed.

An Analysis of Factors Related to Seeking Clinical Hypnosis

by

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TABLE OF CONTENTS

List of Figures	vi
List of Tables	vii
Acknowledgments	viii
Chapter One: Introduction and Literature Review	1
<i>Hypnosis</i>	3
<i>Clinical Uses of Hypnosis</i>	7
<i>Mental Health Help-Seeking</i>	30
<i>Hypnosis Help-Seeking</i>	36
Chapter Two: Methods	46
<i>Overview</i>	46
<i>Participants</i>	46
<i>Survey Design</i>	48
<i>Procedures</i>	51
<i>Data Analysis</i>	52
Chapter Three: Results	54
<i>Section 1: Conditions for Which One Would Use Clinical Hypnosis</i>	54
<i>Section 2: Recommendations from a Variety of Sources</i>	57
<i>Section 3: Selecting a Hypnotherapist</i>	59
Chapter Four: Discussion of Results, Limitations, and Future Work	74
<i>Section 1: Conditions for Which One Would Use Clinical Hypnosis</i>	74
<i>Section 2: Recommendations from a Variety of Sources</i>	75

<i>Section 3: Selecting a Hypnotherapist</i>	77
<i>Limitations and Future Work</i>	82
Appendix	87
References	120

LIST OF FIGURES

Figure 1: Mean Likelihood to Contact for Credentials*Group	63
Figure 2: Mean Likelihood to Contact for Credentials*Certification	65
Figure 3: Mean Likelihood to Contact for Credentials*Services	66
Figure 4: Mean Likelihood to Contact for Certification*Services	67
Figure 5: Mean Likelihood to Contact for Certification*Services – Community	69
Figure 6: Mean Likelihood to Contact for Certification*Services – Group	70

LIST OF TABLES

Table 1: Descriptive Statistics for Section 1 by Group, by Sex, and Combined	54
Table 2: By-Group Comparisons of Means for Likelihood to Use Hypnosis for Clinical Purposes	56
Table 3: By-Sex Comparisons of Means for Likelihood to Use Hypnosis for Clinical Purposes	57
Table 4: Descriptive Statistics for Section 2 by Group, by Sex, and Combined	58
Table 5: By-Group Comparisons of Means for Likelihood to Use Hypnosis Given Recommendation from a Variety of Sources	59
Table 6: By-Sex Comparisons of Means for Likelihood to Use Hypnosis Given Recommendation from a Variety of Sources	59
Table 7: Significant Within-Subjects Effects from Factorial ANOVA Analysis	62
Table 8: Confidence Intervals Illustrating Credentials*Group Interaction	64
Table 9: Confidence Intervals Illustrating Credentials*Certification Interaction	64
Table 10: Confidence Intervals Illustrating Credentials*Services Interaction	66
Table 11: Confidence Intervals Illustrating Certification*Services Interaction	68
Table 12: Confidence Intervals Illustrating Certification*Services*Group Interaction	68
Table 13: Results of Paired t-tests Comparing mMLtC for “Psy.D.” vs. “Ph.D.” and “Hypnosis” vs. “Ph.D., Licensed Clinical Psychologist” by Group	71
Table 14: Pearson’s r Correlation Among ATH Total, Hypnotizability, and Mean Likelihood to Contact (MLtC)	73

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CHAPTER ONE

Introduction and Literature Review

Hypnosis has found a broad range of clinical applications. It has been used for general pain management (Brown, 2007; Hawkins, 2001; Montgomery, DuHamel & Redd, 2000) as well as to reduce pain-related negative affect, degree of pain, amount of pain medication used, physiological aspects of pain, recovery and treatment time for pain-related injuries (Montgomery, David, Winkel, Silverstein & Bovbjerg, 2002), experimentally-induced pain (Friederich, Trippe, Ozcan, Weiss, Hecht & Miltner, 2001), cancer-related pain (Elkins, Cheung, Marcus, Palmara & Rajab, 2004; Neron & Stephenson, 2006), labor length and labor pain (Brown & Hammond, 2007), surgical pain (Enqvist, Bjorklund, Engman, & Jakobsson, 1997) and debridement-related pain in burn patients (Tan & Leucht, 1997). It has also been used with favorable results to treat irritable bowel syndrome (Palsson, Turner, & Whitehead, 2006), to alter the physiological and emotional responses to symptoms of asthma (Brown, 2007), to assist in smoking cessation (Elkins, Marcus, Bates, Rajab & Cook, 2006), as a treatment for insomnia (Becker, 1993), and as sedation during colonoscopy for colorectal screening (Elkins, White, Patel, Marcus, Perfect & Montgomery, 2006). Further, hypnosis has been used in the treatment of several mental health conditions, including chronic depressive syndromes and post-traumatic stress disorder (Gruzelier, 2006).

As the above research indicates, clinical hypnosis may be of use to many individuals with physical or mental ailments. However, hypnosis is rarely used. Reported use rates range from 0.5% to 1.3% in large-scale studies of U.S. adults (Honda

& Jacobson, 2005; Ni, Simile, and Hardy, 2002). Whether the higher (1.3%) or lower (0.5%) estimates of people who use hypnosis are considered, it is evident that more people are affected by a condition that may be beneficially treated by hypnosis (e.g. chronic pain) than use hypnosis. Therefore, hypnosis may be considered an underutilized treatment. For this reason, it is useful to examine the factors that affect one's likelihood to seek clinical hypnosis. One model that attempts to conceptualize the factors affecting a person's likelihood to seek treatment is Andersen's behavioral model of health service utilization (Andersen & Newman, 1973). This model postulates that the outcome variable of health service utilization can be predicted by three dependent variables. The dependent variables are 1) enabling factors, 2) illness level, and 3) predisposing factors. Enabling factors are the resources individuals have with which to seek services. This includes individual resources such as income and health insurance and community resources such as available mental health professionals. Illness level is the issue that is prompting healthcare use. Predisposing factors are those attributes of the individual that predispose him or her to use services. These include age, race/ethnicity, gender, marital status, employment, educational level, and health beliefs. As an analysis of people's beliefs about seeking clinical hypnosis, this study examines predisposing factors by examining health beliefs regarding people's willingness to seek clinical hypnosis. This is an area of hypnosis research that has not received much attention. As Johnson and Hauck (1999) write "even though the public's knowledge and views of hypnosis continues to be a significant concern, a review of the literature indicates that little systematic, objective research has been conducted to determine just what the general public's opinions and beliefs are" (p. 11).

In an effort to address this research gap, this project examines the hypnosis help-seeking related health beliefs of 258 university students and community members. Specifically, this survey project examines three areas of health beliefs related to hypnosis help-seeking. These areas are: 1) the common medical and psychological conditions for which individuals would be likely to seek clinical hypnosis; 2) the sources of referrals and information that might influence one's choice to pursue hypnosis and 3) the characteristics of common advertisements (e.g., yellow-pages style listings) that may induce one to contact one professional rather than another.

The following literature review defines hypnosis, discusses the stages of hypnosis, and reviews literature on the clinical uses of hypnosis. It then briefly reviews relevant literature on mental health help-seeking. Finally it reviews research on hypnosis users and attitudes and beliefs about hypnosis leading to a discussion of the research questions and hypotheses guiding this project.

Hypnosis

The Society of Psychological Hypnosis, Division 30 of the American Psychology Association, currently defines and describes hypnosis as follows:

Hypnosis typically involves an introduction to the procedure during which the subject is told that suggestions for imaginative experiences will be presented. The hypnotic induction is an extended initial suggestion for using one's imagination, and may contain further elaborations of the introduction. A hypnotic procedure is used to encourage and evaluate responses to suggestions. When using hypnosis, one person (the subject) is guided by another (the hypnotist) to respond to suggestions for changes in subjective experience, alterations in perception, sensation, emotion, thought or behavior. Persons can also learn self-hypnosis, which is the act of administering hypnotic procedures on one's own. If the subject responds to hypnotic suggestions, it is generally inferred that hypnosis has been induced. Many believe that hypnotic responses and experiences are characteristic of a hypnotic state. While some think that it is not necessary to use the word "hypnosis" as part of the hypnotic induction, others view it as essential.

Details of hypnotic procedures and suggestions will differ depending on the goals of the practitioner and the purposes of the clinical or research endeavor. Procedures traditionally involve suggestions to relax, though relaxation is not necessary for hypnosis and a wide variety of suggestions can be used including those to become more alert. Suggestions that permit the extent of hypnosis to be assessed by comparing responses to standardized scales can be used in both clinical and research settings. While the majority of individuals are responsive to at least some suggestions, scores on standardized scales range from high to negligible. Traditionally, scores are grouped into low, medium, and high categories. As is the case with other positively scaled measures of psychological constructs such as attention and awareness, the salience of evidence for having achieved hypnosis increases with the individual's score (Green, Barabasz, Barrett, & Montgomery, 2005).

While the above definition was unanimously approved by the executive committee of Division 30 (Green et al., 2005), it has been criticized for several reasons including its “nonposition” on the importance of including the word hypnosis in a hypnosis protocol (Nash, 2005), its focus on what is done to the subject versus what is experienced by the subject (McConkey, 2005), and its emphasis on “imaginative experiences” and “using one’s imagination” (Woody & Sadler, 2005). These criticisms emphasize the notion that there is no single agreed-upon definition of hypnosis. In another definition of hypnosis, Kihlstrom (1985) writes that “Hypnosis may be defined as a social interaction in which one person, designated as the subject, responds to suggestions offered by another person, designated the hypnotist, for experiences involving alterations in perception, memory, and voluntary action” (p. 385). Alternatively, Gruzelier (2000) describes hypnosis as “an altered state of brain functional organization involving interrelations between brain regions initiated by the intervention of the hypnotist—that is, an atypical alteration of brain systems through an interpersonal and cultural context” (p. 51).

Regardless of differences in definitions, there is some agreement about the phenomenological experiences/states suggested by these definitions. Hypnosis is characterized by: deep mental (and physical) relaxation; mental/attentional absorption; diminished judgment and discrimination performance (in most cases); alteration of the sense of orientation to time, place or self/identity; and (often) “the experience of one’s own response[s] as automatic or extravolitional” (Rainville et al., 2002, p. 888). The hypnotic process is dynamic. It can be conceptualized as three stages, each with its own neurological changes (Gruzelier, 2006). The initial stage of hypnosis generally involves a set of instructions aimed at achieving relaxation in the subject and setting the stage for direction by the hypnotherapist. Usually this is a set of instructions to relax, fixate on a small object (real or imagined, e.g., a spot on the wall) and listen to the hypnotist. In this stage, it is suggested that an “attentional network including thalamocortical systems and parietofrontal connections to engage a left anterior focused attention control system....underpins the focused, selective attention that is inherent in visual fixation and listening to the hypnotist’s voice” (Gruzelier, 2006, pp. 22-23). All of these processes together require left hemispheric anterior temporal processing. However, it should be noted that the hypnotist’s instructions also include prosodic and emotional aspects. Therefore, it should also be expected that some degree of right hemispheric temporal processing is also required in this stage.

The second stage of hypnosis involves a deepening of the hypnotic process. Suggestions are generally given for eyelid heaviness, eye closure, increasing fatigue, tiredness and ever deeper relaxation. In this stage, Gruzelier (2006) suggests that these instructions catalyze “frontolimbic inhibitory processes with dissociative...consequences,

left-sided in particular, encompassing orbitofrontal and dorsolateral frontal regions and limbic structures such as the amygdala, hippocampus and cingulate” (p. 23). This stage is what Gruzelier refers to as the “letting go” stage of the hypnotic induction process. Notably, this letting go process, when successfully accomplished (i.e. when undertaken by highly hypnotizable or moderately hypnotizable individuals), is accompanied by a shift from largely left hemispheric activation to largely right hemispheric activation. The second stage is seen as the stage most critical to successful hypnotic induction. Gruzelier (2006) describes the “letting go” stage as follows:

selective inhibition or disconnection of frontal functions from posterior and subcortical functions, leading to the giving over and the placing of the executive and planning functions under the hypnotist’s influence, to suspension of critical evaluation and reality testing as well as to alterations in the control of the supervisory attentional system. (p. 24)

Thus, it is the second stage of hypnosis during which the most significant changes in neurological activation, psychological experience and executive control are hypothesized to take place.

The third and final stage of hypnosis proposed by Gruzelier (2006) is that of receiving instructions for relaxed, passive imagery. A minor extension of this final stage would allow for the inclusion of suggestions of various kinds (e.g. for analgesia, amnesia, post-hypnotic experiences, etc.). It is proposed that this stage leads to “a redistribution of functional activity and an augmentation of posterior cortical activity, particularly in the right hemisphere in the highly susceptible subjects” (p. 23). Essentially, this is a deepening of an already existing state of hypnosis.

Clinical Uses of Hypnosis

As briefly discussed in the introduction, studies of clinical hypnosis support its utility in a range of clinical situations. In reviewing the extant literature at the time, Flammer and Bongartz (2003) found 444 published studies examining the clinical uses of hypnosis. Of these studies, 57 were identified as randomized controlled trials (RCTs) comparing patients treated with hypnosis to untreated or standard care control groups. Through their meta-analysis, Flammer and Bongartz concluded that these studies demonstrated that hypnosis had a (on average) moderate effect ($d = 0.56$) in addressing the conditions for which it was being examined. This finding suggests that hypnosis may be useful in addressing a range of clinical exigencies. This section will address literature on the uses of hypnosis for surgery and other procedures, chronic pain, burn pain, irritable bowel syndrome, labor and delivery, smoking cessation, depression and psychological wellbeing, anxiety, posttraumatic stress disorder, and sleep disorders.

Chronic Pain

One of the primary areas of research in clinical uses of hypnosis is the treatment of chronic pain. This research has investigated a variety of forms of chronic pain. In their 2006 review of chronic pain studies, Jensen and Patterson found 19 studies which included control conditions. Of these, 8 were headache studies. The others involved the study of various forms of chronic pain. This section summarizes research on the use of hypnosis for treating chronic pain arising from headaches, lower back pain, osteoarthritis pain, orofacial pain, pain associated with sickle cell anemia, and breast carcinoma-related pain.

Headaches. Several studies have sought to ascertain the possibility of treating headache pain with hypnosis (Anderson, Basker, & Dalton, 1975; Emmerson & Trexler, 1999; Melis, Rootmans, Spierings, & Hoogduin, 1992; Spanos et al, 1993). One early study of migraine headaches was conducted by Anderson et al. (1975). In this study, migraine sufferers were randomly assigned to either a hypnosis condition or a medication management condition. After 12 months of treatment, hypnosis was more effective than medication management in reducing the number of headaches and increasing the frequency of not having headaches. In a more recent study, Emmerson and Trexler (1999) examined the effectiveness of hypnosis on migraine headaches in 32 participants. All participants completed a group hypnosis session and twelve weeks of self-hypnosis using an audiotape. Specifically, the hypnosis included imagery of a cool helmet that included freezer coils behind a protective layer. The participants' headache duration, severity, frequency, and need for medication were compared pre and post-treatment. The results showed that post-treatment migraines were significantly less frequent ($p < .0001$), shorter ($p < .0005$), less severe ($p < .0005$), and required less medication to treat ($p < .0005$) than pre-treatment migraines. This study showed positive outcomes from hypnosis treatment on the frequency, duration, and severity of migraine headaches. However, as this study lacks a control group, it cannot be determined whether it was the hypnosis or a placebo effect that led to the improvement. The possible influence of a placebo effect is particularly concerning given the results of Spanos et al.'s (1993) study of chronic headache patients. In this study 136 patients were randomly assigned to hypnosis, placebo, and no-treatment groups. The control group reported no significant

changes in headaches at the 8 week follow up. The hypnosis and placebo groups both reported significant and equivalent changes at that time.

In addition to studies of migraine headaches, research has been done on the use of hypnosis to treat tension headaches. In one such study, Melis et al. (1992) randomly assigned 26 people with chronic tension headaches to either a hypnosis treatment group or a standard care treatment group. The hypnosis treatment involved four sessions over four weeks. The hypnosis intervention asked patients to visualize the headache as an image and then alter that image. It also suggested patients move the pain to other parts of the body. Further, participants were asked to practice hypnosis once a day with a tape. Hypnosis was found to be more effective than standard care in reducing the number of days of the week the patient experienced a headache, the hours per week, and the headache intensity ($p < .05$).

Lower back pain. An early study of the use of hypnosis to treat chronic lower back pain conducted by McCauley, Thelen, Frank, Willard, and Callen (1983) examined 17 patients with low back pain. Patients were randomly assigned to either a hypnosis treatment or progressive muscle relaxation treatment condition. Participants in each condition received 8 individual weekly sessions. Results showed that pre- and post-treatment levels of pain intensity, pain interference with daily functioning, and depression were significantly decreased in both groups. Furthermore, these findings were maintained at a three month follow up. While the groups were not different in several areas, hypnosis did have some advantages over the progressive muscle relaxation in that decreases in pain severity and sleep latency were only found in the hypnosis group.

Further, physician concern about medication use showed an initial decrease in both groups. However, this decrease was only maintained at follow up in the hypnosis group.

In a more recent study, Tan, Fukue, Jensen, Thornby and Waldman (2010) examined the effectiveness of hypnosis in the treatment of chronic low back pain. Their study included 9 male veterans with at least 6 months of reported chronic back pain. Each participant participated in a four-session hypnosis protocol which included psychoeducation on stress and pain. They found significant decreases, with large effect sizes, in pain intensity ($d = 1.51$) and the extent to which participants reported that pain interfered with their daily life ($d = 1.15$). However, at the 3-month and 6-month follow-ups, it was found that the reduction in pain intensity was not maintained. Instead, follow-up pain intensity scores returned to pre-treatment levels. This study is limited in that it included a small sample size, a convenience sample, and no control group. While this study only demonstrated a short-term effect of hypnosis on chronic back pain, it is important to note that the participants were not asked to continue self-hypnosis at home after the 4-session protocol ended.

