2010

Hypnosis as an Effective Treatment for Hot Flashes from Naturally Occurring Menopause

Carol F. Oliver
Philadelphia College of Osteopathic Medicine, alasin1der@aol.com

Philadelphia College of Osteopathic Medicine

Department of Psychology

HYPNOSIS AS AN EFFECTIVE TREATMENT FOR HOT FLASHES FROM NATURALLY OCCURRING MENOPAUSE

By Carol F. Oliver

Submitted in Partial Fulfillment of the Requirements of the Degree of

Doctor of Psychology

February 2010

PHILADELPHIA COLLEGE OF OSTEOPATHIC MEDICINE
DEPARTMENT OF PSYCHOLOGY

Dissertation Approval

This is to certify that the thesis presented to us by Carol F. Oliver

on the 15th day of May, 2009, in partial fulfillment of the requirements for the degree of Doctor of Psychology, has been examined and is acceptable in both scholarship and literary quality.

Committee Members' Signatures:

Rosemary Mennuti, Ed.D., Chairperson

George McCloskey, Ph.D.

Phillip L. Accaria, Ph.D.

Robert A. DiTomasso, Ph.D., ABPP, Chair, Department of Psychology

Acknowledgements

I would like to thank Dr. Rosemary Mennuti, Committee Chairperson and Director of the School Psychology Program, for her guidance and expertise throughout this process. I am particularly grateful to her for her courage and commitment to see this nontraditional school psychology dissertation through to the end.

I would like to also thank Dr. George McCloskey, committee member and Director of School Psychology Research, for his expertise, input, optimism and encouragement.

To Dr. Phillip Accaria, committee member, for whose kindness and generosity I will always be grateful. His knowledge and wisdom were instrumental in making what started as a dream into a reality.

I would like to thank Dr. John Hennessy for believing in me before I believed in myself. It has been through Dr. Hennessy's patience and guidance that I have found my own personal wisdom and for that I will always be profoundly grateful.

Abstract

Hot flashes are a significant problem for many women with naturally occurring menopause and can cause physical symptoms as well as a decreased quality of life. In the past women were treated with hormonal replacement therapy. However, recent research has shown that the risks may outweigh the benefits. In addition, nontraditional nutritional treatments, such as herbal supplements, are not approved by the Food and Drug Administration, and often, the exact amount of the substance contained in each dose cannot be guaranteed. Many women and their doctors are looking for an alternative treatment. The use of hypnosis has been shown to be an effective treatment tool with many medical disorders. Through three case studies, this study examines the use of hypnosis as an effective treatment for the hot flashes caused by naturally occurring menopause as a means to reduce or to eliminate the intensity and frequency of hot flashes. It also explores the perceptions that women have about menopause and looks at what their menopausal experience has been.

Table of Contents

Acknowledgements iii
Abstract iv
List of Figures vii
Chapter 1 1
Introduction 1
Statement of the Problem 1
Purpose of the Study 4
Chapter 2 6
Literature Review 6
Women 6
Menopause 7
Biological Changes That Occur in Menopause 8
What Happens at Menopause 13
Social and Psychological Changes That Occur in Menopause 14
Sociocultural Changes That Occur in Menopause 20
Traditional Treatments for Hot Flashes 21
Nonhormonal Medical Treatment for Hot Flashes 28
Venlafaxine. 29
Paroxetine 30
Fluoxetine 30
Gabapentin 31
Antihypertensives 32
Clonidine 32
Methyldopa 33
Bellergal Spacetabs 34
Alternative Treatments for Hot Flashes 36
Soy 38
Black cohosh 39
Dong quai 41
Evening primrose 42
Ginseng 42
Soy- and red clover-based isoflavone supplements. 43
Hypnosis 44
Anesthesia for pain relief 47
Anesthesia for surgery. 48
Healing from surgery or injury 49
Dermatology 50
Gastroenterology 50

