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ATTITUDES AND PERCEPTIONS REGARDING HYPNOSIS OF NORTH DAKOTA CERTIFIED REGISTERED NURSE ANESTHETISTS

by

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Bachelor of Science, North Dakota State University, 2001

A Thesis

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Master of Science

Grand Forks, North Dakota
August
2006

AUG 02 2006

This thesis, submitted by Michelle Resler in partial fulfillment of the requirements for the Degree of Master's of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Chairperson

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This thesis meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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ABSTRACT

The purpose of the study was to identify North Dakota certified registered nurse anesthetists' (CRNAs) attitudes and perceptions of hypnosis and if they believe it would be realistic to use hypnosis in the surgical setting. A voluntary descriptive, cross sectional study design was used to obtain accurate and current information. The population of the study consisted of all the North Dakota CRNAs, who were 2005-2006 members of the NDANA (North Dakota Association of Nurse Anesthetists); more than 90% of North Dakota CRNAs are members of NDANA. A current list of NDANA CRNAs was obtained (N=182). All current members were invited to participate in the study.

A questionnaire was mailed after proper IRB approval was obtained. The questionnaire was developed by the researcher based on information from the literature reviewed regarding hypnosis. The questionnaire was designed utilizing demographic information obtained in a confidential manner by close ended and checklist questions. Data collection was through the federal mail. The questionnaires were coded, obtainable only by the researcher, stored in a locked cabinet and will be destroyed after three years.

Of the 182 members sent surveys, 119 participated (65.4%). Descriptive studies indicated that most believe that hypnosis would be a useful adjunct to anesthesia (65.5%). Surprisingly, only 15 members (12.6%) stated that they had some exposure to hypnosis and only 18 members (15.1%) stated they had any form of education on hypnosis.

The review of literature notes that hypnosis is not widely utilized in the surgical setting. Hypnosis has been around for centuries; its' popular uses consist of pain

control, pregnancy, relaxation and anxiety. Hypnosis is not widely used and the results revealed that the use of hypnosis by North Dakota CRNA's is almost not existent. The study defined North Dakota CRNA's would utilize hypnosis if educated; the respondents attitudes against the use of hypnosis in the surgical setting were mainly due to time constraints (58%) and lack of knowledge and training (77.3%). Examination of the use of hypnosis, the barriers and attitudes on hypnosis has given the researcher information on the utilization of hypnosis in the surgical setting. To encourage research on hypnosis, education of health providers on alternative/complementary methods, and informing the patients of these therapies is recommended by the researcher to advance the nursing profession.

CHAPTER I

INTRODUCTION

Read and enjoy, hypnosis is a natural state of mind and in order to understand it one should learn the basis. Everyone knows how to daydream let this lead one into a specific daydream. The following exert on hypnosis is what may be heard during a typical session with a hypnotherapist:

> Relax in a comfortable chair with the phone and other distractions turned off. Close your eyes and concentrate on relaxing all over. Take a deep breath and slowly exhale...notice the calming effect of deep breathing. Take some more deep breaths.... Feel the muscles in your body losing their tightness and tension. As this happens, feel better and better. To increase the relaxation, count from one to ten and get more and more relaxed as count towards 10. At the count of 10, you will be very relaxed, very pleasant, worry free, completely alert and aware, but in a comfortable hypnotic state. *One*, relax the hands and forearms. Think of the right hand, fingers and forearm; tell those parts to get rid of all their stress and tension. Relax more and more. Think of the left hand, fingers and forearm. Relaxing deeper and deeper. *Two*, let the calmness spread into the upper arms...into the biceps and triceps. Very relaxed. Feeling good. *Three*, the shoulders and neck are relaxing...deeper and deeper. *Four*, the top of the head, scalp and forehead are calming...relaxing...feeling smooth and soft. *Five*, notice the wonderful feeling moving down into the eyes, cheeks, lips, tongue and jaws, tell the entire head and face to relax more and more. *Six*, the chest, lungs and upper back are slowing and calming down...very comfortable. *Seven*, let the stomach relax and settle down...also the lower back and spine...the tension is going away...replaced with pure comfort. *Eight*, the muscles of the upper legs relax deeper and deeper. *Nine*, the wave of relaxation moves down into the lower legs, feet and toes. *Ten*, extremely relax all over. The last remaining tension anywhere in the body is melting

> away, the whole body is calm...very comfortable...feeling wonderful. Now probably in a pleasant, enjoyable, effective hypnotic state, even though you may not feel certain of that. In any case, be able to think clearly and control the thoughts. The imagery will be very detailed, very clear and realistic, use the imagery as an advantage. Remember everything that happens while under hypnosis. First use hypnosis to imagine being in a pleasant, comfortable place, a place where you feel perfectly safe, perhaps on a beach or in a private place. Look and see all the details... hear the sounds...feel and smell the air...really get into it. Talk about all aspects of the scene...and enjoy thoroughly for a minute or so. Be quiet for a minute, and then give the instructions that were prepared for self-improvement (like stress reduction). Very relaxed...very relaxed you can see that pressure comes from the outside world, but feelings come from inside…control the feelings. The feelings one wants, keep. The feelings one does not want, discard or discharge them...get rid of them. As a whole person with many feelings be aware of all the many feelings, but chose which feelings one wants to keep and which to get rid of. Choose to be peaceful and rid of stress. Feel good... at ease... calm... composed (Or with any other positive affirmation or hypnotic suggestion of choice). Return to the pleasant scene and enjoy it until come out of it. Now, ready to end the session. Count from five to one and become more and more alert as one counts down. *Five*, starting to come out of the hypnosis. *Four*, feeling a little more like moving. *Three*, feeling good with more energy. *Two*, eyes are gradually opening...now, completely open. *One*, completely alert, feeling good and refreshed and done. Stretch a little and get up (hypnosis script from mentalhelp.net, chpt.14).

Snap, snap, are you awake? Now after relaxing, enjoy and learn more about hypnosis. Hypnosis can happen to anyone at many different levels. Have you ever been enthralled with a good book or movie and cried? Ever driven home and missed a turn or driven through an intersection and you cannot remember if the streetlight was green or red? This is hypnosis.

Purpose of the Study

The purpose of the study was to identify North Dakota certified registered nurse anesthetists' attitudes and perceptions of hypnosis and if it would be

realistic to use hypnosis in the surgical setting. The study attempted to identify a relationship between North Dakota certified registered nurse anesthetists' attitudes and perceptions about hypnosis to the utilization of hypnosis in a surgical setting. By identifying this, nursing education and research may be advanced locally and nationally to help improve patient care.

Significance

Hypnosis has been around for centuries. One of the first recorded uses of hypnosis in anesthesia appears in the Holy Bible, book of Genesis Chapter 2, verse 21 " and the lord God caused a deep sleep to fall upon Adam and he slept, He took his ribs and closed his flesh in its place." New studies have been and are presently being conducted on the use of hypnosis as an adjunct to anesthesia. Currently, hypnosis is not widely used in general or as a nursing intervention.

The use of distraction, music therapy and other alternative therapies are becoming more popular. As more and more patients turn to the utilization of alternative therapies, research must be done to look at the benefits these alternative therapies bestow. As the years pass, more emphasis is being placed on holistic nursing, which is the treatment of the patient as an individual, taking into account the mind, body and soul.

Holistic Nursing is defined as all nursing practice that has healing the whole person as its goal." (American Holistic Nurses Association, 1998). Holistic Nursing can further be defined as practice that draws on nursing knowledge, theories, expertise and intuition to guide nurses in becoming therapeutic partners with clients in strengthening clients' response to facilitate the healing process and

achieve wholeness. The practice of Holistic Nursing according to the American Holistic Nurses Association (1998) is grounded in nursing theory, fully recognizing that there are two views in the profession regarding holism, "the view that defines the whole in terms of component parts; bio-psych-social-spiritual, believing that the whole is greater than these parts; and the view that defines the whole as an irreducible unit." Different from other nursing practice, the practice of Holistic Nursing requires the nurse to integrate self-care and self-responsibility into his or her own life and to strive for an awareness of the interconnectedness of individuals to the human and global community.