Osteoarthritis pain. Gay, Philippot, Luminet (2002) studied the effect of hypnosis on 36 patients with osteoarthritis pain. There were three conditions: hypnosis, relaxation training, and a control condition. The hypnosis condition included eight weekly sessions. This treatment showed significant decrease in pain intensity that was maintained at the three month follow up ($p < 0.004$). However, the reduction in pain decreased at the six month follow up and was no longer significant. This is in contrast to the patients in the no treatment group who showed no significant change over the time period.

Chronic orofacial pain. In an effort to study the treatment of persistent idiopathic orofacial pain (PIOP), Abrahamsen, Baad-Hansen, and Svensson (2008) conducted a patient-blinded RCT comparing a hypnosis treatment to a simple relaxation control in 44 patients. The hypnosis condition involved 3 to 6 sessions of hypnosis. The hypnosis sessions included progressive relaxation and suggestions of changing, controlling, or disassociating from the pain. Participants were given an audiotaped hypnosis session based on their individual needs to use for at-home hypnosis. In the relaxation control group, patients participated in 3-6 sessions of relaxation and positive imagery without the inclusions of any suggestions. Pain outcomes were assessed through a pain diary, the McGill pain questionnaire (MPQ), a visual diagram of perceived pain area, and medication use. The hypnosis treatment group had significantly greater decreases in pain diary scores post-treatment than did the relaxation group ($p < 0.02$). From the baseline through the final pain diary time period, the hypnosis group's average pain scores decreased 33.1% (+/- 7.4%) versus 3% (+/- 5.4%) in the control group. While the pain diary results indicated the effectiveness of hypnosis on decreasing PIOP pain, the scores on the MPQ did not mirror this result. However, the perceived pain area decreased more in the hypnosis group than in the control group ($p < 0.01$). Additionally, there was some change in medication use after treatment. In the hypnosis group, there was a significant decrease in the use of weak analgesics post-treatment ($p < 0.02$).

Sickle cell disease-related pain. Another form of chronic pain that has been examined in terms of hypnosis is the pain associated with sickle cell disease (Dinges et al., 1997). In this study, 37 patients participated in an 18 month adjunctive self-hypnosis training program. This involved weekly sessions for the first 6 months, biweekly

sessions for the next 6 months, and then sessions every three weeks for the final 6 months. For this treatment phase, and for a four-month pre-treatment baseline phase, patients kept daily pain diaries. Results showed that the percentage of days patients experienced sickle-cell disease pain was significantly decreased following the self-hypnosis training ($p = 0.002$). Self-hypnosis was also associated with a significant decrease in non-sickle cell disease pain ($p = .004$).

Breast cancer-related pain. Spiegel and Bloom (1983) studied the use of hypnosis in reducing pain for women with metastatic breast carcinoma pain. Patients were randomly assigned to either the treatment or control conditions. In the end, 34 women were in the treatment group and 24 were in the control group. All of the women participated in weekly 90-minute support group meetings with two therapists. In the treatment group, the meetings ended with a self-hypnosis exercise. During this suggestions were given to “filter the hurt out the pain.” Patients’ self-reports of pain were assessed at four-month intervals for one year. Results showed that pain sensation for women in the treatment condition was significantly lower than for those in the control group. Specifically, pain sensation increased considerably over the course of the year in the control group sample, but remained relatively steady in the hypnosis group ($p < 0.02$). The hypnosis group also experienced significantly less suffering over the course of the year than did the control group ($p < 0.03$)

Chronic pain conclusions. The studies of hypnosis and chronic pain reviewed above indicate some measure of support for the use of hypnosis in treating chronic pain. This is in agreement with the findings of Elkins et al.’s (2007) and Jensen and Patterson’s

(2006) reviews of studies in this area. Elkins et al. found that in each study reviewed, hypnosis was more effective than a no-treatment condition in reducing chronic pain. Similarly, Jensen and Patterson (2006) found that all but one of the RCTs reviewed showed that hypnosis treatment led to more pain reduction than non-treatment. However, in considering the effectiveness of hypnosis for chronic pain, it is worth noting that Jensen and Patterson's review failed to show hypnosis as more effective than relaxation training. However, Abrahamsen et al.'s (2008) study discussed above did show an advantage to hypnosis treatment versus relaxation treatment in reducing persistent idiopathic orofacial pain.

Surgical/Procedural Pain, Outcomes, and Side Effects

In addition to treating chronic pain, multiple studies have investigated the use of hypnosis in reducing pain and improving other surgery/procedural outcomes and side effects. This section discusses studies involving a variety of types of surgeries and procedures including: third molar removal, angioplasty, percutaneous vascular and renal procedures, and venepuncture. These studies include both adult and pediatric patients.

Adult patients. Mackey (2010) conducted a researcher-blind randomized controlled study of 91 patients having third molar removal to evaluate the effectiveness of hypnosis as an adjunct to IV sedation. The treatment group listened to a hypnotic suggestion cd during surgery; the control group listened to a musical cd. The treatment group was found to have significantly lower postoperative pain ratings and consumed significantly fewer prescription pain relievers. The treatment group also required less intraoperative sedation to maintain a stable heart rate and blood pressure. The significant

results and the randomized controlled experimental design of this study provide support for the use of hypnosis as an adjunct during IV sedation. This is particularly appealing due to the ease and low cost of the intervention.

Weinstein and Au (1991) investigated the effects of hypnosis in 32 patients undergoing angioplasty. Patients were randomly assigned to either a hypnosis treatment condition or a standard care control group. They found that the hypnosis group withstood the procedure for 25% longer and required significantly less post-procedure pain medication than did the control group.

In another study of the use of hypnosis for surgical/procedural patients, Enqvist et al. (1997) conducted a randomized study of 50 female surgical patients. One group was told to listen to a hypnosis tape suggesting relaxation and postsurgical thirst and hunger for approximately one week prior to surgery. The other group received standard care. It was found that the hypnosis group made significantly fewer requests for pain medicine. The hypnosis group also experienced significantly less postoperative nausea and vomiting than did the control group. A strength of this study is that the outcome measures included medical records of pain medication use and vomiting in addition to patient self-reports.

Each of the studies above (Enqvist et al., 1997; Mackey, 2010; Weinstein & Au, 1991) supports the notion that hypnosis is beneficial for patients undergoing medical procedures/surgery. However, each of them compared hypnosis to a standard care control group. Therefore, it is difficult to differentiate the effect of hypnosis per se versus a placebo or attention effect. One study that addresses this issue is Lang et al.'s (2000) study of the effect of hypnosis during medical procedures. Specifically, they

study its utility as an adjuvant non-pharmacological analgesia during percutaneous vascular and renal procedures. Two hundred forty-one patients were randomly assigned to one of three conditions: hypnotic relaxation, structured attention, or standard medical care. In the hypnosis treatment group, patients received guidance in self-hypnotic relaxation during the surgery. The results showed that procedural length, pain, anxiety, and post-procedural pain were all significantly less in the hypnosis group than in the standard care group. These findings provide support for the utility of hypnosis in comparison to standard care. Hypnosis also led to better outcomes than did attention in each area, but not at levels that reached statistical significance. The one outcome measure in which hypnosis was significantly different from both the attention and standard care conditions was hemodynamic stability. In the hypnosis condition, one patient became hemodynamically unstable in comparison to 10 patients in the attention group and 12 patients in the standard care group.

Pediatric patients. While the studies discussed above investigated hypnosis use for adults, other studies have focused on pediatric patients. In one such study, Lambert (1996) developed 26 pairs of gender, age and diagnosis matched children who were going to be experiencing surgery. One child in each pair was assigned to a hypnosis treatment group while the other was assigned to a control group. The hypnosis group received hypnosis involving guided imagery and suggestions for favorable post-operative outcomes. In comparison to the control group, the hypnosis treatment group had significantly lower postoperative pain ratings and shorter hospital stays.

In another pediatric hypnosis study, Lioffi, White and Hatira (2009) compared local anesthesia, local anesthesia and self-hypnosis, and local anesthesia and attention for

their effects on patient anxiety and pain during venepuncture. Forty-five pediatric cancer patients were randomly assigned to one of the three conditions. Patients in the hypnosis condition received the local anesthetic as well as a 15-minute hypnosis session. The hypnosis session included suggestions for topical anesthesia, local anesthesia, and glove anesthesia. Patients were also given training in self-hypnosis. Results showed that hypnosis resulted in better relief from pain, anxiety, and distress in comparison to the two other groups. One strength of this study was that patient distress during the procedure was evaluated by a clinical observer who was blind to the patient's assigned treatment condition.

Lioffi et al.'s (2009) study was predated by at least 5 other studies of hypnosis use in needle-related procedural pain in pediatric patients. Uman, Chambers, McGrath and Kisely (2008) reviewed these five studies as part of their review of 28 trials addressing psychological interventions for needle-related pediatric procedural pain. They concluded that hypnosis had the largest effect size of the psychological interventions they examined for outcome measures including self-reported pain, self-reported distress, and behavioral measures of distress. They concluded that "hypnosis appears to be an efficacious intervention for reducing both pain and distress during needle procedures" (p. 848).

Burn Pain

In addition to the surgical and procedural uses for hypnosis, many of which include the reduction of pain, hypnosis has also been studied for use in reducing burn pain. Wakeman & Kaplan (1978) compared burn patients who received hypnosis to those who received attention from a psychologist. The hypnosis group used significantly

less pain medicine than did the other group. Similarly, Patterson, Questad, and DeLateur (1989) found that patients with high levels of baseline pain who participated in hypnosis before undergoing burn wound care reported a significant drop in post-care pain in comparison to those without hypnosis. However, this was not a randomized study. In an effort to conduct a more systematic study, Patterson, Everett, Burns and Marvin (1992) randomly assigned 30 patients to a hypnosis treatment group, an attention control group, or a no-treatment control group. The hypnosis treatment group had a significant reduction in self-reported pain; neither control group reported a significant reduction.

Fibromyalgia

Another clinical exigency that has been examined for treatment with hypnosis is fibromyalgia. Haanen et al. (1991) randomly assigned 40 fibromyalgia patients to either a hypnosis group or a physical therapy group. Patients received either 8 sessions of hypnosis (and were asked to use a hypnosis tape daily) or 12 sessions of physical therapy. It was found that hypnosis was more effective than physical therapy in reducing reports of muscle pain, fatigue, sleep disturbance, medication use, and self-reported global outcome. The hypnosis and physical therapy treatment conditions were not significantly different on measures of physician-reported global outcome and self-reported morning stiffness.

In a more recent study of the use of hypnosis to reduce fibromyalgia pain, Castel, Perez, Sala, Padrol, and Rull (2006) compared the effects of hypnosis with analgesia suggestions, hypnosis with relaxation suggestions, and a relaxation condition. Forty-five patients were randomly assigned; each condition was approximately 20 minutes in length. The results showed that patients in the hypnosis with analgesia suggestions treatment

group had significantly lower reports of pain intensity on the McGill Pain Questionnaire than did patients in either the hypnosis with relaxation suggestions condition or the relaxation condition. Since this study found significant differences in the outcomes given the type of hypnotic suggestions given, it emphasizes the need to study more fully the effect of types of suggestions given during clinical hypnosis.

Childbirth

Another area of investigation of clinical uses of hypnotherapy is during labor and delivery. In one relatively large-scale study of the effects of hypnosis on childbirth, Jenkins and Pritchard (1993) compared 262 women receiving hypnosis with age matched controls. Women in the hypnosis condition received six half-hour prenatal hypnosis sessions and were encouraged to practice self-hypnosis. Results showed that the hypnosis patients were significantly more likely to complete labor without receiving analgesia than were the control patients. Additionally, labor times during the first stage of labor were reduced for women in the hypnosis condition. Furthermore, women for whom this was their first pregnancy also showed reduced labor times during the second stage of labor. While these results are promising, one concern in evaluating them is that 33% of the hypnosis patients dropped out of the study.

A much smaller study compared 22 teenage mothers who received prenatal training in self-hypnosis related to childbirth with a control group of 20 teenage mothers who received supportive counseling (Martin, Schauble, Rai, & Curry, 2001). Both groups received 4 sessions over 8 weeks. Outcome measures included medication use, complications and surgical interventions during delivery, length of hospital stay, and neonatal intensive care unit admissions. Results indicated that the hypnosis group was

significantly less likely to receive surgical interventions than the control group ($p = .000$). Specifically, 12 of the 20 patients in the control group received surgical interventions compared to none of the patients in the hypnosis group. The hypnosis group also had significantly more patients with short hospital stays (2 days or less) than the control group ($p = .008$). Finally, the control group experienced significantly more complications during delivery than the hypnosis group ($p = .047$). While the sample size of this study is small, its results provide additional support for the use of hypnosis for childbirth.

These studies indicate that hypnosis has promising utility for use in labor and delivery. This is consistent with Cyna, McAuliffe & Andrew (2004)'s meta-analysis of studies examining the effect of hypnosis on pain during childbirth. They conclude that hypnosis significantly reduces the frequency with which analgesia is used during labor.

Smoking Cessation

In addition to the study of hypnosis for standard medical conditions such as chronic pain, acute and procedural pain, burn pain, fibromyalgia, and childbirth, hypnosis has also been studied as an aid in promoting smoking cessation. In a meta-analysis, Green and Lynn (2000) reviewed 59 studies of hypnosis and smoking cessation. Only 3 of the 59 studies included in the meta-analysis were categorized as rigorous experimental studies. In the first of the three, Schubert (1983) compared the effects of hypnosis and systematic desensitization with a wait-list control group. Both of the treatment conditions showed some effect, with 41% of the hypnosis group and 38% of the desensitization group reporting smoking abstinence at a four month follow-up in comparison to 7% of the waitlist control group. A 1984 study (Rabkin, Boyko, Shane &

Kaufert) compared hypnosis, group behavioral treatment, group education, and a control group. Again, each of the treatment conditions showed an increase in smoking cessation compared to the control group. Additionally, the treatments did not differ significantly from one another in their effectiveness. The third rigorous experimental study (Valbo & Eide, 1996) compared smoking cessation between pregnant women receiving hypnosis treatment and pregnant women receiving standard medical care. In this study, the hypnosis group actually had lower levels of smoking cessation than did the control group. Combining the results of these three studies with those of other less rigorous studies, Green and Lynn conclude that, save a few exceptions (i.e. Valbo & Eide, 1996), hypnosis is more effective than no-treatment or wait-list control conditions; however, there is not substantial evidence that hypnosis is more effective than other smoking cessation treatments. Therefore, the authors conclude that “hypnosis can, with some justification, be regarded as a *possibly efficacious*, yet by no means specific, treatment for smoking cessation (p. 216).

A more recent study of hypnotherapy and smoking cessation aimed to study a more intensive hypnotherapy approach than that used in many of the studies reviewed by Green and Lynn (Elkins, Marcus, Bates, & Rajab, 2006). In this study, 20 patients were randomly assigned to either the intensive hypnotherapy condition or a waitlist control group. The hypnotherapy condition involved eight one-hour sessions in which suggestions given included decreased cravings for nicotine, commitment to stop smoking, and visualization of the benefits of quitting smoking. Specific imagery in the hypnosis was adapted to the preferences of the patient. In addition to in-person sessions, participants were given instructions to practice daily hypnosis with an audiotape.

Smoking cessation rates were measured at 8, 12, and 26 weeks after the targeted quitting date. At both 12 and 26 weeks, the hypnotherapy group had significantly higher cessation rates than did the control group. Specifically, at 12 weeks 60% of the treatment group and 0% of the control were not smoking ($p = .005$); at 26 weeks, 40% of the treatment group and 0% of the control group were not smoking ($p = .043$).

In a larger study of hypnosis for smoking cessation, Carmody et al. (2008) assigned 286 smokers to either a hypnosis treatment condition or a behavioral counseling condition. The hypnosis condition consisted of two in-person hypnosis sessions and at-home hypnosis practice using an audiotape. The hypnosis was aimed at “facilitating self-control over smoking behavior and motivation for quitting” (p. 813). The behavioral counseling condition involved two in-person behavioral counseling sessions focusing on knowledge, beliefs, barriers and counter-barriers related to quitting smoking. All patients were also given nicotine patches. Smoking cessation rates at 1 week, 2 weeks, 6 months, and 12 months showed no significant differences in the cessation rates between the two treatment groups. Based on these findings, the authors conclude that hypnosis is an efficacious treatment for smoking cessation. However, this study, like the others reviewed here, fails to demonstrate that hypnosis is *more* effective than other treatments, only that it is *as* effective.

Depression and Psychological Well-Being

Hypnosis has also been studied to assess its use in enhancing mental well-being and treating mental health concerns including depression and anxiety. In one such study, Lioffi and White (2001), studied the effectiveness of hypnosis in decreasing depression and anxiety in terminal cancer patients. They randomly assigned 50 cancer patients to

either standard medical and psychological care or standard care plus hypnosis. The standard care included supportive counseling as well as pharmacological pain management. The hypnosis protocol involved weekly hypnosis sessions for four weeks. The hypnosis intervention included suggestions that were personalized to each patient's needs as well as more general ego-strengthening suggestions. Patients completed a depression and anxiety measure (the Hospital Anxiety and Depression Scale, HADS) before and four weeks after the intervention. There was a statistically significant reduction in scores on both the anxiety and depression subscales of the HADS for the hypnosis group in comparison with the standard care group ($p < 0.01$). Participants in the hypnosis group also showed significantly greater decrease in psychological distress ($p < 0.01$) as measured by the psychology distress subscale of The Rotterdam Symptom Checklist than did the control group.

