

A MODEL FOR EMPIRICALLY VALIDATING STANDARDS OF
TRAINING IN CLINICAL HYPNOSIS

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BY
DAVID GODOT, M.A.

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Dissertation Committee

Josefina Alvarez, Ph.D., Chair

Core Faculty, Adler School of Professional Psychology

Edward J. Frischholz, Ph.D., ABPH, Reader

President, Chicago Society of Clinical Hypnosis & Society for Clinical
and Experimental Hypnosis

Stephen Kahn, Ph.D., Reader

Director, Institute for Clinical Hypnosis and Research

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Curriculum Vitae

David Godot

Education

- Adler School of Professional Psychology, Chicago, IL, 2006-Present
 - Doctoral Student in Clinical Psychology
- Adler School of Professional Psychology, Chicago, IL, 2009
 - Master of Arts in Counseling Psychology
- Illinois School of Professional Psychology, Chicago, IL, 2006
 - Bachelor of Arts in Psychology
- Miami Dade College, Miami, FL, 2004
 - Associate of Arts in Psychology

Licenses and Certifications

- Licensed Professional Counselor in Illinois
 - License No. 178.006879
- Certificate in Clinical Hypnosis
 - Adler School of Professional Psychology
 - Approved by the American Society of Clinical Hypnosis

Clinical Training Experience

- Advanced Clinical/Research Extern
 - Chicago Psychology Group, Chicago, IL, 2011-2012

- Supervised by Edward J. Frischholz, Ph.D., ABPH, Licensed Clinical Psychologist, and Stephen Kahn, Ph.D., Licensed Clinical Psychologist
- Clinical Treatment Practicum
 - Chicago Lakeshore Hospital, Dual-Diagnosis Intensive Outpatient Unit, Chicago, IL, 2008-2009
 - Supervised by Kevin Osten, Psy.D., Licensed Clinical Psychologist
- Clinical Assessment Practicum
 - St. Joseph Hospital, Diamond Headache Inpatient Unit, Chicago, IL, 2007-2008
 - Supervised by Lawrence Cull, Psy.D., Licensed Clinical Psychologist

Teaching Experience

- Advanced Workshop for Hypnosis Trainers, Co-Chair and Faculty Member
 - Chicago Society of Clinical Hypnosis (CSCH), 2010
- Introductory Hypnosis Workshop, Co-Chair and Faculty Member
 - Society of Clinical and Experimental Hypnosis (SCEH), 2011
 - CSCH, 2010
 - SCEH 2009 (Faculty Member only)

- Graduate Teaching Assistant
 - Supervised by Stephen Kahn, Ph.D. at the Adler School of Professional Psychology, 2009-2010
- Introductory Hypnosis Workshop, Faculty Member
 - SCEH, 2009
- Adlerian Parenting Workshop, Co-Facilitator
 - Supervised by Sheryl Trail, Psy.D. at the Adler School of Professional Psychology, 2009
- Cooperative Conflict Resolution Workshop Assistant
 - Supervised by David Warren, Ph.D. at Miami Dade College, 2004
- Communication Lab Assistant
 - Supervised by Nicole Colston, M.A. at Miami Dade College Communication Arts Center, 2004

Research Experience

- Advanced Clinical and Research Extern
 - Chicago Psychology Group, 2011-2012
- Research Assistant
 - Institute for Clinical Hypnosis and Research, 2010-2011
 - Adler School of Professional Psychology, 2009-2010

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Abstract

Empirical validation should be the standard not only for clinical practice, but for clinical training as well. This quasi-experimental study establishes a model for developing and testing clinical training programs whose effectiveness at preparing practitioners can be empirically verified. The sample consisted of 31 licensed healthcare professionals and graduate students, who had voluntarily enrolled in introductory clinical hypnosis workshops offered by professional societies. A pre-test/post-test design was used to assess the acquisition of knowledge in response to the administration of a standardized didactic presentation (History, Definitions, and Theories of Hypnosis). A criterion-based expert rating model was used to assess the acquisition of skill following the administration of a three-part skill training module (Hypnotic Induction and Realtering). Participants' pre-test versus post-test scores for the knowledge acquisition component demonstrated significant improvement. On the skill acquisition component, all participants received scores reflecting at least a minimal level of competence to use the procedure in clinical practice, with 87.25% of participants receiving scores which reflected at least a moderate level of competence. Scores on this component were substantially higher than predicted; possible reasons for this are explored, including self-selection bias and inadequate training of raters. Adjustments to the data are provided which nevertheless show a significant effect from the administration of the training module. Future studies should employ

larger samples, replace unreliable test items, and use multiple expert raters to establish inter-rater reliability

CHAPTER 1

INTRODUCTION

Evidence-based practice continues to emerge as the standard for clinical work across the gamut of medical and psychological treatments (Tansella & Thornicroft, 2009). Empirical validation of treatment methods helps to ensure a consistent quality of services as well as continuity of care between service providers (Lehman, 2010). However, the effectiveness of an empirically validated treatment relies on its competent administration by trained clinicians.

Statement of the Problem

Several authors (e.g. McHugh & Barlow, 2010) have suggested that the establishment of clinical competence is as important as validation of the treatment itself. However, an extensive review of the literature on clinical training methods revealed no published studies which have subjected any type of nonacademic clinical training program to scientific scrutiny. In other words, there is currently no way to know whether clinicians are competent to administer the evidence-based treatments that they have been trained to administer. Shafran and colleagues (2009) call for clinical training programs to be based on methods which have demonstrated effectiveness in imparting both the knowledge and the competence required of evidence-based.

Statement of the Purpose

The present study takes steps toward realizing that standard of training in the field of clinical hypnosis by subjecting a set of standardized training modules to scientific scrutiny. Two hypnosis training modules were studied in the field to determine whether they were actually conferring the knowledge and skills that they were intended to confer. This study serves a dual purpose in that it not only provides empirical evidence for the adequacy of the specific training modules being tested, but also provides a practical basis for empirical validation of additional training modules. This will help establish a new standard for clinical training that will ultimately improve the standing of clinical hypnosis within the scientific, medical, and psychological communities.

Assumptions & Limitations

The samples used in the present study consisted of graduate-level students in health-related fields and post-graduate health care professionals who had voluntarily enrolled in clinical hypnosis training programs. A substantial majority of students were professionals in the fields of clinical or counseling psychology. Clinical hypnosis training programs such as the one being studied target a wide range of clinicians, including physicians, nurses, dentists, etc. There may be characteristic traits which predict responses to specific types of training, and this study was not able to account for them. Additionally, the details of participants' professional affiliations or fields of study were not assessed in this study, and so

any learning differences between groups within the healthcare professions cannot be surmised from our results.

The samples used in the present study are also relatively small. Due to time constraints during the 2010 Society of Clinical and Experimental Hypnosis (SCEH) introductory workshop at which some of this data was collected, only specific subscales of the didactic module and questionnaire were administered. Additionally, the practical limitations of workshop training prevented the use of multiple raters, and inter-rater reliability for the skills-training module is therefore unknown.

Another limitation of this study is its lack of long-term follow-up. It is probable that retention of the knowledge and skills which this workshop aims to impart upon attendees will decrease over time, particularly in the case of the informational modules. Future research should examine methods for enhancing long-term recollection of relevant information. For skill-acquisition training modules, factors which affect the long-term enhancement or disintegration of skills after the initial training sessions remain unknown. Future research should examine what factors before, during, and after training sessions may affect clinicians long-term retention and development of learned skills so that training modules may be optimized to account for them.

Finally, the present study will not examine the relationships between measured learning and clinical efficacy. The ultimate goal of every clinical

training program should be the production of demonstrably effective clinicians.

Because of the direct nature of hypnotic interventions, the field of clinical hypnosis represents a good opportunity to begin this type of research. The present study, however, is limited to examining learning outcomes as specified by the American Society of Clinical Hypnosis (ASCH) standards of clinical training, which represent the best current estimations of the elements of clinical proficiency in this area of expertise.

CHAPTER II

REVIEW OF THE LITERATURE

History of Hypnosis

While the term hypnosis was not introduced until 1843 by James Braid (Gezundhajt, 2007), practices resembling hypnosis have been documented throughout recorded history. In Asia Minor, the sleep temples of Askelepios were centers for the practice of hypnosis-like techniques for healing from 500 BC to 500 AD (Brier, 1981). A 3000-year-old stone tablet was found depicting one of these trance induction scenes during the reign of Ramses II (Lockert 2001, as cited in Gezundhajt, 2007). The Edwin Smith surgical papyrus, which may have been originally written as long as 5500 years ago, depicts the use of a hypnosis-like procedure during surgical operations performed by priest-physicians of ancient Egypt (Breasted, 1930). In ancient Greece, Socrates and his contemporaries referred repeatedly to the apparent power of words to heal illness (Muses & Young, 1972).

Hypnosis-like experiences are described a number of times in the Bible. For example, Acts 10:10 describes Peter sitting down to pray before eating, but never arriving at the meal because "he fell into a trance" (King James Version). Hypnotic practices are also described in the Talmud, such as *Kavanah*, a meditative practice in which practitioners focus their intention during prayer. The shamanic practices which have been (and still are) used to induce trancelike states

all over the world can be easily construed as forms of hypnosis (Gezundhajt, 2007). In fact, indigenous tribes around the world have seemed to uniformly select a shaman, witch-doctor, medicine man, or similar type of healer based on that individual's ability to experience and utilize trance states to the benefit of the society (Inglis, 1989).

The Christian church which controlled Medieval Europe rejected trance states as a part of religious practice. These practices were discounted as healing and enlightening experiences and forbidden or taken to be a sign of witchcraft or demonic possession. However, even from this tyrannical era, some notable exceptions can be found. For example, Girolamo Cardano (1501-1576) was an Italian mathematician who suffered from terrible gout. In his writings, he described the ecstatic trance states and out of body experiences which provided him relief. His may be the first recorded use of self-hypnosis for pain relief (Gezundhajt, 2007).

Paracelsus (1493-1541) believed that the stars exerted a subtle magnetism which could influence people according to their particular susceptibility to this type of force, which he associated with suggestibility. Based on this theory, he developed a technique of using lodestones as magnets to impart a magnetic healing effect. Father Maximilian Hell (1720-1792), a Jesuit priest, court astronomer, and head of the observatory in Vienna, was greatly influenced by Paracelsus' ideas, and apparently enjoyed considerable success using Paracelsus'

magnetic treatment method to alleviate pain. Hell became a mentor to Franz Anton Mesmer (1734-1815), who is considered by many to be the father of clinical hypnosis (Gezundhajt, 2007).

Father Johann Joseph Gassner (1729-1779), a Bavarian priest, believed that most disease was a consequence of demonic possession. He developed an exorcism rite, widely criticized by the religious community at the time, which deliberately provoked the symptoms and then caused them to disappear by providing patients with an internal formula for their exorcism. He would then teach the patient how to behave in everyday life to prevent recurrence (Gezundhajt, 2007). Because Gassner's technique so closely resembles many modern hypnosis techniques, Burkhard (2005) argued that Gassner's work, rather than that of Mesmer, was the true precursor to modern clinical hypnosis.

Mesmer, following Paracelsus and Hell, credited the power of magnetism for the cures he produced. However, after traveling to Bavaria to observe Gassner's exorcisms, Mesmer began to discount the need for mineral magnetism, formulating instead the concept of animal magnetism. He considered the "possessions" which Gassner treated to be caused by organic illness, and the "exorcisms" to work by means animal magnetism being projected from Gassner onto his patients. Mesmer's theory held that the universe is pervaded by an invisible fluid that emits magnetic vibrations, to which the human nervous system is particularly sensitive (Gezundhajt, 2007). He believed that illnesses were

caused by an imbalance in this universal fluid, which could be corrected by a convulsive "crisis":

The session was performed according to a very theatrical ritual, inside a large magnetic salon decorated with large mirrors supposed to reflect invisible fluids, and under the resonance of drums coupled with the eerie sound of the legendary glass harmonica played by an imposing Mesmer wrapped in an esoteric cloak. His silent assistants based in every corner of the room to control convulsing patients looked quite as impressive as their master (Crabtree, 1993, p.14).

No verbal commands were given during this treatment, and verbal dialogue from the patients was forbidden. Mesmer would circle the room making physical contact with the patients in order to help push them into the crisis state. He considered the somnambulistic state which his ritual could induce to be a side effect of animal magnetism (Gezundhajt, 2007).

From youth, Mesmer's favorite pastime was the study of obscure mystical works, and it is highly likely that the principle of animal magnetism was suggested to him by those works (Gezundhajt, 2007). As many scholars have noted, these earlier mystical works were invariably obscured. Therefore, Mesmer may be credited with unraveling these obfuscations and making the principles and methods of magnetism available to a wider audience. However, upon arriving at his theory of animal magnetism, Mesmer's demeanor changed. He ceased

reporting on his experiments and methods, and began practicing in a more mysterious manner (Husson, 1831).

After being stripped of his medical credentials, Mesmer founded a secret society called the Society of Universal Harmony, which opened up lodges across France. Mesmer was knowledgeable regarding the structure of operations of secret lodges, as he was himself both a Freemason and a member of at least one important magical order, the Order of the Gold and Rose Cross. Mesmer's society fell apart around the time of the French Revolution, but many of its members went on to be influential in a number of more overtly magical orders (Greer, 2003). This is relevant to our purpose of exploring the earliest examples of hypnosis training, because it gives us a possible glimpse into the methods by which Mesmerism was taught. In the many painstaking accounts of the history of magnetism, and numerous treatises on its use, there appear to be no accounts of the manner in which this skill was transmitted to those who learned it. While no documents from the Society of Universal Harmony are known to have survived, the fact that Mesmer styled it after the magical secret societies of his time suggests that Mesmer attempted to pass on his techniques by way of ritualistic demonstrations. This would certainly be in keeping with the style of the treatments which he was administering, as described above.

Mesmer's theories were widely attacked by the scientific and medical communities, despite continued popularity among the French noble classes and

continued success in using his treatment (Gezundhajt, 2007). In 1784, the French King Louis XVI ordered two official investigations into Mesmerism. One of those commissions was led jointly by the *Academie des Science* and the *Academie des Medicine*, and included a number of prominent figures, such as chemist Antoine Lavoisier, physician Joseph-Ignace Guillotin, astronomer Jean Sylvain Bailly, and American ambassador Benjamin Franklin. Both commissions rejected the principle of animal magnetism, instead attributing Mesmer's cures primarily to the power of imagination. The effectiveness of Mesmer's methods was not denied (Gezundhajt, 2007; Franklin et al, 1785).

However, a special report by the Medical Section of the French Royal Academy of Sciences (Husson, 1831) noted that there was substantial controversy surrounding the Commission's report. Mesmer had resisted the Committee's intrusion upon his practice on the basis that their experimental methods would not fairly consider his treatments. Mesmer proposed that the Committee select a sample of patients from the local hospital and divide them into an experimental group for Mesmer to treat, and a control group to be treated by the usual methods. The Committee refused this proposal and instead conducted the study at the private clinic run by Mesmer's student Charles d'Eslon. One particularly involved committee member, noted botanist Antoine Laurent de Jussieu, dissented from the Committee's report, issuing a report of his own which was favorable to the

principles of Mesmerism. The Academy report concluded that the Commission's investigation was "inconsiderate and hasty" (Husson, 1831, p.70).

The same year that the Royal Commission was convened to study Mesmer's work, his most famous disciple was also beginning to break from Mesmer's theories. Armand-Marie-Jacques de Chastenet, Marquis de Puysegur (1751-1825), had traveled to Paris to be trained by Mesmer (Gezundhajt, 2007). At that time, there is no evidence that any formal training program in this type of technique existed, and so the training which Puysegur received likely resembled an apprenticeship in which Puysegur would have observed Mesmer's work, discussed the theory and practice with Mesmer personally, and practiced the techniques within Mesmer's own practice.