Neurology ... 52
Obstetrics ... 52
Oncology ... 53
Otorhinolaryngology ... 54
Smoking cessation ... 54
Rheumatology ... 55
Menopausal symptoms in cancer patients ... 56
Chapter 3 ... 57
Methods ... 57
Participants ... 57
Measures ... 57
Procedures ... 58
Data Analysis ... 58
Chapter 4 ... 60
Results ... 60
Subject 1 ... 60
Hypnosis experience. ... 62
Subject 2 ... 67
Hypnosis experience ... 69
Subject 3 ... 74
Hypnosis experience ... 75
Stanford Hypnotic Clinical Scale for Adults ... 81
Discussion ... 83
Question 1: Menopausal experience and quality of life. ... 83
Question 2 and Question 3: Frequency and intensity of hot flashes and hypnosis as a viable treatment. ... 86
Question 4: Hypnotic Responsiveness ... 87
Contribution to the Field ... 88
Limitations of the Study ... 89
Future Research ... 90
Conclusion ... 91
References ... 93
Appendix A ... 116
Appendix B ... 121
Appendix C ... 124
Appendix D ... 125

List of Figures

Figure 1. Frequency of hot flashes - Subject 1 67

Figure 2. Intensity of hot flashes - Subject 1 68

Figure 3. Frequency of hot flashes - Subject 2 74

Figure 4. Intensity of hot flashes - Subject 2 75

Figure 5. Frequency of Hot Flashes - Subject 3 81

Figure 6. Intensity of Hot Flashes - Subject 3 82

Figure 7. Results of all subjects on the SHCS: Adults 83

Chapter 1

Introduction

Statement of the Problem

Menopause marks the phase in a woman's life when reproductive hormonal secretion decreases, reproductive ability stops and menstruation ends. In 1998, the North American Menopause Society (NAMS) conducted a survey and found that the average age of a woman's last menstrual period was 49 (Utian & Boggs, 1999). During this time, the ovaries gradually produce lower levels of sex hormones--estrogen and progesterone. Estrogen promotes the development of a woman's breasts and uterus, controls the cycle of ovulation (when an ovary releases an egg into a fallopian tube), and affects many aspects of a woman's physical and emotional health. Progesterone controls menstruation and prepares the lining of the uterus to receive the fertilized egg. "Natural menopause", which begins when a woman has her last period, or when she stops menstruating, is considered complete when menstruation has stopped for 1 year. Although there has been an increase in life expectancy over the years, the age of menopause has not changed during the past few centuries, unaffected by improving nutrition and reduction of disease. In previous centuries, fewer women lived beyond menopause because life spans were shorter; today, most women are postmenopausal for at least one-third of their lives. In the United States in 2000, there were an estimated 42 million women over the age 50. About 33 million women are over 55 years of age (compared with about 28 million in 1990). By the year 2020, the number of US women over 55 is expected to be about 46 million. A

woman's life expectancy is estimated at 79.7 years. Today, a woman who reaches 54 can expect to reach the age of 84.3 years. About two-thirds of the total US population will survive to age 85 or older (About Menopause, 2005).

Some women experience very little discomfort during menopause but others have symptoms that affect their quality of life and day to day functioning. The symptoms of menopause include hot flashes, night sweats, mood swings, and changes in the vagina, such as dryness or pain during intercourse. Seventy-five percent to 85% of women report hot flashes (Johnson, 1999). A hot flash is described by Kronenberg (1994) as a "transient episode of flushing, sweating, and a sensation of heat, often accompanied by palpitations and a feeling of anxiety, and sometimes followed by chills." When these hot flashes occur during a woman's sleep she is often, on waking, soaking wet (night sweats). Pansini et al. (1994) also described the many physical symptoms associated with hot flashes. The most common symptoms include headaches, irritability, palpitations, paresthesias (a sensation of pricking, tingling, or creeping on the skin), and dizziness. Other symptoms are often associated with hot flashes, such as sleep disturbance, fatigue, mood change, and anxiety. Hot flashes can lead to a disruption of daily life because of related physical discomfort, social embarrassment, and feelings of annoyance and helplessness. Hunter and Liao (1995) found that one-third of women with hot flashes described embarrassment, and 20% described a general sense of loss of control.

Menopause is a significant public health issue because of three factors: (1) menopause affects every woman; (2) an unprecedented number of women are reaching midlife, and (3) more women are living beyond age 65, with the elderly population also

reaching unprecedented numbers. Therefore, treating this population gives clinicians an excellent opportunity to make a significant impact on public health.

The traditional medical treatment for menopause symptoms involves hormone replacement therapy (HRT), a treatment that is used to supply the body either with estrogen alone or estrogen with progesterone combination. Estrogen and progesterone are hormones that are naturally produced by a woman's ovaries. When the ovaries no longer produce adequate amounts of these hormones (as in menopause) hormone therapy can be given to supply the body with adequate levels of estrogen and progesterone (webMD Health, 2004).