Another study examining depressive symptoms involved hypnosis treatment to enhance postnatal maternal wellbeing. Guse, Wissing, and Hartman (2006) studied the effect of six individual prenatal sessions of hypnosis emphasizing "activating and utilizing inner resources" (p. 166) on postnatal wellbeing. Both groups of women were administered the Edinburg Postnatal Depression Scale before giving birth, at two weeks postpartum, and at ten weeks postpartum. At two weeks postpartum, the hypnosis treatment group were significantly less depressed than they were during the prenatal evaluation ($p = .03$) whereas the control group showed no significant difference in pre- and post-natal depression scores. The difference in the experimental group's mean scores represented a moderate ($d = 0.62$) effect size. At 10 weeks post-partum, both groups showed statistically significant decreases in their depression scores in comparison to their

prenatal scores. However, the experimental group's change in depression scores was still significantly greater than that of the control group ($p = 0.04$) and still represented an effect size of $d = 0.47$.

The depression studies reviewed above (Guse, Wissing, and Hartman, 2006; Lioffi & White, 2001) are included in Shih, Yang, and Koo (2009)'s meta-analysis of 6 RCTs examining the effectiveness of hypnosis in the treatment of depressive symptoms. These authors found a moderate effect size of $d = 0.57$ ($p < .001$). The authors concluded that the benefit of hypnosis exceeds that of a placebo effect. While these results are promising, the total number of studies included is small and two were unpublished dissertations and therefore not subject to the blind review publication process.

Anxiety

In addition to use in treating depression, hypnosis has been examined for use in treating anxiety and stress in otherwise healthy adults. Thirty-five first year medical students were randomly assigned to either a self-hypnosis treatment condition or a control group (Whitehouse, Dinges, Orne, Keller, Bates, Bauer, Morahan, Haupt, Carlin, Bloom, Zaugg, Orne, 1996). The 21 participants in the self-hypnosis condition were trained in self-hypnosis. All participants completed daily diaries regarding mood, sleep, and physical wellbeing over a 19 week period. They also completed psychosocial measures and had blood drawn four times during the study. Stress levels increased in both conditions during the final exams. However, participants in the hypnosis treatment condition reported significantly lower levels of distress and anxiety than did students in the control conditions during this time period. This provides support for the use of self-hypnosis to reduce stress related to examinations.

While Whitehouse et al.'s study supported the idea that self-hypnosis can reduce stress during exam periods, it did not directly assess the use of hypnosis for test anxiety. Several other studies have done this (Boutin & Tosi, 1983; Johnson & Johnson, 1984; Melnick & Russell, 1976). Of these studies, Melnick and Russell (1976) did not find hypnosis to be effective in reducing scores on the Mandler-Sarason Test Anxiety Questionnaire, nor did it improve academic performance. In contrast, Johnson and Johnson found that one session of test-anxiety focused hypnosis resulted in higher scores on a reading comprehension test in comparison to students who had not received the hypnosis session ($p < 0.05$). While encouraging, this study was conducted under laboratory conditions with a small sample size of 15. Boutin and Tosi's (1983) study avoids these issues. They studied the use of hypnosis in reducing test anxiety among 48 nursing students randomly assigned to a Rational-Stage Directed Hypnotherapy treatment group (RSDH; a protocol involving hypnosis and vivid emotive imagery), a hypnosis-only condition, a relaxation and support treatment group, and a no-treatment control group. Results indicated that RSDH treatment and the induction-only hypnosis groups had significantly greater improvement on a number of measures, included the Test Anxiety Scale (TAS), in comparison to the relaxation and no-treatment groups ($p < .01$).

Posttraumatic Stress Disorder

Another mental health concern that has been studied in relation to hypnosis is posttraumatic stress disorder (PTSD). Brom, Kleber, and Defares (1989) conducted a study in order to examine the efficacy of hypnotherapy for treating posttraumatic stress disorder. Their study involved 112 adults with PTSD stemming from a variety of traumatic events. Patients were randomly assigned to psychodynamic treatment,

hypnotherapy, trauma desensitization, or a wait-list control group. Treatments were done for mean numbers of sessions ranging from 14.4 to 18.8. Results on a variety of measures were evaluated in three areas: symptoms of coping, general symptoms, and personality. It was found that all of the treatment groups experienced positive changes in symptoms of coping (including intrusion and avoidance), general symptoms (including trauma symptoms, state anxiety, and psychoneuroticism), and personality (including distress and self-esteem). There were no significant differences in outcome measures among three treatment groups.

In a more recent study of hypnosis and PTSD, Abramowitz, Barak, Ben-Avi, and Knobler (2008) compared hypnosis to treat sleep disturbances (two weeks of twice a week, 1.5 hour sessions) in 17 PTSD patients with 15 PTSD patients who received a two-week course of Zolpidem. All selected patients had chronic problems initiating and maintaining sleep, reported night terrors and nightmares, and were at least moderately hypnotizable. The study found that PTSD symptoms measured by the Posttraumatic Diagnostic Scale were significantly lower ($p < .0005$) in the hypnotherapy group compared to the medication group. Levels of depressive symptoms also decreased significantly more in the hypnosis group. In terms of sleep outcomes, the two groups were not significantly different in total sleep time. However, the quality of sleep was significantly ($p = .003$) higher in the hypnosis group and the number of awakenings decreased significantly more in the hypnosis group than in the medication group. Hypnosis also appeared to improve the participants' ability to concentrate and morning sleepiness in comparison to the medication group. The authors conclude that the

improvement in sleep “directly affected concentration and mood and contributed to a decrease in severity of PTSD symptoms” (p. 277).

Sleep Disorders

Hypnosis has been examined for its use in addressing insomnia. In one such study, Borkovec and Fowles (1973) randomly assigned 37 female college students with insomnia to one of four conditions: progressive relaxation, hypnotic relaxation, self-relaxation, and a wait list control group. Students in the treatment conditions received three 1-hour sessions over several weeks and were given instructions for at-home practice. The hypnosis condition included suggestions for relaxation. All participants were asked to complete daily sleep questionnaires recording the number of minutes before falling asleep, number of times waking during the night, number of times having difficulty falling back to sleep, a rating of difficulty falling asleep, and a rating of feeling of restedness upon waking. The results showed that all three treatments were more effective than the control in reducing the number of times patients woke during the night and increasing how well-rested people felt upon waking. Further, both hypnotic relaxation and progressive relaxation resulted in a greater reduction in time to fall asleep than did no treatment.

In a more recent sleep disorders and hypnosis study, Anbar and Slothower (2006) examined the results of hypnosis treatment on insomnia in children. This was a retrospective chart review of 84 children, not an RCT. Patients were given instruction in self-hypnosis and were provided follow-up hypnosis instructions and sessions. Ninety percent of the patients reported a reduction in the time required for sleep onset following

hypnosis. Further, of patients reporting nighttime awakening before the hypnosis, 52% reported resolution and 38% reported improvement following treatment.

In addition to studying hypnosis and insomnia, research has investigated the use of hypnosis in treating parasomnia (undesirable events during or in close proximity to sleep). Hauri, Silber, and Boeve (2007) studied 36 patients with documented parasomnia. All patients received one or two hypnosis sessions during which an audiotape was generated. Patients were asked to listen to the tape daily for at least two weeks. Follow-up questionnaires were completed after 1, 18, and 60 months. These questionnaires showed that 45.4% of the patients reported substantial improvement in their parasomnia during the first month post-treatment. This improvement decreased only slightly at the 18-month (42.2%) and the 60-month (40.5%) follow-ups. While this study provides some evidence that hypnosis may be useful in treating parasomnia, the lack of a control severely restricts the claims that can be made about the findings.

Clinical Uses of Hypnosis: Mediating and Moderating Factors

In addition to examining the effectiveness of hypnosis in addressing a variety of clinical exigencies, some of the research in this area has also sought to identify factors that relate to the effectiveness of hypnotherapy for particular individuals. Two of the most commonly studied factors are expectancy and hypnotizability. Expectancy is generally considered to be a mediating variable for the effectiveness of hypnosis. As a mediator, it is a third variable that accounts (at least partially) for the effect of hypnosis on a given outcome. Hypnotizability is generally considered to be a moderating variable for the effect of hypnosis on a given outcome. As a moderator variable, it affects the

strength (and/or direction) of the relationship between hypnosis and a given outcome variable (Baron, R.M. & Kenny, D.A., 1986).

Expectancy. To examine the degree to which expectancy may account for the effectiveness of hypnosis, Montgomery, Schur, Silverstein, Hallquist, David and Bovbjerg (2010) studied the relationships between the effects of presurgical hypnosis and the response expectancies and emotional distress of the patients. In this study, 200 breast cancer surgery patients were randomly assigned to either a hypnosis intervention group or an attention control group. The hypnosis intervention consisted of a 15 minute session on the morning of surgery. Before the surgery, researchers assessed response expectancies for postsurgical pain, nausea, and fatigue; emotional distress; emotional upset; and relaxation. Post-surgery, researchers assessed subjective pain, nausea, and fatigue. They found that pain expectancy mediated the effect of hypnosis on post-surgical pain. Further, the effect of hypnosis on post-surgical fatigue was mediated by pre-surgical distress and expected fatigue. The authors conclude that “presurgery expectancies and distress should be targeted for intervention prior to breast cancer surgery to improve pain, nausea, and fatigue outcomes” (p 86).

Hypnotizability. The most commonly assessed individual difference factor assessed in research on clinical uses of hypnosis is the hypnotizability of the patient. This factor is thought to influence how large an effect hypnosis may have with respect to a given outcome. In Flammer and Bongartz’s (2003) meta-analysis of 57 RCTs examining clinical studies of hypnosis, 6 reported correlations between hypnotic suggestibility and treatment outcome. The mean correlation was $r = 0.44$ suggesting that

higher levels of hypnotic suggestibility are positively correlated with increased positive treatment outcomes. In one study that found this, Smith et al. (1996) found that highly suggestible children in a hypnosis treatment group reported a higher level of pain reduction than did less suggestible children in the hypnosis group. Similarly, Friedman and Taub (1984)'s study of migraine patients found that those with low hypnotic responsivity showed initial response from hypnosis treatment, but that the effect on peak headache intensity held steady from 6 to 12 months whereas those with high hypnotic responsivity continue to show increased effect during the same time period. However, in contrast Tan et al. (2010) found that hypnotizability was inversely correlated with pain reduction for chronic back pain.

Clinical Uses of Hypnosis: Conclusions

The above discussion of research on the clinical uses for hypnosis offers an overview of some of the clinical exigencies for which hypnosis has been studied. With a few exceptions, these studies demonstrate that: 1) hypnosis is likely to be more useful than non-treatment for the clinical conditions examined; 2) hypnosis often compares favorably to standard medical care treatment. However, more research is necessary to determine the conditions under which hypnosis is advantageous in comparison to other (more than standard care) treatments. Further, some of the studies researching the clinical uses of hypnosis contain methodological concerns such as small sample sizes and lack of control groups. Also, more research is needed to determine what types of hypnosis treatments are most effective for the various conditions. As suggested by Castel et al. (2006), different types of hypnosis may be more or less effective in addressing particular concerns.

Mental Health Help-Seeking

While clinical hypnosis is done in various settings, this study focuses on clinical hypnosis being used to treat a variety of clinical exigencies. These exigencies include medical concerns (e.g. asthma) and psychological concerns (e.g. cancer-related anxiety). While medical professionals (e.g. medical doctors) may be trained in providing clinical hypnosis, such treatment is often done by a psychologist. Since people seeking clinical hypnosis would likely be seeking help from a psychologist, it is relevant to consider the factors affecting mental health help-seeking. Therefore, the next section reviews contemporary research on the frequency with which people seek mental health services and factors affecting such help-seeking. Following that, research specifically considering hypnosis-related behaviors and attitudes is addressed.

Mental health help-seeking has been operationalized as occurring when an individual contacts a professional for help with an emotional or psychological problem (including drug or alcohol use) (Amstadter, McCauley, Ruggiero, Resnick, Kilpatrick, 2008; Neighbors et. al., 2007). Several large-scale surveys have examined rates of mental health help-seeking in the U.S. One such study, the National Comorbidity Survey Replication, was conducted from 2001 to 2003 (Wang et al., 2005). It found that 41% of participants with a diagnosis of a mental disorder had received treatment in the previous year. Similarly, the surgeon general's (U.S. Department of Health and Human Services, 2001) report on mental health found that only approximately one-third of people in the U.S. with mental health problems obtain treatment.

Research on factors affecting mental health help-seeking has identified a number of factors correlated with mental health help-seeking including demographic and access

factors, need factors, individual personality characteristics, stigma, and lifestyle factors. Each of these factors is addressed below.

Demographic and Access Factors

Research on mental health help-seeking has identified demographic groups that are more or less likely to seek mental health services. For example, men (Pederson & Vogel, 2007) and African-Americans (U.S. Dept of Health and Human Services, 2001) have been found to seek professional psychological help at lower rates than women and European Americans, respectively. Other research has examined the role that access factors such as finances, knowledge of available services (Sareen et al, 2007; Davis, Ressler, Schwartz, Stephens, & Bradley, 2008), and transportation can play as barriers to mental health help-seeking (Davis et al., 2008).

Need Factors

Along with demographics factors, mental health help-seeking research has sought to identify the relationship between need or level of psychological distress and help-seeking or attitudes toward help-seeking. Cepeda-Benito and Short (1998) found that people are more likely to seek mental health services when they perceive the problems they are experiencing as exceeding their ability to cope. Other studies have also found that mental health help-seeking increases when people experience their psychological distress as high (Cramer, 1999; Vogel & Wei, 2005). In contrast to these studies, the positive relationship between level of psychological distress and likelihood to seek mental health services was not found in a study of African-American help-seeking (Obasi & Leong, 2009). Instead, Obasi and Leong found that as psychological distress increased

within the African-American sample, attitudes toward seeking mental health services became less positive. The researchers speculate that this may be due, at least in part, to cultural mistrust of the medical establishment.

Personality Factors

A number of individual personality factors have been connected to willingness and attitudes toward seeking help. One such factor is one's willingness to self-disclose. For example, Cepeda-Brown and Short (1998) found that self-concealers, people less willing to self-disclose, were significantly more likely to have not sought mental health services during past problems. Similarly, Vogel, Wade, Wester, Larson, and Hackler (2007) found that one's comfort with self-disclosing distressing information was a predictor of attitudes and willingness toward seeking mental health services.

Another individual personality factor linked to attitudes toward help seeking is emotional openness. Defined as one's comfort with emotions and tendency to seek emotional experiences, Komiya, Good, and Sherrod (2000) found that higher levels of openness predicted favorable attitudes toward psychological help-seeking.

A third individual personality factor associated with willingness to seek counseling is male gender role conflict (Pederson & Vogel, 2007). In a study designed to examine the relationship between male gender role conflict and willingness to seek counseling, Pederson and Vogel found that increased gender role conflict was correlated with a decreased willingness to seek counseling. However, this relationship was mediated by three factors. The three factors were: tendency to disclose information, the self-stigma associated with seeking counseling, and attitudes toward seeking counseling.

As demonstrated by Pederson and Vogel's research the factors affecting attitudes toward and willingness to seek counseling are complex and interrelated.

Stigma

As indicated by Pederson and Vogel's (2007) research discussed above, another factor that has been found to relate to attitudes toward counseling is stigma (Barney, Griffiths, Jorm, & Christensen, 2006; Davis, Ressler, Schwartz, Stephens, & Bradley, 2008; Pederson & Vogel, 2007). Seeking mental health services remains a somewhat stigmatized practice. In examining the effects of stigma on help-seeking behavior, two forms of stigma have been studied. One is self-stigma. This form of stigma is defined as the "internalization of negative images expressed by society toward those who seek psychological services" (Pederson & Vogel, 2007, p. 374). Pederson and Vogel found that participants with higher levels of self-stigma were found to have more negative attitudes about counseling and were less willing to seek counseling. Similarly, Barney, Griffiths, Jorm, and Christensen (2005) found that self-stigma significantly predicted likelihood of seeking help for depression amongst an Australian sample.

The second form of stigma associated with help-seeking behaviors is perceived stigma, or the belief that others will respond negatively to one's seeking mental health services. In a study of college students, Golberstein, Eisenberg, and Gollust (2008) found rates of perceived stigma to be higher among males, people of lower socioeconomic status, and those with current mental health problems. Perceived stigma has been identified as a barrier to mental health help-seeking. Specifically, a study of African-Americans of low socioeconomic status found that disapproval of family and disapproval of community were both help-seeking barriers for people with PTSD symptoms (Davis,

Ressler, Schwartz, Stephens, & Bradley, 2008). In an Australian study, 46% of people reported that they believed others would view them negatively for seeking help for depression (Barney, Griffiths, Jorm, & Christensen, 2006). This perceived stigma significantly predicted likelihood of help-seeking.