By 1784, Puysegur had started his own magnetism practice in Buzancy. There, he noticed that one of his patients responded not by convulsing, but by entering into a somnambulistic state which Puysegur called *magnetic sleep*. Puysegur began to intentionally use this gentler form of magnetic crisis by using suggestions that the patient enter into a somnambulistic state. He found that the critical component of Mesmer's animal magnetism work, touch, was not necessary to produce a cure. Puysegur developed the concept of *rapport* in a form somewhat similar to the way it is used by modern hypnotists. He used this term to indicate the development in the patient of an intense concentration on and subordination to the clinician (Gezundhajt, 2007).

Puysegur increasingly formatted his treatment around the properties of this magnetic somnambulism, leading patients to experience dreamlike fantasies or to re-experience painful events (Gezundhajt, 2007). Some of Puysegur's treatment techniques were extraordinarily advanced for their time. In certain cases, the patient would be led into the state of *magnetic sleep* and then asked to establish his or her own diagnosis and treatment. The patient was led through the full development of the treatment, imagining the manner in which the recovery would take place and what types of recurrences could be expected (Chertok, 1981).

Puysegur's success gave rise to a number of societies in France which concerned themselves with studying this new trance phenomenon. They were generally divided into two groups: the therapeutic, which focused on the unique qualities of the somnambulistic trance state and the relationship between the patient and practitioner; and the esoteric, which focused on metaphysical interpretations of the somnambulistic state and its use in bringing about special powers such as self-healing and spiritual vision for its users. While these groups published documents regarding their various techniques and theories, there is no evidence that any type of formal training programs were yet being developed at this time. Knowledge was passed on through technical manuals and private discussion.

Puysegur's student Joseph Philippe Francois Deleuze (1735-1835) wrote a particularly detailed and influential manual on the use of magnetism. In it, he

stated that only the principles of magnetism affected the outcome, not the specific methods. He therefore instructed the reader in the way of magnetizing that he had become comfortable with, while instructing the reader emphatically that the specific process which he followed and would teach was not authoritative or necessary (Deleuze, 1837).

Deleuze's (1837) method incorporated elements of suggestion which he held important to improve both the process of magnetization and the outcome. He stressed the importance of rapport, which was established by means of prolonged touching at the outset of treatment. Deleuze would hold his patient's thumbs between his own fingers for a period of five minutes or so, until he could detect that the temperature of the patient's thumbs was indistinguishable from the temperature of his own. He also stressed the importance of the practitioner's intent will to magnetize the subject. This belief that mental concentration holds a particular force of its own which can act upon the external world reflects the esoteric doctrines of Freemasonry, which Gezundhajt (2007) notes greatly influenced Mesmer.

Bishop L.W. de Laurence (1868-1836), an early American psychologist best known for his books on occult Christian and Hindu mysticism, made an explicit connection between magnetism, hypnotism, and the occult. de Laurence (1902) argued that magnetism and hypnotism were merely the latest manifestations of a spiritual science which could be traced back to ancient Egypt,

the tribes of Israel, the Chaldeans, Zoroastrians, and an extensive tradition of monastic Hinduism. According to de Laurence, each of these esoteric traditions centered on the concentration and projection of mental force, just as the magnetism of Mesmer, Puysegur, and Deleuze had.

In light of Puysegur's discovery that the phenomena of magnetism (which were now very closely approaching those of hypnotism), it may be worth briefly examining the possibility that two separate phenomena are in fact being employed to produce similar results. After all, there is a long history of belief in the healing power of touch from the human hand. Ancient papyrus scrolls give authentic accounts of healing practices which resemble Mesmeric passes, and especially the laying of hands on the patient's head. The Greek physician Asclepiades (124-40 B.C.E.) prescribed rubbing with the hands to induce sleep in madmen (de Laurence, 1902).

Belief in the power of royalty to enact such a cure has been pervasive throughout the history of western civilization. Perhaps the earliest recorded examples are the cures performed by Roman Emperor Vespasian, reported by the ancient historians Tacitus and Suetonius (de Laurence, 1902). A similar power was exercised by the kings of old England and France, and by the Scandinavian Princes, particularly St. Olaf, who reigned between the years of 1020 to 1035. The laying on of hands has been employed as a treatment for illness in both Eastern and Western cultures for many centuries (Husson, 1831).

The French Royal Academy of Sciences report (Husson, 1831) noted that, nearly fifty years after the report of the French Royal Commission claimed that imaginative power was primarily responsible for the effects of magnetism, no evidence had emerged to substantiate belief in any particular cause of Mesmeric cures. Furthermore, outside of magnetism, the existence of a faculty which empowered certain individuals to exert profound physiological effects on others by sheer will was maintained by the most prestigious physicians and philosophers of the 16th and 17th centuries, who recorded innumerable instances of such activities.

The report goes on to explain that nearly all of these esteemed individuals had explained the action-at-a-distance which they observed as being the result of a universal magnetic power comparable to what Mesmer had proposed. Among the most influential of these views was the concept that the force of the *practitioner's* imagination can be marshaled and directed at the patient, with a concurrent necessity for the arousal of the patient's imagination. This position precedes both the Mesmeric account and the opposing view from the 1785 Royal Commission. Like the Mesmerists, these early theorists also believed in practitioners' ability to transfer their imaginative powers into intermediary objects. For example, the power of herbal cures has been widely held to be enhanced by the imaginative power of the individual who collects and prepares them (Husson, 1831).

The Academy report also noted that practitioners of animal magnetism had in that time come to ascribe substantial power to the human eye. This opinion, the report notes, was supported by a very ancient and prevalent popular belief. The first-century Roman naturalist Pliny described the influential power of the human eye, ascribing particular magnetic power to certain eye colors and iris formations. The power of an "evil eye" or "evil look" to impart tragedy on the recipient have been held in both East and West for all recorded history. Many instances have also been recorded of the firm and fixed stare of a man "subduing the natural courage and ferocity of wild animals" (Husson, 1831, p.15). More recently, Oxford biologist Rupert Sheldrake (2005a) has documented the unexplained but highly replicable ability of both human and animals to accurately sense the stares of people made from locations where they could not be seen. He concludes that it is necessary to reconsider the nature of vision as a phenomenon which extends beyond the internal reception and processing of visual signals, incorporating "perceptual fields that link the perceiver to that which is perceived" (Sheldrake, 2005b, p.32).

According to the Academy Report (Husson, 1831), many ancient priesthoods have claimed extraordinary healing powers which have been considered to be fraudulent by later historians. However, the French Academy of Science was forced to reflect:

since the discoveries which have been made during the practice of animal magnetism, it has appeared exceedingly probable to many learned inquirers, that these phenomena were not the offspring of fraud and deception, but depended upon a knowledge of certain principles, which was afterwards obscured or lost amidst the decline of those institutions by which it had been cherished (Husson, 1831, p.34).

When it is considered that the ancient priesthoods maintained strict secrecy surrounding their innermost knowledge about spiritual practices, with common claims and abilities spread out through priesthoods among multiple cultures, it becomes fair to consider that some of these closely-guarded secrets involved, in whatever terminology proved expedient, the production and utilization of hypnotic phenomena. The Academy's report concludes that there is a connection between the practices of animal magnetism and those of ancient spiritual healers. Furthermore, by recognizing this connection we can dispense with a great deal of superstition and instead possess a continuous history of the employment of a single underlying principle which can be scientifically studied. However, the report goes on to note that there are a vast number of recorded cases of volitional action-at-a-distance which cannot be explained in terms of animal magnetism as a local physical phenomenon. By extension, it is clear that such cases can also not be explained in terms of hypnotism (Husson, 1831).

Although modern hypnosis theorists rely heavily on subject-based models of hypnosis originating in the 1785 Royal Commission report, the many extraordinary cases of action-at-a-distance warrant additional research on potential operator effects in hypnosis. It is also possible that nonlocal phenomena of a nature not currently understood may play a role in some of the events which have been ascribed to hypnotic suggestion. For example, Howard Hall, a recognized leader in the field of clinical psychoneuroimmunology, posits a distinction between hypnotic and bioenergetic effects (Hall, 2007).

Abbe Jose Custodio de Faria (1756-1819) is frequently referred to as the first individual to discard explanations of hypnotism which were based on magnetism or occult phenomena. He believed that the magnetizer's will did not act upon the patient, either directly or through the medium of an invisible magnetic fluid. He instead argued, as most modern hypnosis practitioners do, that it is the result of psychological and psychophysiological factors. To Faria, trance states were created by a kind of fascination with the operator, enhanced by the persuasive suggestions given by way of introducing the procedure (Wickramasekera, 2007).

Faria noted that "the phenomenological experience of hypnosis is similar to that of falling asleep in that both experiences require a gradual withdrawal of the senses from the peripheral environment" (Wickramasekera, 2007, p.85). Because of the apparent relationship between hypnosis and sleep, Faria referred to

the phenomenon as "lucid sleep." This term is more technically accurate than the modern term "hypnosis," which implies an equivalence between the hypnotic state and a state of sleep (Wickramasekera, 2007). Faria likely came to learn about hypnotic phenomena through the work of Puysegur (Gezundhajt, 2007), and his writings in turn heavily influenced later figures such as James Braid and Hippolyte Bernheim, who will be discussed forthwith. At one point, Faria offered a paid course in magnetism to the public at large. However, no additional information regarding this course could be found.

Despite having been discounted by the 1785 Royal Commission report and scoffed at by medical and scientific establishments, magnetism continued to gain popularity through the 1820s. Many felt that the Commission had been unfair to the discipline. In 1825, the French Academy of Medicine was persuaded to assemble a third commission to study magnetism. After 5 years, this commission issued a report concluding that the effects of magnetism were the result of "boredom, monotony, and imagination" (Gezundhajt, 2007, p.187). Controversy continued to mount within the Academy of Medicine, and so a fourth commission was called in 1837. This final French Commission issued the most resoundingly negative report of all, reporting that magnetism did not exist and that its effects were unproven or illusory (Gezundhajt, 2007).

John Elliotson (1791-1868) was a Professor of Medicine at University College London who studied Mesmerism under Richard Chenevix, a student of

Abbe Faria. After later hearing about the successful use of mesmerism as a surgical analgesic, Elliotson began experimenting with the use of what he referred to as "magnetic sleep" in his own major surgical operations (Gezundhajt, 2007). Despite the success of Elliotson's mesmeric procedures in surgery, his work challenged the prevailing advances in chemical anesthesia at that time, and he was ousted from the University Hospital. Nevertheless, he continued to practice mesmerism and founded a mesmeric hospital in 1849. Elliotson edited a magazine on mesmerism, called *The Zoist*, and continued to give lectures on mesmerism as well as other controversial topics such as phrenology and clairvoyance until his death in 1868 (Gezundhajt, 2007).

It was Elliotson's friend James Esdaile (1808-1859), a regular contributor to *The Zoist*, who became the most important advocate of the use of mesmerism in surgery. He practiced in India, where he documented thousands of successful instances of mesmeric pain control and enjoyed some support from the local government (Gezundhajt, 2007). Esdaile's first mesmeric operation was performed in 1845 on a patient who had suffered greatly during the first of two operations. For the second operations, Esdaile resolved to try mesmerism as an analgesic despite having never personally witnessed the use of this technique. Following the success of this procedure, Esdaile began using mesmerism regularly, eventually outsourcing the process of mesmerization to locals so that he could focus on the work of surgery. A number of prominent and learned

individuals traveled to India to witness Esdaile's work, publicizing it through their own accounts of his impressive success (Gauld, 1992).

Scottish surgeon James Braid (1795-1860) was first introduced to mesmerism when he witnessed a stage performer named Charles Lafontaine, whose work was inspired by Abbe Faria. Braid then began studying the work of Abbe Faria, who himself had already made significant breaks with the ideology of mesmerism. Braid introduced the term *hypnotism* as a replacement for *mesmerism*, to designate the phenomena as a form of artificially-induced sleep. When he later realized that hypnotic phenomena such as catalepsy and analgesia could be produced without the development of a somnambulistic state, Braid introduced the term *monoideism* as a replacement, but this term never entered into common usage. Braid's ideas gained notoriety when they were published in the *Archives of Medicine*. This publication awakened the interest of Paul Broca (1824-1880), the neurology pioneer for whom is named the brain's center of productive speech. Broca proceeded to study Braid's hypnotic techniques and to use them successfully in his own surgical procedures (Gezundhajt, 2007).

Auguste Ambroise Liebeault (1823-1904) was a country doctor who became interested in hypnotism as a medical intern in 1848 after hearing about Broca's experiments with it and reading the 1831 Royal Academy of Sciences report. His professors dissuaded him from pursuing this area of inquiry until 1860, when he was established in his own practice. Like many of those we have

discussed already, Liebeault began using hypnotic techniques in his treatments with no formal education, training, or mentorship. Following Faria and Braid, Liebeault came to believe that the hypnotic state is induced by suggestion alone, without the need for any external physical action as an explanation. Liebeault was also the first known hypnosis theorist to introduce the concept of hypnotizability; he estimated that 95% of all people could be influenced through the use of hypnotic suggestion (Gezundhajt, 2007). After much experimentation, Liebeault settled on a style of hypnotism in which he would rest his hand on the patient's forehead, instruct them to fix their eye on him, and implore them for several minutes to fall asleep. Once the patient's eyes had been closed, Liebeault would administer a series of affirmations that the patient's condition would improve (Gauld, 1992).

Liebeault received a great deal of criticism for his work with hypnotism. Hippolyte Bernheim, a professor in the local faculty of medicine at Nancy, was among his detractors. However, upon visiting Liebeault's practice and seeing his work, Bernheim became interested enough to try hypnotism in his own hospital. Upon experiencing success with Liebeault's techniques, Bernheim asked Liebeault to collaborate with him in developing the techniques and their uses further. A number of other professors at Nancy became interested in the phenomenon, organizing experiments on the psychophysiological correlates of

hypnosis. This group became known as the Nancy School of hypnosis (Gauld, 1992).

Bernheim demonstrated clearly that all phenomena previously considered magnetic could be achieved through suggestion alone, without any physical manipulations. He argued, like the 1785 Royal Commission report, that magnetic medicine operated strictly via the imagination, with the state of "hypnotic sleep" creating a condition in which suggestions became irresistible (Gezundhajt, 2007). Emile Coue (1857-1926) was a psychologist and pharmacist who graduated from the School of Nancy (Gezundhajt, 2007). Coue developed the technique of *conscious autosuggestion*, which called for patients to repeat mantra-like affirmations to themselves at the beginning and end of each day. He believed that these affirmations could cause the imagination to begin generating unconscious thoughts which would be congruent with the affirmations (Gauld, 1992).

Around the same time, Jean-Martin Charcot (1825-1893) was promoting his own unique ideas about hypnotism in Paris. Charcot believed that hypnosis was a pathological state of consciousness linked to hysteria, a conclusion that seems to have preceded his experiments to confirm it. Charcot's experiments in hypnosis consisted primarily of observing the reactions of three rather unbalanced patients from his ward at Saltpetriere Hospital. He gave frequent public demonstrations of his "star performers" (Gezundhajt, 2007, p.190). Charcot's pupils Alfred Binet and Charles Fere (1887) pointed out the errors in Charcot's

experimental methods. The Nancy School's opposing viewpoint that hypnosis is a normal and nonpathological phenomenon rapidly achieved predominance within the scientific community, and Charcot's ideas would likely have been forgotten if not for his prominent students such as Sigmund Freud and Josef Breuer, who later used hypnosis in the treatment of hysteria (Gezundhajt, 2007).

Pierre Janet (1859-1947) was also a student of Charcot, but made a point of distancing himself from his mentor. Janet believed that hysterical symptoms had been dissociated from consciousness into "simultaneous psychological existences" (Gezundhajt, 2007, p.190). He used hypnosis to perform a treatment in which he would attempt to replace the dissociated hysterical personality with a healthy secondary personality.

Sigmund Freud (1856-1939) considered Charcot his mentor, but also traveled to Nancy in 1889 to study under Bernheim and Liebeault. Upon returning to Vienna, he began to use hypnosis in his practice. Freud initially believed that hypnosis was a purely physiological process, describing it as "nothing other than ordinary sleep" (Freud, 1953a, p.93). By 1905, Freud's view on this matter had changed completely, with him then claiming that "hypnosis is in no sense a sleep like our nocturnal sleep or like the sleep produced by drugs" (Freud, 1953b, p.295).