HRT was the treatment of choice given by doctors for many years. HRT reduces the number and intensity of hot flashes experienced by women and therefore reduces the anxiety and feelings of loss of control. Data from a 1997 national survey showed that 45 percent of U.S. women born between 1897 and 1950 used menopausal hormones for at least 1 month, and 20 percent continued its use for 5 or more years (National Cancer Institute, 2003). Recently, HTR has become very controversial and doctors are reluctant to prescribe it for their patients.

Because of the concerns about medical treatments using hormones, other, more "natural" treatments such as dietary and herbal supplements, acupuncture, chiropractic, and massage therapy, homeopathy and botanicals have been used for menopause symptoms, but scientific evidence for the effectiveness of most of these alternative treatment methods is lacking.

Purpose of the Study

Studies such as the "Women's Health Initiative" and "Million Women Study" have made many women and their doctors increasingly reluctant to use synthetic hormones and they are searching for more natural and less artificial substances or treatments that will provide relief from the symptoms, yet not cause any additional problems. The nontraditional or "natural" treatments have had little or no research showing that they are effective and until they are investigated further it is not known if they, too, have unwanted side effects. In addition, nontraditional nutritional treatments such as herbal supplements are not approved by the Food and Drug Administration, and often the exact amount of the substance contained in each dose of such supplements cannot be guaranteed. Finding an alternative treatment for menopause symptoms that effectively deals with the physical problems (i.e., hot flashes) and the psychological aspects (i.e., anxiety, feelings of loss of control) without side effects would benefit many women.

The purpose of this study was to see whether or not hypnosis would be an effective treatment for menopause symptoms, specifically hot flashes. Hypnosis has been used for many years for medical disorders as an adjunct and/or alternative to more traditional treatments.

A review of hypnosis in contemporary medicine (Stewart, 2005) examined the uses of hypnosis in many areas of medicine including anesthesia for pain relief and surgery, healing from surgery or injury, dermatology, gastroenterology, hematology,

neurology, obstetrics, oncology, otorhinolaryngology, smoking cessation, rheumatology, and urology.

Only one study was found that used hypnosis to control menopausal symptoms. This study investigated whether or not hypnosis would be beneficial for breast cancer survivors in causing the reduction of hot flashes (Elkin, Marcus, Palamara & Stearns, 2004). The treatment for breast cancer often puts women into an early menopause. In two case studies hypnosis was found to be effective 77% and 76% of the time.

There are several benefits to using hypnosis as a treatment for menopause. First, when hypnosis is practiced by a competent clinician there are no side effects. Another benefit is that hypnosis is a way of enhancing people's control over their body's functioning. This is especially important because, as previously noted, 20% of women described a general sense of loss of control when faced with hot flashes (Hunter & Laos, 1995).

The use of hypnosis has been shown to be an effective treatment tool with many medical disorders, including the hot flashes experienced by breast cancer survivors. Hypnosis may prove to be a promising treatment for hot flashes in naturally occurring menopause as well. With a growing concern about HRT and limited or no research showing that nontraditional or natural treatments are effective for hot flashes, the treatment options for women are few. Hypnosis is an intervention that might prove fruitful to treat the symptoms of menopause and should be investigated further.

Chapter 2

Literature Review

Women

Menopause does not occur as an isolated event and therefore it should be understood and investigated as part of a developmental phase in a woman's life. Hormonal alterations are not the only changes taking place during this period, because the midlife years can also be associated with many important transitions for women. These include changes in social roles, dealing not only with the phases of adolescence seen in one's children, but also with their departure from the childhood home, the illness of partners, and the illness or death of elderly parents. (Unger & Crawford, 1996; Ballard, Kuh, & Wadsworth, 2001; Palacios, Tobar, & Menendez, 2002; Short, 2003). It is important that menopause be placed within the context of a woman's daily life because it greatly influences a woman's attitude toward herself and her aging. Any study of menopause should include a consideration of a woman's psychological state and influences, her sexual orientation, her cultural and social background, her social contexts, the microenvironment of the household, and the aging process (Woods & Mitchell, 1997; Carolan, 2000; Hewner, 2001; Deeks, 2003; Woods & Mitchell, 2005).