There is some evidence that an individual's rates of perceived stigma may be related to the attitudes and experiences of their social network. Golberstein, Eisenberg, and Gollust (2008) found that perceived stigma was higher in people who did not have a friend or family member who had sought mental health services. In a related series of studies, Vogel, Wade, Wester, Larson, and Hackler (2007) found that the majority of people who sought help were prompted to do so by someone else (74% - 76%) and knew someone who had sought help (92% - 95%). Both of these findings vary significantly from the responses of those who had not sought help. In considering these findings, the authors find support for the idea that, "attitude toward mental health services is at least partially transmitted by family and friends who therefore play a role in whether an individual decides to seek help" (p. 241). In contrast to these studies, a two-year longitudinal study of college students did not find a significant relationship between perceived stigma regarding mental health service use and mental health help-seeking (Golberstein, Eisenberg & Gollust, 2009).

While much of the research discussed above supports the idea that stigma is a barrier to mental health help-seeking, there is also evidence that stigma may not play a significant role in mental health help-seeking. One research study that makes this conclusion is a large-scale, cross-cultural analysis of self-reported barriers to seeking mental health services amongst people with a self-reported need for care (Sareen et al.,

2007). In this study, perceived stigma was not a significant barrier to mental health help-seeking. Similarly, in a study of college students, Golberstein, Eisenberg, and Gollust (2008) found no relationship between perceived stigma and help-seeking for students with probable anxiety or depressive disorders.

Lifestyle Factors

In addition to individual personality factors that affect attitudes toward and willingness to seek mental health services, some research has examined lifestyle factors associated with mental health help-seeking. One such factor is television watching. Vogel, Gentile and Kaplan (2008) found that increased watching of television comedies and dramas was positively related to increased stigma toward seeking therapy which then predicted a decreased likelihood to seek mental health services. The authors postulate that this is because the television genres of comedy and drama often depict psychotherapists in negative ways including: engaging in unethical behavior, engaging in sexually inappropriate behavior, and being incompetent. Drawing on cultivation theory, Vogel, Gentile and Kaplan argue that watching such programs shapes the viewers' perceptions of reality. Another lifestyle factor associated with help-seeking behavior is attendance of religious services. Pickard and Tang (2009) found that participants who attend religious services more frequently were more likely to seek help from a member of the clergy versus a mental health professional.

Hypnosis Help-Seeking

While mental health help-seeking literature provides insight into the factors affecting people's choices regarding seeking mental health services, it does not directly address factors related to seeking clinical hypnosis from a licensed psychologist. Therefore, this section reviews research on characteristics of hypnosis users, discusses research on attitudes about hypnosis, and addresses research on people's willingness to use clinical hypnosis. The section concludes by introducing the research questions and hypotheses guiding this project.

Characteristics of Hypnosis Users

Depending upon the purposes for which it is used, hypnosis may be considered to be a standard form of psychotherapy or a type of Complementary and Alternative Medicine (CAM). When hypnosis is applied to a relatively new area (e.g., for treatment of hot flashes), it is considered to be a CAM therapy. The National Center for Complementary and Alternative medicine describes CAM therapies as "a group of diverse medical and health care systems, practices, and products that are not generally considered part of conventional medicine" (National Institutes of Health, 2007). In an effort to understand characteristics of CAM users, Honda and Jacobson (2005) analyzed data from a sample of over 3000 U.S. adults. In this analysis, hypnosis was grouped with biofeedback, relaxation/meditation, imagery techniques, and prayer/spiritual practice as mind-body treatments. In examining demographic characteristics of mind-body treatment users, Honda and Jacobson found that the use of mind/body treatments was significantly positively correlated with being female and college-educated. A similar analysis of U.S. women found that Black and Hispanic women were significantly

underrepresented among mind-body therapy users relative to population norms (Upchurch et al., 2007).

General Attitudes and Beliefs about Hypnosis

In considering hypnosis help-seeking, it is useful to understand the attitudes and beliefs about hypnosis held by people are not currently seeking clinical hypnosis. As discussed in the introduction, the Andersen model posits that one's health beliefs are a predisposing factor that affects healthcare utilization (Andersen & Newman 1973). Specific to seeking psychological services, Cepeda-Benito and Short (1998) found that a potential client's preconceptions of a clinical practice influences whether or not a client will seek professional help. It follows then that people's preexisting attitudes regarding clinical hypnosis may influence whether or not they will seek clinical hypnosis when an exigency arises. Therefore it is important to understand such attitudes.

Many of the studies examining attitudes and beliefs about hypnosis employ a hypnosis attitude scale. The two most frequently cited scales are the Attitudes Towards Hypnosis (ATH) scale (Spanos, Brett, Menary, & Cross, 1987) and the Opinions About Hypnosis (OAH) scale (McConkey, 1986). The ATH scale is a 14 item measure that has been found to assess three factors: positive beliefs about hypnosis, beliefs about the mental stability of hypnotizable people, and an absence of fear concerning hypnosis. The hypnosis (versus self-hypnosis) portion of the OAH scale is a 21-item scale that contains "a number of statements that are often made concerning the nature, experience, and effects of hypnosis" (McConkey, 1986, p. 312). Participants either agree or disagree with the statements resulting in an overall total score that reflects their "belief that hypnosis is an altered state of consciousness wherein participants experience suggested events in an

automatic, involuntary manner” (Green, Page, Rasekhy, Johnson, & Bernhardt, 2006, p. 265). In addition to these two scales, other research (e.g. Johnson & Hauck, 1999) uses questionnaires developed specifically for the individual studies’ purposes.

One area of interest examined by such scales is what people think hypnosis is. In Johnson and Hauck’s (1999) study of 272 people in the U.S., 98% of the participants agreed that when hypnotized, a “person is in a different state of consciousness.” When given the similar, but slightly different, statement “hypnosis is an altered state of consciousness, quite different from normal waking consciousness,” Green et al. (2006) report 70% agreement. McConkey (1986) found 62% agreement to the same prompt.

Within the research on attitudes about hypnosis, much attention has been paid to studying misconceptions regarding what occurs during hypnosis. In a cross-cultural study, Green et. al. (2006), investigated the extent to which participants agreed with a variety of stereotypes regarding hypnosis. They found the following: 49% agreed that “I am wary about becoming hypnotized because it means giving up free will to the hypnotist,” 41% agreed that “I wonder about the mental stability of those who can become deeply hypnotized,” 44% agreed that “a deeply hypnotized person is robot-like and goes along automatically with whatever the hypnotist suggests,” and 65% agreed that “hypnotized people can be made to do things against their will.”

For some individuals, beliefs about hypnosis are connected to religious beliefs. In a recent study of clergy members, 37% of respondents agreed that “hypnosis opens the hypnotized person to possible demonic or negative spiritual influence or possession” (Pelletier, 2010, p. 87). Additionally, 49% of the clergy participants disagreed with the statement “hypnosis is morally, ethically, theologically and spiritually neutral” (p. 86).

Several studies (Barling & De Lucchi, 2004; Green, 2003; McConkey, 1986) have been conducted to investigate the malleability of such misconceptions related to hypnosis. McConkey (1986) found that experiencing hypnosis significantly decreased participants' misconceptions about hypnosis. Specifically, after hypnosis, McConkey found that subjects were more likely to believe that the individual's ability determined the hypnotic experience, not the ability of the hypnotist. Similarly, after hypnosis, a significantly higher percentage of subjects thought that hypnotic suggestions will work only if the individual being hypnotized wants them to work (71% pre-hypnosis vs. 95% post-hypnosis). While McConkey's study used an experimental design to study the influence of experiencing hypnosis, Barling and De Lucchi (2004) compared people who had previously sought out and experienced clinical hypnosis and people who were not experienced in hypnosis. On the ATH scale, the hypnosis-experienced participants scored significantly higher on the positive beliefs, fearlessness, and mental stability subscales. They also scored significantly higher on a measure of accurate knowledge about hypnosis. Finally, the hypnosis-experienced group was significantly more likely to intend to use hypnosis in the treatment of psychological and medical conditions than the non-experienced group.

There is also evidence that attitudes and beliefs about hypnosis are affected by gaining information about hypnosis without being hypnotized. Echterling and Whalen (1995) gave participants a baseline ATH. Then the participants were exposed to a stage hypnosis show, a lecture on hypnosis, or a control condition. Participants in the stage hypnosis and lecture conditions both increased in belief that high hypnotizability does not

imply low intelligence. The lecture condition subjects also decreased in their belief that a hypnotized person is robot-like and automatically acts on all suggestions.

Attitudes about Personally Using Hypnosis

Given the compelling literature on the effectiveness of hypnosis to aid in the treatment of a variety of conditions, it is important to consider what is known about individuals' attitudes regarding their potential use of hypnosis for clinical purposes. Unfortunately, the most commonly used measures of attitudes related to hypnosis—the Opinions About Hypnosis (OAH) and Attitudes Toward Hypnosis (ATH) scales—do not directly ask about one's likelihood of selecting hypnosis as part of a treatment plan. What is known is that many people are at least somewhat open to being hypnotized. Johnson and Hauck (1999) reported 64% agreement with the statement “I would like to be hypnotized” and Green et al. (2006) found 74% agreement with the statement “I'm not afraid of becoming hypnotized” among U.S. participants.

While the OAH and ATH do not ask about one's openness to using hypnosis for clinical purposes, a few studies have investigated this issue. In one early study, Van Der Walde (1974) surveyed patients at a mental health center. When asked if they would consider hypnosis, 12.5% of clients said they would definitely want hypnosis to be part of their treatment. An additional 14% indicated they would accept hypnosis “if no better choice” were available and 10.5% would accept it “only in association with other treatment.” In a more recent study of mental health patients, Elkins and Wall (1996) asked psychiatry outpatients “if your doctor recommended hypnosis as a part of the treatment for a medical health problem, would you accept or reject the referral or ask for

more information?” In the psychiatry patient sample, 33% would accept, 56% would ask for more information, and 11% would reject.

In addition to examining the attitudes of mental health patients, Elkins and Wall (1996) also surveyed patients in a family practice clinic. Of these outpatients, 29% would accept hypnosis, 70% would ask for more information, and 1% would reject hypnosis. In a larger study of general practice patients, McIntosh and Hawney (1985) surveyed 910 patients coming to a medical center regarding their knowledge of and motivation to use hypnosis for medical treatment. They found that 80% of the sample had heard of hypnosis being used in medicine. When asked if they would accept hypnotherapy if recommended by their doctor, 36.6% said they would accept it. Alternatively, 5.5% would refuse treatment. The majority (56.9%) said they would request further information.

In these (Elkins & Wall, 1996; McIntosh & Hawney, 1985) studies, there is no discrimination for the type of condition being hypothetically treated with hypnosis. Instead, participants are asked to indicate their likelihood to use hypnosis broadly. Alternatively, Hermes, Hakim and Sieg (2004) examined the willingness of patients to use hypnosis for a set of specific medical conditions. They investigated the attitudes of patients who were facing surgery for oral and maxillofacial conditions using local anesthesia. Of their participants, 15.2% said they would “definitely” be willing to undergo surgical procedures under hypnosis and an additional 26.0% said probably. However, 50% said it would depend on the type of surgery and 11.6% said they would definitely not be willing. The study then asked about specific oral and maxillofacial

procedures and found that the patients' willingness to use hypnosis varied based on the specifics of the procedure/condition.

While some research (Elkins & Wall, 1996; Hermes, Hakim, & Sieg, 2004; McIntosh & Hawney, 1985; Van Der Walde, 1974) has investigated people's willingness to use hypnosis as a treatment for medical and psychological conditions, not enough is known about the conditions for which people are willing to consider hypnosis. The current literature either examines a fairly general willingness to use clinical hypnosis (Elkins & Wall, 1996; McIntosh & Hawney, 1985; Van Der Walde, 1974) or patients' willingness to use hypnosis in a very specific medical situation (Hermes, Hakim & Sieg, 2004). To address this gap, this study examined the following question:

RQ 1: How likely do participants say they are to use hypnosis for 10 psychological and medical conditions that are amenable to clinical hypnosis under the supposition that the particular treatment was recommended by one's doctor?

In addition to not understanding the extent to which people are willing to use hypnosis for a range of medical and psychological conditions, it is not known the extent to which informational and referential factors are seen as influential. While Elkins and Wall (1996) and McIntosh and Hawney (1985) prefaced questions about willingness to use hypnosis with a statement about one's doctor advising it, they did not study the influence such a referral may have on people's reported willingness to use clinical hypnosis. Further, while some research on complementary and alternative medicine (CAM) (Ong & Banks, 2003) has investigated the influence of a doctor's referral, the advice of family and friends, and advertising on an individual's choice to pursue CAM, such research has not examined hypnosis in particular. One study that did examine the

importance of various information sources to individuals who had pursued hypnosis was conducted in Australia (Robinson & Cooper, 2007). They found that for hypnosis users, the importance of information source ratings, from most to least important, were: CAM therapists, doctors, print and broadcast media, friends/co-workers, family, self-help books, and the internet. For non-users of hypnosis, the importance of information source ratings, from most to least important were: doctors, family, print and broadcast media, friends/co-workers, CAM therapists, self-help books, and the internet. While Robinson and Cooper's study does explore the perceived importance of referential and informational factors for hypnosis users and non-users, it does so in an Australian context. Help-seeking is a culturally-bound behavior (Chen & Mak, 2008) and therefore it is necessary to seek similar information for a U.S. population. To address this gap, this study examined the following question:

RQ 2: How likely do participants report they are to use clinical hypnosis if it is recommended by a variety of referral or information sources?

As discussed above, research on the conditions for which people are willing to seek hypnosis and the influence referential and informational factors have on that willingness is lacking. Research is also lacking on factors affecting the choice of a clinician for hypnosis treatment. Studies of other professions (Andrus, 1995; Tuominen, 2001) indicate that the ways practitioners present themselves in phone book listings and advertisements affects who potential clients prefer. In an unpublished study of phone book type listings for mental health professionals, Keith-Speigel, Seegar, and Tominson (1978) found that people preferred ads that included more versus fewer credentials and more versus less information (cited in Koocher & Keith-Speigel, 1998). Given that

hypnotists are negatively presented in film and television (Barrett, 2006), it is likely that potential hypnosis clients will be particularly attuned to such credibility characteristics when considering listings for clinical hypnosis practitioners. This study investigated the extent to which participants report a desire to select a clinical psychologist for hypnotherapy based on variations in how the clinician is represented in a listing. Specifically the following hypotheses for main effects were examined:

H1: Participants will report being more likely to select a clinical psychologist when that clinician's listing includes more versus fewer credentialing letters.

H2: Participants will report being more likely to select a clinical psychologist when that clinician's listing includes the presence versus the absence of a statement of board certification.

H3: Participants will report being more likely to contact a clinical psychologist when that clinician's listing includes the presence versus the absence of a statement of clinical hypnosis services.

H4: Exposure to a brief message outlining the importance of regulating the practice of psychology through licensure and other means will have a significant effect on likelihood to contact a clinical psychologist for hypnosis treatment. It will decrease likelihood for the low levels of Credentials, Certification and Services and increase likelihood for the high levels of these factors.

H5: For two otherwise identical listings, participants will report being equally likely to select a clinical psychologist whether that clinician's listing uses the credential "Psy.D." or "Ph.D.".

H6: For two basic listings, participants will report being equally likely to select a clinician whether that clinician's listing reads "Ph.D, Licensed Clinical Psychologist" or "Hypnotist."

Throughout the hypnosis attitudes and beliefs literature, much of the research uses a college student population (e.g. Echterling & Whalen, 1995; McConkey, 1986; Spanos, Brett, Mendary, & Cross, 1987). This sample is limited in age range and experience. Therefore, it is plausible that a sample of non-college student adults with a wider age range and variety of experiences may report different attitudes toward using clinical hypnosis. Therefore, in this study differences between student and community group responses were investigated. Further, sex differences were also examined.

CHAPTER TWO

Methods

Overview

This study examined three issues related to participants' reported willingness to pursue clinical hypnosis. The first is the participants' reported likelihood to use clinical hypnosis in the treatment of a variety of medical conditions. The second is their reported likelihood to use clinical hypnosis given a range of referential and informational factors. The final issue is their reported likelihood to contact a particular clinical psychologist for hypnotherapy given a set of listings. In these listings the variables are: extended credentials listed/not listed, presence/absence of a statement indicating board certification in clinical hypnosis, and presence/absence of a listing of clinical hypnosis services. Additional listings include the degree of Psy.D. and the title of Hypnotist. In order to examine these issues, this study surveyed (see Appendix A) a sample of undergraduate students and a community sample. The sections that follow address the participants, survey design, procedures, and data analysis.

Participants

This study uses two participant samples, a student sample and a community sample. The student sample is comprised of 160 students from a large, private, Christian university in the South. Participants were recruited from the undergraduate psychology student pool. For their participation, participants received research credit for their psychology courses. The student sample was comprised of 30 males and 130 females.

The average age was 19.8 years (s.d. = 1.52). The students ranged in age from 18 to 31; only 1 participant was over 23. The race/ethnicity of the students was as follows: 15 African-American, 24 Hispanic, 20 Asian-American, 93 Caucasian, and 8 other. While all student participants were enrolled in a psychology course, they represented 31 different majors. The most common majors (and percentage of students reporting that major) were: psychology (30.6%), nursing (13.8%), health sciences (9.4%), and neuroscience (8.1%). They endorsed agreement or disagreement with three common misconceptions of hypnosis as follows: “Experiencing hypnosis involves giving up one’s free will” agree—36.9%, disagree—63.1%; “One becomes robot-like when experiencing hypnosis,” agree—28.7%, disagree—71.3%; “Experiencing hypnosis is a sign of mental instability,” agree—8.8%, disagree—91.3%.