Freud collaborated with his former teacher Josef Breuer (1842-1925) on the use of hypnosis in the treatment of hysteria. In 1893, they coauthored a

famous paper entitled "On the Psychological Mechanism of Hysterical Phenomena," containing ideas which they later developed into the book *Studies in Hysteria*. However, Freud quickly gave up on the use of hypnosis in his clinical work, complaining that he was able to produce a satisfactory trance in only a small fraction of his patients. He later attributed the mechanism underlying hypnotic responses to his principle of *transference* (Gezundhajt, 2007).

Hypnosis Training

Throughout all this early history of hypnosis which we have reviewed, very little evidence could be found to explicate of the mechanisms by which skills were transmitted from one practitioner to the next. In the case of Mesmer, it appears that he developed a curriculum by which he provided training to members of the Society of Universal Harmony. However, these methods of training, like the methods themselves which Mesmer applied at that time in his career, were intentionally obscured just as the ancient mystical traditions which inspired Mesmer had been (Greer, 2003).

This is not the case for later practitioners and teachers such as Puysegur, Faria, and Bernheim. There are some excellent descriptions of the precise methods which were used, and there are many indications that reading documents such as these constituted the majority of "training" which practitioners of that time received in the use of the techniques. In cases where aspiring practitioners have traveled to study under a particular expert, it seems implied that the majority

of this experience came from simply watching the teacher use the techniques and conversing with them about their methods. No formal training in hypnotism is described until the time of the Nancy School, at which time Bernheim integrated hypnotism into the existing medical school curriculum at Nancy (Taylor, 2009). This constitutes the first known curriculum in the clinical use of hypnosis. Bernheim published information regarding his curriculum under the title *Clinique Medicale de la Faculte de Nancy*. Unfortunately, no English translation of this document exists.

Essentially, as Wark and Kohen (2002) summarize, "in all that time, while the techniques were well described, there was no available core of information or methods to train practitioners and pass on the skills" (p.119). Jerome Schneck's 1949 founding of the Society of Clinical and Experimental Hypnosis (SCEH) essentially represents the beginning of the professionalization of hypnosis (Wark & Kohen, 2002; Schneck, 1993). Around this time, there was a general tendency for the hypnosis community to begin considering seriously the manner in which its techniques would be communicated (Watkins, 1998).

John G. Watkins offered the first known course in hypnotherapy since Bernheim, and the first hypnosis curriculum to ever be published in the English language. The course was offered as an in-service training for staff at an Army hospital in 1947. The 20-hour course provided lectures on "theory, indications, limitations, techniques of inducing trance, tests of trance depth, direct

suggestions, altering attitudes, elementary and advanced uncovering methods, and hypnoanalytic techniques" (Watkins, 1947, p.436), as well as demonstrations and supervised practice sessions.

The manner in which hypnotic techniques were taught by Watkins (1947) and his colleagues generally began with a description of the technique and the theory behind it, followed by a demonstration. Students would then practice on their own or in groups before practicing on volunteer subjects. In cases where students were to practice together, they were divided into groups of three, such that one participant performed the technique, one acted as the hypnotic subject, and the third observed and provided criticism.

The difficulty of the practice sessions built up gradually, not only in terms of the complexity of the techniques but in terms of the hypnotizability of the subjects. It was considered very important that students practice on highly receptive hypnotic subjects first, so as to build up confidence in their ability to succeed in using hypnosis. By the end of the course, Watkins (1947) reported that all 10 of the students who completed the course were able to successfully induce trance using two separate methods. The students also had gained the ability to utilize a variety of simple hypnotic interventions (post-hypnotic suggestion, regression, and hypermnesia) as well as some of the simpler advanced hypnotic interventions (automatic writing with a dissociated hand.)

Around the time that this course was offered, according to Watkins (1998), there was a mounting tendency for clinicians using hypnosis to begin developing these types of formal training programs to introduce others to the skills which had until that time been learned only through "reading, observation, and self-initiated practice" (Watkins, 1947, p.436). W.T. Heron had begun providing training in hypnosis to physicians and dentists at the University of Minnesota, although no details could be found regarding his curriculum. Milton H. Erickson and his colleagues organized a series of three-day "Hypnosis Seminars" (Watkins, 1998, p.11), predominantly in the Midwest, which they offered to physicians, dentists, and psychologists. During this same time period, Leslie LeCron and David Cheek, together with their associates, organized a similar series of workshops called the "Hypnosis Symposium" (Watkins, 1998, p. 11) which were offered in the western United States. No curricula from these early hypnosis workshops could be found.

Because of the stringent requirements for membership in SCEH, the many clinicians who were being trained through these three-day hypnosis workshops were ineligible. Milton Erickson and his associates founded the American Society of Clinical Hypnosis (ASCH) in 1957 as a "representative society" (Watkins, 1998, p. 11) for health professionals interested in and using hypnosis. Erickson served as the first president of ASCH, and his three-day workshop format became a regular offering from the Society.

In the early 1960s, Watkins (1998) and his associates formed a similar workshop program for SCEH, but Watkins remained unconvinced that the three-day workshop format was adequate training for clinical practice. He believed that university and medical school programs were a better venue for this training. He aimed to begin this type of work when, in 1964, he accepted a position organizing and directing a new doctoral clinical psychology program at the University of Montana. The hypnosis program at Montana was offered to third- and fourth-year students who had already completed coursework and training in various theories and practices of psychotherapy. The hypnosis program originally consisted of a single two-credit course, but was expanded to a three-credit introductory course followed by a three-credit advanced course with practicum due to enthusiasm from the students (Watkins, 1998).

When the course was first begun, the history of hypnosis and theories of hypnosis were taught at the outset, followed by a demonstration of hypnotic phenomenon. However, Watkins (1998) and his associates soon found that students were more interested in and receptive to learning about the theories of hypnosis once they had been exposed to the demonstrations. The demonstration consisted of four good hypnotic subjects selected from the class being hypnotized and administered a variety of suggestions.

The hypnosis students were trained to administer a group measure of hypnotic suggestibility which Watkins (1998) and his colleagues had developed,

as well as a variety of other instruments such as the Harvard Hypnotic Susceptibility Scale and the Stanford Hypnotic Susceptibility Scale. These instruments were then used by the graduate-level hypnosis students to perform a variety of research studies using undergraduate subjects. Undergraduate students who were found to be highly responsive to hypnotic suggestion were recruited as practice subjects, in order to ensure that students' early experiences of using hypnosis were successful enough to encourage continued interest and enthusiasm (Watkins, 1998).

Practice sessions with these pre-screened hypnotic subjects were provided throughout the hypnosis courses at the University of Montana, with students practicing basic and advanced induction techniques, deepening techniques, techniques for managing resistance, and the elicitation of both simple and complex hypnotic phenomena. Actual treatment techniques were not practiced during the class, but hypnotic treatment techniques for a variety of conditions were discussed and sometimes illustrated with recordings of actual treatment sessions (Watkins, 1998).

Watkins (1998) produced a training manual for educators interested in implementing similar training programs in hypnosis, which included an objective final exam containing 100 validated items. The program was continued at the University of Montana from 1966 until Watkins' retirement in 1987, during which time it was the most thorough and complete hypnosis training program in the

United States. Watkins (1998) found one example of a more intensive training program offered during this time period, a three-year program offered by the South African Psychological Association. However, no additional information could be found regarding this intensive South African hypnosis program.

Walling, Baker, & Sharon (1998) conducted a survey of APA accredited doctoral programs in psychology to determine the availability of coursework in hypnosis. Nearly 70% of schools contacted responded to the survey, and of those, 26% reported that they offered some training in hypnosis. Most programs offering some hypnosis coursework did so in the form of a single three-credit course. In a survey of APA accredited internship programs, the authors found that up to 50% of programs offered some elective experience in hypnosis, with the average length of training being seven hours. They therefore concluded that while exposure to hypnosis is available to a reasonable minority of doctoral psychology students, the training available at this level "is minimal and serves largely as an introduction to the topic" (Walling et al., 1998, p.151). Only one known graduate-level program in clinical hypnosis exists which conforms to the ASCH Standards of training, which is described below. Despite its age, this study remains the most recent survey of its kind.

Hypnosis training continued without standardization for several decades. Citing the need for greater attention to the methods of instruction in hypnosis, Taub-Bynum and House (1983) published a course outline for the hypnosis

training seminars that they had been conducting in Massachusetts. At a mere 500 minutes, the curriculum was substantially shorter than Watkins' earlier program, or the program presently prescribed by the ASCH Standards. The seminar consisted of a series of just ten weekly 50-minute sessions:

1. Introduction to hypnosis, history of hypnosis, myths about hypnosis, and current research support
2. Hypnotic induction techniques and utilization of client presentation
3. Theories and techniques of hypnosis
4. Deepening techniques and more advanced hypnotic inductions
5. Managing resistance
6. Use of hypnotic phenomena in treatment
7. Applications of hypnosis to specific clinical problems
8. Use of guided imagery in hypnosis
9. Videotape presentation of an actual clinical case
10. Review and integration

Although Taub-Bynum & House (1983) stressed the importance of active participation in the acquisition of clinical skill, their curriculum's primary limitation was a lack of experience in applying the clinical skills under the supervision of clinicians experienced with hypnosis. Workshop attendees were exposed to both live and recorded demonstrations, and agreed to practice the skills they were being exposed to with either a partner from the workshop, or a

supervised patient. However, no experiential learning exercises were conducted during the workshop sessions as they had been in Watkins' model, and as they are in modern hypnosis workshops.

Hammond (1996) stressed the importance of experiential learning exercises in clinical hypnosis training. He suggested that a balance should be struck between high quality didactic presentations and direct supervised experience. Toward that end, he outlined a number of specific demonstrations and skill-building exercises for use in hypnosis training workshops. These were targeted at building up specific competencies which he saw as being necessary for effective use of clinical hypnosis:

1. Hypnotic induction
2. Elicitation of hypnotic phenomena, such as catalepsy and age regression
3. Ideomotor signaling, a technique whereby unconscious communication is elicited by way of automatic movements
4. Ericksonian observation and utilization techniques, which enhance the hypnotist's ability to tailor their interventions to the client
5. Basic methods of indirect suggestion
6. Deepening techniques
7. Administration of hypnotic responsivity scales, which measure the hypnotizability of a subject

8. Formulating hypnotic suggestions and strategies

9. Treatment planning

Beginning in 1992, Elkins & Hammond (1998) conducted the first published research aimed at establishing a consensus among hypnosis professionals as to the minimum standards of training in clinical hypnosis. They argued that the development of a “uniform, basic professional education experience” (p.56) would allow the public to form more reliable expectations about the individuals using hypnosis to treat them, and also help to differentiate clinical professionals who used hypnosis from non-clinicians employing similar techniques (e.g. “lay hypnotists.”) Additionally, more uniform educational practices could produce more competitive professionals who possessed a deeper knowledge of the ethics involved in their field, a better grounding in the various theories of hypnosis, and a broader exposure to the relevant scientific research. Moreover, they argued that by identifying a common core of knowledge by which to guide the formation of training programs, the assumptions underlying hypnosis training programs would be more readily identified and modified in light of new information and research.

To establish this consensus, Elkins & Hammond (1998) surveyed 242 leading figures in clinical hypnosis as to their demographics, theoretical orientations, and recommendations for the specific topics which should be covered in hypnosis workshops, as well as the amount of time which should be

spent on each topic. They received a respectable 45% response rate, with a total of 109 questionnaires being returned by individuals representing a broad range of professional specialties and theoretical orientations.

They found that there was substantial agreement among participants as to the amount of overall time which should be allotted for training in clinical hypnosis (median and mode were both 40 hours, with a mean of 43.4), as well as the topics which should be covered. A majority of respondents (64%) believed that individualized training with supervised practice sessions should be included in the training, with an average recommended time allotment of 28 hours – nearly three quarters of the total recommended training time (Elkins & Hammond, 1998).

The results of this research were codified and integrated into a suggested curriculum, which was adopted as the ASCH Standards of Training in Clinical Hypnosis (Hammond & Elkins, 1994) in advance of the publication of the research describing its development. ASCH adopted the curriculum outlined therein as the basis of the ASCH Certification in Clinical Hypnosis Program (Elkins & Hammond, 1998).

The adoption of these standards represents the first ever formal effort to address the issue of minimal training standards within the field of clinical hypnosis. To help ensure that hypnosis workshop trainees go on to develop clinical effectiveness in the use of their new skill, the ASCH certification program

requires practitioners to receive additional supervision for their clinical use of hypnosis before becoming eligible for certification. This also provides a way for consumers to identify practitioners (ASCH-certified practitioners) who have received adequate training in the clinical use of this skill (Dane & Kessler, 1998). ASCH has since received approval to sponsor continuing clinical education by the Accreditation Council for Continuing Medical Education, the American Psychological Association, the National Board for Certified Counselors, and the Academy of General Dentistry (ASCH, n.d.). As such, ASCH serves as the nation's primary accrediting body for hypnosis workshops, and issues approval for programs offered by the Society of Clinical and Experimental Hypnosis (SCEH) and other, smaller societies which meet its standards of training.

Elkins & Hammond (1998) noted that instruction by methods which adhere to this standard "does not automatically imply competence or absolutely guarantee the quality of a practitioner's work" (p.63). While the Standards represent a monumental step forward for clinical hypnosis as a specialty, this basic limitation is a serious shortcoming of the ASCH Standards and the training programs based on them. The ultimate goal of professional training should be the development of measurable real-world competency. In clinical professions, this equates to therapeutic effectiveness.

Practical modeling and group practice are widely recognized as being vital to the cultivation of new clinical skills (Elkins & Hammond, 1998; Hammond,

1996; Wark & Kohen, 2002; Yapko, Barretta, & Barretta 1998). In order to move toward a more effectiveness-based training model, these types of concrete training methods will likely need to be provided over a longer period of time, and with a greater integration of ongoing clinical supervision. Some educators have already been moving in this direction independently. For example, Daniel Brown, Ph.D. has offered hypnosis training involving a standard 3-day workshop followed by 16 weeks of supervised practice and 16 weeks of clinical supervision. The Milton H. Erickson Institute of Philadelphia offers another example of a longer-term clinical training program in hypnosis. Their two-year program provides trainees with weekly 2-hour workshops with ongoing feedback and supervision (Dane & Kessler, 1998).

However, Dane & Kessler (1998) also note that organizing and maintaining such a program without institutional support is fraught with difficulties. To remedy this problem, they proposed the establishment of a nationally coordinated training program, with regional training centers all providing comparable, standards-based training experiences. Perhaps the most appropriate site for this model of hypnosis training would be academic institutions focused on the provision of clinical training. Although the American Medical Association's Council on Mental Health recommended that hypnosis training be made available through these types of institutions in 1958, growth in these

programs has lagged far behind that of non-academically affiliated programs (Dane & Kessler, 1998).

The first academically-affiliated clinical hypnosis training program to comply fully with the ASCH Standards of Training in Clinical Hypnosis and receive approval from the ASCH Standards of Training Committee was offered by the Adler School of Professional Psychology in Chicago, Illinois (Oster, 1998). The program provided nearly a year of training, including two 3-credit courses on the theories and techniques of hypnosis, two 3-credit courses providing in-depth clinical skills training, a 2-credit research seminar, and a 200 clock hour supervised practicum experience. The hypnosis program at the Adler school was approved by ASCH in February of 1995, and the content of the courses was revamped to directly correspond to the ASCH Standards of Training in February of 1996. However, the program was gradually disbanded. By 2008, the practicum and research seminar requirements had been dropped from the Adler hypnosis certificate program curriculum (Adler, 2008), and the courses were discontinued in 2010. Oster currently runs a comparable program at Argosy University Schaumburg, which has also received approval from the ASCH Standards of Training Committee.