The significance of bodily changes during the menopausal transition should also not be neglected, because physical appearance is of great importance for social judgments about women (Unger & Crawford, 1996). Because of the cumulative effect of these biological, psychological, and social changes, menopause may be a stressful and challenging period for women, or it could also be a time of liberation and freedom and a turning point during which important decisions are made about one's life. Menopause can

offer an opportunity for reflection and personal growth (Ballard, Kuh, & Wadsworth, 2001; Choi, 1995) and the challenges experienced during this period may, in fact, serve as precursors of psychological growth.

Menopause

According to estimates from the North American Menopause Society, nearly 40 million women in the United States experienced natural menopause as of the year 2000 (North American Menopause Society, 2000). Natural menopause is defined as a spontaneous, permanent ending of menstruation in which the menses have ceased for at least 12 uninterrupted months. A transitional period occurs prior to menopause called the climacteric or perimenopause; actual menopause occurs in the United States between ages 40 and 58. In 1800, only five percent of women in the United States lived past age 50. A century later, with advances in public sanitation and better nutrition, women's average life expectancy rose to 49 years. A baby girl born today can look forward to an average life expectancy of 84.3 years (About Menopause, 2005). The average age of the population is expected to continue to rise; this is due to the aging of the baby boomers and their decreasing death rates, and it will not reach a peak until around 2031 (Evans, 2000).

Symptoms of menopause range from mild to severe, with the classic symptom being the hot flash. The prevalence of symptoms is subject to wide cultural differences, but is appreciably higher in Western women. For example, women in the United States report more hot flashes (Johnson, 1998; Speroff , Glass, & Kase, 1999) than women from

developing countries, where menopause generally seems to be associated with fewer complaints(Beyene, 1986; Lock, 1991).

Biological Changes That Occur in Menopause

For a an understanding of the biology of menopause the following is an excerpt from A Woman's Guide to Menopause & Perimenopause, by Mary Minkin, MD, and Carol Wright, PhD (2004). Menopause is not something that happens but something that stops happening, not an event but a nonevent. By definition, menopause is the cessation of menses caused by the cessation of ovarian function, in other words, the end of the menstrual cycles caused by the shutdown of the ovaries. It represents the end of about forty years of monthly menstrual cycles. After producing, nurturing, and sending out an egg cell every month-except during pregnancies-the ovaries finally wear out and cease functioning. Menopause has one well-defined endpoint, the final menstrual period. The changes leading up to this event, however, may make themselves evident for as long as ten years. "Perimenopause," which means "around menopause," describes these years, as the time when a woman starts to notice menopausal symptoms: hot flashes, sleep disruptions, mood swings and other signs, many of them annoying. In order to understand the changes that lead up to menopause, it is helpful to understand something about the years that preceded it as well as an understanding of basic female physiology.

The main players in the process of menopause are the ovaries. The ovaries have two functions: to make eggs and to make sex hormones, mainly estrogen and progesterone, but also a few others. The ovaries make estrogen in several forms, the most important of which is estradiol. Other forms are estriol and estrone, but all three are

usually grouped under the single name “estrogen.” This hormone is important in changing a girl into a woman, in contributing to the growth spurt of adolescence, in the maturation of the uterus and other reproduction organs, and in the development of female sex characteristics. Estrogen also plays a major part in regulating the menstrual cycle, influencing other organs that are seemingly unrelated to reproduction. The second important ovarian hormone is progesterone, which along with estrogen regulates the menstrual cycle.

In addition to estrogen and progesterone, generally known as the female sex hormones, the ovaries produce small amounts of male sex hormones called androgens, including testosterone. In women, testosterone seems to have a role in the female sex drive and in assertiveness, and it may account for certain “masculine” traits (such as facial hair) in postmenopausal women.

The other important function of the ovaries is to produce eggs. The ovaries are formed during fetal life, as are the egg cells within them. Early in fetal life, the future baby girl carries within her immature ovaries about a million eggs, her full complement for a lifetime; at birth, this number has dwindled to perhaps four hundred thousand. Only a small fraction of these, perhaps four hundred, are destined to reach maturity; the others degenerate at some point in their development and at menopause only a few remain. This state of events means that a woman’s egg cells are the same age as she, a fact that is important to older women who are seeking to bear children. Consequently, the eggs that are available to be fertilized when a woman is forty-five are twenty-five years older than the eggs that were available for fertilization when she was twenty. Statistics have

confirmed that certain birth defects, in particular Down syndrome, result from chromosomal changes that take place in the eggs as they age.