Research Questions

This study attempts to answer the following questions through a descriptive study using a questionnaire developed by the researcher, based on literature review and current clinical practice.

1. What is the incidence of use of hypnosis by nurse anesthetists in North Dakota?
2. What are the reasons for or against utilization of hypnosis by North Dakota certified registered nurse anesthetists'?
3. What are the barriers to utilization of hypnosis?
4. What are North Dakota certified registered nurse anesthetists' perceptions and attitudes towards hypnosis?

Conceptual Framework

Nola Pender's Health Promotion Model provides the theoretical basis for this study. Theories consist of an integrated set of defined concepts and relational

statements that present a view of a particular phenomenon. Theories can be used to describe, explain, or predict that phenomenon. Theory guides research by providing a particular perspective from which to understand the research study (Young, Taylor and Renpenning, 2001).

Theories from the disciplines of education, biology, psychology, and sociology are often applied to nursing research studies. Nola Penders' Health Promotion Model synthesizes research findings from nursing, psychology and public health into an explanatory model of health behavior. A theory is generally more narrow and specific than a conceptual model. A theory has relational statements that can be used to describe, explain or predict phenomenon and is directly testable. Nola Pender's Health Promotion Theory is an example of a nursing theoretical model. Theories about specific nursing actions, processes, or concepts are often called middle-range theories.

Nola Penders' Health Promotion Model, diagram shown below, helps predict health-promoting behavior. It takes into account individual characteristic and experiences with the individual's behavior specific cognitions and affects to show how one may chose to modify and change. Hypnosis has shown promising results for health promotion. Hypnosis can help with the management of stress, to decrease pain, to change physical sensations, to suggest better outcomes, and to heighten emotional sensitivity. Today's society is using additional care to supplement medical care. A more holistic approach to patient care is being utilized.

Hypnosis has been part of religious and spiritual healing rituals for thousands of years. When other avenues have been tried and exhausted many individuals turn to complementary/alternative therapies. The Health Promotion Model is relevant to this study in that the use of an alternative therapy can be viewed as a health-promoting factor, according to Pender. Using Nola Penders' Health Promotion model, one can test the patient's ability to help with his or her own health promotion by the use of hypnosis as a form of health promotion or maintenance.

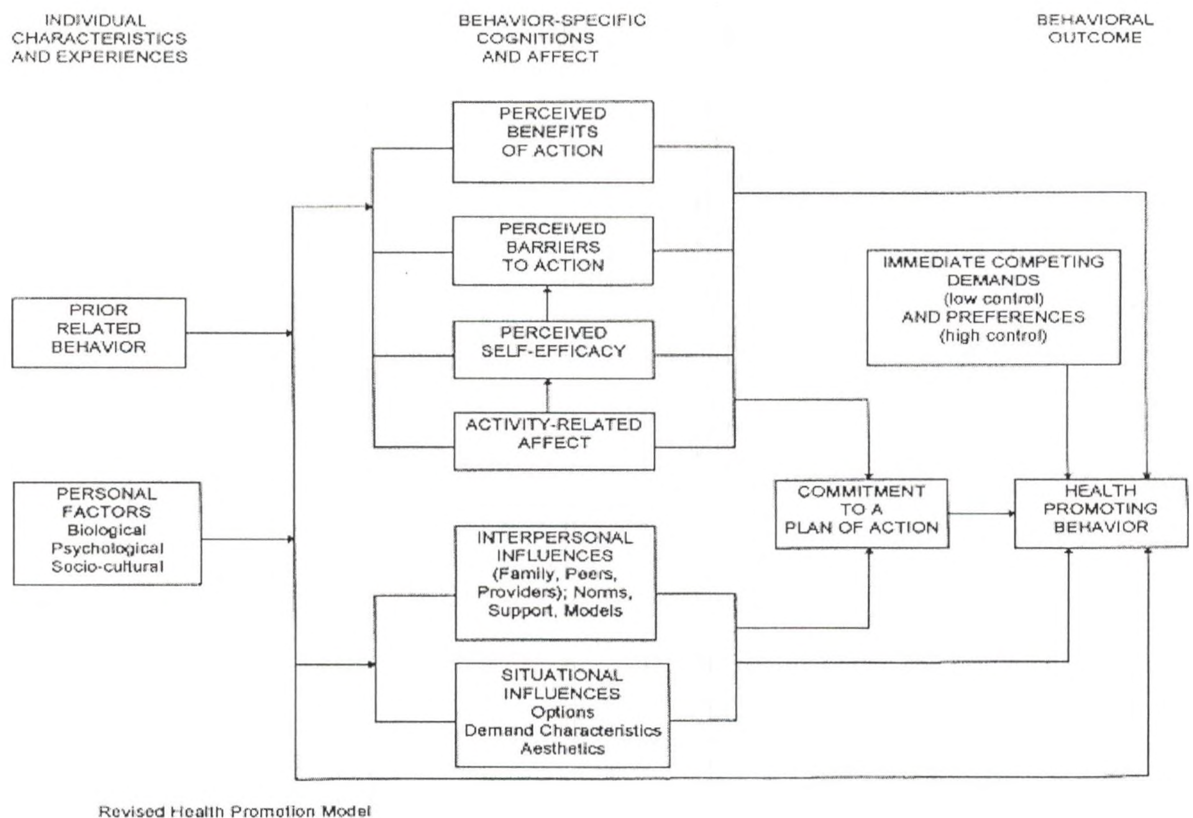

Figure 1: Nola Penders' Health Promotion Model (Pender, 1987)

Major concepts of Nola Penders' model utilized for this study include that the goal of nursing care is the optimal health of a person. The model suggested behaviors for enhancing health. Cognitive-perceptual factors are identified: the

importance, definition, perceived status of health, perceived benefits of health promotion, and perceived barriers to health promotion. These are modified by personal, situational and interpersonal characteristics: age, gender, education, income, body weight, family patterns of health care behaviors and expectations of significant others. According to Pender (1987), these concepts are an important part of health, perceived benefits of health, and perceived barriers to health promoting behaviors. Obtaining the goal of optimal health may be done so by using holistic nursing, by addition of alternative or complementary therapies such as the use of hypnosis.

Many alternative theorist may have been used for this study's theoretical basis. Nola Penders' model was effective according to the researcher, because the use of alternative/complementary therapies, such as hypnosis, is viewed by the researcher as a health promoting behavior. The individual perceived better health by participating in a health promotional therapy.

Definitions

For the purpose of this study, the following terms will be defined:

Hypnosis: defined as an artificially induced altered state of consciousness, characterized by heightened suggestibility and receptivity to direction (American Heritage Dictionary, 2005)

Surgical setting: any setting in which any type of anesthesia is delivered.

Anesthesia: not defined as the surgical procedure alone, process refers to activities that take place both before and after anesthesia is given (American Association of Nurse Anesthestists, 2002). Three basic types: a) general

anesthesia-produces loss of sensation throughout body; b) regional anesthesia-produces loss of sensation to a specific region of the body; c) local anesthesia-produces loss of sensation to a small specific area of the body.

Assumptions

1. North Dakota certified registered nurse anesthetists' would be open to new and different types of nursing cares.
2. North Dakota certified registered nurse anesthetists' will be willing to complete the survey with honesty and to their best ability to help further an anesthesia student's education.
3. North Dakota certified registered nurse anesthetists' want to provide safe anesthesia care to each patient.

Limitations

Limitations to this study are limited access to a larger population of nurse anesthesia care providers. This will result in lack of generalizability of the study.