Noting that hypnosis training programs must accommodate a variety of professional backgrounds and individual learning styles, Wark and Kohen (2002) developed a “spiral curriculum” for hypnosis training. The curriculum is based

on David Kolb's conceptualization of skill acquisition as a four-step process: concrete experiencing, reflective observation, abstract conceptualization, and active experimentation. According to Wark and Kohen, the active experimentation phase leads to the concrete experiencing of a new phenomenon and therefore a repetition of the cycle. They therefore conceived of learning as a spiral process in which each iteration of this learning cycle builds upon the ones that came before it.

For example, the fifth area of competency described in the *Standards of Training in Clinical Hypnosis* is "Principles and Processes of Induction and Re-Alerting: Principles in Formulating Hypnotic Suggestions." In order to provide a stepwise progression of skill development that was in accord with Kolb's model of learning, Wark and Kohen (2002) suggested breaking it up into parts which would be interspersed with content from other prescribed areas of competency: the 8th, small group practice; the 9th, deepening; and the 7th, demonstration of elicited hypnotic phenomena. In this way students are able to develop and integrate skills in a more cohesive way, with simpler hypnotic skills forming the basis for enactment of more complex ones. This model is in accord with Hammond's (1996) suggestion that students be provided with positive experiences early on in the training, in order to build their confidence in their ability to evoke and utilize hypnotic phenomena.

A final issue related to the provision of training in clinical hypnosis is the quality of instruction. The ability to perform a clinical service and the ability to teach others to do so are two separate skill sets. In spite of this, little attention has been paid to developing effective methods of training new clinical instructors, either in the field of clinical hypnosis or in the more general field of health care (Wark & Kohen, 1998).

Wark and Kohen (1998) provide a notable exception in their own 6-hour seminars for small group practice facilitators. They found that facilitators who received the additional training session prior to participation in Minnesota Society of Clinical Hypnosis introductory workshops tended to receive better student evaluations than their more experienced peers. However, as the authors noted, it is difficult to adequately control for all the potential confounding variables in this type of study. Future studies should more closely examine the facilitator variables which lead to more positive training outcomes, including improved student evaluation.

In any case, assessments of the effectiveness of clinical hypnosis training depend on the criteria used. In the future, we would like to see the development of criteria based on factors that have been shown to enhance the clinical effectiveness of trainees. In the meantime, we must settle for those criteria which most leaders in the field agree are important for effective practitioners of clinical hypnosis.

Standards of Training In Clinical Specialties

The development of unified standards of training within the clinical professions is a relatively new phenomenon. In 2004, the American Psychological Association's (APA) Council of Representatives approved a document which suggests guidelines for the development of doctoral-level training standards in psychology. The APA provides accreditation for graduate programs in psychology, but this accreditation is not based on any published or unpublished standards of training. Rather, accreditation is based solely on an evaluation of "the degree to which a program has achieved its stated training model" (APA, 2009, p. 2).

Certain specialties within clinical psychology have moved toward the establishment of clear standards of training for psychologists. Division 14 of the APA, the Society for Industrial and Organizational Psychology (SIOP), developed a set of guidelines for doctoral-level training in industrial and organizational (IO) psychology which were approved by the APA in 1985, and last updated in 1999 (SIOP, 1999). These guidelines describe 25 areas of competence which should be addressed by doctoral programs in IO psychology. However, the guidelines state explicitly that they

were not written for the purpose of providing the basis for graduate studies program certification, determining eligibility for specialty licensing as an I-O psychologist, establishing eligibility for membership in the Society, or

highlighting the continuing education and training needs of the profession (SIOP, 1999, p. 1).

The American Academy of Clinical Neuropsychology (AACN) attempted to develop a cohesive standard of training for clinical neuropsychologists in 2003. For this purpose a national conference was held with invitations sent to APA Division 40 (the Division of Clinical Neuropsychology) members, members of the National Academy of Neuropsychology (NAN), and the directors of a variety of training programs at the doctoral, internship, and postdoctoral levels. Their standard of training, published as a policy statement, established a preferred training model (scientist practitioner), definition of a clinical neuropsychologist, eligibility for training, and the domains of knowledge and skill that a clinical neuropsychologist should receive adequate training in. However, the policy statement was met with contention within the field of clinical neuropsychology, with many conflicting opinions regarding the optimal training requirements for clinical neuropsychologists emerging after its publication. The training standard has not subsequently been adopted by the APA or NAN (Reitan, Hom, Van De Voorde, Stanczak, & Wolfson, 2004).

Hypnosis is properly viewed not as a specialty, but rather as a clinical technique that is valuable to a wide variety of specialists (Dorcus 1958). Therefore, rather than comparing training in hypnosis to broad specialties such as clinical psychology or neuropsychology, it is more appropriate to compare it to

other clinical techniques employed by clinicians operating within two or more specialties. Very few suitable examples exist.

The unique nature of hypnosis as a multispecialty clinical tool makes it difficult to compare with other clinical techniques outside of the psychological profession. For example, surgical techniques requiring additional post-doctoral training are generally taught through a traditional apprenticeship model. A surgeon seeking training in Mohs micrographic skin surgery must undertake a 1-2 year fellowship in which they begin by assisting in these surgeries and are gradually allowed to act as the primary surgeon (American College of Mohs Surgery, 2012). Likewise, if a general physician wishes to gain expertise in the diagnosis and treatment of sports-related injuries, he or she will generally complete a 1-2 year fellowship consisting of shadowing a doctor who has specialized in sports medicine and gradually gaining additional skills and responsibilities (American Medical Society for Sports Medicine, 2012). No published curricula or training standards exist for either of these types of training experiences. Rather, knowledge is passed down from one practitioner to the next, as it has been throughout the history of medicine.

The field of clinical psychology is just beginning to consider developing formal standards of training for the various interventions which its practitioners use. For example, Cognitive Behavioral Therapy (CBT) is a well-studied set of interventions which has become widely used in both public and private mental

healthcare settings. However, there are no widely agreed-upon standards of training or practice for clinical psychologists utilizing CBT. Citing this as a concern, Barrington (2006) only recently published an essay intended to open discussion on the development of national standards for Australian psychologists by disambiguating the definition of CBT and interventions which can reasonably be considered to fall within its scope. No publications could be found which would indicate that such a dialog is even taking place in the United States or Europe at this time.

Given that hypnosis is widely considered the progenitor of psychotherapy, and that it has experienced continuous scientific and clinical development, it is sensible that this area of inquiry should continue to lead the way in the development of the field of clinical psychology. Hypnosis is unique in having established a widely agreed upon set of standards of training, and is therefore a model for effective, organized training provided by professional societies.

Furthermore, the existence of those standards positions hypnosis to continue to lead the way in the advancement of high quality non-academic clinical training programs. By developing outcome measures which determine the extent to which trainees in ASCH-approved hypnosis workshops have acquired the knowledge and skills prescribed by the *Standards of Training*, it may be possible to advance the state of clinical training not only in the use of hypnosis, but in all clinical fields.

The present study aims to begin that process by measuring the effectiveness of two training modules designed around current training standards in clinical hypnosis. The competency requirements for ASCH-approved Basic workshops in clinical hypnosis address 15 areas of competency. This study addresses only the first and fifth competencies listed in the ASCH standards, those being the first didactic competency requirement and the first skill-acquisition competency requirement, respectively. The learning objectives and recommended content for the two training modules being addressed in this study, as described in the *Standards of Training in Clinical Hypnosis* (Hammond & Elkins, 1994), are enumerated below:

1. Definitions, History, and Theories (40 minutes)
 - a. Learning objectives:
 - i. Provide a scientific definition of hypnosis.
 - ii. Provide a history of the use of hypnosis.
 - iii. Describe the major theories of hypnosis: neo-dissociative, social psychological, psychodynamic, social learning, Ericksonian, and multifactor formulations of hypnosis.
 - b. Recommended content:
 - i. Discussion of history should include Mesmer, Marquis de Puysegur, di Faria, Elliotson & Esdaile, James Braid, Liebeault

& Bernheim, Charcot, Janet, Freud & Breuer, Erickson, and the history of SCEH and ASCH.

- ii. Discussion of theories should indicate that “hypnotic response is most likely a multidimensional, multicausal phenomenon involving some varying combination and reciprocal interaction between several possible factors,” (p.5), among which are included heredity, various physiological factors, dissociation, absorption, social expectancy and response, and interpersonal-environmental variables.

5. Principles and Processes of Induction and Re-Alerting: Principles in Formulating Hypnotic Suggestions (150 minutes)

a. Learning objectives:

- i. Explain the specific steps involved in a hypnotic induction.
- ii. Discuss the importance and use of realerting techniques.
- iii. Discuss the principles of hypnotic induction and suggestion.
- iv. Identify at least 4 different types of hypnotic suggestions.

b. Recommended content:

- i. The steps in facilitating hypnotic induction include: patient education, enhancement of attention and absorption, facilitation of involuntary responding, and realerting.

- ii. Discussion should emphasize the importance of rapport, positive expectancy, positive suggestions, trance ratification, and careful observation. It should also orient students to the law of reversed effect, the law of dominant effect, the law of concentrated attention, and Erickson's principle of utilization.
- iii. Discussion of the types of hypnotic suggestions should include: truisms and contingent suggestions, the use of questions, implication, interspersing suggestions, double bind, and the use of analogy and metaphor.

Because ASCH certification is recognized by every major professional society representing the interests of clinical and experimental hypnosis, these standards can be considered a good starting point for an empirically validated training program. Much of the content and structure of the training modules tested in the present study were adapted from those developed and used by David Wark, Ph.D. during his tenure as Chairman of the Basic Workshop for the Society of Clinical and Experimental Hypnosis' (SCEH). These training modules therefore conform to both the ASCH standards and the Spiral Curriculum model of hypnosis training.

The modules, designed by Edward Frischholz, Ph.D. and David Godot, M.A., were initially employed at the basic clinical hypnosis workshop held at the annual meeting of the Society for Clinical and Experimental Hypnosis in Reno,

Nevada in October, 2009. The modules were then updated based on feedback from both faculty and students at that workshop. However, it was unknown whether these modules provided an effective format for the transmission of the specific knowledge and skills which they are designed to impart on students.

Methods of Assessing Successful Acquisition of Clinical Skill

Because the modules contain both an informational component and a skill-acquisition component, it was necessary to use separate experimental methods for assessing the outcomes of these two types of learning. The acquisition of knowledge (history, definitions, and theories of hypnosis) was assessed using a standardized questionnaire administered both pre- and post-intervention. The other module examined in this study aims to impart competence in performing a specific clinical skill (hypnotic induction).

The skill acquisition module, on the topic of Hypnotic Induction and Realtering, consisted of three separate training sessions which occurred non-consecutively during the first part of the workshops. Two of these sessions were comprised of lectures and one was a demonstration. Each session was followed by a supervised small-group practice session. Skill acquisition was measured during the third practice session, using expert ratings on a four-point subjective scale.

It was therefore necessary to develop a model for assessing whether that competence had been successfully imparted. This turns out to be a more

complicated issue than it may at first seem, because it is not well established what specific elements of the hypnotic induction procedure lead to a successful outcome relative to a patient's innate level of hypnotic responsivity.

Although hypnosis may be used as a part of many different medical and paramedical practices, it is most similar to psychotherapy in this regard. In their review of the issues and methods related to assessing intervention competence in psychotherapy, Barber, Sharpless, Klostermann, and McCarthy (2007) outlined a number of basic problems. Most notably, they cited a lack of conceptual clarity in many attempts to measure competence. Most of the measures used to determine intervention-specific competence fail to differentiate competence from related constructs such as treatment integrity and adherence. They elaborate:

competence can be thought of as the judicious application of communication, knowledge, technical skills, clinical reasoning, emotions, values, and contextual understanding for the benefit of the individual and community being served. Further, we suggest that the crucial distinction between adherence and competence is the type of knowledge that each demonstrates. Adherence demonstrates that one knows "how" to intervene and can actually do so. In a sense, adherence is context-independent knowledge. Competence, on the other hand, is always context dependent and requires a knowledge of "when" and "when not" to intervene. It is

predicated on a (possibly tacit) sense of appropriateness, responsiveness, good judgment, and clinical acumen (p. 494).

Watkins (1947) measured the success of his original in-service training program by the observable ability of his students to hypnotize others by the workshop's conclusion. He reported that each of his ten students "had mastered two fundamental methods of inducing trances, postural-swaying and eye-fixation, and had become familiar with other variations. Each induced trance in several of the subjects and acquired facility in the use of the simpler therapeutic methods..." (p.440). Additionally, Watkins noted that by the time the course concluded several of the students had begun to use the hypnotic techniques in their clinical work, and were reporting good results. This early method of direct observation constitutes the standard method of ascertaining the success of non-academic clinical training up to the present.

Even the current ASCH *Standards of Training* (Hammond & Elkins, 1994) do not call for any particular method of measurement to ensure the success of trainees, nor do they promise that workshops which comply with the Standards will produce competence in the trainees exposed to them. In fact, even after the additional requirements for ASCH certification beyond workshop training are met, certification still "does not automatically imply competence or guarantee the quality of a practitioner's work" (p.4). The *Standards* simply offer a selection of content areas which experts agree should be covered in a clinical hypnosis

workshop. The development of methods and materials for teaching and outcome assessment is left entirely to the workshop providers.

Where it has been offered in academic settings, hypnosis training has included additional measurements of learning commensurate with what can be expected for all graduate-level academic courses. For example, in his later hypnosis program at the University of Montana, Watkins (1998) measured his students' learning with a 100-question objective test. Perhaps more importantly, students were subjected to a continuous sequence of supervised practical experiences which required the successful use of hypnotic techniques in order to complete. For example, students were required to administer hypnotic susceptibility measures to a number of potential research subjects as a regular part of their education.

In describing his program, Watkins (1998) makes no mention of any incidence or mechanism for dealing with students who failed to perform these tasks. This may indicate that such an occurrence did not take place in Watkins' 21 years of teaching the hypnosis program. However, even if isolated incidences did occur during that time, Watkins' failure to discuss this aspect of the program in his otherwise very thorough description indicate that a fairly long-term, integrated practicum such as his program offered is an effective method for producing practitioners who can demonstrably succeed in utilizing the clinical skills being taught.

Wark and Kohen (2002) developed a model for evaluating the success of hypnosis training provided in a workshop format. Under this model, evaluation is based on two measurements of participants' performance in supervised practice sessions: the participant's subjective feelings of competence in performing the assigned hypnotic operations, and their exhibition of specific behaviors taught in the workshop. The participants' feelings of efficacy are ranked on a scale from 0 (meaning "I'm not sure I know how to do it at all") to 5 (meaning "I can do it very well"; p.126). The behavioral rating, to be completed by small group practice supervisors, consists of a checklist of behaviors which had been described and suggested during the lecture and demonstration portions of the training. Items on the checklist include techniques for developing and maintaining rapport, various types of deepening suggestions, and behaviors related to the realerting process.

There are some significant shortcomings to this evaluation model, however. Wark and Kohen's (2002) subjective rating scale tells us only about the learner's confidence in their performance. While most trainers would probably agree that it is beneficial to promote learners' confidence in their ability to perform the task at hand, this measurement does not give us insight into their actual degree of competence in doing so. Their behavioral rating system suffers from the problem described by Barber and colleagues (2007), namely that it provides a measure of adherence but not a measure of competence. From it, we

can ascertain the degree to which the learner followed instructions, but not how well or appropriately they did so.

Another model is the qualitative assessment model used by Brown Medical School in the assessment of non-traditional competencies (Smith, Goldman, Dollase, & Taylor, 2007). Rather than break down competencies into discrete and measurable sequences of behavior, the Brown model divides each competency into a set of qualitative criteria that describe the spirit of the competency being learned. A candidate's success in meeting these criteria is then evaluated by recognized experts or 'connoisseurs' in the relevant competency area. These expert raters must discuss their views on the learner's performance and arrive at a consensus as to whether the learner has displayed competence.