The community sample was recruited through a variety of means. Ads were posted on Craigslist; personal contacts were asked to put the researcher in contact with book clubs, political groups, church groups, co-worker groups, etc. that might be willing to take the survey; personal contacts were asked to complete the survey; and parent-teacher organizations at 3 public elementary schools (in Vermont) were contacted. For their participation, community sample members were offered \$10 (some participants refused the incentive money). In total 98 community members completed the survey. Of these, 43 were obtained through groups suggested by personal contacts, 33 were obtained through personal contacts; and 22 through a parent-teacher organization. The community sample was comprised of 34 males and 64 females, ranging in age from 18 to 72. The average age was 37.7 (s.d. = 13.0). The race/ethnicity of the community sample was as follows: 4 African-American, 3 Hispanic, 2 Asian-American, and 89 Caucasian.

The educational levels of these participants were: 6 high school only, 14 some college; 33 college degree; and 44 graduate and/or professional degree. They endorsed agreement or disagreement with three common misconceptions of hypnosis as follows: “Experiencing hypnosis involves giving up one’s free will” agree—27.6%, disagree—70.4%, no answer—2.0%; “One becomes robot-like when experiencing hypnosis,” agree—12.2%, disagree—85.7%, no answer—2.0%; “Experiencing hypnosis is a sign of mental instability,” agree—4.1%, disagree—94.9%, no answer—1.0% .

Survey Design

The survey is divided into three sections. The first section asks participants to indicate on a scale of 1-5 how likely they would be to use clinical hypnosis in a variety of situations. The Likert-style responses will be rooted with the following descriptors: 1- not at all likely, 2 – slightly likely, 3 – neutral, 4 – fairly likely, and 5 – very likely. The situations listed are: (1) to reduce anxiety, (2) as part of a plan to quit smoking, (3) as part of a plan to treat insomnia, (4) as a way to manage chronic pain, (5) as a complementary anesthetic during surgery, (6) as a sole anesthetic during surgery, (7) as a complementary anesthetic during a root canal, (8) as a sole anesthetic during a root canal, (9) as a sole form of pain relief during childbirth, and (10) as one form of pain relief during childbirth. These situations are drawn from the literature on clinical uses of hypnosis and are intended to be easily understood by the participant population. This list was shown to an expert panel for validation and refinement to ensure inclusion of important and relatively common uses for clinical hypnosis.

The second section of the survey asks participants to indicate on a scale of 1-5 how likely they would be to use clinical hypnosis given a range of referral and

informational sources. The Likert-style responses will be rooted with the following descriptors: 1- not at all likely, 2 – slightly likely, 3 – neutral, 4 – fairly likely, and 5 – very likely. The referral and informational conditions are: (1) if your primary care doctor recommended it for your situation (2) if a trusted friend or relative recommended it for your situation, (3) If you read a newspaper article recommending it for your situation, (4) if you saw a television news story recommending it for your situation, and (5) if you read an academic journal article recommending it for your situation.

These referential and information factors were selected for several reasons. The first two factors (doctor and family/friend recommendations) were chosen based on Ong and Banks' (2003) study of the importance of these factors in individuals' decision making regarding contemporary and alternative medicine techniques. Additionally, this study will examine the influence of newspaper articles, television news reports, and academic journals on an individual's reported likelihood of selecting hypnosis. These informational factors were selected based on Elkins and Wall's (1996) and McIntosh and Hawney's (1985) finding that the majority of participants wanted more information on hypnosis before deciding to use it as part of a medical treatment.

In the third section of the survey, participants were asked to look at a series of 10 listings presented in random order. Each listing was on a separate page of the survey. For each listing, participants were asked to indicate on a visual analog scale how likely they would be to contact that clinician assuming they had decided to seek clinical hypnosis. The endpoints of the visual analog scale were: not at all likely and very likely. Following this page, all ten listings appeared together. Participants were asked to rank the listings from 1 to 10 with 1 indicating the clinician they would be most likely to

contact and ten indicating the clinician they would be least likely to contact assuming they were seeking clinical hypnosis. Following this page, participants saw a page with the following prompt:

The practice of psychology is regulated by state licensing boards. The Texas Psychologist's Licensing Act, Sec. 501.003 (c), PRACTICE OF PSYCHOLOGY, subsection (3) states that the practice of psychology includes: (A) using projective techniques, neuropsychological testing, counseling, career counseling, psychotherapy, hypnosis for health care purposes, hypnotherapy, and biofeedback; and (B) evaluating and treating mental or emotional disorders and disabilities by psychological techniques and procedures.

On the following page of the survey, participants were asked to re-rank the listings.

The ten listings are all of equal size. They are intended to represent phone book listings or similar listings in on-line directories. They are all-text with no graphics. Eight of the listings include the clinician's gender neutral name, the credentials of Ph.D., the phrase "Licensed Clinical Psychologist," and an address and phone number. Among these eight listings, the factors that vary are: (1) the presence/absence of the extended credentials "ABPP, ABPH;" (2) the presence/absence of the phrase "Board Certified in Clinical Hypnosis;" and (3) the presence/absence of the phrase "Clinical Hypnosis for Pain Management, Anxiety, Weight Loss, Smoking, Trauma." All combinations of these variations are present in the eight listings. Two additional listings are also included. These are: 1) a listing including only the clinician's gender-neutral name, the title "Hypnotist" and contact information and 2) a listing using the credential "Psy.D." in place of "Ph.D." with the phrases indicating board certification and services offered but without the extended credentials "ABPP, ABPH." The font size and bolding of each listing's text is adjusted to fill the available space and be visually appealing. The three variations were selected based on Keith-Spiegel, Seegar, and Tomison's (1978, cited in

Koocher & Keith-Spiegel, 1998) findings in their study of brief ads for psychologists. To validate and refine these listings, they were shown to an expert panel. This panel agreed that these listings are reasonable representations of ways clinical psychologists who are practitioners of clinical hypnosis might represent themselves.

After completing the second set of rankings, participants were asked to complete the Attitudes Toward Hypnosis scale (Spanos, et al., 1987). Participants were also asked to provide the following demographic information: age, sex, and race/ethnicity. Students were asked their major and community members were asked their level of education and their occupation. All participants were also asked if they had experienced hypnosis previously, about their probable responsiveness to a hypothetical hypnotic procedure (indicated on a visual-analog scale) and if they have taken one or more of seven psychology courses that may have given them prior exposure to hypnosis or suggestion. To verify the clarity and comprehensibility of the survey instructions and questions, it was piloted on 10 undergraduates. These responses were not included in the final data. Instead, the students were asked for feedback on any parts of the survey that were hard to understand or that confused them. The students reported no significant feedback and the survey was not changed. However, the survey was altered slightly after the student sample was collected, but before the community sample collection began. Due to some questions from students and some incorrectly completed surveys, the instructions on the ranking page were clarified.

Procedures

After receiving IRB approval, student participants were recruited through the undergraduate psychology participant pool. They then attend one of ten sessions. The

sessions were held in classrooms on the university campus. At the beginning of each session, participants were asked to complete an informed consent form. After that, the researcher briefly explained the project and distributed the survey packets. The researcher was on hand to answer specific questions regarding the survey when they arose. There were few questions.

Community sample participants were recruited through a variety of means described in the participants section. The researcher, or a proxy trained in hypnosis, obtained consent from each participant, briefly explained the project and distributed the survey packets. The researcher or the hypnosis-trained proxy was on hand to answer specific questions regarding the survey. As with the student population, there were very few questions. Participants from both samples typically took 15-40 minutes to complete the survey.

Data Analysis

Data from survey sections one and two were responses to Likert scale items ranged from one to five (one - not at all likely, two – slightly likely, three – neutral, four – fairly likely, and five – very likely). Means and 95% confidence intervals were computed for each question. This permitted visual comparison of confidence intervals by question, group, and sex. Two-tailed t-tests were used to evaluate differences in mean response to each question by group and sex.

To analyze survey section three, a full-factorial ANOVA was used. This model included within-subjects factors of Credentialing, Board Certification, Services and Time; it included between-subjects factors of group and sex. Each factor had two levels. This analysis was performed on both ratings and rankings of “likelihood-to-contact” the

professional represented in the listing. Two a-priori t-tests were used to compare the likelihood-to-contact ratings for: 1) the listing including only the clinician's gender-neutral name, contact information and the title "Hypnotist" with the listing including only the clinician's gender-neutral name, "Ph.D.," contact information and the title "Licensed Clinical Psychologist;" and 2) the two listings using the credential "Psy.D." and "Ph.D." with the phrases indicating board certification and services offered but without the extended credentials "ABPP, ABPH." Post-hoc analyses of Attitudes Toward Hypnosis Scale total scores, self-estimated Hypnotizability ratings (via 10 cm VAS), mean rating among all listings of likelihood-to-contact, and number of psychology courses taken included t-tests for differences in these metrics by group and sex. Further, Pearson's product-moment correlations were computed among each paired combination of these metrics by group and sex. Missing data for all analyses were handled on a case-by-case basis depending upon the calculation. Cases that included missing data required for a calculation were omitted from that particular analysis.

CHAPTER THREE

Results

Section 1: Conditions for Which One Would Use Clinical Hypnosis

Section 1 addressed Research Question 1: “How likely do participants say they are to use hypnosis for 10 psychological and medical conditions that are amenable to clinical hypnosis under the supposition that the particular treatment was recommended by one’s doctor.” Likelihood was assessed through a 5-point Likert scale with responses ranging from Not-at-all-likely (1 point) to Very-likely (5 points). The results of this section for the combined (community + student) sample and by group (student vs. community) and sex (male vs. female) are in Table 1.

Table 1

Descriptive Statistics for Section 1 by Group, by Sex, and Combined

Clinical Purpose	Statistic	By Group		By Sex		Combined
		Comm.	Student	Female	Male	
Test Anxiety	N	98	160	194	64	258
	Mean	3.01	3.01	3.11	2.70	3.01
	95% CI- (lower- upper)	2.74 – 3.28	2.81 – 3.21	2.93 – 3.29	2.37 - 3.03	2.85 – 3.17
Chemo. Anxiety	N	97	160	193	64	257
	Mean	3.69	3.63	3.73	3.42	3.65
	95% CI- (lower- upper)	3.45 – 3.93	3.45 – 3.81	3.57 – 3.89	3.12 – 3.72	3.51 – 3.79

Continued

Clinical Purpose	Statistic	By Group		By Sex		Combined
		Comm.	Student	Female	Male	
Smoking, Comp.	N	97	160	193	64	257
	Mean	3.52	3.13	3.32	3.16	3.28
	95% CI- (lower- upper)	3.25 – 3.79	2.93 – 3.33	3.13 – 3.51	2.83 – 3.49	3.12 – 3.44
Smoking	N	97	160	193	64	257
	Mean	2.42	2.39	2.45	2.27	2.40
	95% CI- (lower- upper)	2.14 – 2.70	2.16 – 2.62	2.24 – 2.66	1.93 – 2.61	2.22 – 2.58
Chronic Pain Complementary	N	98	160	194	64	258
	Mean	3.69	3.42	3.61	3.25	3.52
	95% CI- (lower- upper)	3.44 – 3.94	3.24 – 3.60	3.44 – 3.78	2.94 – 3.56	3.37 – 3.67
Chronic Pain	N	98	160	194	64	258
	Mean	2.15	2.52	2.44	2.19	2.38
	95% CI- (lower- upper)	1.88 – 2.42	2.28 – 2.76	2.23 – 2.65	1.86 – 2.52	2.20 – 2.56
Bone Marrow Complementary	N	98	159	194	63	257
	Mean	2.98	3.09	3.12	2.83	3.05
	95% CI- (lower- upper)	2.70 – 3.26	2.88 – 3.30	2.93 – 3.31	2.48 – 3.18	2.88 – 3.22
Bone Marrow	N	98	160	194	64	258
	Mean	1.65	2.11	1.98	1.80	1.93
	95% CI- (lower- upper)	1.41 – 1.89	1.86 – 2.36	1.77 – 2.19	1.46 – 2.14	1.75 – 2.11
Childbirth, Primary	N	98	160	194	64	258
	Mean	2.60	2.41	2.51	2.41	2.48
	95% CI- (lower- upper)	2.33 – 2.87	2.20 – 2.62	2.32 – 2.70	2.07 – 2.75	2.31 – 2.65
Childbirth, Only	N	98	160	194	64	258
	Mean	1.90	1.98	1.95	1.92	1.95
	95% CI- (lower- upper)	1.65 – 2.15	1.75 – 2.21	1.75 – 2.15	1.59 – 2.25	1.78 – 2.12

Means by group and sex were compared using independent samples t-tests. These results appear in Tables 2 and 3, respectively. Two-tailed t-tests by group ($\alpha = 0.05$) revealed significant differences for Smoking, Complementary, Chronic Pain, and Bone Marrow Extraction. On average, students reported being less likely than community dwellers to use hypnosis as a complementary treatment for smoking and more likely to use hypnosis as a sole treatment for chronic pain and during bone marrow extraction. Two-tailed t-tests by sex ($\alpha = 0.05$) revealed significant differences for Test Anxiety and Chronic Pain, Complementary. On average, females reported being more likely than males to use hypnosis as a treatment for test anxiety and as a complementary treatment for chronic pain.

Table 2

By-Group Comparisons of Means for Likelihood to Use Hypnosis for Clinical Purposes

Clinical Purpose	T	Df	t-test for Equality of Means			
			p-value (2-tailed)	Mean Difference	95% CI of Difference	
					Lower	Upper
Test Anxiety	.014	256	.989	.002	-.328	.332
Chemotherapy Anxiety	-.390	255	.697	-.059	-.360	.241
Smoking	-2.267	255	.024	-.384	-.718	-.050
Complementary Smoking	-.155	255	.877	-.029	-.397	.339
Chronic Pain	-1.780	256	.076	-.275	-.580	.029
Complementary Chronic Pain*	1.983	223.059	.049	.366	.002	.729
Bone Marrow	.648	255	.518	.115	-.234	.464
Complementary Bone Marrow*	2.563	244.238	.011	.453	.105	.801
Childbirth, Primary	-1.074	256	.284	-.190	-.537	.158
Childbirth, Only*	.442	229.377	.659	.077	-.266	.420

*Equal variances not assumed for these questions

Table 3

By-Sex Comparisons of Means for Likelihood to Use Hypnosis for Clinical Purposes

Clinical Purpose	t-test for Equality of Means					
	t	df	95% Sig. (2-tailed)	Mean Difference	95% CI of Difference	
					Lower	Upper
Test Anxiety	2.199	256	.029	.410	.043	.778
Chemotherapy Anxiety	1.817	255	.070	.309	-.026	.643
Smoking	.834	255	.405	.160	-.218	.537
Complementary Smoking	.885	255	.377	.185	-.227	.597
Chronic Pain	2.097	256	.037	.363	.022	.705
Complementary Chronic Pain*	1.262	118.427	.210	.256	-.146	.657
Bone Marrow	1.496	255	.136	.298	-.094	.691
Complementary Bone Marrow	.853	256	.395	.183	-.239	.604
Childbirth, Primary	.524	256	.601	.104	-.287	.495
Childbirth, Only	.156	256	.876	.032	-.369	.432

*Equal variances not assumed for this question

Section 2: Recommendations from a Variety of Sources

Section 2 addressed Research Question 2: “How likely do participants report they are to use clinical hypnosis if it is recommended by a variety of referral and information sources?” Similar to Section 1, likelihood to use clinical hypnosis was assessed through a 5-point Likert scale with responses ranging from Not-at-all-likely (1 point) to Very-likely (5 points). The results of this section for the combined (community + student) sample and by group (student vs. community) and sex (male vs. female) are in Table 4.

Table 4
Descriptive Statistics For Section 2 by Group, by Sex, and Combined

Source	Statistic	By Group		By Sex		Combined
		Comm.	Student	Female	Male	
Primary Care Doctor	N	98	160	194	64	258
	Mean	3.52	3.58	3.63	3.33	3.55
	95% CI					
	(lower – upper)	3.29 – 3.75	3.41 – 3.75	3.48 – 3.78	3.02 – 3.64	3.41 – 3.69
Trusted Friend or Relative	N	98	160	194	64	258
	Mean	3.16	3.04	3.13	2.94	3.09
	95% CI					
	(lower – upper)	2.94 – 3.38	2.88 – 3.20	2.98 – 3.28	2.66 – 3.22	2.96 – 3.22
Newspaper Article	N	98	160	194	64	258
	Mean	2.24	2.03	2.14	2.02	2.11
	95% CI					
	(lower – upper)	2.04 – 2.44	1.87 – 2.19	1.99 – 2.29	1.79 – 2.25	1.98 – 2.24
Television News Story	N	98	160	194	64	258
	Mean	2.17	2.02	2.13	1.91	2.08
	95% CI					
	(lower – upper)	1.98 – 2.26	1.85 – 2.19	1.98 – 2.28	1.68 – 2.14	1.95 – 2.21
Academic Journal Article	N	98	160	194	64	258
	Mean	3.07	2.95	3.01	2.97	3.00
	95% CI					
	(lower – upper)	2.86 – 3.28	2.77 – 3.13	2.85 – 3.17	2.69 – 3.25	2.86 – 3.14

Means by group and sex were compared using independent samples t-tests. Two-tailed t-tests by group and sex ($\alpha = 0.05$) did not indicate significant differences. The reported likelihood to use hypnosis given recommendation from each source did not vary significantly by group or sex as illustrated in Tables 5 and 6.