By the time a girl reaches puberty, more than half of the million eggs that were formed prenatally have been lost. The others are at rest, encapsulated in structures that will form the ovarian follicles. In their simplest or primordial state, the follicles consist of the egg cell surrounded by a single layer of cells called granulosa cells. When the ovaries become more active at puberty, the eggs begin to develop. Every month some of the follicles start growing. In each growing follicle the granulosa cells divide and reproduce many times so that soon, instead of a single layer, layers and layers of them surround the egg cell; these granulosa cells make most of the estrogen in the body. The cells in the ovary around the outside of the follicle contribute to the process, too, causing the outer layer of the follicle to grow and its cells, in turn, to differentiate. When the follicle reaches a certain size, it then develops a fluid-filled pocket, which gets bigger and bigger as the cycle continues.

About a week into the menstrual cycle, a selected process takes place. The biggest follicle of the group that is growing and differentiating is chosen to be "follicle of the month"-in science terminology, the dominant follicle. It continues to increase in size but the other follicles degenerate and die off. (Once in a while the signals get crossed and more than one follicle continues to develop, creating the possibility of fraternal twins.)

When the dominant follicle reaches a certain size, it ruptures. The egg cell and some of the surrounding granulosa cells burst through the wall of the ovary, an event that is known as ovulation. This happens on about day fourteen of the twenty-eight-day menstrual cycle. If all goes well, the egg cell is swept into the fallopian tube. The ends of

the tube have specialized cells whose hair- like projections sweep back and forth, beating in waves and propelling the egg cell toward the interior of the tube. Once in the tube, the egg may or may not be fertilized. This part of the cycle, which deals with the development of the follicles, is called the follicular phase.

Meanwhile, in the ovary, what is left of the follicle starts to become active again. It changes into a glandlike structure called the corpus luteum, the Latin word for "yellow body," which indeed is the color of the follicle remnant. If the egg cell in the fallopian tube does not meet any sperm and get fertilized, the corpus luteum reaches its maximum growth in about ten days (day twenty-four of the cycle) and in its turn begins to degenerate. But during its short life span (in a nonpregnant woman), the corpus luteum is very active and secretes large amounts both of progesterone and of estrogen.

All of this action in the ovaries brings about changes in the uterine lining, or endometrium. As the follicles within the ovaries enlarge and develop, the lining of the uterus begins to thicken and proliferate in response to the estrogen produced in the ovaries. After ovulation takes place, roughly on day fourteen, the estrogen level again rises. The additional progesterone produced by the corpus luteum acts on the endometrial tissue to stabilize it and turn it into a hospitable environment, ready to receive an egg should fertilization occur.

If fertilization does not occur and the once active corpus luteum degenerates (on about day twenty-eight of the cycle), there is a sudden shutdown in the production both of progesterone and of estrogen and the endometrium is deprived of its support system. The uterine blood vessels constrict, so that the lining has a diminished supply of oxygen and of nutrients. The muscular tissue of the uterus begins to contract rhythmically. Soon the

uterine lining disintegrates and is sloughed off as menstrual blood, except for a thin deep layer that will start regenerating the endometrium for the next cycle. This part of the menstrual cycle, from ovulation on day fourteen to the onset of menstruation on day twenty-eight, is called the luteal phase.

This routine is complex and carefully organized. The organizers or controllers, the agents that start and stop the different actions of the cycle, are hormones and, in fact, the very name "hormone" comes from a Greek verb meaning "to surge on" or "rouse." Although the ovaries are the chief producers of the female sex hormones estrogen and progesterone, they do not do their job in isolation but are part of a chain of command that begins (to the best of anyone's knowledge) in the brain. The remotest roots of the sequence seem to be in the cerebral cortex, the mass of gray matter that is known to play a role in memory, language acquisition, and motor control. The exact action of the cerebral cortex in the hormonal regulation of the menstrual cycle is not yet known, but the cortex seems to influence such changes as the loss of periods during times of stress.