The skill acquisition module examined in this present study, on the topic of Hypnotic Induction and Realtering, consisted of three separate training sessions which occurred non-consecutively during the first part of the workshops. Two of these sessions were comprised of lectures and one was a demonstration. Each session was followed by a supervised small-group practice session. Skill acquisition was measured during the third practice session, using expert ratings on a four-point subjective scale. For our purposes, it was impractical to collect ratings from multiple expert raters, as staffing limitations allowed for only a single expert supervisor to oversee the practice sessions for each small group. Therefore, as mentioned earlier, the validity of our findings is limited by our

inability to gauge inter-rater reliability. In order to enhance the reliability of each individual rating, we provided our raters with training in how to administer our rating system, as well as materials to help orient them to the various aspects of competency which may or may not be manifest in any given practice session.

CHAPTER III

METHODOLOGY

Samples Employed

The study employed a convenience sample comprised of 11 voluntary enrollees in the 2010 Chicago Society of Clinical Hypnosis (CSCH) introductory hypnosis workshop, 20 voluntary enrollees in the 2010 Society for Clinical and Experimental Hypnosis (SCEH) introductory hypnosis workshop, and 6 voluntary enrollees in the 2011 SCEH introductory hypnosis workshop. In each setting, workshop attendees had demonstrated that they were eligible for membership in the society sponsoring the workshop. Membership in these societies requires that individuals be either licensed healthcare professionals or graduate students enrolled in programs aimed at providing eligibility for this type of licensure. No data about the age, gender, level of education, or professional specialty of individual participants was available, and so this study is not able to account for potential differences between groups of participants.

Due to the unique constraints of each workshop, we were not able to collect a complete data set from each group. Skill acquisition scores were collected for CSCH and SCEH workshop participants. One CSCH participant dropped out of the workshop, for a total sample of 16 participants for the skill acquisition module.

A full set of knowledge acquisition scores was obtained for all 11 CSCH workshop participants. Due to time constraints, only selected content scales from the didactic module could be administered to 2010 SCEH workshop participants. An abbreviated presentation and pretest/posttest questionnaire were prepared for this group so that they could be administered content related to Mesmerism, Early Theorists, and Professional Societies (these and other content scales are described in Appendix B). Therefore, $n=31$ for data concerning these three content scales, while $n=11$ for data concerning all other content scales and for the overall pretest and posttest scores.

Instruments Used

All instruments used in this study were created as a part of an ongoing initiative to standardize training in clinical hypnosis. The study measured two types of learning: information retention and skill acquisition.

Information retention was measured using a 30-item multiple-choice questionnaire designed for this study by Edward Frischholz, Ph.D. and David Godot, MA. The items on the questionnaire (included as part of Table 3) were based on the material presented in the didactic training module, which was in turn derived from the content guidelines published in the *ASCH Standards of Training* (1994). Each question is accompanied by five potential answers: one correct answer, three misleading answers, and a final option for “I don’t know.”

Participants were encouraged to answer “I don’t know” rather than guess on any questions they did not know the answer to.

After initial development, the questions were sent to experts in the field of clinical hypnosis training for final editing and selection as to which questions would and would not be used on the final study questionnaire. These experts included Dabney Ewin, M.D., D. Corydon Hammond, Ph.D., Marc Oster, Psy.D., and David Wark, Ph.D. Their feedback was incorporated into the instrument prior to the study. The development and rationale for each item on the questionnaire are explored in detail in Appendix A.

Test items were developed for each of the three sections: (a) history; (b) theories; and (c) definitions. Items within the first two sections were placed in historical order in order to identify the chronological development of key issues in understanding the nature and applications of hypnosis. The section on definitions was used as a concluding section to summarize and emphasize that different theoretical conceptualizations of hypnosis and its underlying mechanisms still have not promoted the general acceptance of a standard definition based on accumulated scientific evidence or clinical practice and experience. Rather, historical conceptions and different theories have identified a number of issues which must be addressed by any adequate definition of hypnosis.

An attempt was made to word each test question in such a way as to force participants to recognize and discriminate the correct response option (a false

statement) from three other correct response options. Thus, the format reinforced the participants' learning experience by re-exposing them to true information while asking them to distinguish a single false item among several true items.

A fifth response option, "I don't know," was also included for each question so that we might be able to distinguish questions for which respondents did not know the answer from those on which they thought they knew the answer but were incorrect. Administration instructions specified that participants were to spend no more than 20 seconds on each test question and, if after that amount of time they did not recognize the correct answer, they were to circle the "I don't know" option instead of guessing. This format is especially useful on the pretest as it allows the measurement of what content subjects do not know even if they do recognize some of the material.

The time allocated for both the pre- and post-test was 10 minutes, because the instructions specify that no more than 20 seconds (i.e. 3 questions per minute) should be spent on trying to answer each question. As there are 30 questions on the questionnaire, 10 minutes should be the expected amount of time to actually take the test once it has been handed out and identifying information on the cover has been filled.

Historical figures were chosen based on consensual acknowledgement of their contributions and achievements. In most cases, the historical figures included in this module are directly suggested for inclusion by the ASCH

Standards, which represent a consensus within the clinical hypnosis community at the time that they were being developed in 1994 (Elkins & Hammond, 1998). Modifications and additions to the ASCH recommendations have been made to account for advances in the field during the 16 years since the publication of the Standards. The selection of relevant historical figures was limited to individuals who are no longer living in order to present students with only that information which has remained relevant in the context of continued development within this field. In this study, the instrument showed an acceptable level of internal reliability, with Cronbach's $\alpha = .79$.

Division Into Content-based Subscales

The History, Definitions, and Theories of Hypnosis training module presentation and questionnaire each present information chronologically, such that related historical figures and events appear in connection with one another. The data can therefore be naturally divided into a number of clusters which each reflect a particular topic or historical period. We refer to these clusters as subscales to indicate that they each focus on a single, related area of information within this training module. It should be made clear, however, that the designation of these subscales is strictly for convenience and should not be taken to imply a statistical relationship between items.

The separation of items into topical subscales allowed us to deliver and score partial administrations of the didactic training module in cases where time

constraints did not allow for complete administrations. The individual content subscales are detailed in Appendix B. On partial administrations, an acceptable level of internal reliability was found for the reduced question set, with Cronbach's $\alpha = .70$.

Skill acquisition

After being asked to perform an improvised hypnotic induction and re-alerting procedure, participants were assigned a rating of overall competence in the procedure on a scale from 0 to 3. Raters were provided with a checklist of behaviors that competent practitioners will tend to exhibit during this exercise, but were instructed not to attempt to keep score based on this checklist. Instead, they were advised that "the listed behaviors are simply to help you orient yourself to the various aspects of the learner's performance before making a subjective rating of the overall competency demonstrated."

A score of zero indicates a lack of competence to use hypnotic induction in clinical practice, meaning that the participant either failed to follow instructions or executed the procedure poorly. A score of one indicates that the participant demonstrated a minimal level of competence for professional use by completing the procedure as instructed. A score of two indicates a moderate level of competence, defined as having shown some degree of adaptation to the specific client and situation. A score of three indicates a high level of competence,

meaning that the hypnotic induction procedure was completed in a manner that was fluid and improvisational.

The use of a behavioral checklist coupled with a subjective rating scale to measure skill acquisition represents a compromise between Wark and Kohen's (2002) behavioral rating model and the Brown University subjective expert rating model (Smith et al, 2007). The integration of these two methodologies led to the creation of the Revised Wark Checklist, which lists Wark's original behavioral anchors (D. Wark, personal communication, May 29, 2010) along with the 4-point rating scale. Additionally, Wark's original checklist items were revised to better suit their purpose as an orienting checklist for workshop supervisors.

Wark's checklist item for vocal pacing was moved under the heading of Pacing on the checklist. A new, additional item "Language utilizes subject's observable behaviors" was also added under this heading, and items calling for the supervisor to record the percentage of time a supervisee engaged in particular behaviors were eliminated. Finally, additional blanks were added to the checklist for supervisors to record subject's self-ratings of hypnotizability and alertness. These blanks serve to collect data which may be analyzed for separate studies ongoing at SCEH.

Procedures Followed

The first step in developing this study was the creation of a set of standardized clinical hypnosis training modules based on the current ASCH

Standards of Training (1994), as described above. Once the modules were accepted for inclusion in the introductory workshop curriculum for each of the professional societies, training and assessment materials were provided to the societies for administration and data collection. Trainings were administered by volunteer faculty appointed by the societies. This procedure was approved by the Adler Institutional Review Board (IRB), and the letter of approval is included as Appendix C.

As noted, data were collected during three separate 3-day introductory hypnosis workshops hosted by professional societies, each with separate workshop faculty. However, each of the societies had accepted the ASCH standards of training and had similar membership requirements and demographics. After being collected and compiled by the societies, the data set was provided to the present author for analysis. The data included raw scores for both training modules, as well as identifiers for the date and location of collected data.

CHAPTER IV

RESULTS

Didactic Module Overall Scores & Scale Scores

The posttest scores attained by study participants after being exposed to the informational module were compared against pretest scores collected prior to exposure (Table 1). The dependent variable in this case is the participants' scores on the questionnaire as a whole, on each content scale, and on individual items. The independent variable is the administration of the didactic presentation.

It was hypothesized that workshop participants would score significantly higher on our 30-item questionnaire after being exposed to the History, Definitions, and Theories of Hypnosis didactic presentation. We tested this hypothesis using a one-tailed, paired t-test for the overall scores, as well as individual scale scores. This helped to ensure that each content area has been addressed sufficiently to significantly increase participants' knowledge in that area. We additionally examined the frequencies of correct and incorrect responses to identify outliers which might be improved upon in future versions of the training module and questionnaire.

The presentation and questionnaire were divided into topical scales (Appendix B) in order to accommodate the limitations of their use in clinical workshop settings, in which time constraints did not always allow for complete

administrations of the module. Therefore, results for some scales have a full $n=31$, while others have $n=11$.

The overall mean score ($n=11$) increased from 3.45 (11.5% correct) on the pretest with a standard deviation of 3.47, to 18.45 (61.5% correct) on the posttest with a standard deviation of 4.96. A paired t-test was used to evaluate these scores, yielding a statistically significant difference ($t=12.4$, $p<.001$, one-tailed.) The effect size of the full administration of the didactic module was 4.32 standard deviations, which is significant within a 95% confidence range calculated according to guidelines published by Hedges and Olkin (1985).

The next step in assessing the outcome data for the didactic module was to perform these same analyses on the set of 16 questions which were administered to all 31 study participants across three separate hypnosis workshops. The mean score for this question set increased from 1.97 (12.3% correct) to 11.16 (69.75%) after the administration of the didactic presentation. This also yielded a statistically significant difference ($t=16.61$, $p<.001$, one-tailed) as well as a highly significant effect size of 4.3. The similarity in effects between these two groups justifies combining the two samples in the final data analysis for all questions which were administered to both groups.

To further determine whether any significant differences might exist between workshop cohorts, the pre-test/post-test scores for the CSCH and SCEH samples were separated and analyzed independently. For the 16 questions which

were administered to both samples, the CSCH sample ($n=11$) showed a mean pre-test score of 2.36 (14.77%) with a standard deviation of 2.69, and a mean post-test score of 9.64 (60.23%) with a standard deviation of 2.87. This result was highly significant ($t=9.52$, $p<.001$, one-tailed.) The SCEH sample ($n=20$) showed a mean pre-test score of 1.75 (10.94%) with a standard deviation of 1.80, and a mean post-test score of 12.0 (75%) with a standard deviation of 2.43. Again, this result was highly significant ($t=15.91$, $p<.001$, one-tailed.)

Both samples showed highly significant improvement on post-test scores. However, the difference between t-scores for each sample warranted closer examination. Therefore, results for the group workshop samples were compared using an independent samples t-test (Table 4). This analysis revealed no significant differences between the two groups on the pre-test, thereby justifying a combined consideration of the samples and confirming the previous analysis.

However, there was a significant difference in the post-test scores between the two samples. Despite earning higher scores on the pre-test than the SCEH group, the CSCH group earned significantly lower scores on the post-test.

Next, we examined the results of each topical scale separately to ascertain whether the module had succeeded in improving knowledge of each related subject area prescribed by the ASCH standards. As shown in Table 1, we found that this was the case for each individual subscale. The scale showing the lowest level of significance in a paired t-test ($t=2.6$, $p\leq .01$) was the Psychoanalytic

Scale, a two-question scale examining Freud and Breuer's involvement in the history of hypnosis. The effect size on this scale (1.04 standard deviations) was significant within a 95% confidence interval.

Didactic Module Individual Item Frequencies

Examination of the pre-test data (Table 3) reveals the pre-existing knowledge and attitudes of workshop participants. For example, the pre-test data for question 1 shows that 25.81% of workshop participants incorrectly believed that Mesmer was not usually considered the father of clinical hypnosis. The administration of the didactic module corrected this preconception in the majority of participants, with only 9.68% of participants making the same mistake on the post-test. Likewise, question 2 shows that the module successfully corrected a popular misconception that Mesmer's treatments had been found ineffective.

The data for question 6 shows that the information addressed by this question was successfully imparted by the module and successfully measured by the questionnaire. A large percentage (93.55%) of respondents answered "I don't know" on the pre-test, with 77.42% selecting the correct response on the post-test. Questions 8, 12, and 17 show a similar response pattern.

By plotting the score frequencies for each of the 30 items on the posttest questionnaire, we identified 5 items which may be problematic (see Table 2). Answer key and response frequencies are shown in Table 3.) Fewer than 50% of

participants were able to answer these questions correctly following the administration of the didactic presentation.

The single most difficult item was question number 3, an item on the Mesmerism scale which relates to the Marquis de Puysegur. The question refers to a single slide. The correct response (option D) was selected by just 3 of the 31 participants who attempted it, for a success rate of 9.68%. Response option A was selected by 64.25% of subjects on the post-test. The high rate at which this incorrect answer was selected may indicate that the question is either too confusing or too misleading, or that the slide which presents the information does so in a manner which inadequately distinguishes between these two ideas.

Another difficult item which may have been problematic was question number 14. This question was one of only two items on the Psychoanalysis scale, and was answered correctly (option C) by just 36.36% of post-test respondents. More than one quarter (27.27%) of participants incorrectly selected option D, while the same number selected “I don’t know.” The broader distribution of incorrect answers on this item suggests that the test item itself is likely sound, and that more elaboration on the associated information within the presentation would improve subjects’ performance on this item. The item related to Sigmund Freud’s early mentor Josef Breuer, who is a relatively little-known figure within the field of psychology. The second item on the Psychoanalysis scale related to the much

more popular figure Sigmund Freud, and was answered correctly by 87.1% of respondents.

Skill Acquisition Module Scores

At the conclusion of the 3-part skill acquisition module, participants were asked to perform a hypnotic induction and realerting procedure in a supervised small-group setting. A single subjective rating of competency was rendered by an expert rater/workshop supervisor based on subjects' performance during this practice session. Because the workshop was offered as an introduction to the practice of clinical hypnosis, it was assumed that most participants began the training with no pre-existing skill in performing a hypnotic induction procedure.

For this portion of the experiment, the dependent variable was the rating given by the supervisors. The independent variable once again was the administration of the training module, which in this case involved two presentations, a demonstration, and three supervised practice sessions. It was hypothesized that most workshop participants would achieve a rating of 1 on this task, indicating that they had achieved a minimal level of competence to introduce the practice of hypnotic induction into their clinical work. No participants were expected to receive a rating of 3, indicating an expert level of competence, at this stage of their training.

A frequency histogram of competency ratings for this module is shown in Figure 1. Sixteen participants completed this module, and of those none received

a score of 0, which would indicate no competence. The scores formed a normal distribution, with 12.5% of participants receiving a score of 1, 75% of participants receiving a score of 2, and 12.5% of participants receiving a score of 3.

A one-sample t-test assuming an initial mean value of zero or some other estimate can be conducted when one assumes a pre-test mean value, usually zero (Guilford & Fruchter, 1977). Participants were assumed to have little or no pre-existing skill in performing a hypnotic induction, due to the nature of the workshop, and so a one-sample t-test with a test value of 0 was used to determine the significance of participants' improvement following administration of the training module. This yielded a t-value of 15.49, indicating a highly significant improvement ($p < .001$).