CHAPTER II

REVIEW OF LITERATURE

Concept Hypnosis

Hypnosis has been around for centuries. The Greek word '*hypnos*' means sleep; the mythological Greek God of sleep was known as Hypnos. Opinions differ on this natural state of mind. Following is a list of a few current definitions:

- The induction of a state of consciousness in which a person loses the power of voluntary action and is highly responsive to suggestion or direction. (Oxford English Dictionary, 2005)
- An artificially induced altered state of consciousness, characterized by heightened suggestibility and receptivity to direction. (American Heritage Dictionary, 2005)
- A temporary condition of altered attention in the subject which may be induced by another person and in which a variety of phenomena may appear spontaneously or in response to verbal or other stimuli. These phenomena include alterations in consciousness and memory, increased susceptibility to suggestion, and the production in the subject of responses and ideas unfamiliar to him in his usual state of mind. Further, phenomena such as anesthesia, paralysis and rigidity of muscles, and vasomotor changes can be produced and removed in the hypnotic state. (British Medical Associtaion, 1998)

- A natural state of mind with special identifying characteristics: a) An extraordinary quality of relaxation. b) An emotionalized desire to satisfy the suggested behavior: The person feels like doing what the hypnotist suggests, provided that what is suggested does not generate conflict with his belief system. c) The organism becomes self-regulating and produces normalization of the central nervous system. d) Heightened and selective sensitivity to stimuli perceived by the five senses and four basic perceptions. e) Immediate softening of psychic defenses. (Boyne, 1985)
- The bypass of the critical factor and the establishment of acceptable selective thinking noted to withhold focused concentration, extreme relaxation and/or guided meditation (Holwager, 2005).
- A psycho physiological tetrad of altered consciousness consisting of narrowed awareness, restricted and focused attentiveness, selective wakefulness and heightened suggestibility (Marmar, 1959)
- Hypnosis is a state of mind that occurs naturally or is established by compliance with instructions and is characterized by focused attention, heightened receptivity for suggestions, a bypass of the normal critical nature of the mind and/or delivery of acceptable suggestions (Stewart, p 511, 2006).

The Merriam Webster, Cambridge and Encarta World English dictionaries all describe hypnosis as some kind of sleeplike condition. There is no legal definition of hypnosis. According to Tebbet, "the Webster's dictionary describes it incorrectly as an artificially induced sleep, but it is actually a natural state of mind

and induced normally in everyday living much more often than it is induced artificially (Hunter, 2002)." Tasman, Kay and Lieberman (1997) agree that hypnosis is not a state of sleep. Most of the definitions seem to agree, the individual who undergoes hypnosis has some kind of altered state of mind, be it dissimilar to sleep or an overly heightened sense of being.

Research has not been able to delineate the mechanism underlying hypnosis' effect, but it appears to be more effective than placebo (Loitman, 2000). Stewart agrees, hypnosis does not act as a placebo; it indicates pain relief from hypnosis is different, the pain is not perceived rather simply experienced with greater tolerance (Stewart, p 512, 2006). Research reports state that hypnosis changes a patient's skin temperature, heart rate, intestinal secretions, brain waves and the immune system (Complementary and Alternative Medicine, 2003). Neurological and endocrine effects have been proposed, including alterations to the hypothalamic-pituitary-adrenal axis or the limbic system.

Another way to view hypnosis is through the different parts of the mind. There are three parts to the mind; the unconscious mind, the conscious mind and the subconscious mind. Local therapist, Tracy Holwager mentions an addition of a critical factor. If one truly desires to understand the definition of hypnosis, the critical factor needs to be explored and how it is connected to the mind. It is important, not only to explore the critical factor but according to Holwager (2005), it is also important to understand how it is connected to the mind directly.

Start with the unconscious mind; it is the part of the autonomic nervous system. The autonomic nervous system regulates much of our body's functions.

It's effects include control of heart rate and force of contraction, constriction and dilatation of blood vessels, contraction and relaxation of smooth muscle, visual accommodation, pupillary size, secretions from exocrine and endocrine glands, temperature and respiratory control. The autonomic nervous system is divided into two separate divisions called the parasympathetic and sympathetic systems. The parasympathetic system is concerned with conservation and restoration of energy, as it causes a reduction in heart rate and blood pressure, and facilitates digestion and absorption of nutrients, and consequently the excretion of waste products. In contrast to the parasympathetic system, the sympathetic system enables the body to be prepared for fear, flight or fight. Sympathetic responses include an increase in heart rate, blood pressure and cardiac output, a diversion of blood flow from the skin and splanchnic vessels to those supplying skeletal muscle, increased pupil size, bronchiolar dilation, contraction of sphincters and metabolic changes such as the mobilization of fat and glycogen.

According to Holwager (2005), the conscious mind possesses four distinct parts, the rational, analytical, will power and temporary memory. The analytical rational portion is responsible for thinking and judging. The rational mind may not always be correct, but if one can come up with the reasoning behind the actions the individual will be at peace in his or her justification. The analytical mind recognizes problems and attempts to fix them. Will power provides a short burst of energy to help the individual through difficult mental situations. It cannot affect internal change that comes from within the subconscious mind and is seen as temporary. The temporary memory is very limited. It literally record parts of

the individual's daily life such as the late evening walks through the park with the dog on a cool breezy day. Scientific research has proven that the temporary memory can only handle small amounts of information, making the conscious mind a very weak link. Habits such as twirling ones hair or laughter are subjects of the subconscious mind. It stores imagination, permanent memory, habits, feelings and emotions. The subconscious mind has been said to be the single most powerful goal-achieving agent. The subconscious imagination is creative and unique. It dictates the individual's perception of the world. Every single piece of information flows through the subconscious mind; it builds a database that develops into beliefs and habits. "An individual is the sum total of all their past because through their database/memory they develop habits and beliefs that help them through their next thought, action and/or feeling (Holwager, 2005)." The permanent memory is highly organized and works by association, for example when he or she can recall something from the past, like how lilacs remind them of summers at their grandparents' farm. Since the subconscious mind hosts the habits, feelings and emotions, it is referred to as the feeling mind. It is thought that hypnotherapy helps individuals use their powerful subconscious mind.

According to Tracy Holwager (2005), an example of what the critical factor may let pass through to the subconscious mind might be, "smoking is bad for one's health and can cause premature death." The critical factor is in the conscious mind but takes orders from the subconscious and is said to be between the two. The critical factor protects the precious and vulnerable subconscious mind. It acts like a filter. It intakes everything from the world and stops it. It then

compares it to every perception of the individual. If the new data is not in harmony with the individual's perception, the critical factor stops the information and ejects it. If the new data is in harmony with the perception, the critical factor opens up and lets the data in. When a patient is under hypnosis, the critical factor can be bypassed so new suggestions can be placed and accepted within the subconscious mind. So in reference to the example above, the subject under hypnosis may accept smoking can cause premature death and store the data within the subconscious mind. When the critical factor is bypassed, habits, beliefs and internal conflicts can be shifted and the individual can work on achieving new goals. The critical factor and the conscious mind still watch and listen and can still eject suggestions given by the hypnotherapist, but remember it is the subconscious mind where one can work on their perceptions.

History of Hypnosis

Hypnosis has existed as long as humans have been walking upright and sporting opposable thumbs. Many ancient cultures have records indicating activity that might be described as hypnosis: Babylonians, Greeks, Egyptians, Druids, Vikings, Indian Yogis, Dervishes & Hindu Priests and many more cultures using chants, drumming and dance rituals to change or alter the state of consciousness (Gauld, 1992). These behaviors were often linked to religion, healing or both. The origin of hypnosis extends back to the ancient temples of Aesculapius, the Greek god of medicine. Historians thought the advice and reassurances uttered by priests to sleeping patients was the Gods speaking to them in their dreams.

Another one of the earliest written records can be found in texts like the Ebers Papyrus, an Egyptian medical text dating around 1550BC. This scroll contains 700 formulas designed to cure afflictions ranging from crocodile bites to toenail pain. The Egyptians are also thought to have originated 'sleep temples' in which priests gave similar treatments through the use of suggestion. Among the Romans, Aesculapius often threw his patients into a deep sleep and alleviated pain by stroking the patient with his hand (Gauld, 1992).

In 2600BC, the father of Chinese medicine, Wong Tai wrote about techniques that involved incantations and the passing of hands. Other accounts can be found in the Bible, the Talmud, a book of Jewish writings, and the Hindu Vedas, written about 1500BC. The advent of Christianity led to a decline in the use of hypnosis because it was considered witchcraft. In 1962, the Religious Aspects of Hypnosis showed descriptions of how Jesus used hypnosis in performing many of his miracles (Gauld, 1992).