The next player in the sequence is the hypothalamus, a small region of the brain that lies above the pituitary gland (and below an area called the thalamus, as the name suggests). Although tiny, the hypothalamus has a role in regulating the internal environment of the body, for example, influencing the water balance within the cells and tissues, eating behavior, and the daily sleep and walking cycle. The hypothalamus also increases the hormones that will trigger menstruation. Starting around the time of puberty, the hypothalamus initiates the ovarian cycle every month by secreting a hormone called GnRH, gonadotropin-releasing hormone. The gonadotropins, which are lutenizing hormone (LH) and follicle stimulating hormone (FSH), control the ovaries, the

female gonads. (The word "gonad" simply means an organ that produces reproductive cells-eggs or sperm.)

The chemical messenger, GnRH alerts the appropriate region of the pituitary gland, geographically a close neighbor of the hypothalamus, to secrete its hormones, LH and FSH. The hormones from the pituitary will in turn stimulate the ovaries. The FSH does just what its name suggests: it stimulates the follicles to develop. The LH, whose presence in the blood surges at midcycle, causes the dominant follicle to release the egg cell, culminating in ovulation.

All of this regulation is governed by a control system called negative or reciprocal feedback, which works more or less like a thermostat. Within the body the regulating factors are chemical rather than thermal, but the principle is the same. There is a constant reciprocal feedback loop between the brain and the ovaries, and the brain continually responds to the levels of estrogen that it senses. For example, a lack of estrogen in the blood causes the LH and FSH to rise; this occurs during the menstrual cycle and also after the menopause.

What Happens at Menopause

The ovaries, as with many of the other organs, peak at some time in the late twenties or early thirties. Thereafter their production of estrogen and progesterone begins to decline gradually and finally stops all together. Researchers surmise that this has to do with the depletion of and finally the absences of follicles. It is estimated that women have five thousand to ten thousand follicles left when they are forty; the number declines precipitously after that. Researchers also know that with aging, either the follicles

become less responsive to the gonadotropins that formerly urged them to action or the smaller number of follicles started at each cycle results in lower estrogen and increased LH and FSH.

At some point, most likely when woman are in their early forties, the menstrual cycle will probably become irregular in response to these declining estrogen and progesterone levels. Women will begin having occasional anovulatory periods; that is, periods in which no egg is released from a follicle. (The ovaries are producing enough estrogen to build up the endometrium, but not enough to fully mature a follicle.) Because ovulation does not occur, there is no corpus luteum to make progesterone. And because there is no progesterone, there is no way to stabilize the uterine lining nor is there a signal (the withdrawal of progesterone) for the shedding to take place in an orderly, controlled manner. Instead, the uterus lining keeps on building and building, eventually breaking down only because it outgrows its blood supply.

Another scenario for menopause is that the ovaries may be producing some estrogen and progesterone, but not enough to keep the cycle going at its usual rate; the process may take longer than usual, and a woman may still have ovulatory cycles, but the periods may be more widely spaced. Sooner or later a woman will have her last period. A year afterward, it can safely be said that she is menopausal.

Social and Psychological Changes That Occur in Menopause

In *Our Bodies, Ourselves: Menopause. The Boston Women's Health Book Collective (2006)* the social perceptions of menopause are discussed. In it the

> writers discuss how menopause is viewed by society. "In popular media, menopause is often presented as a time of physical and mental degeneration that women dread. Women going through the transition are frequently portrayed as emotionally unstable and irrational-people who make break into tears for no reason, become angry without provocation, and seem „out of control'" (p. 6).

However, research suggests that emotional changes as part of menopause and its transition are not inevitable. The Massachusetts Women's Health Study, which is one of the largest and most comprehensive studies of women and menopause study, found that the vast majority of women have positive or neutral attitudes about menopause (Avis and McKinlay, 1995). Furthermore, in a 1998 Gallup survey sponsored by the North American Menopause Society, a majority of postmenopausal women said they were happier and more fulfilled than in times when they were younger. They reported improvements in their family and home lives, in partner relationships, and in friendships. In addition, approximately three-quarters of the women who lived in the United States and ranged in age from fifty to sixty-five, said they had made some type of health-related lifestyle change, such as stopping smoking, at menopause/midlife (Utian and Boggs, 1999).

Fears and anxieties about menopause can be created, exaggerated, or manipulated by drug companies, media pundits, and self-help gurus who focus attention on the potential problems associated with menopause (and the supposed solutions they are selling) rather than provide a balanced and accurate picture of women's real experiences.

As *Aged by Culture* author Margaret Morganroth Gullette puts it, "Women have less to fear from menopause than from menopause *discourse*" (Morganroth Gullette, 2003).