However, in examining the scores, we wanted to account for the possibility that these ratings may be inflated. We had hypothesized that most participants would earn a score of 1, indicating a minimal level of competence to use the technique in clinical practice, with no participants earning a score of 3, indicating an expert level of competence. We therefore adjusted our test-value to 1 and performed another single sample t-test, in order to determine the significance level of the intervention at the expected, lower, rating level. This test produced another highly significant improvement in scores ($t=7.75$, $p < .0001$ single-tailed).

CHAPTER V

DISCUSSION

This study clearly demonstrates that our standardized training modules provide a good starting point for developing a workshop curriculum which uniformly addresses all requirements of the ASCH *Standards of Training* in a manner that effectively imparts the knowledge and skills prescribed therein. It furthermore establishes a model for empirically validating that standardized curriculum to ensure that it accomplishes its stated goals. We have demonstrated how this type of scientific scrutiny will enable trainers to critically evaluate their workshop materials, allowing for continuous improvement of workshop effectiveness.

Workshop Standardization versus Individual Differences

A major objection to our efforts to standardize training in clinical hypnosis is the risk that this standardization could come at the expense of the individual differences in teaching styles, theoretical models, and the personal depth of experience that has come to characterize training in clinical hypnosis. However, we have no interest in attempting to standardize these aspects of a workshop. Our only intention is to ensure that all prescribed subject areas are covered.

Frischholz (2010) examined 20 ASCH-approved workshops and found that only one met all the recommendations of the ASCH *Standards of Training*. While students should certainly benefit from the unique expertise of their

workshop faculty, their exposure to the field of hypnosis through this workshop should not be limited to that faculty's personal preferences. Every student should receive the benefit of being exposed to all the content areas deemed most important by a consensus of experts within the field.

Outcome-Based Training

Verifying the effectiveness of clinical training programs is a natural extension of the movement toward evidence-based practice. However, it is this author's opinion that this should be seen as only an intermediate step toward improving the scientific basis of clinical training. Ultimately, clinical training should be judged by the clinical effectiveness of the practitioners that it produces.

While the consensus model of training standards remains the best currently available within this field, it is this author's hope that the field will evolve toward an empirically-based competency model, in which the standards are updated to reflect those training factors which will have been found to lead to better clinical outcomes. Doing so will require not only a great deal of additional research, but also a new paradigm in educational and clinical research which we hope to play a role in promoting.

The development of an outcome-based training model would first require the establishment of a clear model for understanding what factors make a clinician successful in producing cures. This is a long-neglected issue that is receiving more attention of late (e.g. Shedler, 2010), but still remains largely unstudied. It

will be necessary to move beyond the field's focus on outcome research to encompass the treatment processes associated with positive outcomes. Adequate staff and experimental control for this type of research are most likely to be found in a grant-funded academic settings or hospital systems.

The Need for Follow-Up

In the case of both knowledge retention and skill acquisition, long-term follow-up is necessary to assess a number of factors important to learning. First and foremost, it will be important to demonstrate that training provided during the course of a three-day workshop can have a long-term impact on a clinician's knowledge and skill. We adapted elements of Wark and Kohen's (2002) Spiral Curriculum because it is built on a solid foundation of educational theory, and so provided a good starting framework. However, this framework must still be subjected to real-world empirical study in order that we may find its weaknesses, strengthen its results, and ultimately improve the manner in which clinical knowledge and skill are conferred.

Longer-term studies could also help us to determine how well our introductory curriculum inspires participants to continue expanding their knowledge in this field. The introductory workshop provides only the basic set of skills necessary to begin using clinical hypnosis ethically and responsibly. The field of hypnosis represents a 200-year tradition of scientific research and clinical practice, with many highly advanced areas of study available to interested

practitioners. Apart from providing basic skills, the introductory workshop should also provide a suitable induction into this tradition. Follow-up studies should examine which aspects of the introductory workshop most strongly motivated participants to continue learning about hypnosis.

Measuring Skill Acquisition

In order to account for the unexpectedly high ratings received by two separate cohorts of workshop participants, we adjusted our statistics to assume an improbably high level of competence at the outset of the training. This analysis showed that even with a 25% score adjustment, the level of competence demonstrated by our workshop participants would be extremely unlikely without exposure to the training module.

Despite our efforts to adequately train our expert raters, the present study was limited by a lack of any baseline for ratings attained on the skill acquisition module. In order to really understand how well the training program is working, we must clearly establish the reliability of our ratings. Future studies might accomplish this by exposing prospective raters to a group of simulated workshop participants who have been instructed to portray various levels of competence. In this way it could be determined how consistently raters are identifying the target levels of competency, and methods of improving the reliability of ratings could be ascertained. Additionally, future studies should use multiple raters for each

practice session, so that inter-rater reliability can be measured. We hope that the results of this study will encourage further exploration in this regard.

Measuring Knowledge Retention

Because the samples for this study were self-selected based on registration for introductory clinical hypnosis workshops, we expect that pretest scores may be somewhat higher than those which would be found among the general population or among other healthcare professionals who have no interest in hypnosis. Regardless, we found that post-test questionnaire scores were significantly higher than pre-test scores using a one-tailed significance test.

Additionally, because our two samples were taken at separate workshops, held by separate societies, and in different geographical locations, their statistical similarity provides evidence that the results we found here may be generalized to the larger group of clinical professionals who seek this type of training. The scores achieved by the two samples differed in only one respect: there was a significant difference between the mean post-test scores earned by the two cohorts. Because the CSCH group was administered the full module and the SCEH group was administered only selected subscales, this difference likely reflects the greater quantity of information that the CSCH group was asked to absorb. The didactic module is intensive, offering workshop attendees a large quantity of information in a limited amount of time. Future studies should examine the effects of

spreading the information out over a longer period of time, or condensing the information further to promote retention.

An interesting issue that arose in assessing the knowledge retention data was the discrepancy between the final percentage scores our workshop participants attained, and those which would typically be expected in an academic setting. Our participants earned an average score of just 61.5%, whereas an average score in an academic class is typically considered to be a C (80%). However, we identified 5 questions on which students attained unusually low scores. The reasons for this may be related to either the manner in which the material was presented or the manner in which the question was formulated. A number of other questions which were not identified as problematic still showed relatively low success rates. Careful inspection and revision of those content areas which yielded low success rates could easily increase the average score to around 80%, as this would require only an additional 5 correct answers per participant.

It should also be borne in mind that an average academic course takes place over approximately 40 hours, whereas the didactic module was administered in just 50 minutes, including the pre-test and post-test. The didactic module can therefore be thought of as comparable to a single classroom session within a longer course, with no additional time for study or processing provided before post-test administration.

Additionally, since the instrument is being used as an assessment of the teaching methods rather than of the students, the issue of low scores is not entirely problematic. A more difficult, sensitive instrument such as the one that we have developed is more useful in isolating content areas that need additional attention, or alternate teaching approaches. The modest level of internal reliability yielded by this instrument, however, suggests that there is room for improvement in creating instruments which truly measure learning in a reliable and consistent manner.

At various times during the collection of data from workshop participants, workshop faculty were asked to complete the pre-test and post-test for the didactic module and render their subjective impressions. One workshop chair remarked at how embarrassed he was at being unable to answer most of the questions on the pre-test, and how much he benefitted from the presentation as indicated by a 2.5 to 3 standard deviation on his post-test score. Other SCEH basic workshop course instructors made similar comments. At this time, no organized study has been performed to assess the performance of hypnosis experts and educators on this pretest. Nevertheless, these preliminary data indicate that a significant proportion of experienced SCEH course instructors had difficulty discerning the nuanced knowledge of hypnosis history, definitions, theories, and societies of hypnosis which is demanded by the questionnaire.

It will be up to future studies to improve the validity and reliability of these test items and of the questionnaire as a whole. The important goal in improving these materials is to ensure that a maximum number of students attain a thorough knowledge of the subject matter. This issue is less important for the present study, which aimed to create a model for empirically validated training, because the integrity of the data was not ultimately disrupted by these problems. If anything, we have demonstrated a significant benefit of subjecting this type of training program to scientific scrutiny by showing how the data can be used to directly improve future iterations of the program.

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Appendix A

Background information for each of the thirty items on the History, Definitions, and Theories of Hypnosis pre-test/post-test questionnaire is provided below:

Franz Anton Mesmer and the 1784 Royal Commission

Franz Anton Mesmer is generally acknowledged as the “father of modern clinical hypnosis” (Hilgard, 1965; Gauld, 1992). Mesmer earned his doctorate at the University of Vienna (where later Joseph Breuer and Freud would earn their medical degrees). He coined the term “animal magnetism” for what would later be called “hypnosis” and believed that he could project a magnetic force from his body onto others which could influence their thoughts, behavior and physiology. Mesmer later moved to Paris and opened a clinic.

He also developed a device called a “baquette” which was basically a wooden tub filled with water and iron filings. He believed the baquette facilitated the flow of the magnetic force from his body. His patients would hold on to iron rods which projected from the side of baquette in order to have this healing magnetic force enter their bodies. Patients “magnetized” in such a way would often then enter a cathartic fit (called a “Mesmeric Crisis”). When they emerged from this fit, they typically reported that their symptoms had disappeared (Gauld, 1992).

The first test question (item #1) re-exposes subjects to the facts that: (a) Mesmer is considered to be the “father of modern clinical hypnosis”; (b) Mesmer used a baquette in his treatment; and (c) Mesmer earned his medical degree from the University of Vienna. The correct answer forces the subject to distinguish that Mesmer’s theory of animal magnetism is not a theory about “human attraction.”

Mesmer’s cures attracted the attention of King Louis XVI who in 1784 appointed a royal commission to confirm the validity of Mesmer’s theory of animal magnetism and corroborate the effectiveness of his treatment methods. The 1784 Royal Commission was chaired by the American Ambassador to France, Benjamin Franklin, who was considered to be one of the greatest scientists of the time because of his experimental work on the nature of electricity. Other members of the 1784 Royal Commission included the noted chemist Antoine Lavoisier, the physician Joseph-Ignace Guillotine, and the astronomer Jean Sylvain Bally. The Commission actually corroborated the effectiveness of Mesmer’s cures but discredited the theory of “animal magnetism” which he claimed explained those cures. The Commission instead proposed that human imagination was responsible for the cures. The 1784 Royal Commission distinguished between *process* and *outcome* by identifying that one cannot use a successful treatment outcome to prove the underlying mechanism (i.e., process) by which that outcome was achieved (Gauld, 1992).

The test question (item #2) about the 1784 Royal Commission is worded in such a way that the subject must distinguish the true response from three false statements about its findings: (a) the 1784 Royal Commission did not identify that Mesmer plagiarized his doctoral dissertation (a true fact later published by Frank Pattie (1956); (b) the Commission did not discredit all of Mesmer's claims about successful cures; and (c) the Commission did not corroborate the validity of Mesmer's theories. Rather, the 1784 Royal Commission actually corroborated some of the positive treatment outcomes that Mesmer obtained. The commission, however, noted that one cannot use positive treatment outcomes to validate a theory about why a patient gets better (Gauld, 1992).

The Marquis de Puysegur

The Marquis de Puysegur (1751-1825) learned about Mesmerism from his brother. His most famous patient was Victor Race. Puysegur noted that Race displayed a strange form of sleeping trance not seen before in the early history of Mesmerism. He noted a similarity between this sleeping trance and natural sleepwalking and named it artificial somnambulism (Gauld, 1992).

The third test question (item #3) returns to the format where the respondent must discriminate a false statement about the Marquis de Puysegur from three true ones: (a) Puysegur learned Mesmerism from his brother; (b) Puysegur's most famous patient was named Victor Race; and (c) Puysegur coined the term "artificial somnambulism." The correct answer is that Puysegur did not

discover a waking trance state. Rather, he discovered a sleeping trance state (which he considered similar to natural sleep walking) and named it “artificial somnambulism.”

John Eliotson

John Eliotson (1791-1868) first studied medicine at the University of Edinburgh (later attended by James Esdaile and James Braid). Eliotson was a student of both Mesmerism and Phrenology. He successfully utilized Mesmerism in eliciting cures, but his work was later discredited in the British Medical journal *Lancet*. In response, Eliotson founded his own journal, *The Zoist*, which was dedicated to the topic of Mesmerism (Gauld, 1992).

The fourth test question (item #4) requires respondents to discriminate a false statement about Eliotson (that his successful case histories were widely published in the British Medical Journal *Lancet*) from three true statements: (a) he was a student of mesmerism; (b) he was a student of phrenology; and (c) he earned his medical degree from the University of Edinburgh.

Abbe Faria

The Abbe Faria was a Goan Catholic Monk who became a friend of the Marquis de Puysegur. Puyegur taught him the techniques of Mesmerism and Faria came to believe that Mesmer’s theories about projecting a magnetic influence on a patient were incorrect. Instead, Faria postulated that Mesmeric techniques employed the power of “suggestion” to influence the subject’s

“imagination.” Faria also believed that somnambulism was an inaccurate term and introduced a new term, “lucid sleep,” to characterize the hypnotic state (Gauld, 1992).

The fifth test question (item #5) requires respondents to discriminate a false statement about the Abbe Faria (that he believed the term “artificial somnambulism” (originally coined by Puysegur) better characterized the hypnotic state than the term “lucid sleep” (which Faria coined) from three true statements: (a) that he built on the work of Mesmer with help from Puysegur; (b) that he believed Mesmerism worked by suggestion influencing the subject’s imagination; and (c) that he believed that nothing was projected by the Mesmerist onto the patient.

James Esdaille

The sixth test question (item #6) requires respondents to discriminate a false statement about James Esdaille (that he strongly believed in the efficacy of hypnosis while he attended medical school) from three true statements: (a) that his primary use of hypnosis was to alleviate patients’ pain during surgery; (b) that he reported thousands of successful surgical cases using Mesmerism to control pain; and (c) that he graduated from the University of Edinburgh Medical School were John Elliotson also earned medical degree.

James Braid

The seventh test question (item #7) requires respondents to discriminate one false statement about James Braid (that he preferred the term “Mesmerism” to his own term “hypnotism”) from three true statements: (a) that he coined the term “mono-ideism”; (b) that he originally believed that “hypnotism” and “Mesmerism” were caused by sleep-based physiology; and (c) that he ultimately endorsed a psychological theory of hypnotism over a physiological theory.

The Nancy School

The eighth test question (item #8) requires respondents to discriminate one false statement about the “Nancy School” (that it characterized hypnosis as a pathological physiological phenomenon) from three true statements: (a) that it was founded by August Lieubeault; (b) that it was based on the ideas of Abbe Faria and James Braid; and (c) that other persons associated with the Nancy School included Hippolyte Bernheim and Emile Coue.

August Liebault

The ninth test question (item #9) requires respondents to discriminate a false statement about August Liebeault (that he was a follower of the ideas of Mesmer and Elliotson when he was more influenced by the ideas of Abbe Faria and James Braid) from three true statements: (a) that he founded the Nancy School of psychotherapy and hypnosis; (b) that he believed that hypnosis was a

normal psychological phenomenon; and (c) that he was a colleague of Hippolyte Bernheim.

Hippolyte Bernheim

The tenth test question (item #10) requires respondents to discriminate one false statement about Hippolyte Bernheim (that he regarded the hypnotic trance as basically different from ordinary sleep) from three true statements: (a) that he recognized six degrees (and later nine) of hypnotic influence; (b) that he was initially skeptical of Liebeault's psychological theories of hypnosis because of his background in anatomical physiology; and (c) that he published his first book on hypnosis and suggestion in 1884.

Emile Coue

Emile Coue was a French pharmacist who developed the technique of "conscious autosuggestion," in which affirmations are used to improve patients' health. He formulated a number of laws related to the use of suggestion. Coue's Law of Dominant Effect states that a strong emotion tends to replace a weaker one. His Law of Reversed Effect states that the harder one tried to do something, the less likely one is to succeed. Coue's Law of Concentrated Attention states that when attention is repeatedly concentrated on an idea, that idea tends to realize itself (Gauld, 1992).