Modern hypnosis started in the late 18th Century. A religious man called Father Gassner believed that patients who were ill were possessed by the devil. He performed a form of stage hypnosis. He told patients that when his gold crucifix touched them they would fall to the floor where they should await his instructions. They were told to die and an observer physician felt no pulse, heard no heart beat and pronounced the person dead. The demons were ordered to depart and the patient was revived. In the early 1770's, Franz Anton Mesmer (1734-1815) observed stage hypnosis. He was an Austrian physician who theorized that disease was caused by imbalances of a physical force, called animal

magnetism, which affects various parts of the body. Mesmer believed a cure could be achieved by redistributing the magnetic fluid because diseases were blockages of the circulation of the magnetic field (Forrest, 1999).

In 1784, A French Royal Commission of Inquiry into Animal Magnetism was established. Benjamin Franklin chaired the commission. He and his members concluded that the effects of mesmerism, while genuine in many cases, were achieved by means of imagination and not by physical force. In the course of their proceedings, the commissioners conducted what may well have been the first controlled psychological experiments. In true traditions of science, however, the commission provided an alternative explanation of magnetic phenomena. The study concluded the effects observed were the product of imagination, imitation and touch, and that the main contributing factor was imagination. Mesmer's theory was discredited, but his practices live on (Forrest, 1999).

A major transition occurred when one of Mesmer's followers, the Marquis de Puysegur (1751-1825) renamed Mesmer’s idea Artificial Somnambulism. He magnetized Victor Race, a young shepherd on his estate. Instead of undergoing a magnetic crisis, Victor fell into a sleeplike state in which he was responsive to instructions, and from which he awoke with amnesia. Later in the 19th century, John Elliotson (1791-1868), an English physician who was disbarred and James Esdaile, a surgeon, reported the successful use of mesmeric state as an anesthetic for surgery, although ether and chloroform soon proved to be a more reliable anesthetic (Elman, 1964).

James Braid (1795-1860), a Scottish surgeon who worked in Manchester, speculated that the sleep-like state was caused by the paralysis of nerve centers induced by fixation of the eyes on an object. In order to eliminate the taint of mesmerism, Braid renamed the state "neurohypnotism"; a term later shortened to hypnosis. Later, he concluded that hypnosis was due to the subject's concentration on a single thought rather than physiological fatigue.

Hypnosis resurfaced in the late 1880's in France by Jean Martin Charcot (1825-1983), a neurologist. He thought that hypnosis and hysteria both reflected a disorder of the central nervous system. In opposition to Charcot, A.A. Liebeault and Hippolyte Bernheim (1837-1919), two other French physicians, emphasized the role of suggestibility in producing hypnotic effects. Pierre Janet and Sigmund Freud also studied with Charcot, and Freud began to develop his psychosocial theories of mental illness after observing the suggestibility of hysterical patients when they were hypnotized (Durbin, 2005).

In the United States, William James and other early psychologists became interested in hypnosis because it seemed to involve changes in conscious awareness. The first systematic experimental work on hypnosis was reported in a doctoral dissertation completed at Harvard in 1923 by Young. Clark Hull (1884-1952) also was involved with an extensive series of experiments initiated in the 1920's at the University of Wisconsin and continued at Yale into the 1930's. Also at Wisconsin, Milton Erickson was a physician whose provocative clinical and experimental studies stimulated interest in hypnosis among psychotherapists.

After World War II, interest in hypnosis rose rapidly. The period between 1960 and 1990 is likely to be seen by future historians as the 'halcyon days of hypnosis'. During this period, three major hypnosis research laboratories developed in the United States. One was located at Stanford University under the direction of Ernest and Josephine Hilgard. A second one was at the University of Pennsylvania, after a brief inaugural period at Harvard University, under the guidance of Martin T. Orne, Emily Orne and in later years by David F. Dinges. A third one was at Medfield Hospital in Massachusetts under the auspices of Theodore C. Barber. Unfortunately, the Stanford and Medfield laboratories are no more; by contrast the Philadelphia Laboratory continues to thrive. Presently more and more individuals are turning to alternative/complementary therapies, which include hypnosis. The Stanford Medical Center according to their website has added a medical hypnosis program, the Stanford Center for Integrative Medicine, which is designed to be an integrated component of a patient's overall medical care (Stanford Medical Center, 2005).

Use of Hypnosis

Hypnosis has the potential to help relieve the symptoms of a wide variety of illnesses and conditions. It has been used independently or as a complementary treatment. A panel convened by the National Institute of Health approved hypnotherapy as a form of treatment. In 1995, the NIH (National Institute of Health Consensus Development Program, 1995, p.17) reported "Evidence supporting the effectiveness of hypnosis in alleviating chronic pain associated with cancer seems strong... with other data suggesting the effectiveness of

hypnosis in other chronic pain conditions, which include irritable bowel syndrome, oral mucositis, temporomandibular disorders, and tension headaches". In 1955, the British Medical Association accepted hypnosis and in 1958 the American Medical Association followed suit (Durbin, 2005).

According to Mayo Clinic Complementary and Alternative medical center (mayoclinic.com, P6), hypnotherapy can be used for any of the following and more:

- Childbirth pain and the reduction of labor time
- Bleeding and pain during dental and surgical procedures
- Symptoms associated with Irritable Bowel Syndrome
- Reduction of blood pressure and regulation of blood flow
- Enhance the body's immune system and ability to fight infection
- Nausea and vomiting caused by chemotherapy
- Migraine headaches of children and teenagers
- Symptoms of asthma
- Skin diseases and trauma, burns or incisions
- Psoriasis and atrophic dermatitis
- Negative behaviors, such as smoking, bedwetting and overeating
- Fear, stress and anxiety
- Phobias.
- Mood-swings, negativity and confidence levels
- Grief and sports improvement

Hypnotherapy is not magic, but it does have the potential to help with a wide variety of conditions. It is typically used as one part of a broader treatment plan rather than an independent use of therapy. Hypnotherapy may be utilized as a part of psychotherapy for the therapeutic process. Psychotherapy, according to Wolber (1977), is the treatment by psychological means, of problems of an emotional nature in which a trained person establishes a professional relationship with the patient with the object of removing, modifying, or retarding existing symptoms,

mediating disturbed patterns of behavior, and promoting positive personality growth and development. Hypnotherapy, always involves hypnosis in some sort, but not every hypnotic session involves a hypnotherapist.

Hypnosis can be very helpful to some people and fail with others like any medical therapy. It works best when the patient is highly motivated and the therapist is well-trained and understands the particular problem. Dr. Gerard Sunneon of New York University School of Medicine says 'hypnosis is the most potent non-pharmacological relaxing agent known to science' (Gauld, 1992, p. 98). At the Stanford University Medical Center for Epilepsy, hypnosis has been used to identify nonepileptic seizures and assist in treatment (Voelker, 1996).

Sebastian Schulz-Stübner, M.D., Ph.D., University of Iowa assistant professor of anesthesia, investigated whether clinical hypnosis could be used in place of sedating drugs to relax patients undergoing surgery with local or regional anesthesia. The technique proved to be successful under certain circumstances. For example, all the patients undergoing elective surgery were successfully hypnotized and did not require sedatives (Schulz-Stubner, 2002).

With "carefully selection of patients and time to inform them about the method and maybe even perform a test hypnosis, hypnosis works with a high success rate," Schulz-Stübner said. "On the other hand, if someone is completely unfamiliar with the concept and is also under stress as in an emergency case, the hypnosis does not work." One limitation of the study is keeping it consistent with the physical realities of the operating room; too many noises or disturbances will distract the patient. The team needs to be familiar with the technique and be

willing and able to accommodate it. Eighty percent of the patients who were hypnotized during the studies remembered nothing about the procedure. Ten percent remembered sensations of warmth or heaviness, while the remaining ten percent remembered images (Schulz-Stubner, 2002. p. 622).

No one knows exactly what hypnosis is, but it is known what it is not. Hypnosis is not meditation. Meditation is known to focus on the self, with the primary goal of relaxation. In meditation, one enters an altered state with a focus on self. Hypnosis is the focus on something outside of self, with the primary goal to change or construct a new behavior. In this, one enters an altered state and receives suggestions.