Table 5

By-Group Comparisons of Means for Likelihood to Use Hypnosis Given Recommendation from a Variety of Sources

Source	t-test for Equality of Means					
	t	Df	95% Sig. (2-tailed)	Mean Difference	95% CI of Difference	
					Lower	Upper
Primary Care Doctor	.380	256	.704	.055	-.229	.338
Trusted Friend or Relative	-.913	256	.362	-.126	-.397	.145
Newspaper Article	-1.625	256	.105	-.214	-.473	.045
Television News Story	-1.168	256	.244	-.155	-.416	.106
Academic Journal Article	-.844	256	.399	-.121	-.405	.162

Note: Equal variances assumed for each of these questions

Table 6

By-Sex Comparisons of Means for Likelihood to Use Hypnosis Given Recommendation from a Variety of Sources

Source	t-test for Equality of Means					
	t	Df	95% Sig. (2-tailed)	Mean Difference	95% CI of Difference	
					Lower	Upper
Primary Care Doctor*	1.731	95.176	.087	.301	-.044	.646
Trusted Friend or Relative	1.272	256	.205	.197	-.108	.501
Newspaper Article	.868	256	.386	.129	-.163	.421
Television News Story	1.533	256	.127	.228	-.065	.520
Academic Journal Article	.225	256	.822	.036	-.282	.355

*Equal variances not assumed for this question

Section 3: Selecting a Hypnotherapist

Section 3 assessed participants' reported likelihood to contact a professional represented in a phone-book-style listing "If you were seeking out hypnosis treatment." Listings varied systematically in the presence/absence of extended credentialing,

statement of board certification, and listing of services offered (yielding 8 listings). One listing contained only “Hypnotist” in addition to the name and contact information for the professional. One listing contained “Psy.D.” rather than “Ph.D.,” it also included a statement of board certification and a listing of services. This yielded a total of 10 listings. Each of these listings was rated before and after exposure to a prompt that indicated the importance of licensing for Psychologists, yielding a total of 20 ratings. Likelihood was assessed through a 10 cm Visual Analog Scale (VAS) anchored by Not-at-all-likely on the left end and Very-likely on the right end. Each listing was also ranked (1-10, from most to least likely to contact) before and after exposure to the prompt, yielding a total of 20 rankings. The VAS used was intended to be 10 cm in length, and was 10 cm in length in the surveys used for the student sample. However, due to an error in formatting that was discovered during data analysis, the VAS used for the community sample was 11.4 cm in length. To account for this difference, VAS measurements for the student sample were measured directly in cm, while VAS measurements for the community sample were divided by the length of the VAS line (11.4 cm) and then multiplied by 10 cm (i.e., measurements for the community sample VAS were normalized to the length of the VAS line used in the student sample).

Analyzing Credentialing, Board Certification, and Listing of Services

The eight basic listings were analyzed by full-factorial, repeated-measures ANOVA with within-subjects factors of: Credentialing, Board Certification, Services, and Time (before and after exposure to the prompt). The ANOVA also included between-subjects factors of: Group (student vs. community) and Sex (female vs. male). All levels of interaction among factors were included in this analysis. However, no

interactions among 4 or more factors were statistically significant. All main effects were statistically significant in this analysis. Among the main effects, Certification and Services accounted for the bulk of the variability in the model, followed by Credentials (the effect size of which was roughly half those of Certification and Services), followed by Time (which accounted for little variability). These results support Hypotheses 1 – 3: participants reported being more likely to contact a listed clinician when that psychologist's listing included more vs. fewer credentialing letters, the presence vs. absence of a statement of board certification, and the presence vs. absence of a statement of clinical hypnosis services offered. However, the results do not provide support for Hypothesis 4, as no interactions between Time (after vs. before a prompt outlining the importance of regulating the practice of psychology through licensure and other means) and other factors (Credentials, Certification, and Services) were statistically significant.

All statistically significant results from this analysis are reported in Table 7; there were no significant between-subjects effects (i.e., there were no statistically significant differences by group or sex and the sex*group interaction was not statistically significant). Further, analysis of ranked data yielded very similar results to analysis of ratings. Therefore, only results from analysis of ratings are presented.

Table 7

Significant Within-Subjects Effects from Factorial ANOVA Analysis

Source	Type IV Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Credentials	176.824	1	176.824	58.839	.000	.193
Certification	1194.396	1	1194.396	203.379	.000	.453
Services	1221.316	1	1221.316	168.372	.000	.406
Time	113.677	1	113.677	16.605	.000	.063
Credentials * Group	64.076	1	64.076	21.321	.000	.080
Credentials *	12.485	1	12.485	8.671	.004	.034
Certification						
Credentials *	19.480	1	19.480	12.001	.001	.047
Services						
Certification *	147.725	1	147.725	56.137	.000	.186
Services						
Certification *	12.701	1	12.701	4.827	.029	.019
Services * Group						

Credentials, Certification, Services, and Group Interactions

All interaction effects in this model were relatively small in comparison with the three largest main effects, with the exception of the interaction between Certification and Services. All significant interactions are discussed below.

*Credentials*Group interaction.* The Credentials*Group interaction has the second-largest effect among the interactions in this model. Essentially, it indicates that the change in Mean Likelihood to Contact (MLtC) between the two levels of Credentialing is different for the student and community groups. Credentialing had a larger effect for the student versus the community sample. This interaction is illustrated below in Figure 1 and Table 8.

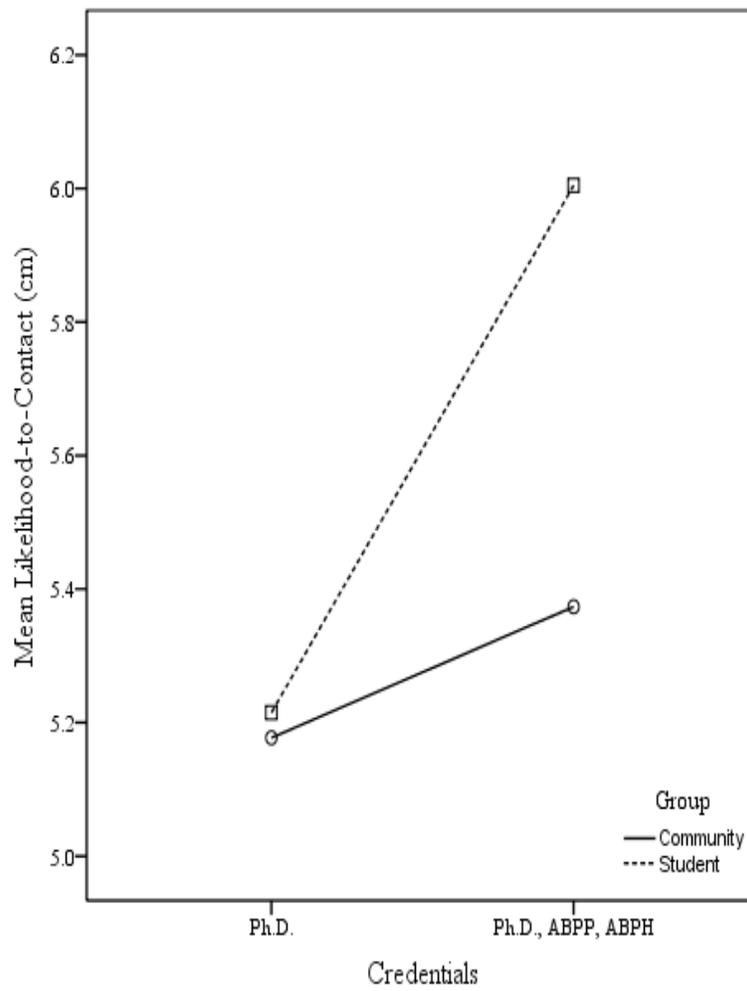


Figure 1: Mean Likelihood to Contact for Credentials*Group

Table 8

*Confidence Intervals Illustrating Credentials*Group Interaction*

Group	Credentials	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
Community	1	5.177	.192	4.798	5.556
	2	5.373	.206	4.967	5.780
Student	1	5.215	.181	4.859	5.571
	2	6.005	.194	5.622	6.387

*Credentials*Certification interaction.* The Credentials*Certification interaction illustrates that the effect of extended credentialing on MLtC is greater if there is not a statement explicitly indicating board certification than if there is such a statement. However, this effect is relatively small. The credentials*certification interaction is illustrated in Table 9 and Figure 2.

Table 9

*Confidence Intervals Illustrating Credentials*Certification Interaction*

Credentials Level	Certification Level	95% Confidence Interval			
		Mean	Std. Error	Lower Bound	Upper Bound
1	1	4.490	.134	4.226	4.753
	2	5.902	.149	5.608	6.196
2	1	5.114	.137	4.843	5.384
	2	6.264	.161	5.947	6.582

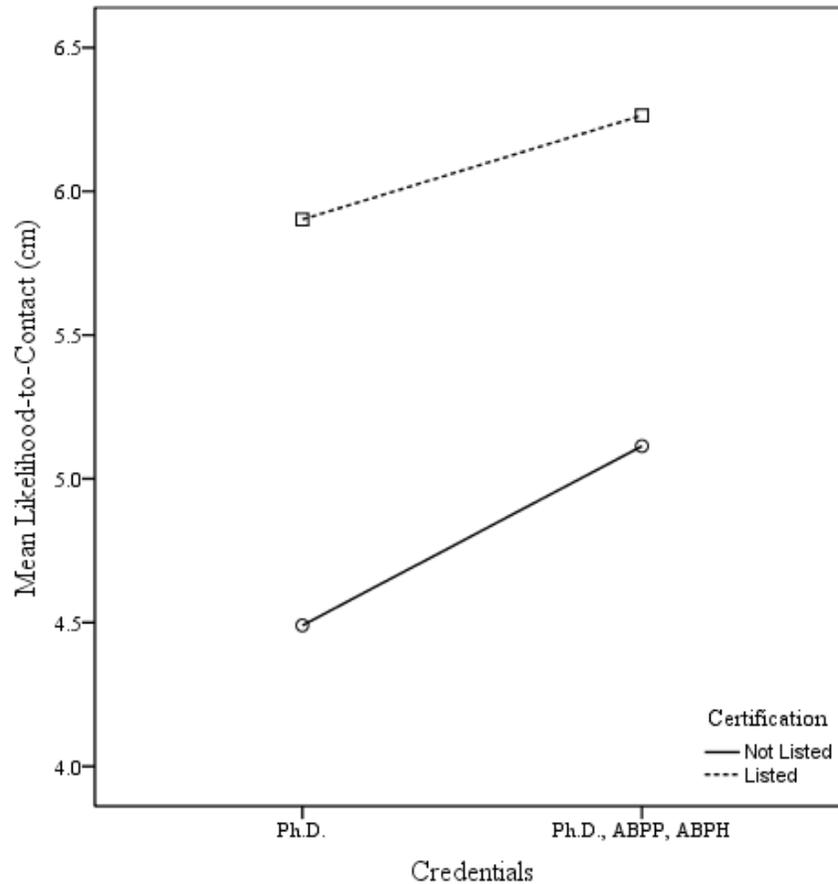


Figure 2: Mean Likelihood to Contact for Credentials*Certification

*Credentials*Services interaction.* The Credentials*Services interaction illustrates that the effect of extended credentialing on MLtC is greater if there is not a statement indicating services offered than if there is such a statement. Similar to the Credentials*Certification interaction, this effect is relatively small. It is illustrated in Table 10 and Figure 3.

Table 10

*Confidence Intervals Illustrating Credentials*Services Interaction*

Credentials Level	Services Level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	4.466	.136	4.199	4.734
	2	5.926	.150	5.631	6.220
2	1	5.123	.145	4.838	5.408
	2	6.255	.159	5.941	6.569

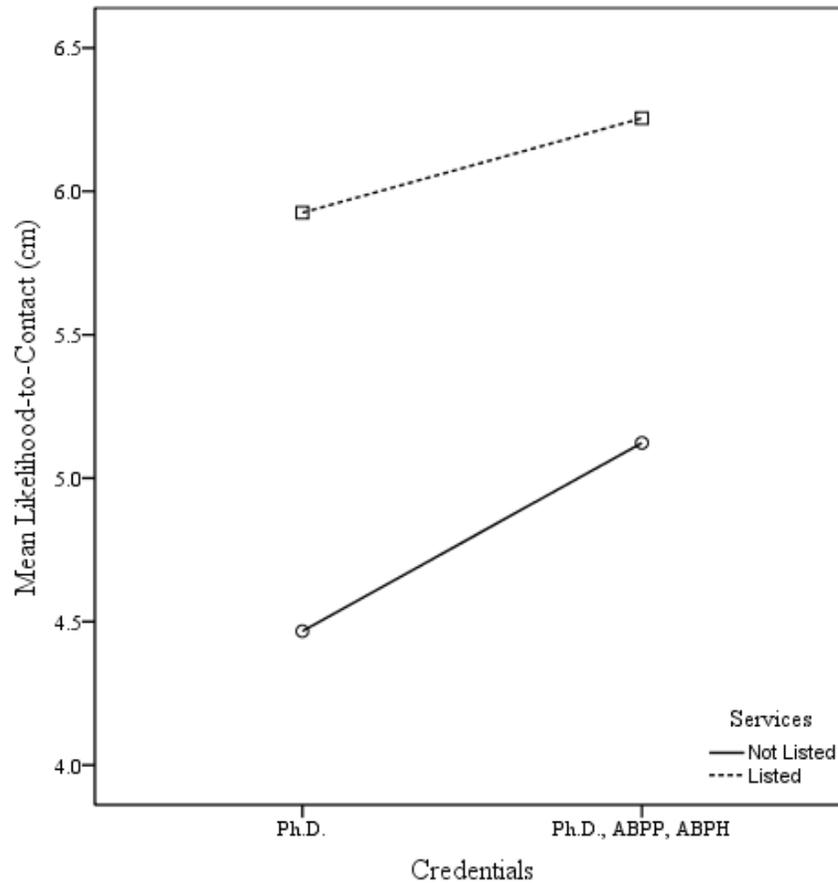


Figure 3: Mean Likelihood to Contact for Credentials*Service

*Certification*Services interaction.* The Certification*Services interaction illustrates that the effect of an explicit statement of board certification on MLtC is greater if there is not a statement indicating services offered than if there is such a statement.

This interaction has the largest effect among all statistically significant interactions in this model. The size of this effect is similar to the size of the Credentials main effect and is illustrated in Figure 4 and Table 11.

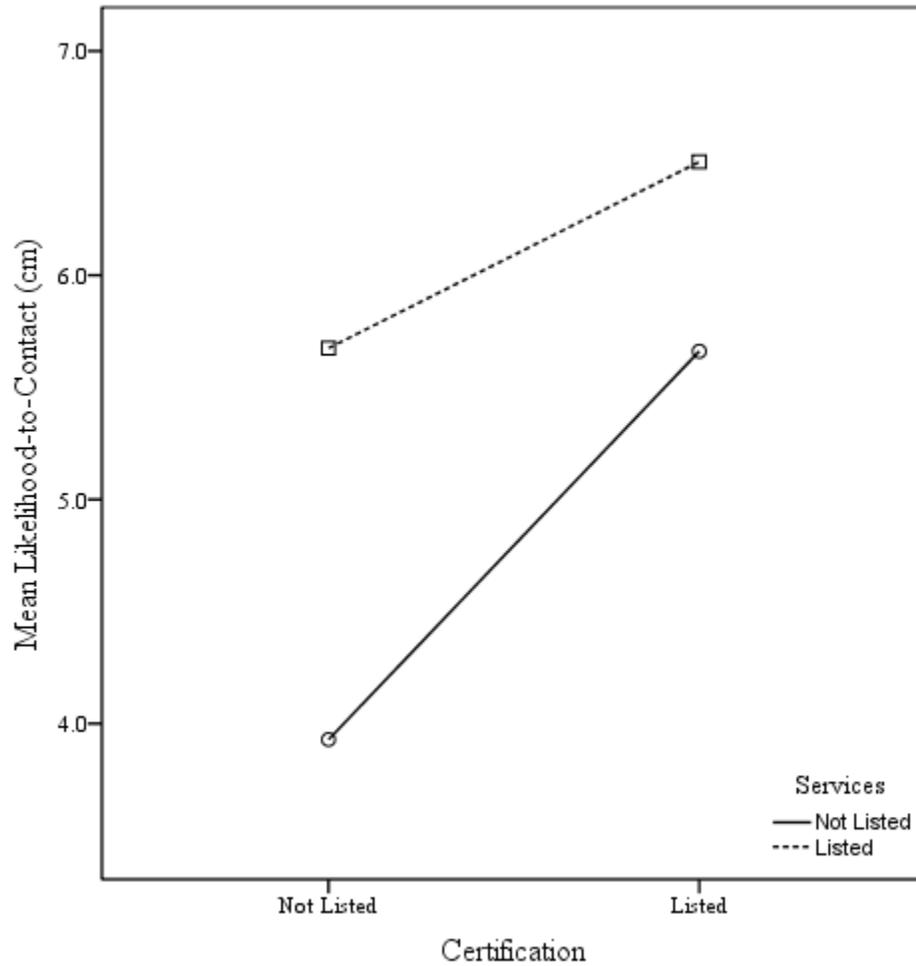


Figure 4: Mean Likelihood to Contact for Certification*Services

Table 11

*Confidence Intervals Illustrating Certification*Services Interaction*

Certification Level	Services Level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	3.929	.139	3.655	4.203
	2	5.675	.152	5.375	5.975
2	1	5.661	.155	5.356	5.966
	2	6.506	.161	6.188	6.824

*Certification*Services*Group interaction.* The Certification*Services*Group interaction illustrates that the effect of the Certification*Services interaction is greater for the community group than for the student group. This interaction has the smallest effect among all statistically significant interactions in the model. The Certification*Services*Group interaction is illustrated below in Table 12, Figure 5, and Figure 6.