The eleventh test question (item #1(a) requires respondents to distinguish one false statement about Emile Coue (that he formulated a law called the law of

“positive affect”) from three true statements: (a) that he formulated the law of “dominant effect;” (b) that he formulated the law of “reversed effect;” and (c) that he formulated the law of concentrated attention.

Jean Martin Charcot

The twelfth test question (item#12) requires subjects to discriminate one false statement about Jean Martin Charcot (that he equated hypnotizability with positive mental health) from three true statements: (a) that he was the founder of the Paris School of hypnosis; (b) that he believed that hysteria was a neurological disorder caused by hereditary problems in the nervous system; and (c) that he used hypnosis to induce a state of hysteria in his patients.

Pierre Janet

The thirteenth test question (item#13) requires respondents to discriminate one false statement about Pierre Janet (that he coined the term “psychoanalysis”) from three true statements: (a) that he coined the term “subconscious;” (b) that he accused Freud of stealing his ideas; and (c) that he was a student of Jean Martin Charcot.

Josef Breuer

The fourteenth test question (item #14) requires respondents to discriminate one false statement about Josef Breuer (that he coined the term the “talking cure” when instead it was his patient Anna O.) from three true statements:(a) that he was the mentor and later collaborator of Sigmund Freud; (b)

that his most famous patient was known by the pseudonym “Anna O.”; and (c) that he authored the book *Studies on Hysteria* with Sigmund Freud as his second author.

Sigmund Freud

The fifteenth test question (item #15) requires respondents to discriminate one false statement about Sigmund Freud (that he ultimately favored hypnosis as the best way to access the unconscious mind) from three true statements: (a) that he founded the psychoanalytic method of psychiatry; (b) that he is best known for his theories of the unconscious mind, psychosexual development, and ego defenses; (c) that he studied hypnosis with both Charcot and Bernheim.

Morton Prince

The sixteenth test question (items #16) requires respondents to discriminate one false statement about Morton Prince (that he believed in the use of hypnosis to study conscious mental processes instead of unconscious mental processes) from three true statements: (a) that he specialized in neurology and abnormal psychology; (b) that he used hypnosis in the treatment of multiple personalities; and (c) that he helped found the *Journal of Abnormal Psychology*.

Clark Hull

The seventeenth test question (item #17) requires respondents to discriminate one false statement about Clark Hull (that he believed that hypnosis was the only method for inducing amnesia) from three true statements: (a) that he

conducted the first experimental research program on hypnosis at the University of Wisconsin at Madison; (b) that he published *Hypnosis and Suggestibility* in 1933; and (c) that he empirically established that hypnosis had no connection with sleep.

Milton Erickson

The eighteenth test question (item #18) requires respondents to discriminate one false statement about Milton Erickson (that he was highly influenced by Freud and psychoanalytic theories of hypnosis) from three true statements: (a) that he developed brief, solution-focused psychotherapy; (b) that he developed the concept of “trance utilization;” and (c) that he developed the use of confusion techniques in clinical hypnosis.

Society for Clinical and Experimental Hypnosis (SCEH)

The nineteenth test question (item #19) requires respondents to discriminate one false statement about the Society for Clinical and Experimental Hypnosis (that its annual meetings are solely devoted to clinical applications of hypnosis) from three true statements: (a) that it was formed in 1949 by Jerome Schneck, MD; (b) that it publishes the experimentally-focused *International Journal of Clinical Hypnosis*; and (c) papers on current experimental research on the nature of hypnosis are presented at its annual meeting.

American Society of Clinical Hypnosis (ASCH)

The twentieth test question (item #20) requires respondents to discriminate one false statement about the American Society of Clinical Hypnosis (that it does not emphasize current research on hypnosis) from three true statements: (a) it was founded in 1957 by Milton Erickson, MD; (b) it publishes the American Journal of Clinical Hypnosis; and (c) it holds an annual meeting which offers both workshops on clinical hypnosis and a scientific program.

Division 30 of the American Psychological Association

The next question (item #2(a)) requires respondents to discriminate one false statement about APA Division 30 (that its membership is restricted to psychologists), from three true statements: (a) it was founded in 1968; (b) it is also known as the Society of Psychological Hypnosis; and (c) it recently developed its own official definition of clinical hypnosis.

International Society of Hypnosis (ISH)

The next question (item #22) requires respondents to distinguish one false statement about ISH (that it holds annual meetings) from three true statements: (a) it was founded in 1973 by Ernest R. Hilgard, Ph.D.; (b) it's membership includes health professionals from a wide variety of disciplines; and (c) its meetings provide both clinical workshops and a scientific program.

Formal Theories of Hypnosis

The next question (item #23) tests respondents' knowledge of the prominent theories of hypnosis by requiring them to distinguish one theory which is not associated with a model of hypnosis (cognitive behavioral theory) from three theories which are: (a) psychodynamic/psychoanalytic theory; (b) Dissociation and Neo-dissociation theory; and (c) Social role theory.

Psychoanalytic/Psychodynamic Theories of Hypnosis

The next question (item #24) requires respondents to distinguish one concept which should not be associated with a psychoanalytic conceptualization of hypnosis (hypnosis as a form of dream enactment) from three concepts which should: (a) hypnosis as a form of adaptive regression; (b) hypnosis as a form of parent-child transference; and (c) hypnosis as a shift in consciousness from an experiencing ego to an observing ego.

Learning and Conditioning Theories of Hypnosis

The next question (item #25) requires respondents to distinguish one concept which should not be associated with a learning and conditioning model of hypnosis (responsivity to hypnosis as a genetically determined response) from three concepts which should: (a) hypnosis as a form of habit modification; (b) hypnosis as a form of operant conditioning; and (c) hypnosis as a form of Pavlovian classical conditioning.

Social Role Theories of Hypnosis

The next question (item #26) requires respondents to distinguish one concept which should not be associated with a social role model of hypnosis (responsivity to hypnosis as a shift in executive ego control systems) from three concepts which should: (a) responsivity to hypnosis as a response to situational demand characteristics; (b) responsivity to hypnosis as a form of organismic involvement; (c) hypnosis as a form of social communication interpretation.

Expectancy Theories of Hypnosis

The next question (item #27) requires respondents to distinguish one concept which should not be associated with an expectancy-based model of hypnosis (responsivity to hypnosis is genetically determined) from three concepts which should: (a) there is no such thing as a hypnotic state; (b) an emphasis on response expectancies; and (c) rejection of the idea that hypnotic responsivity is an underlying trait.

Dissociation/Neo-dissociation Theories of Hypnosis

The next question (item #28) requires respondents to distinguish one concept which should not be associated with a dissociation or neo-dissociation model of hypnosis (that it emphasizes learning and conditioning principles) from three concepts which should: (a) that it conceptualizes a hypnotic trance state as a dissociated state of consciousness; (b) the hidden observer effect; and (c) that it views post-hypnotic amnesia as being dissociated from consciousness.

Current Thinking About Attempts To Define Hypnosis

The next question (item #29) requires respondents to distinguish one option which accurately describes current thinking about the definition of hypnosis (that there is no universally accepted definition) from three options which do not accurately describe the current thinking about this subject: (a) that Division 30 and ASCH share a common official definition of hypnosis; (b) that ASCH has multiple official definitions of hypnosis; and (c) that the SCEH definition of hypnosis is similar to the ASCH definition.

Controversies Regarding How To Define Hypnosis

The final question (item #30) requires respondents to distinguish one option which does not represent an active controversy regarding the definition of hypnosis (universal acceptance that hypnotic trance is an altered state of consciousness) from three options which do represent active controversies around this subject: (a) state versus situation; (b) trait versus situational factors; and (c) trait versus state distinction.

Appendix B

The didactic module questionnaire was divided into eight topical scales to allow for partial administrations. Those scales are described below:

Mesmer and Mesmerism Scale

This first scale addresses the earliest period in the development of modern hypnosis, which began with the advent of Mesmerism. It covers the work of Franz Anton Mesmer as well as his famous investigation by the French Royal Commission. The scale also includes questions related to the work of two prominent Mesmerists: the Marquis de Puységur and John Elliotson.

Early Hypnosis Theorists

This scale addresses the period in time beginning in the late 1700s, during which new theorists began to examine the nature of Mesmeric practices. These theorists began to focus increasingly on the role of suggestion and imagination, and to subject these practices to modern scientific investigation. They include Abbé Faria, James Esdaile, and James Braid, who first adopted the term "hypnotism" in 1841.

Early Schools of Hypnosis

This scale addresses the next historical period in the development of clinical hypnosis, in which the first ideological schools of hypnosis arose. The first such school, referred to as the Nancy School after the French city of Nancy, focused its interest on the power of suggestion. Notable theorists associated with

the Nancy School include August Liébeault, Hippolyte Bernheim, and Emile Coué. The second school addressed in this scale is the Paris School, which was founded by Jean-Martin Charcot and viewed hypnosis as a pathological phenomenon. Students of the Paris school included Pierre Janet, as well as Sigmund Freud, Joseph Babinski, William James, Georges Gilles de la Tourette, and Alfred Binet.

Hypnosis and Psychoanalysis

This scale addresses the relationship between hypnosis and the development of psychoanalysis. It focuses on the activities of two key figures, Josef Breuer and Sigmund Freud.

Hypnosis in America

This scale addresses the development of clinical hypnosis in America. The period of this development began in the early 1900s with Morton Prince's use of hypnosis to access unconscious mental processes and treat multiple personalities. Later, Clark Hull established the first active experimental research program on the nature of hypnosis at the University of Wisconsin, where Milton Erickson completed his undergraduate studies. Erickson went on to develop a number of therapeutic techniques which incorporated hypnosis, and to found the American Society of Clinical Hypnosis in 1957.

Societies of Hypnosis

This scale addresses the major societies of hypnosis. They include the Society of Clinical and Experimental Hypnosis, the American Society of Clinical Hypnosis, the Society of Psychological Hypnosis (APA Division 30), and the International Society of Hypnosis. The scale includes information regarding the history and activities of each of these societies.

Theories of Hypnosis

This scale addresses each of the major modern theories of hypnosis. These include Psychoanalytic/Psychodynamic theories, Learning & Conditioning theories, Social Role theories, Expectancy theories, Dissociation/Neo-dissociation theories, and Multiple aspect theories. Since each of these theories of hypnosis encompasses multiple perspectives and interpretations, the questions in this scale focus on differentiating the types of ideas related to each theoretical model.

Definitions of Hypnosis

This scale addresses the currently accepted definitions of hypnosis. Since no definition of hypnosis has been widely adopted, emphasis is placed on recognizing the key issues which must be addressed by any fully functioning definition of hypnosis.

Appendix C



July 30, 2010

David Godot
Adler School of Professional Psychology
65 East Wacker Place, Suite 2100
Chicago, IL 60601-7298

Dear Mr. Godot,

The Institutional Review Board evaluated your application, entitled, *Towards Empirically Validated Standards of Training in Clinical Hypnosis* (proposal #10-025). Your application has received **Full Approval**. This means that you may proceed with your plan of research as it is proposed in your application. One additional change to the consent needs to be made: Please substitute Dr. Baker for Dr. Kahn on the consent form.

Please note that if you wish to make changes to your procedures or materials, you must provide written notification to the IRB in advance of the changes, co-signed by your Dissertation Chair, Dr. Robert Baker. Such changes must be approved by the IRB prior to implementation. Good luck as you proceed with your research, and please feel free to contact myself or other IRB committee members should you have any questions.

Sincerely,

A handwritten signature in dark ink that reads "Catherine A. McNeilly, Psy.D." The signature is written in a cursive, flowing style.

Catherine McNeilly, Psy.D., CADC
Core Faculty, Psy.D. Program in Clinical Psychology
Chair, Institutional Review Board
Adler School of Professional Psychology

Table 1.

	n	# of items	Mean	Std Dev	Effect Size d	95% confidence interval for effect size
Full pretest (limited sample)	11	30	3.45	3.47	4.32	0.53
Full posttest (limited sample)	11	30	18.45	4.96		
Partial pretest (full sample)	31	11	1.97	2.14	4.30	0.31
Partial posttest (full sample)	31	11	11.16	2.79		
Mesmer pre	31	4	0.29	0.53	3.53	0.30
Mesmer post	31	4	2.16	0.82		
Early Theorists pre	31	3	0.13	0.43	3.65	0.31
Early Theorists post	31	3	1.7	1		
Early Schools pre	11	6	0.18	0.6	4.70	0.54
Early Schools post	11	6	3	1.8		
Psychoanalytic pre	11	2	0.55	0.52	1.04	0.45
Psychoanalytic post	11	2	1.09	0.7		
American pre	11	3	0.55	0.69	1.84	0.47
American post	11	3	1.82	1.17		
Societies pre	31	4	0.65	0.98	2.80	0.30
Societies post	31	4	3.39	1.14		
Theories pre	11	6	0.45	0.69	5.54	0.55
Theories post	11	6	4.27	1.68		
Definitions pre	11	2	0.27	0.65	2.11	0.48
Definitions post	11	2	1.64	0.5		

Table 2.*Didactic Module Post-Test Frequencies*

Question #	n	# Missed	# Correct	% Missed	% Correct	Content Scale
1	31	5	26	16.13	83.87	Mesmer
2	31	12	19	38.71	61.29	Mesmer
3	31	28	3	90.32	9.68	Mesmer
4	31	12	19	38.71	61.29	Mesmer
5	31	20	11	64.52	35.48	Early Theorists
6	31	7	24	22.58	77.42	Early Theorists
7	31	13	18	41.94	58.06	Early Theorists
8	31	6	25	19.35	80.65	Schools
9	11	7	4	63.64	36.36	Schools
10	31	15	16	48.39	51.61	Schools
11	11	8	3	72.73	27.27	Schools
12	31	3	28	9.68	90.32	Schools
13	11	3	8	27.27	72.73	Schools
14	11	7	4	63.64	36.36	Psychoanalysis

Question #	n	# Missed	# Correct	% Missed	% Correct	Content Scale
15	31	4	27	12.90	87.10	Psychoanalysis
16	11	5	6	45.45	54.55	American
17	11	4	7	36.36	63.64	American
18	31	6	25	19.35	80.65	American
19	31	6	25	19.35	80.65	Societies
20	31	5	26	16.13	83.87	Societies
21	31	3	28	9.68	90.32	Societies
22	31	5	26	16.13	83.87	Societies
23	11	1	10	9.09	90.91	Theories
24	11	4	7	36.36	63.64	Theories
25	11	3	8	27.27	72.73	Theories
26	11	4	7	36.36	63.64	Theories
27	11	4	7	36.36	63.64	Theories
28	11	3	8	27.27	72.73	Theories
29	11	1	10	9.09	90.91	Definitions

Question #	n	# Missed	# Correct	% Missed	% Correct	Content Scale
30	11	3	8	27.27	72.73	Definitions

Table 3.