Hypnosis is not sleep. During sleep an individuals eyes are closed, they are relaxed, have no attention to environment, they do not hear nor do they concentrate on anything heard, they have the ability to move and the electroencephalogram (EEG) shows little alpha activity. During hypnosis, one's eyes can be either open or closed. The body can be relaxed or tense. Clients have no attention to the environment and are able to hear voices and respond if needed. Clients are also highly concentrated, they remain still unless provoked to move and the EEG shows high alpha activity suggestive of alertness. Hypnosis may be considered to be a trance. A trance is a state of heightened mental alertness and diminished physical movement and is a state of susceptibility to suggestion (Schulz-Stubner, Krings, Meister, Rex, Thron and Roissant, 2004).

Cognitive counseling is associated with issues at a cognitive level. When someone has to make difficult cognitive decisions, professional help is beneficial.

For example, hypnotherapy is not a substitute for marriage counseling. But when it comes to changing habits or behaviors regulated by the subconscious, there are few therapy methods faster than hypnotherapy to facilitate subconscious change. Just as important, is the realization that hypnotherapist is not licensed to diagnose, while a physician, psychologist, or licensed mental health practitioner may be qualified to diagnose the cause of someone's problem. A hypnotherapist asks the client's subconscious mind to disclose the cause. The hypnotherapist then either proceeds with hypnosis or gives the patient a referral accordingly, based upon the information disclosed.

As with any other therapy, risks may surface. MacHovec (1988) documented a few cases, which displayed unanticipated adverse reactions after hypnosis. Some of these adverse reactions or complications consisted of unexpected, unwanted thoughts, feelings or behaviors during or after hypnosis, which were not consistent with agreed goals and interfered with hypnotic process by impairing optimal mental function. Most common adverse reactions were drowsiness, dizziness, stiffness, headaches, anxiety and occasionally more serious reactions such as substitution or masking of organic disorders. Most reactions were due to: deficiencies in the technique of the hypnotists; literate interpretation of suggestions; too rapid awakening; inappropriate use of age regression; not dispelling preconceived expectations of negative consequences before initiating session or no prescreening for psychopathology (MacHovec, 1988). A pre-hypnosis session is advocated as well as informed consent. A pre-hypnotic session is equivalent to a preoperative evaluation to determine what the patient

knows, what the patients expectations are and how the patient is able to communicate. Hypnosis is generally considered a benign process with few contraindications, however pseudomemories, false memories, may be created if leading questions are used within the investigative state (Stewart, 2005).

Just as informed consent is utilized for medical therapies, it too should be utilized for alternative/complementary therapies. The history of hypnosis is vast. Hypnosis' utilization was minimized by the introduction of anesthetic agents such as chloroform and ether and vanished with discovery of narcotics and other new volatile agents. It seems to be resurfacing; with the new age of holistic care, for example, approaches such as prayer, meditation, acupuncture, massage, distraction and music therapy.

Research on Hypnosis as Adjunct to Anesthesia

Numerous studies according to Stewart (2005), have shown benefits of hypnosis for pain. A review of eighteen studies from the preceding twenty years showed a moderate to large analgesic effect for many types of pain. Hypnosis met guidelines for an established treatment and a broader application of its uses was advocated (Stewart, 2005, p. 515). Patterson (2003) found hypnosis to be superior to placebo for acute pain and at times superior to other means. A 1999 review promoted the safety and comfort hypnosis afforded for patients with surgical cases combined with other methods of conscious sedations (Faymonville, Meurisse and Fissette, 1999).

In some cases, hypnosis prevents pharmacological unconsciousness. This allows patient participation which may allow for faster recovery and/or shorter

hospital stays. On the other hand this requires changes to the atmosphere of the operating room to support the multiple benefits of hypnosis as an adjunct to conscious sedations for a plethora of surgeries (Stewart, 2005). Some of the documented procedures done with hypnosis are breast biopsies, coronary angioplasty, wound cares, liver biopsy, esophagogastroduodenoscopy, colonoscopy, bone marrow transplantation, hysterectomy, plastic surgery and more.

Saadat, Drummond-Lewis, Maranets, Kaplan, Saadat, Wang and Kain. (2006), found the hypnotic group of patients were significantly less anxious post-intervention, noting a fifty-six percent decrease in their anxiety level upon entrance into the operating room, altering and alleviating preoperative anxiety. According to Enqvist, von Konow and Bystedt (1995), patients who received preoperative suggestions exhibited thirty percent reduction in blood loss and lower blood pressures. Blankfield (1991) states that hypnosis, suggestion and relaxation are underutilized techniques. Hypnosis can shorten post-operative hospital stays, promote physical recovery from surgery and aid in psychological and emotional response to surgery. Blankfield (1991) did eighteen trials employing hypnosis, suggestion and relaxation to facilitate recovery, sixteen studies credited the intervention while two failed to document any positive results. Ashton, Whitworth, Seldomridge, Shapiro, Weinberg, Michler, Smith, Rose, Fisher and Oz (1997), taught a group self hypnosis preoperatively before coronary artery bypass surgery, reporting the results were significant. The self-hypnosis group were more relaxed postoperatively, pain medication requirements were

significantly less, but no differences were noted on intra-operative parameters, morbidity or mortality, stating that self hypnosis was beneficial.

Faymonville, Mambourg, Joris, Vrijens, Fissette, Albert and Lamy (1997) studied hypnosis on patients undergoing elective plastic surgery, noting patients anxiety, pain, perceived control before, during and after surgery, and postoperative nausea and vomiting. Peri-operative and post-operative anxiety and pain were significantly lower for the hypnosis group. Peri-operative control was claimed by the hypnosis group and postoperative naseau and vomiting was reduced. Surgical conditions were also better for the hypnosis group with less signs of patient discomfort and pain viewed by a trained psychologist. Vital signs were more stable and satisfaction scores were higher, suggesting hypnosis provides both pain and anxiety relief. Enqvist, Bjorklund, Engman and Jakobsson (1997) showed a significant reduction in nausea and vomiting with the utilization of hypnosis.

CHAPTER III

METHODOLOGY

The purpose of the study was to identify North Dakota certified registered nurse anesthetists' attitudes and perceptions of hypnosis and if it would be realistic to use hypnosis in the surgical setting. The study identifies a relationship between North Dakota certified registered nurse anesthetists' attitudes and perceptions about hypnosis to the utilization of hypnosis in a surgical setting. By identifying this, nursing education and research may be advanced locally and nationally to help improve patient care.

This study attempted to answer the following questions through a descriptive study using a questionnaire developed by the researcher, based on literature review and current clinical practice.

1. What is the incidence of use of hypnosis by nurse anesthetists in North Dakota?
2. What are the reasons for or against utilization of hypnosis by North Dakota certified registered nurse anesthetists'?
3. What are the barriers to utilization of hypnosis?
4. What are North Dakota certified registered nurse anesthetists' perceptions and attitudes towards hypnosis?

This chapter will focus on the research design for this study, includes the sample population, the study design, the data collection method, the data collection instrument, the proposed data analysis and the protection of human subjects.

Study Design

A voluntary descriptive, cross-sectional study design was utilized to obtain accurate and current information regarding North Dakota certified registered nurse anesthetists' attitudes and perceptions on hypnosis.

Sample, Sampling Procedure, and Setting

A current list of North Dakota certified registered nurse anesthetists (CRNA), whom are members of the NDANA (North Dakota Association of Nurse Anesthetists) was obtained by contacting the NDANA. In North Dakota over ninety percent of North Dakota certified registered nurse anesthetists are members of NDANA. The researcher is also a member of NDANA. All current certified members of NDANA were invited to participate in the study. The sample of the study was limited to CRNAs in North Dakota.

Instrumentation

A questionnaire was mailed to the ND CRNAs upon proper IRB approval. The researcher developed the questionnaire as no questionnaire had been found in the literature that investigates this topic. The questionnaire was designed to utilize information from literature reviewed regarding hypnosis. Demographic information was obtained in a confidential manner by closed ended and checklist questions. Data collection was through the federal mail. A reminder postcard was

to be sent if low numbers were obtained. The questionnaires were coded, obtainable only by the researcher, stored in a locked cabinet and are scheduled to be destroyed three years after completion of the study.