Table 12

*Confidence Intervals Illustrating Certification*Services*Group Interaction*

Group	Certification Level	Services Level	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
Community	1	1	3.677	.203	3.277	4.076
		2	5.578	.222	5.141	6.014
	2	1	5.556	.226	5.111	6.000
		2	6.291	.235	5.828	6.754
Student	1	1	4.181	.191	3.805	4.557
		2	5.772	.208	5.362	6.183
	2	1	5.766	.212	5.348	6.184
		2	6.720	.221	6.285	7.156

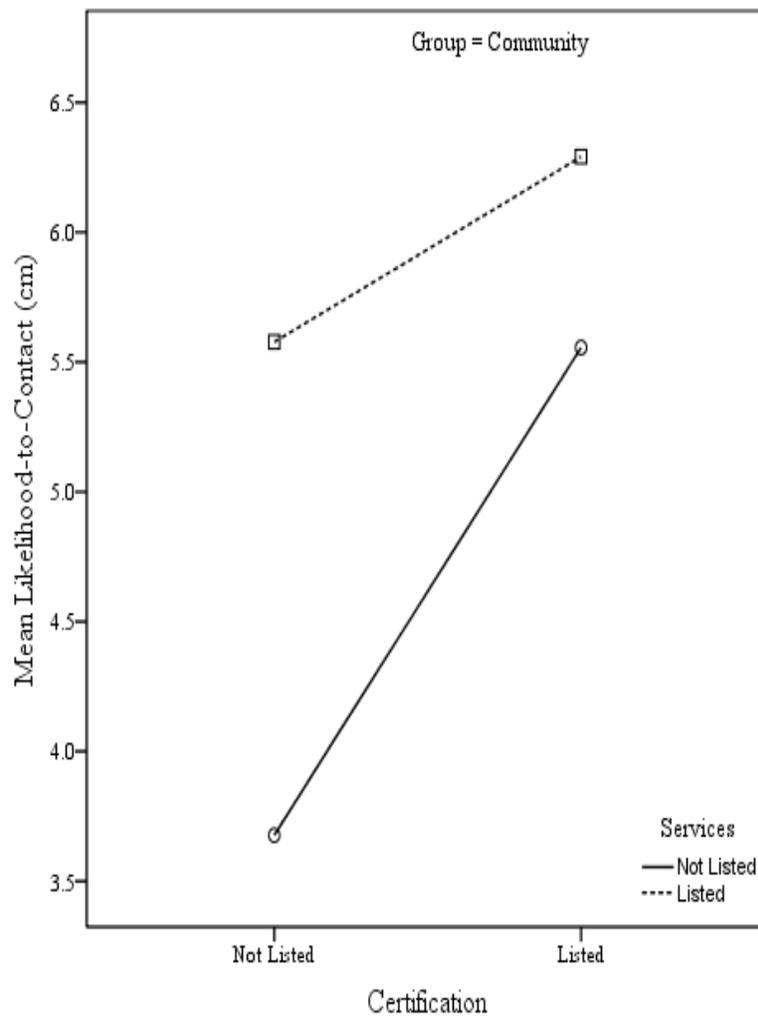


Figure 5: Mean Likelihood to Contact for Certification*Services*Group (Community)

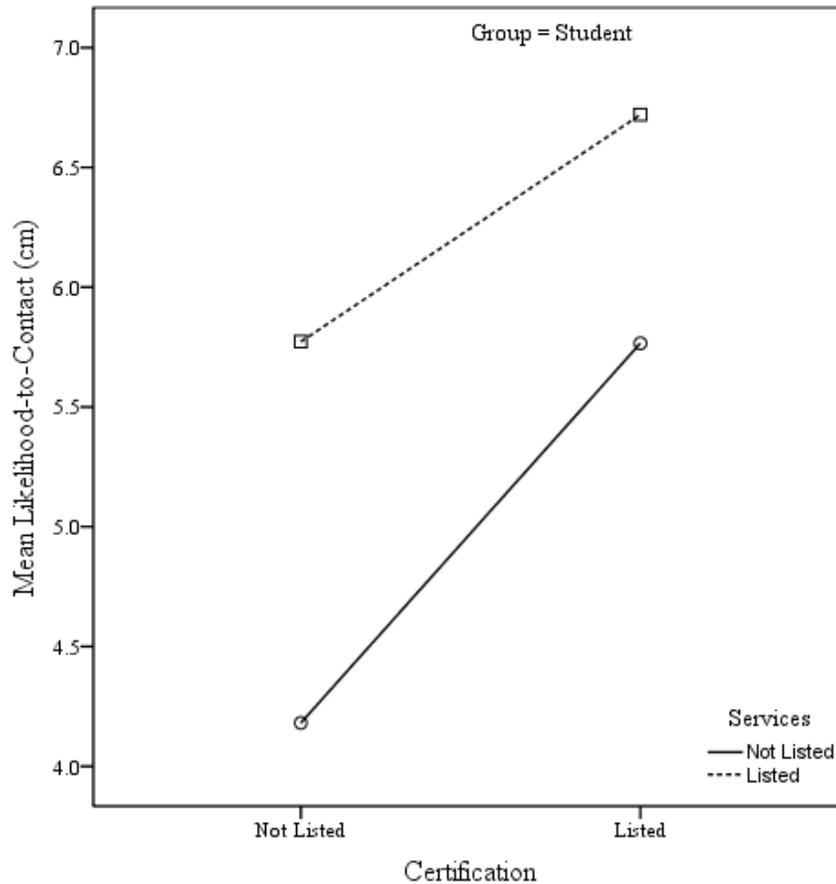


Figure 6: Mean Likelihood to Contact for Certification*Services*Group (Student)

Analyzing Psy.D. vs. Ph.D. and Hypnotist vs. Ph.D. Listings

To facilitate comparisons between MLtC for listings with the “Psy.D.” and “Ph.D.” degrees and listings of “Hypnotist” and “Ph.D.,” a mean MLtC (mMLtC) was computed for each participant for each listing used in these comparisons. The mMLtC is the arithmetic mean of Likelihood to Contact before and after administration of the prompt. The listings used in comparison of “Psy.D.” and “Ph.D.” degrees did not include extended credentialing but did include explicit statement of board certification and listing of services offered. The “Hypnotist” listing included only this title and was compared with the most basic listing that included the information, “Ph.D., Licensed Clinical

Psychologist” and did not include extended credentialing, explicit statement of board certification, or services offered. Paired samples t-tests were used to compare the mMLtC between the aforementioned listings with “Psy.D.” and “Ph.D.” degrees and “Hypnotist” and “Ph.D., Licensed Clinical Psychologist.” These tests were performed separately for the student and community groups. These results are represented in Table 13.

Table 13

Results of Paired t-tests Comparing mMLtC for “Psy.D.” vs. “Ph.D.” and “Hypnotist” vs. “Ph.D., Licensed Clinical Psychologist” by Group

Group	Titles Compared	Mean Difference	Cohen’s d	95% CI of the Difference		t-test Sig. (2-tailed)
				Lower	Upper	
Student	Psy.D. vs. Ph.D.	-.37750	-0.23297	-.63050	-.12450	.004
	Hypnotist vs. Ph.D.	-2.81812	-1.55301	-3.10145	-2.53480	.000
Community	Psy.D. vs. Ph.D.	-.09115	-0.06626	-.36986	.18757	.518
	Hypnotist vs. Ph.D.	-2.28866	-1.1403	-2.69317	-1.88415	.000

On average, students rated themselves as more likely to contact professionals represented in listings with the degree “Ph.D.” than with the degree “Psy.D.,” though the size of this effect was relatively small. On average, the difference between ratings for listings using “Ph.D.” and “Psy.D.” in the community group was not statistically significant. This provided partial support for Hypothesis 5, which posited that participants would report being equally likely to select a psychologist whether that psychologist used the credentials “Psy.D.” or “Ph.D.” In contrast, t-tests revealed statistically significant differences in mMLtC between listings with “Hypnotist” and “Ph.D., Licensed Clinical Psychologist” for both the student and community groups. Participants in both groups reported, on average, more likelihood to contact professionals

represented with the degree and statement “Ph.D., Licensed Clinical Psychologist” than with the title “Hypnotist.” These findings failed to support Hypothesis 6, which posited that participants would report being equally likely to select a psychologist whether that psychologist used the credentials “Hypnotist” or “Ph.D., Licensed Clinical Psychologist.” These effects were quite large in both groups. However, these effects were even larger in the student group than in the community group. This family of effects showed no statistically significant differences by sex.

Post-hoc Analyses of Attitudes Toward Hypnosis, Estimated Hypnotizability, Psychology Coursework, and MLtC

Attitudes Toward Hypnosis scale total scores (ATH Total), self-estimated hypnotizability (measured via 10 cm VAS; Hypnotizability), and MLtC were analyzed for differences by group and sex using independent samples t-tests. None of these results were statistically significant at the $\alpha = 0.5$ level.

Pearson’s-r correlations were calculated for all paired combinations among ATH Total, MLtC, Hypnotizability and number of psychology classes taken (selected among Introductory Psychology, Cognitive Behavior Therapy, Theories of Psychotherapy and Counseling, Social Psychology, Theories of Personality, Consciousness and Mind, and Behavioral Medicine); this was done separately for community and student groups. None of the correlations with number of psychology classes were statistically significant at the $\alpha = 0.05$ level. All other correlations were statistically significant at the $\alpha = 0.05$ level. These correlations are presented in Table 14 along with their significance levels and 95% confidence intervals (computed via Fisher’s z). All correlations were statistically significant at the $\alpha = 0.05$ level. Correlations between MLtC and ATH Total and

Hypnotizability were small-to-moderate in both the student and community groups; they were also comparable in magnitude between groups. Correlations between ATH Total and Hypnotizability were relatively high in both the student and community groups. Further, this correlation was especially high in the community group; the difference between this correlation in the student and community groups was significant at the $\alpha = 0.05$ level.

Table 14

Pearson's r correlations Among ATH Total, Hypnotizability, and Mean Likelihood to Contact (MLtC)

Group	Measure		Hypnotizability	MLtC
Student	ATH Total	Pearson Correlation	.384**	.253**
		Sig. (2-tailed)	.000	.001
		95% CI of Pearson's rho	0.244-0.508	0.102-0.392
	Hypnotizability	Pearson Correlation		.172*
		Sig. (2-tailed)		.030
		95% CI of Pearson's rho		0.018-0.318
Community	ATH Total	Pearson Correlation	.645**	.260*
		Sig. (2-tailed)	.000	.010
		95% CI of Pearson's rho	0.511-0.748	0.064-0.436
	Hypnotizability	Pearson Correlation		.206*
		Sig. (2-tailed)		.044
		95% CI of Pearson's rho		0.006-0.390

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

CHAPTER FOUR

Discussion of Results, Limitations, and Future Work

Section 1: Conditions for Which One Would Use Clinical Hypnosis

The highest mean reported likelihood to use hypnosis among all clinical problems was 3.65, which lies between “Neutral” and “Fairly Likely” on the associated five-point Likert scale. Further, the only clinical problems with a mean reported likelihood to use at or above 3.00 were anxiety-related (test and chemotherapy) or complementary (for bone marrow extraction pain, smoking cessation, and chronic pain). Use as a sole treatment for any condition (bone marrow extraction pain, childbirth pain, chronic pain, or smoking cessation) or as the primary treatment for childbirth pain yielded mean reported likelihoods under 2.5. Nonetheless, hypnosis is to some degree empirically validated as a treatment for each of the clinical problems considered (save as a sole treatment for bone marrow extraction pain). This suggests a need for improving hypnosis-related health literacy and the image of hypnosis as a clinical treatment among the general public.

Analysis for differences by group indicated that students reported being less likely than community dwellers to use hypnosis as a complementary treatment for smoking and more likely to use it as a sole treatment for chronic pain or bone marrow extraction pain. The reasons for these observed differences are unclear. It may be that a significantly lower percentage of the student sample smokes, yielding lower mean reported likelihood to use this treatment. However, status as a smoker was not included as a survey item. Further, it is possible that on-average, students are less familiar with significant pain than community dwellers, and hence are more open to using alternative treatments for pain

(including hypnosis). However, participants' familiarity with pain was also not assessed in the survey.

Analysis for differences by sex indicated that on average, females reported greater likelihood than males to use hypnosis as a treatment for test anxiety and as a complementary treatment for chronic pain. This is consistent with research on sex differences in the use of CAM treatments in general and clinical hypnosis in particular that indicates that females are more likely than males to use these treatment modalities (Upchurch et al., 2007). However, in this context it is curious that more sex differences were not found among the 10 clinical problems in the survey.

Section 2: Recommendations from a Variety of Sources

Among sources of recommendation for use of clinical hypnosis as a treatment, one's primary care doctor was rated most highly, with a mean reported likelihood to use of 3.55 for the combined sample (between "Neutral" and "Fairly Likely" on the five-point Likert scale). However, in Section 1 (which was completed prior to Section 2 of the survey) participants were instructed to assume that hypnosis were recommended by one's doctor to treat the various conditions evaluated. It is possible that this prompt primed participants to some degree to rate "primary care doctor" more highly than it otherwise would have been rated in this section. Regardless, the next two most highly rated sources of information were a trusted friend or relative and an academic journal article, with mean reported likelihoods to use very close to 3.00 ("Neutral"). The lowest-rated sources of information were a newspaper article and a television news story, with mean reported likelihoods close to 2.00 ("Slightly Likely").

In spite of possible priming effects, given that the referral source with the largest impact was recommendation by one's primary care doctor, educating physicians about the efficacy/effectiveness of hypnosis as a treatment for various clinical problems may lead to increased knowledge about and use of these treatments among the general public. While most physicians are unfamiliar with empirically validated CAM therapies, they also report being interested in learning more about and counseling their patients on the use of these treatments (Wahner-Roedler, Vincent, Elkin, Loehrer, Cha, and Bauer, 2006). Therefore, they may be amenable to gaining specific knowledge regarding the clinical uses of hypnosis. Such education could occur through continuing medical education seminars, formats such as grand rounds presentations, and the integration of training on empirically validated uses of hypnosis into medical school curricula. Given the existing inclusion of at least some training regarding CAM among most US medical schools (Wetzel, Eisenberg, and Kaptchuk, 1998), implementation of these interventions may be relatively straightforward.

Taken together, findings from Sections 1 and 2 suggest a need for improving literacy about and the image of hypnosis as a clinical treatment. It is reasonable to assume that stigma related to seeking mental health treatment (Vogel, Wade, and Hackler, 2007) are the-same-as or related-to stigma associated with seeking treatment via clinical hypnosis services (especially clinical hypnosis services from a clinical psychologist). Corrigan and Penn (1999) have suggested three approaches to reducing stigma (and thereby improving health-seeking behaviors) associated with mental health services: protest, education, and contact. Protest involves mental health professionals' vocal and assertive objection to inaccurate representation of mental health services and

clients in popular media. Education involves dissemination of accurate information about mental disorders (and other clinical phenomena) and associated treatments in order to combat stigma directly via accurate and empirically substantiated information to the contrary. Contact involves exposing the public to individuals who suffer from mental disorders and have sought treatment (through direct personal contact, stories of such individuals, and public service announcements). Such contact is likely to be most effective in changing stigma when the individual represented: 1) is of the same or higher social status than the person exposed to the contact, 2) perceived by the exposed person as an “in-group” member, and 3) liked by the exposed person. Practitioners of and professional societies for clinical hypnosis should pursue these avenues to reduce stigma associated with seeking hypnosis services and thereby increase utilization of hypnosis to treat clinical syndromes amenable to clinical hypnosis.

Section 3: Selecting a Hypnotherapist

Credentialing, Board Certification, and Listing of Services

Factorial, repeated-measures ANOVA revealed statistically significant main effects on MLtC for all factors (Credentials, Certification, Services, and Time). All factors but time had sizable effects on MLtC; Certification and Services both had effect sizes approximately twice that of Credentials. To the extent that MLtC reflects the importance of a factor to consumers’ preferences, this appears to indicate that while credentialing is important to consumers, other factors (e.g., explicit statement of Board Certification and Services offered) may influence their preferences to a greater degree. This suggests a need for psychoeducation regarding the meaning of extended

credentialing (e.g., ABPP and ABPH credentials) for psychologists in general and clinical hypnotherapists in particular, as these extended credentials are likely to indicate expertise with more reliability than other factors (e.g., a statement of services offered).

The superior effect size of Certification relative to that of Credentials is notable in light of the fact that the extended credentialing included in the listings (ABPP, ABPH) implied board certification in clinical hypnosis. This appears to indicate that there is little understanding of the meaning of the “ABPP, ABPH” credentials among the populations sampled. Nonetheless, it should be noted that the extended credentials listed in the survey are legitimate advanced credentials and that the results of this analysis, strictly speaking, apply to those legitimate credentials given in the context of this survey. It is unknown whether or not other credentials (e.g., invalid credentials represented by two random strings of four letters in all caps) would have had similar effects on MLtC in this survey. Regardless, the Certification main effect also appears to indicate an impression among the populations sampled that board certification represents superior expertise of and/or improved services offered by the listed clinician to a greater extent than does an unfamiliar credential.