Didactic Module Individual Item Answer Frequencies (correct answers in bold)

Question #1 - Franz Anton Mesmer				
Which of the following response options should not be related with Franz Anton Mesmer?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He is considered by many to be the father of modern clinical hypnosis.	8	25.81%	3	9.68%
b) He developed the theory of human attraction.	4	12.90%	26	83.87%
c) He used a "baquette" in his treatment.	0	0.00%	0	0.00%
d) He earned his medical degree from the University of Vienna.	2	6.45%	2	6.45%
e) I don't know.	17	54.84%	0	0.00%

Question #2 - Investigation of Mesmer by the 1784 Royal Commission				
Which of the following response options best reflects the findings of the investigation of Mesmer by the 1784 Royal Commission?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) Mesmer plagiarized his doctoral dissertation.	0	0.00%	6	19.35%
b) The commission discredited all of Mesmer's claims about successful cures.	11	35.48%	4	12.90%
c) One cannot use positive treatment outcomes to validate a theory about why a patient gets better.	1	3.23%	19	61.29%
d) The Royal Commission corroborated the validity of Mesmer's theories.	0	0.00%	2	6.45%
e) I don't know.	19	61.29%	0	0.00%

Question #3 - Marquis de Puysegur				
Which of the following response options should not be associated with the Marquis de Puysegur?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He discovered the waking trance state.	2	6.45%	20	64.52%
b) He learned Mesmerism from his brother.	0	0.00%	6	19.35%
c) His most famous patient was named Victor Race.	1	3.23%	0	0.00%
d) He coined the term "artificial somnambulism."	3	9.68%	3	9.68%
e) I don't know.	25	80.65%	2	6.45%

Question #4 - John Elliotson				
Which of the following response options should not be associated with John Elliotson?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) His successful case histories were widely published in the British Medical Journal Lancet.	1	3.23%	19	61.29%
b) He was a student of Mesmerism.	0	0.00%	0	0.00%
c) He earned his medical degree from the university of Edinburgh.	0	0.00%	1	3.23%
d) He was a student of phrenology.	0	0.00%	4	12.90%
e) I don't know.	30	96.77%	7	22.58%

Question #5 - Abbé Faria				
Which of the following response options should not be associated with the Abbé Faria?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He built on the work of Franz Anton Mesmer, with help from his friend the Marquis de Puysegur.	1	3.23%	5	16.13%
b) He believed that nothing was projected by the Mesmerist onto the patient.	1	3.23%	5	16.13%
c) He believed that the Mesmerist's influenced his subject by the use of "suggestion", which affected the subject's "imagination".	0	0.00%	3	9.68%
<u>d) He believed that the term "artificial somnambulism" better characterized the hypnotic state that the term "lucid sleep."</u>	0	0.00%	11	35.48%
e) I don't know.	29	93.55%	7	22.58%

Question #6 - James Esdaile				
Which of the following response options should not be associated with James Esdaile?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>He was thoroughly versed in the works of Franz Anton Mesmer, and strongly believed in its efficacy while in medical school.</u>	1	3.23%	24	77.42%
b) His primary use of Mesmerism was to alleviate patients' pain during surgery.	0	0.00%	0	0.00%
c) He reported thousands of successful surgical cases using Mesmerism to control pain.	1	3.23%	1	3.23%
d) Esdaile graduated from the University of Edinburgh, the same medical school where John Elliotson earned his M.D.	0	0.00%	0	0.00%
e) I don't know.	29	93.55%	6	19.35%

Question #7 - James Braid				
Which of the following response options should not be associated with James Braid?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Braid preferred the term “Mesmerism” to his own term “hypnotism.”</u>	3	9.68%	18	58.06%
b) Braid coined the term “mono-ideism.”	1	3.23%	2	6.45%
c) Braid originally believed that “Mesmerism” or “hypnotism” was due to sleep-based physiology.	2	6.45%	4	12.90%
d) Braid ultimately endorsed a psychological theory of Mesmerism/hypnotism instead of a physiological explanation.	0	0.00%	4	12.90%
e) I don’t know.	25	80.65%	3	9.68%

Question #8 - Nancy School of hypnosis and psychotherapy				
Which of the following response options should not be associated with the Nancy School of hypnosis and psychotherapy?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) It was founded by August Liébeault.	0	0.00%	1	3.23%
b) It was based on the ideas of the Abbé Faria and James Braid.	1	3.23%	1	3.23%
c) <u>It characterized hypnosis as a pathological physiological phenomenon.</u>	2	6.45%	25	80.65%
d) Other persons associated with the Nancy School include Hippolyte Bernheim and Emile Coué.	1	3.23%	0	0.00%
e) I don’t know.	27	87.10%	4	12.90%

Question #9 - Ambroise August Liébeault				
Which of the following response options should not be associated with August Liébeault?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>He was a follower of the ideas of Mesmer and Elliotson.</u>	0	0.00%	4	36.36%
b) He founded the Nancy School of psychotherapy and hypnosis.	0	0.00%	1	9.09%
c) He believed that hypnosis was a normal psychological phenomenon.	1	9.09%	2	18.18%
d) He was a colleague of Hippolyte Bernheim.	0	0.00%	0	0.00%
e) I don't know.	10	90.91%	4	36.36%

Question #10 - Hippolyte Bernheim				
Which of the following response options should not be associated with Hippolyte Bernheim?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He recognized six degrees (later nine) of hypnotic influence.	0	0.00%	0	0.00%
b) He was initially skeptical of Liébeault's psychological theories because of his background in anatomical pathology.	1	3.23%	7	22.58%
c) <u>He regarded hypnotic trance as basically different from actual sleep.</u>	0	0.00%	16	51.61%
d) He published his first book on hypnosis and suggestion in 1884.	0	0.00%	1	3.23%
e) I don't know.	30	96.77%	7	22.58%

Question #11 - Emile Coué				
Which of the following response options should not be associated with Emile Coué?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Law of positive affect.</u>	0	0.00%	3	27.27%
b) Law of dominant effect.	0	0.00%	0	0.00%
c) Law of reversed effect.	0	0.00%	1	9.09%
d) Law of concentrated attention.	0	0.00%	2	18.18%
e) I don't know.	11	100.00%	5	45.45%

Question #12 - Jean-Martin Charcot				
Which of the following response options should not be associated with Jean-Martin Charcot?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He was the founder of the Paris School.	4	12.90%	2	6.45%
b) He believed that hysteria was a neurological disorder caused by hereditary problems in the nervous system.	0	0.00%	0	0.00%
c) He used hypnosis to induce a state of hysteria in his patients.	2	6.45%	0	0.00%
d) <u>He equated hypnotizability with positive mental health.</u>	2	6.45%	28	90.32%
e) I don't know.	23	74.19%	1	3.23%

Question #13 - Pierre Janet				
Which of the following response options should not be associated with Pierre Janet?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Coined the term "psychoanalysis."</u>	1	9.09%	8	72.73%
b) Coined the term "subconscious."	1	9.09%	1	9.09%
c) Accused Freud of stealing his ideas.	2	18.18%	0	0.00%
d) Student of Jean-Martin Charcot.	0	0.00%	2	18.18%
e) I don't know.	7	63.64%	0	0.00%

Question #14 - Josef Breuer				
Which of the following response options should not be associated with Josef Breuer?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He was the mentor and later collaborator of Sigmund Freud	1	9.09%	0	0.00%
b) His most famous patient was identified by the pseudonym "Anna O."	0	0.00%	1	9.09%
c) <u>He coined the term "the talking cure."</u>	1	9.09%	4	36.36%
d) He authored the book Studies on Hysteria with Sigmund Freud as his second author.	1	9.09%	3	27.27%
e) I don't know.	8	72.73%	3	27.27%

Question #15 - Sigmund Freud				
Which of the following response options should not be associated with Sigmund Freud?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) Freud founded the psychoanalytic method of psychiatry.	1	3.23%	0	0.00%
b) <u>He ultimately favored hypnosis as the best way to access the unconscious mind.</u>	14	45.16%	27	87.10%
c) He is best known for his theories of the unconscious mind, psychosexual development, and ego defense.	1	3.23%	0	0.00%
d) Freud studied hypnosis with both Charcot and Bernheim.	8	25.81%	3	9.68%
e) I don't know.	7	22.58%	1	3.23%

Question #16 - Morton Prince				
Which of the following response options should not be associated with Morton Prince?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) He specialized in neurology and abnormal psychology.	0	0.00%	0	0.00%
b) <u>He believed in the use of hypnosis to study conscious mental processes.</u>	0	0.00%	6	54.55%
c) He used hypnosis in the treatment of multiple personalities.	1	9.09%	1	9.09%
d) He helped found the Journal of Abnormal Psychology.	0	0.00%	2	18.18%
e) I don't know.	10	90.91%	2	18.18%

Question #17 - Clark Hull				
Which of the following response options should not be associated with Clark Hull?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Hull believed that hypnosis was the only method for inducing amnesia.</u>	2	18.18%	7	63.64%
b) Hull conducted the first experimental research program on hypnosis at the University of Wisconsin at Madison.	0	0.00%	1	9.09%
c) Hull published Hypnosis and Suggestibility in 1933.	0	0.00%	0	0.00%
d) Hull empirically established that hypnosis had no connection with sleep.	0	0.00%	0	0.00%
e) I don't know.	9	81.82%	3	27.27%

Question #18 - Milton Erickson				
Which of the following response options should not be associated with Milton Erickson?				
n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>He was highly influenced by Freud and psychoanalytic theories of hypnosis.</u>	10	32.26%	25	80.65%
b) He developed brief, solution-focused psychotherapy.	7	22.58%	0	0.00%
c) He developed the concept of trance utilization.	0	0.00%	1	3.23%
d) He developed the use of confusion techniques in clinical hypnosis.	1	3.23%	2	6.45%
e) I don't know.	13	41.94%	3	9.68%

Question #19 - Society for Clinical and Experimental Hypnosis (SCEH) Which of the following response options should not be associated with the Society for Clinical and Experimental Hypnosis (SCEH)? n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) It was formed in 1949 by Jerome Schneck, M.D.	2	6.45%	0	0.00%
b) It publishes the International Journal of Clinical and Experimental Hypnosis.	0	0.00%	2	6.45%
<u>c) Its annual meetings are solely devoted to clinical applications of hypnosis.</u>	8	25.81%	25	80.65%
d) Papers on current experimental research on the nature of hypnosis are presented at its annual meeting.	0	0.00%	1	3.23%
e) I don't know.	21	67.74%	3	9.68%

Question #20 - American Society of Clinical Hypnosis (ASCH) Which of the following response options should not be associated with the American Society of Clinical Hypnosis (ASCH)? n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
<u>a) ASCH does not emphasize current research on the nature of hypnosis.</u>	7	22.58%	26	83.87%
b) It was founded in 1957 by Milton Erickson.	2	6.45%	0	0.00%
c) It publishes the American Journal of Clinical Hypnosis.	0	0.00%	1	3.23%
d) It holds an annual meeting which offers both workshops on clinical hypnosis and a scientific program.	1	3.23%	1	3.23%
e) I don't know.	21	67.74%	3	9.68%

Question #21 - Division 30 of the American Psychological Association Which of the following response options should not be associated with Division 30 of the American Psychological Association? n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) It was founded in 1968 as one of the divisions of the American Psychological Association.	1	3.23%	1	3.23%
b) It is also known as the Society of Psychological Hypnosis.	2	6.45%	0	0.00%
c) <u>Its membership is restricted to psychologists.</u>	3	9.68%	28	90.32%
d) It recently developed its own official definition of hypnosis.	0	0.00%	0	0.00%
e) I don't know.	25	80.65%	2	6.45%

Question #22 - International Society of Hypnosis Which of the following response options should not be associated with the International Society of Hypnosis? n = 31				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Its annual meeting is held every year in a different country.</u>	2	6.45%	26	83.87%
b) It was founded in 1973 by Ernest R. Hilgard, Ph.D.	1	3.23%	0	0.00%
c) Its membership is comprised of a broad variety of healthcare professionals from different countries around the world.	0	0.00%	0	0.00%
d) ISH meetings provide both clinical workshops and a scientific program.	2	6.45%	0	0.00%
e) I don't know.	26	83.87%	5	16.13%

Question #23 - Formal theories of hypnosis				
Which of the following response options should not be considered as a formal theory of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) Psychoanalytic/Psychodynamic theory	0	0.00%	0	0.00%
b) Dissociation/Neo-dissociation theory	0	0.00%	0	0.00%
c) <u>Cognitive-Behavioral theory</u>	1	9.09%	10	90.91%
d) Social role theory	1	9.09%	0	0.00%
e) I don't know	9	81.82%	1	9.09%

Question #24 - Psychoanalytic/psychodynamic theories of hypnosis				
Which of the following concepts should not be associated with psychoanalytic/psychodynamic theories of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) Hypnosis as a form of adaptive regression	0	0.00%	2	18.18%
b) <u>Hypnosis as a form of dream enactment</u>	0	0.00%	7	63.64%
c) Hypnosis as a form of parent-child transference	1	9.09%	0	0.00%
d) Hypnosis as a shift in consciousness from an "experiencing" ego to an "observing" ego	0	0.00%	2	18.18%
e) I don't know	10	90.91%	0	0.00%

Question #25 - Learning & conditioning theories of hypnosis				
Which of the following concepts should not be associated with learning & conditioning theories of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) Hypnosis as a form of habit modification	0	0.00%	0	0.00%
b) Hypnosis as a form of operant conditioning	1	9.09%	1	9.09%
c) Hypnosis as a form of Pavlovian "classical" conditioning	0	0.00%	1	9.09%
d) <u>Responsivity to hypnosis as a genetically determined response</u>	3	27.27%	8	72.73%
e) I don't know	7	63.64%	1	9.09%

Question #26 - Social role theories of hypnosis				
Which of the following concepts should not be associated with social role theories of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>Responsivity to hypnosis is characterized as a shift in executive ego control systems.</u>	0	0.00%	7	63.64%
b) Responsivity to hypnosis is determined by the "demand-characteristics" of the situation.	0	0.00%	0	0.00%
c) Responsivity to hypnosis as a form of "organismic involvement."	0	0.00%	0	0.00%
d) Hypnosis as a form of "social communication interpretation."	0	0.00%	1	9.09%
e) I don't know	11	100.00%	3	27.27%

Question #27 - Expectancy theories of hypnosis				
Which of the following concepts should not be associated with expectancy theories of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) No such thing as a special hypnotic state.	1	9.09%	1	9.09%
<u>b) Responsivity to hypnosis is genetically determined.</u>	0	0.00%	7	63.64%
c) Emphasizes response expectancies.	0	0.00%	0	0.00%
d) Does not conceptualize responsivity to hypnosis as an underlying trait.	0	0.00%	1	9.09%
e) I don't know.	10	90.91%	2	18.18%

Question #28 - Dissociation/neo-dissociation theories of hypnosis				
Which of the following concepts should not be associated with dissociation/neo-dissociation theories of hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
<u>a) Emphasizes learning and conditioning principles.</u>	1	9.09%	8	72.73%
b) Conceptualizes a hypnotic trance state as a dissociated state of consciousness.	0	0.00%	0	0.00%
c) Hidden observer effect.	0	0.00%	0	0.00%
d) Views suggested post-hypnotic amnesia as being dissociated from conscious awareness.	0	0.00%	1	9.09%
e) I don't know.	10	90.91%	2	18.18%

Question #29 - Current thinking about attempts to define hypnosis				
Which of the following statements best characterizes current thinking about attempts to define hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) <u>There is no universally accepted definition of hypnosis.</u>	1	9.09%	10	90.91%
b) Division 30's official definition of hypnosis is the same as the ASCH definition	0	0.00%	1	9.09%
c) ASCH has many definitions of hypnosis which are basically interchangeable.	0	0.00%	0	0.00%
d) The SCEH official definition of hypnosis is similar to ASCH definitions of hypnosis.	0	0.00%	0	0.00%
e) I don't know.	10	90.91%	0	0.00%

Question #30 - Controversies regarding how to define hypnosis				
Which of the following is not one of the controversies regarding how to define hypnosis?				
n = 11				
Response Options	Pre-Test Frequency	Pre-Test Percentage	Post-Test Frequency	Post-Test Percentage
a) State versus situation.	0	0.00%	1	9.09%
b) Trait versus situational factors.	0	0.00%	1	9.09%
c) Trait versus state distinction.	0	0.00%	0	0.00%
d) <u>It is universally accepted that a hypnotic trance is an altered state of consciousness different from normal waking consciousness.</u>	2	18.18%	8	72.73%
e) I don't know.	9	81.82%	1	9.09%

Table 4.*Didactic Module Independent Samples Test*

		Equality of Variance		t-test for Equality of Means						
		F	Sig.	t	df	Sig (2-tail)	Mean Difference	Std Error Difference	Interval of the	
									Lower	Upper
Pre-test Groups	Equal variances assumed	1.154	.292	.760	29	.454	.6136	.8078	-1.0385	2.2656
	Equal variances not assumed			.677	15.054	.509	.6136	.9066	-1.3182	2.5455
Post-test Groups	Equal variances assumed	.731	.400	-.2431	29	.021	-2.364	.9723	-4.3521	-.3752
	Equal variances not assumed			-.2312	17.941	.033	-2.364	1.0223	-4.5120	-.2153

Figure 1.*Subjective Competency Ratings*