Data Collection

Data collection initiated after approval of research by the UND International Review Board was granted on April 12, 2006. The surveys were mailed to each NDANA member's home address (N=182) via federal mail. The envelopes mailed included a cover letter (Appendix A) and consent form (Appendix B) that invited the subject to participate in the study, the questionnaire (Appendix C), and a labeled return envelope. The return envelope was stamped and addressed to the researcher's home address and each subject was asked to return the questionnaire in the provided envelope via federal mail. The deadline was set for two weeks after mailing. If there had been low return rates (less than 50%, N<91) of the survey the researcher would have sent out a reminder postcard to each subject to encourage return of survey. Each NDANA member was assigned a confidential code number, not by name so that when the surveys were returned, the researcher would identify which subjects had not returned a survey. Reminder postcards were not sent due to significant returned numbers (N=119).The researcher began data analysis upon the deadline of the survey.

Data Analysis

Descriptive analysis was performed on the obtained data. Demographic data was summarized and the attitudes and perceptions of hypnosis were identified.

Protection of Human Subjects

The researcher completed a mandatory education model online through the UND IRB. IRB approval was obtained through the University of North Dakota and the status of approved was received. Participation was voluntary. A cover letter and consent to participate was attached to the surveys when they were mailed, identifying the researcher, the purpose of the study, the risk and benefits of participation and consent.

The risk was minimal to the participants due to the nature of the study and benefits include increasing nursing knowledge and database. The right to withdraw from participation was given and completion of survey implied consent. Confidentiality was protected with data collection by a coding system.

CHAPTER IV

RESULTS

Characteristics of the Sample

The CRNA Attitudes and Perceptions Regarding Hypnosis survey was sent to 182 current certified 2005-2006 members of North Dakota Association of Nurse Anesthetists (NDANA). The list of members were obtained from a NDANA. Of the 182 surveys sent out, 119 were completed and returned for a return rate of sixty-five percent.

The first portion of the survey assessed demographic characteristics of the sample: gender, age, highest education level complete, area of practice and years of service as a CRNA.

Although 119 surveys were returned, only ten respondents did not state their gender. There was a close equivalent amount of genders that responded to the questionnaire; a total of fifty-six males (47.1%) and fifty-three females (44.5%) responded. Of the one hundred nineteen NDANA CRNAs whom responded, only four were between the ages of 20-30 years (3.4%), despite an equal number (32) of CRNAs from the age categories of 31-40 and 51-60 (26.9%). The bulk of the respondents were of the age category 41-50 years (n= 38, 31.9%), leaving thirteen NDANA members whom responded between the age group of sixty-one plus (10.9%). Table 1 below depicts the gender, age education levels and places of employment of the sample.

Looking at the respondents educational backgrounds, the research showed that the majority (n=76) of NDANA members have obtained a master's degree (63.9%), followed by a bachelor's degree for twenty-six members (21.8%) than associates degree for sixteen members (13.4%) and only one respondent responded with a doctorate degree (0.8%). Of this population, a total of eight respondents stated they received either a certificate or diploma in nursing.

Peering into the sample's work settings, the bulk of NDANA members (107) whom responded, work in a hospital setting (89.9%), followed by outpatient facilities for fifty-three members (44.5%), than rural practice for twenty-nine members, (24.4 %) and coming in close to one another was private practice, dentistry and urban practice having between eleven and fourteen members each.

The NDANA CRNAs' years of service lay heavy upon the 5-10 years range (30%) and less than 5 years range (31%), followed by those whom have been working more than 25 years (27%) and finally those working 21-25 years and 11-20 years were between 14-17% respectively.

Table 1. Summary of Demographics of 119 CRNAs Gender, Age, Education levels and Place of Employments

Characteristics	*n*	*Percentage*
Gender		
Male	56	47.1
Female	53	44.5
Missing	10	8.4

Table Continued.

Characteristics	*n*	*Percentage*
Age Category (years)		
20-30	4	3.4
31-40	32	26.9
41-50	38	31.9
51-60	32	26.9
61 plus	13	10.9
Education Levels		
Associate	16	13.4
Bachelor's	26	21.8
Master's	76	63.9
Doctorate	1	0.8
Anesthesia Practice (years)		
Less than 5	30	25.2
5 to 10	31	26.1
11-20	17	14.3
21-25	14	11.8
More than 25	27	22.7
Place of Employment		
Hospital	107	89.8
Out patient	53	44.5
Dentistry	13	10.9
Private Practice	14	11.8
Rural	29	24.4
Urban	11	9.2

Education in Alternative Therapies

Following the demographic portion of the survey, information on CRNAs' education on complementary therapies was collected. One of the questions in the study sought to identify if any complementary therapies were part of any nursing curriculum; undergraduate, graduate or anesthesia training, journals, and/or CEU credits. According to the survey, eighteen respondents stated yes to receiving education of complementary therapies (15.1%). The respondents mentioned only

six percent were received through graduate education, over five percent through their undergraduate education and CEU's each, almost twelve percent through journals and ten percent through conferences or workshops. This leaves ninety-nine members having had no alternative therapies education (83.2%), which is a large number of individuals whom have not been formally educated on many of the new and rising complementary therapies utilized by the public. Table 2 below summaries the participants' complementary therapy education.

Table 2. Summary of Complementary Therapies Education among 119 NDANA CRNAs

Characteristics	*n*	*percentage*
Alternative Education		
No	99	83.2
Yes	18	15.1
Missing	2	1.7
Type of Education		
Undergraduate	7	5.9
Graduate	8	6.7
Journals	14	11.8
CEU's	7	5.9
Conference/Workshops	12	10.1

Exposure to Hypnosis

The survey continued by questioning the NDANA members if they were formally educated or exposed to hypnosis. Of the 119 respondents, one hundred and four members were never educated on hypnosis (87.4%) and fifteen were exposed to some form of education on hypnosis (12.6%). A couple of interesting statistics from this part of the questionnaire was that twenty-six members stated

they have been hypnotized (21.8%) and seventy-nine NDANA CRNAs have witnessed some form of hypnosis, even though a majority of the exposure was for group entertainment (56.3%). Four individuals (3.4%) have witnessed hypnosis in the operating room. The other places hypnosis was witnessed were on television (14.3%), in a private office (2.5%), at home, at a workshop and as a class demonstration. Table 3 below summarizes the members' exposure to hypnosis.

Table 3. Summary of 119 NDANA CRNAs Exposure to Hypnosis

Characteristic	*n*	*percentage*
Hypnosis Education		
Yes	15	12.6
No	104	87.4
Hypnotized		
Yes	26	21.8
No	93	78.2
Witnessed hypnosis		
Yes	79	66.4
No	40	33.6
Location of Witnessed Hypnosis		
Group entertainment	67	56.3
Television	17	14.3
Private Office	3	2.5
Operating Room	4	3.4
Other	12	9.6

Utilization of Hypnosis

One of the key components of the survey looked for attitudes and perceptions of NDANA members on hypnosis. The members were asked if they believed hypnosis worked; a surprising eighty-three members stated they believe hypnosis works (69.7%), while only twenty-seven members stated that hypnosis

does not work and seven members wrote in that hypnosis may work but were unsure. Of the survey respondents, a high percentage believed that hypnosis works for anxiety (78.2%) and followed closely by habit changes (71.4%). Only half of the CRNAs believed that hypnosis may work for pain and comfort. Table 4 below summarizes the data from the CRNAs on attitudes of hypnosis.

Table 4. Summary of 119 NDANA CRNAs Attitude of Hypnosis

Characteristics	*n*	*percentage*
Believe Hypnosis Works		
Yes	83	69.7
No	27	22.7
Maybe	7	5.9
Missing	2	1.7
Hypnosis Works for:		
Pain	60	50.4
Anxiety	93	78.2
Habit Change	85	71.4
Comfort	65	54.6
Other	5	4.2

The questionnaire inquired if NDANA CRNAs thought hypnosis could be utilized as an adjunct to anesthesia. Seventy-eight respondents stated that hypnosis may be utilized as an adjunct to anesthesia (65.5%), while thirty-six members believed that hypnosis would not be useful as an adjunct to anesthesia (30.3%). There were four members (3.4%) who stated that hypnosis may be of some use but were unable to state how and one member did not answer the question.