The main effect of Services was roughly equivalent in size to that of Certification. This main effect indicates that both the student and community samples reported being more likely to contact clinicians who included a listing of services. This mirrors Keith-Speigel, Seegar, and Tominson (1978)’s finding that people preferred ads that included more versus less information (cited in Koocher & Keith-Speigel, 1998).

The main effect of time in this model had a relatively small effect on MLtC. However, it was statistically significant. This effect indicated (on average) increased

ratings of Likelihood-to-Contact after exposure to the prompt. However, this effect manifested (on average) for both low and high levels of Credentials, Certification, and Services. In other words, mere exposure to the prompt and a second series of listings tended to increase ratings of Likelihood-to-Contact for all listings, strongly suggesting that the effect of Time in this model is an exposure effect.

All statistically significant interactions in this model were relatively small in effect size in comparison to most main effects, save the Certification*Services interaction. This interaction had an effect size (partial eta-squared) of 0.186, equivalent to the size of the main effect of Credentials. This interaction, illustrated in Figure 4, indicates that: 1) listing both board certification and services offered has an additional effect on MLtC over listing either of these factors alone and 2) the size of this additional effect is not additive but roughly half that of listing either Certification or Services alone. It seems likely that board certification and services offered are both relatively easily understood as indications of special expertise in and/or familiarity with the treatments offered, leading to increased MLtC. If this is assumed, the size of the effect of their interaction seems to indicate that listing either of these factors alone accounts for most of the effect of expertise inferred from the listing and that listing the other factor tends to reinforce this impression but not to the extent that it would in the absence of listing the other factor. Further, while it had the smallest effect size among all statistically significant interaction effects, the Certification*Services*Group interaction suggests that the additional effect on MLtC of listing either board certification or services in the presence of the other is slightly larger in the student group vs. the community group.

The second largest interaction effect in the model was the Credentials*Group interaction. This interaction indicates a statistically significant and sizable change in the effect of listing extended credentials between the student and community groups. As illustrated in Figure 1 and Table 8, the MLtC corresponding to listing only the credential “Ph.D.” was roughly the same for the student and community groups. However, listing the extended credentials “ABPP, ABPH” in addition to “Ph.D.” led to a statistically significant increase in MLtC in the student group but not the community group. Students’ choices were influenced by extended credentialing to a greater degree than those of community dwellers. One possible explanation for this difference is that students were more easily impressed by more letters after one’s name than were community dwellers. Further, the community sample was quite educated relative to the general population (79% of the community sample had a Bachelor’s degree and 45% had a graduate or professional degree). It is possible that on average the community dwellers sampled were less swayed by extended credentialing due to possessing advanced credentials of their own in their chosen fields of expertise.

The remaining statistically significant interaction effects in the model were those of the Credentials*Certification and Credentials*Services interactions. These effects are illustrated in Figures 2 and 3 and Tables 9 and 10. Both of these effects were equivalent in size, relatively small (with partial eta-squared values less than 0.05), and indicated that the effect of extended credentialing on MLtC was slightly greater if board certification or services offered were not explicitly indicated than if they were. This suggests that extended credentials are given more weight by participants if there is not some other indication of professional expertise (e.g. board certification or services offered) than if

there is such an indication. This interpretation is similar in form to the interpretation proffered for the Certification*Services interaction.

Psy.D. or Hypnotist vs. Ph.D.

As illustrated in Table 13, independent samples t-tests revealed statistically significant (but relatively small) differences in Likelihood-to-Contact for listings with the degree “Psy.D.” vs. the degree “Ph.D.” for the student group but not for the community group. This finding suggests that the degree “Psy.D.” is perceived as less prestigious than “Ph.D.” among students, but that this difference matters little to community dwellers. This finding mirrors the finding that extended credentialing (Ph.D., ABPP, ABPH vs. only Ph.D.) corresponded with increased MLtC among students but not among community dwellers. In both cases it appears that the student sample places more weight on the academic degrees listed than does the community sample. Not unsurprisingly, the difference in Likelihood-to-Contact for “Hypnotist” vs. “Ph.D., Licensed Clinical Psychologist” was both statistically significant and large in effect size (Cohen’s $d > 0.8$) for both student and community groups, suggesting that some level of credentialing was important to both students and community dwellers. It may also reflect stigma associated with the term “Hypnotist.”

Post-hoc analyses of Attitudes Toward Hypnosis, Estimated Hypnotizability, and MLtC

As illustrated in Table 14, all Pearson’s r correlations among ATH scale total scores, self-estimated hypnotizability ratings and MLtC were statistically significant and at-least-moderate in magnitude (i.e., > 0.20) for both student and community groups. To the extent that ATH scale total scores reflect trait vs. state attributes to a greater degree than do estimated hypnotizability and MLtC, this suggests that one’s estimated

hypnotizability and MLtC for hypnosis services reflect one's underlying attitudes toward hypnosis to at least a moderate degree. Further, the Pearson's r correlation between self-estimated hypnotizability and ATH scale total score was significantly larger in the community group than in the student group. The reason for this difference is difficult to determine, but may indicate that among the populations sampled, community dwellers' perceptions of their own ability to be hypnotized are on average more influenced by their attitudes toward hypnosis than are students' corresponding perceptions.

Limitations and Future Work

In considering this study, there are several limitations. This section addresses these limitations as well as discusses opportunities for future research.

One limitation is that the questions related to issues for treatment of which individuals might use clinical hypnosis (i.e. the issues represented in Section 1) did not include a definition or explanation of the issue. Given that most people in the sample groups would likely not have experienced many of these issues (i.e. bone marrow extraction), their responses likely represent a relatively superficial understanding of the clinical issues involved. Future work examining reported likelihood to use specific procedures (e.g. hypnosis) to treat various clinical phenomena would benefit from including short descriptions of the phenomena to ensure that participants are well-informed. Such a study would also benefit from comparison of responses of individuals who have experienced the phenomena in question with those who have not.

Another limitation of this study is that the survey did not include potentially important referral sources such as web sites, medical professionals such as psychologists or advanced-practice nurses, or individuals who had used hypnosis themselves. The

influence of these referral and information sources is another area for further investigation.

A further limitation of the current study is that the listings in this study were meant to reflect how psychologists might represent themselves in phone-book style listings or business cards. However, the internet is most likely an increasingly important medium through which psychologists represent themselves and their services. Therefore, future research should include evaluation of the effect on likelihood to contact of information representative of psychologists' websites. This could include presence vs. absence of: a picture of the person, a short professional biography, and general information about empirically validated treatments (e.g. links to abstracts of journal articles).

Another limitation of this study concerns the means by which the listings were rated—namely, a VAS rooted between “not-at-all-likely” and “very likely” for likelihood-to-contact. While statistically significant results were found for the main effects and interactions discussed and respectable effect sizes were found for Credentials, Certification, Services, Certification*Services and Credentials*Group, the ecological validity of these results is difficult to determine. In other words, the meaning of statistics indicating patterns of mathematical differences in VAS measurements among the factors and interactions discussed (e.g. MLtC and effect sizes) do not have obvious “real world” correlates (e.g., different usage rates for clinical hypnosis by VAS score given the presence of a condition amenable to treatment). Nonetheless, these results have internal validity. In other words, the patterns of mathematical differences in VAS measurements

can be interpreted to represent subjective changes in the degree of subjects' perceived "likelihood-to-contact" in the direction indicated from one experimental level to another.

Perhaps the most substantial limitation of this study lies in the nature of the participant samples. The student sample was in many ways reflective of other student samples, but was overwhelmingly female, taken from a population of students taking introductory psychology classes, and was a sample of students at a large and relatively conservative Christian university in the south. The community sample was relatively limited in ethnic diversity, largely female, and was very substantially more educated than the general population (e.g., 79.6% had at least a bachelor's degree). Each of these factors raises questions about the generalizability of the study's findings. For example, it is possible that a student sample from a secular institution would reflect more openness to using hypnosis than did this student sample, or that a less educated community sample would reflect less openness than did this community sample.

A final limitation of this study is that reported likelihood to contact a professional for hypnotherapy services was assessed only for clinical psychologists. It is unknown whether or not individuals would report being more likely to contact (for example) a medical doctor than a psychologist for hypnotherapy services. Given the stigma surrounding seeking mental health services, it may be that individuals would report being substantially more likely to seek hypnotherapy services from a medical doctor, advanced-practice psychiatric nurse, etc. than from a mental health professional; future research should examine this potentially important factor.

While future research addressing the limitations discussed above is needed to gain more understanding about hypnosis-related beliefs, a key finding of this study is that the

mean reported likelihood to use hypnosis for the conditions and referral sources in the survey did not appear to reflect (on average) a strong willingness to use hypnosis as a treatment. Even the mean reported likelihood-to-use hypnosis given referral by one's physician fell only somewhere between "Neutral" and "Fairly Likely." This both suggests a need to educate the public about hypnosis as an effective treatment for various clinical phenomena and raises questions about how to do so, as even educating doctors about hypnosis—and thereby increasing appropriate referrals for hypnotherapy—may have only modest effects on utilization. Therefore future research should be directed at identifying factors that influence willingness to utilize hypnotherapy to treat clinical problems for which it is an empirically validated treatment.

A possible research agenda to address this area could begin with a qualitative study investigating individuals' conceptualizations of hypnosis, their attitudes and beliefs regarding hypnosis use, and possible barriers to utilization. Such a project would permit an open-ended identification of salient factors that may influence people's willingness to use clinical hypnosis. Specifically, this project would aim to identify reasons people articulate for being unwilling to seek clinical hypnosis. For example, people reluctant to seek hypnosis may cite fears about losing control or religious reasons as the basis for their reluctance. A quantitative study could then be designed to measure the prevalence and relative importance of such factors. Once these factors are identified and characterized, interventions could be tested to influence them. For example, research could examine the efficacy of a psychoeducation program for addressing the specific factors identified as important barriers to people's willingness to seek clinical hypnosis. For example, this might include psychoeducation about the rigorous credentialing process

for board certification in Psychological Hypnosis to address possible concerns about hypnosis as a fringe treatment or quackery. While research has shown that information and hypnosis experience can result in more realistic and positive beliefs regarding hypnosis, such studies do not assess the relationship of these beliefs to willingness to utilize clinical hypnosis (Barling & DeLucci, 2004; McConkey, 1986). In contrast the research agenda described here would specifically target barriers to utilizing hypnosis as a treatment. By identifying such barriers and learning efficacious methods for reducing them, such research could lead to increased use and effective hypnotherapeutic treatment of amenable clinical syndromes.

APPENDIX

APPENDIX

Survey

Thank you for participating in this study. For each section, please read the instructions and respond accordingly. If you have any questions, please ask.

Section 1

Hypnosis can be used for a variety of purposes. For each of the following situations, indicate **how likely you would be to use hypnosis if it were recommended by your doctor.**

As a way to reduce test anxiety?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As a way to reduce anxiety during chemotherapy?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As a complementary treatment (in addition to education and counseling) to quit smoking?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As your only treatment to quit smoking?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As a complementary treatment (in additional to education and counseling) to manage chronic pain?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As your only means to manage chronic pain?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As a complementary anesthetic (in addition to local anesthesia) during bone marrow extraction?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As your only anesthetic during bone marrow extraction?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As the primary form of pain relief (for you or your partner) during labor and delivery, with the option of obtaining traditional forms of pain relief if desired?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

As the only form of pain relief (for you or your partner) during labor and delivery?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

****Please continue to the next page****

Section 2

No matter what your particular medical condition might be, certain factors might influence your choice to use hypnosis or not. For each of the following, please indicate how **likely you would be to use hypnosis**.

If your primary care doctor recommended it for your situation?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

If a trusted friend or relative recommended it for your situation?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

If you read a newspaper article recommending it for your situation?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

If you saw a television news story recommending it for your situation?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

If you read an academic journal article recommending it for your situation?

1 2 3 4 5
Not at all likely Slightly likely Neutral Fairly likely Very likely

****Please continue to the next page****

Section 3

Assuming you were going to seek out clinical hypnosis, please respond to the listings for psychologists that begin on the next page.

Jordan Andrews, Ph.D.

Licensed Clinical Psychologist

1007 Highland Ave., Ste. 175
(217) 471-1342

If you were seeking out hypnosis treatment, **how likely would you be to contact this person for services?** Indicate your likelihood by drawing a vertical line on the horizontal line below.

Not at all likely |-----| Very Likely

Jordan Andrews, Ph.D.

Licensed Clinical Psychologist
Board Certified in Clinical Hypnosis

1007 Highland Ave., Ste. 175
(217) 471-1342

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Jordan Andrews

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|-----|
Not at all likely Very Likely

Jordan Andrews, Ph.D.

Licensed Clinical Psychologist

*Clinical Hypnosis for Pain Management,
Anxiety, Weight Loss, Smoking, Trauma*

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|-----|
Not at all likely Very Likely

Jordan Andrews

Hypnotist

1007 Highland Ave., Ste. 175
(217) 471-1342

If you were seeking out hypnosis treatment, **how likely would you be to contact this person or services?** Indicate your likelihood by drawing a vertical line on the horizontal line below.

|-----|
Not at all likely Very Likely

Now please reconsider all of the ads. **Rank order them from 1-10***.

#1 = The psychologist I would be **most** likely to contact for clinical hypnosis.
#10 = The psychologist I would be **least** likely to contact for clinical hypnosis.

Ranking: ____

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1007 Highland Ave., Ste. 175
(217) 471-1342

Ranking: ____

Jordan Andrews, Ph.D.

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*All listings appeared on one 11" X 17" page in the survey.

Please read the following passage:

The practice of psychology is regulated by state licensing boards. The Texas Psychologist's Licensing Act, Sec. 501.003 (c), PRACTICE OF PSYCHOLOGY, subsection (3) states that the practice of psychology includes: (A) using projective techniques, neuropsychological testing, counseling, career counseling, psychotherapy, hypnosis for health care purposes, hypnotherapy, and biofeedback; and (B) evaluating and treating mental or emotional disorders and disabilities by psychological techniques and procedures.

**Now please reconsider all of the ads.
They begin on the next page.**

Jordan Andrews, Ph.D.

Licensed Clinical Psychologist

1007 Highland Ave., Ste. 175
(217) 471-1342

If you were seeking out hypnosis treatment, **how likely would you be to contact this person for services?** Indicate your likelihood by drawing a vertical line on the horizontal line below.

|-----|
Not at all likely Very Likely

Jordan Andrews, Ph.D.
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|-----|
Not at all likely Very Likely

Now please reconsider all of the ads. **Rank order them from 1-10***.

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*All listings appeared on one 11" X 17" page in the survey.

Attitudes Toward Hypnosis Scale

Adapted from Spanons, N.P., Brett, P.J., Menary, E.P. & Cross, W.P. (1987). A measure of attitudes toward hypnosis: relationships with absorption and hypnotic susceptibility. *American Journal of Clinical Hypnosis*, 30(2), pp. 139-150.

Please circle the answer that most applies to you.

	Not at All True						Very True
1. I find the whole idea of becoming hypnotized an attractive prospect	1	2	3	4	5	6	7
2. I would like to become deeply hypnotized	1	2	3	4	5	6	7
3. I would not mind being known as someone who can be deeply hypnotized.	1	2	3	4	5	6	7
4. I am totally open to being hypnotized.	1	2	3	4	5	6	7
5. One's ability to be hypnotized is a sign of their creativity and inner strength.	1	2	3	4	5	6	7
6. I wonder about the mental stability of those who become deeply hypnotized.	1	2	3	4	5	6	7
7. Those who are easily hypnotized are weak people.	1	2	3	4	5	6	7
8. Those who can become deeply hypnotized are as normal and well adjusted as anyone.	1	2	3	4	5	6	7
9. Intelligent people are the least likely to get hypnotized.	1	2	3	4	5	6	7
10. I have some apprehensions about hypnosis and being hypnotized.	1	2	3	4	5	6	7
11. If someone attempted to hypnotize me, I would tend to hold myself back rather than let myself get carried away by the process.	1	2	3	4	5	6	7
12. I'm not afraid of becoming hypnotized.	1	2	3	4	5	6	7
13. I am wary about becoming hypnotized because it means giving up my free will to the hypnotist.	1	2	3	4	5	6	7
14. A deeply hypnotized person is robot like and goes along automatically with whatever the hypnotist suggests.	1	2	3	4	5	6	7

Finally, if you would answer a few final questions about yourself, that would be appreciated.

Age: _____

Sex: _____

Race/ethnicity: _____

Academic Major(s): _____

Have you ever experienced hypnosis in a clinical setting? (circle one)	Yes	No
Have you ever experienced hypnosis in a research setting? (circle one)	Yes	No
Have you ever experienced stage hypnosis? (circle one)	Yes	No

Please indicate whether you agree or disagree with the following statements:

Experiencing hypnosis involves giving up one's free will	Agree	Disagree
One becomes robot-like when experiencing hypnosis	Agree	Disagree
Experiencing hypnosis is a sign of mental instability	Agree	Disagree
I would like to experience hypnosis	Agree	Disagree
I am not afraid of experiencing hypnosis	Agree	Disagree

People vary in their responsiveness to hypnosis. If you were to experience hypnosis, how deeply do you think you would be hypnotized?

|-----|
Not at all hypnotized Very deeply hypnotized

Please check each of the following psychology courses you have taken or are currently taking:

- Introductory Psychology
- Cognitive Behavior Therapy
- Theories of Psychotherapy and Counseling
- Social Psychology
- Theories of Personality
- Consciousness and Mind
- Behavioral Medicine

What characteristics of the listings motivated you to rank them the way you did?

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