The NDANA CRNAs were asked about what kind of adjunct would they consider hypnosis to be useful for; seventy members stated that it would be most useful for pre-op anxiety (58.8%), followed by as an addition to post-operative pain control (41.2%), an addition to monitored anesthesia care (MAC) sedation (39.5%) and assistance to local/regional placement (35.3%). The use for hypnosis as an adjunct to additional analgesia and amnesia were both roughly twenty-six percent. Only thirty-four NDANA CRNAs believed that hypnosis could be utilized for intra-operative pain (28.6%). Three NDANA CRNAs believed that hypnosis had additional usage such as for habit changes before or after surgery, reduction in post operative nausea and vomiting and as an addition to a pharmacological anxiolytic. Table 5 below summarizes the NDANA CRNAs perceptions on hypnosis.

Table 5. Summary of 119 NDANA CRNAs Utilization of Hypnosis

Characteristics	*n*	*percentage*
Hypnosis as Anesthesia Adjunct		
No	36	30.3
Yes	78	65.5
Maybe	4	3.4
Missing	1	0.8
Use of Hypnosis as Adjunct to Anesthesia for:		
Pre-op anxiety	70	58.8
Intra-op Pain	34	28.6
Post-op Pain	49	41.2
Additional Analgesia	32	26.9
Additional Amnesia	31	26.1
Assistance with Local Placement	42	35.3
Addition to Monitored Anesthesia Care	47	39.5
Other (anxiolytic, PONV, habit changes)	3	2.4

Hypnosis has a significant history, being utilized by priests, therapists, and many more for a multitude of remedies. Current NDANA CRNAs were questioned by the survey why hypnosis would be under or not utilized within their practice. The highest number of responses came from the lack of knowledge accounting for ninety-two members (77.3%). None of the respondents believed that hypnosis would be harmful to the patients, but utilization still remains minimal to null.

A good proportion of the members (58%) believed that hypnosis would not be applicable due to time restraints, while thirty-seven percent commented they had never witnessed hypnosis as an adjunct to anesthesia. Seven CRNAs believed that hypnosis would interfere with the anesthesia they administer, and twenty-two members stated they believed hypnosis would not be beneficial to the patient. Twenty-four members said hypnosis would be too much of a hassle. Nineteen members believed the surgeon would prohibit use of it and fifteen members believed the anesthesiologist (MDA) would prohibit use of it. Only ten CRNAs noted that they may not have the adequate type of equipment to perform hypnosis.

There were eleven members who wrote in additional responses such as "too fast paced operating rooms, too many monitors, patient not open to hypnosis, no patient requests, non-traditional approach, lack of universal acceptance, not all individuals are able to be hypnotized, not presently available, not aware of research suggesting utilization, untrained, fear of patient believing provider is

incompetent, and belief that pharmaceuticals are one-hundred percent reliable."

Table 6 below displays the non utilization of hypnosis statistics.

Table 6. Summary of 119 NDANA CRNAs Non-utilization of Hypnosis

Characteristics	*n*	*percentage*
Reasons for Non-utilization of Hypnosis in Anesthesia		
Never witnessed	44	37
Hassle	24	20.2
Lack of Time	69	58
Lack of Knowledge	92	77.3
Lack of Equipment	10	8.4
Harm Patient	0	0
Interfere with anesthesia	7	5.9
Surgeon prohibit	19	16
MDA prohibit	15	12.6
Not Beneficial	23	19.3
Other	11	8.8

Additional Findings

The final question of the survey was to find out if the CRNA of this population were willing to learn about hypnosis. According to the one hundred nineteen respondents, nine stated they would not like any additional information or training on hypnosis (7.6%). Sixty-six respondents stated they would be interested in additional training or information on hypnosis (55.5%). Forty-three CRNA's said they were unsure if they would like any training or information on hypnosis (36.1%); and one member did not respond to the question (0.8%). Table 7 below displays the willingness to learn about hypnosis.

Table 7. Summary of 119 NDANA CRNAs Willingness to Learn about Hypnosis

Charateristics	*n*	*percentage*
Willing to Learn		
Yes	66	55.5
No	9	7.6
Maybe	43	36.1
Missing	1	0.8

Summary

The focus of this chapter has been to answer the research questions and present the results of the analysis of the survey, Attitudes and Perceptions Regarding Hypnosis of North Dakota Certified Registered Nurse Anesthetists. The following chapter will provide discussion on the interpretation of the results as well as conclusions gathered from this study.

CHAPTER V

DISCUSSION, CONCLUSIONS AND RECCOMENDATIONS

The purpose of the study was to identify North Dakota certified registered nurse anesthetists' attitudes and perceptions of hypnosis and if it would be realistic to use hypnosis in the surgical setting. The study identifies a relationship between North Dakota certified registered nurse anesthetists' attitudes and perceptions about hypnosis to the utilization of hypnosis in a surgical setting. By identifying this, nursing education and research may be advanced locally and nationally to help improve patient care.

This study attempted to answer the following questions through a descriptive study using a questionnaire developed by the researcher, based on literature review and current clinical practice.

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3. What are the barriers to utilization of hypnosis?
4. What are North Dakota certified registered nurse anesthetists' perceptions and attitudes towards hypnosis?

This final chapter will include a discussion of the results of data analysis and conclusions gathered from the study on nurse anesthetists' attitudes and

perceptions on hypnosis. Recommendations for practice, education, and research will be addressed.

Discussions and Conclusions

The survey, Attitudes and Perceptions Regarding Hypnosis on North Dakota Certified Registered Nurse Anesthetists, was distributed to one hundred eighty-two CRNAs in the state of North Dakota. The return rate for the survey was sixty five percent (n= 119), which was a satisfactory response rate for the purpose of this study. Possible contributing factors to subjects not responding included short data collection time-frame, subjects' disinterest or dislike in this topic, and subjects' receiving multiple surveys in mail from other researchers. CRNAs who have no interest in the complementary therapies or hypnosis may have chosen not to respond to this survey, feeling it may be a waste of their time or of no benefit. There were a few responses that were unable to be utilized due to consent signature and no survey forwarded. Researcher was baffled by a couple responses stating that hypnosis is equivalent to an Ouija board and to the evil side such as tarot cards and devil worshipping. Another limitation to responses may have been other nursing students across the state, which may have mailed out surveys to North Dakota nurses and/or CRNAs, tiring these subjects of responding to additional surveys.

Despite sixty-three surveys not being returned, the researcher was pleased with the response rate. North Dakota CRNAs seem very loyal to higher education and the students in their profession. They appear willing to participate in additional education and research conducted by students.

The demographic portion of the survey was of interest to the researcher for a plethora of reasons. The data stated the age groups, gender, years of service, educational backgrounds and practice arenas. The majority of responding CRNAs age (82%) lies between the ages of 31-60 years. There may be a few reasons for the age categories; prerequisites to entering anesthesia programs, four year's bachelor of nursing degree requirement, a minimum of one to two years experience in a critical care setting and completion of an anesthesia program. These requirements may demonstrate why the age of anesthetist is not as wide spread; most CRNAs do not enter into the profession until after the age of thirty. This may provide means to why the nurse anesthesia programs need to continue educating new CRNAs.

Throughout the profession of nursing, one can see the nursing shortages effects and the climb this shortage will have on the future of the profession. Surprisingly, the statistics showed an equality of genders that was not expected by the researcher. The researchers belief was that anesthesia was male-dominated even though the nursing profession as a whole was female-dominated.

Part of the results was associated with arenas of practice, not surprising to the researcher was the high percentage of NDANA members that worked in the hospital setting.The researcher anticipated a high percentage of NDANA members to hold a graduate degree. The data showed that almost sixty-four percent surveyed held a masters degree.

One data point collected about these members' education on complementary therapies and hypnosis was alarming to the researcher. It showed

that eighty-three percent of the members who had received education on complementary/alternative therapies were from journals and/or conferences and workshops. This pinpoints a major problem within our education. As more and more alternative or complementary therapies are being utilized, our schools need to update their curriculum and educate nurses earlier on these alternative/complementary therapies. The continuing education requirements available related to these topics are not highly stressed upon the higher education system.

The purpose of this study was to identify whether hypnosis would be utilized in the surgical setting amongst NDANA CRNAs and what the reasons may be for non-utilization. With sixty-seven percent of the participants believing hypnosis works, especially for anxiety and habit changes and sixty-five percent stated they believe it could be utilized as an adjunct to anesthesia. The question arises as to why is there such underutilization? For the researcher, the answer seems to be with more education provided on hypnosis, the utilization of this technique in the surgical setting would increase.

The researcher asked if NDANA members would be interested in learning more about hypnosis: sixty-six of the one hundred nineteen CRNA responses with 'yes'. The number of responses shows the need for further education and the willingness of the CRNAs to open up to new and different types of nursing cares. It also shows that CRNAs are willing to provide and maintain a safe environment for their patients.

Recommendations for Practice

Clinical practice is best improved through education. The nurse anesthetists in this population would benefit from additional education on hypnosis. The major points of education need to emphasize the use of hypnosis as adjunct to anesthesia, techniques of hypnosis, history of hypnosis, additional forms of pain control and other alternative/complementary therapies utilized by the public. In this study, eighty-three percent stated they had no additional education on alternative/complementary therapies and when they did it was outside formal university education, lying heavily on CEU's and conferences.

Over eighty-seven percent stated they had no formal education on hypnosis, while sixty-six percent mentioned they had witnessed some form of hypnosis and sixty-nine percent believed hypnosis works. These numbers are alarming in order for hypnosis to gain respect as a possibility as an adjunct to anesthesia practice. Education must help increase the attitude and perceptions of this data group. The data shows the members believe that hypnosis works but goes on to show that the members do not understand how hypnosis can be utilized. If practice is best improved by education why are not more studies being proposed on complementary and alternative therapies as adjunct to anesthesia. At the present time, the researcher would not advocate for utilization in practice until additional research can be done.

Recommendations for Education and Research

As previously noted above, education is of value when complementary therapies are involved. The recommendation is to add content on

complementary/alternative therapies to the curriculum of nursing programs that prepare CRNAs. Without education and research a profession may collapse. The nursing profession must continue to push research to maintain and gain additional respect as a dignified profession. Just as Nola Pender's model utilized the goal of care to be the optimal health of the person, nursing has been considered a caring, nurturing element of the patients care. Holistic care has been integrated into nursing education. The practice of holistic nursing requires the nurse to integrate self-care and self-responsibility into his or her own life and to strive for an awareness of the interconnectedness of individuals to the human and global community.

Hypnosis, a complementary therapy, has been utilized through history. It is a form of therapy that is appropriate and relevant to the holistic care of individuals. Much of the recent research supports the usage of hypnosis as an adjunct to anesthesia. The results from this study show the willingness of CRNAs to learn about complementary therapies, but show under-utilization. Research reveals this form of care is rarely utilized in the surgical setting. The researcher was unable to find many studies which identify the frequency of hypnosis use. There is a need to find out the frequency of the use of hypnosis in the surgical setting, as well as all other complementary therapies.

This study should be replicated in other areas of the country to determine if the incidence is similar within additional geographical settings. Variations to the study may be able to be done such as for additional healthcare locations, pre-op holding areas, recovery rooms, emergency areas, intensive care units and

others, due to the high level of patient care impact. An additional area which could be researched is the most effective form of hypnosis and the most effective way to be hypnotized.

Closing Discussion

The aim of this study was to identify what North Dakota CRNAs' attitudes and perceptions were on hypnosis. This study was to identify if hypnosis is utilized in the surgical setting, if it would be utilized and any limitations to utilization of hypnosis. Many studies state how hypnosis is underutilized. The study shows the non-utilization of hypnosis by North Dakota CRNAs. To determine the need and desire for further education amongst nurse anesthetists in this area of practice, further research needs to be completed. Education is the prime key to unlocking attitudes and perceptions that are unbiased toward complementary/alternative therapies. Continued education and research in the area of contemporary/alternative therapies such as hypnosis needs to be the focus of the future.

Consent Form

April 17, 2006

Dear Nurse Anesthetists:

Hello, My name is Michelle Resler. I am a graduate nursing student from the University of North Dakota, Grand Forks. I am currently pursuing a Master's degree in Nurse Anesthesia.

I am writing to ask you to participate in a research study titled "Attitudes and Perceptions regarding Hypnosis of North Dakota Certified Registered Nurse Anesthetists'." This study is aimed at understanding what is known by CRNA's on the topic of hypnosis, its uses and if it is feasible to be used as an adjunct to anesthesia.

This study has been designed to have minimal risks to the participants. The only identified risk is the loss of personal time to complete the questionnaire. The benefits to your participation include the support of a research project through providing data to the researcher. The information obtained from this study may be used to develop educational training and ultimately may benefit the nursing care of patients.

Your participation in the study is voluntary and your completion of the questionnaire implies your consent to participate. You may withdraw from this study by not completing the form at any time without penalty or negative effect from the University of North Dakota nor from your place of employment. Data will only be reported in group form. Your name or the name of your agency will not be identified. Data will be protected by the researcher and will be stored in a locked file for up to three years upon which time it will be properly disposed of by shredding.

Your time involvement in this study should be approximately 10-15 minutes. Please place your completed questionnaire in the stamped addressed envelope provided and mail it. Data collection will end May 1st, 2006, so please be sure to return the questionnaire before that date. Results of this study may be obtained upon request. If you have any questions about the research, please call Michelle Resler at 701-297-7696 or Helen Melland at 701-777-4514. If you have any other questions or concerns please call the UND Office of Research and Program Development at 701-777-4279. Thank you for your precious time.

Sincerely,

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Survey Questionnaire

Attitude and Perceptions Regarding Hypnosis of North Dakota Certified Registered Nurse Anesthetists

For purpose of this study, hypnosis is defined as an artificially induced altered state of consciousness, characterized by heightened suggestibility and receptivity to direction (American Heritage Dictionary)

1. Gender: Female Male

2. Age: 20-30 31-40 41-50 51-60 61+

3. Anesthesia Practice Area (circle all that may apply):

   hospital out-patient dentistry private practice

   rural practice urban practice other___________

4. Years of anesthesia practice:

   <5 5-10 11-15 16-20 21-25 >25

5. Highest Nursing Degree Earned:

   Associate Bachelor's Master's Doctorate Other_________

6. Did you receive any formal education on alternative therapies ? Yes No
   If answered 'No', skip to item # 8

7. Where did you learn about alternative therapies ?

   undergraduate study graduate study journals CEU

   Conference/workshops other____________

8. Have you ever been educated on hypnosis? Yes No

9. Have you ever been hypnotized? Yes No

10. Do you believe hypnosis works? Yes No

11. Have you ever witnessed any one being hypnotized? Yes No

If answered 'No', skip to item #13

12. Where have you witnessed someone being hypnotized? (circle all that may apply)

group entertainment television private office operating room

other____________

13. Do you believe hypnosis could work for any of the following ?

pain anxiety habit changes comfort other___________

14. Do you believe that hypnosis could be used as an adjunct to anesthesia? Yes No

If answered 'No', skip to item #16.

15. In what area(s) do you think hypnosis could be utilized? (circle all that may apply)

Pre operative anxiety intra-op pain post operative pain additional analgesia

additional amnesia assistance with regional/local placement an addition to MAC

Other________

16. What reasons do you have for not using hypnosis?

never seen it before too much of a hassle lack of time

lack of knowledge lack of equipment would harm patient

interfere with anesthesia surgeon would not allow it MDA would not allow it

do not believe it is beneficial other___________

17. If you were offered an in-service or workshop on alternative therapies, such as hypnosis as an adjunct to anesthesia, would you be willing to learn about these methods?

Yes No Maybe Other_______

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