Ski Hunter, Sandra Sundel, and Martin Sundel, in their book*, Women at Midlife: Life Experiences and Implications for the Helping Professions*, examined research to answer the following questions: Are menopausal women neurotic, grieving and depressed? These are long-standing stereotypes resulting from the traditional biomedical view of menopause. Hence until recently, any emotional upset such as emotional instability or depression in a woman in her 40's or 50's was attributed to menopause (Clausen, 1986; Hallstrom & Samuelsson, 1985). This attribution, however, does not hold up in the face of empirical evidence. Although some women may experience a slight heightening of psychological distress during premenopause (Bromberger & Matthews, 1996) and perimenopause (Hunter, 1990), there is no notable heightening of psychological distress in menopausal or postmenopausal women (Hunter, 1990; Matthews et al., 1990; Stewart, Boydell, Derzko, & Marshall, 1992). In a nationally representative sample of midlife women, Busch, Zonderman, & Costa (1994) obtained reliable and valid measures of psychological distress during two interviews with these women over a ten-year period. The results provided evidence that menopausal status was unrelated to psychological distress. No upsurge happened in depression, psychological well-being, or sleep disturbance. When compared with premenopausal women, neither perimenopausal nor postmenopausal women reported any greater psychological distress.

Many women believe that menopause causes depression (Matthews, Kuller, Wing, & Meilahn, 1994; Daly, 1995). Yet representative samples and longitudinal studies have not found evidence that psychological distress is associated with menopause

(Dennerstein, Dudley, Guthrie, & Barrett-Connor, 2000). Studies do not find that menopause causes depression or that depression is especially prevalent at menopause (Hallstrom & Samuelsson, 1985; Utian, 1989).

The absence of a link between menopause and depression was strongly reinforced in the longitudinal studies on menopause. Most of these studies included a measure of depression. The Manitoba Project, a longitudinal study that examined the link between depression and menopause, found that depression was not related to the menopausal transition (Kaufert, Gilbert, & Tate, 1992). Depression was associated with surgical menopause but not with natural menopause in the Massachusetts Woman's Health Study (McKinlay & McKinlay, 1987). Depression was not associated with biological changes either before the transition to menopause, during the transition, or after menopause. The Healthy Women Study, a population-based, prospective, cohort study, found that a temporary heightening of depressed mood was reported during the menopausal transition (Avis, Brambilla, & McKinlay, 1994). This change, however, was only indirectly associated with the transition itself through signs such as hot flashes and night sweats. Other associations with depressed mood included a longer transition to menopause, prior depression, health difficulties, and social circumstances such as multiple, conflicting roles (McKinlay, Brambilla, & Posner, 1992). The South East England Study, a longitudinal study of depression and menopause, found that women who were depressed attributed the condition not to menopause but to family difficulties, bereavement, financial worry, work, and illness. Menopausal depressed mood was predicted by premenopausal depressed mood, stereotypes about menopause, unemployment, low social class, stress, and lack of exercise (Hunter, 1990b, 1992). Menopause was only

modestly associated with depression in the Norway study (Holte & Mikkelsen, 1991; Holte, 1992); a prospective study of healthy Norwegian women, found that more important predictors of depression included earlier responses to menstruation, negative expectations of menopause, and mother's perimenopause complaints.

The frequency of prior depression found in the longitudinal studies indicates that psychological distress is a stable characteristic over the lifetime. If women report psychological distress at menopause, they are likely to have previous episodes of distress, such as anxiety or depression (Costa, et al.1987; Matthews, et al., 1990). The strongest predictor of depression in the Healthy Women Study was prior depression (Avis et al., 1994). The Norway study also reported continuity of signs of depression over the life course. Women who experienced depressed mood consistently reported more stress and were more likely to have a history of premenstrual symptoms (PMS) and postpartum blues than women with an absence of depression (Woods & Mitchell, 1996). The researchers cautioned that these women may be at risk for continuing difficulties with depression and may require intensive counseling with a focus on managing and preventing depression.

The key conclusion from the longitudinal studies on menopause is that there are no adverse effects of the menopausal transition on mental health, including depression. Menopause itself does not create psychological vulnerability (Bromberger & Matthews, 1996).

In addition to psychosocial factors that may affect one's mood, negative beliefs about the effects of menopause can also lead to a depressed mood (Hunter, 1992; Liao & Hunter, 1995). One source of negative beliefs is negative symbolism associated with the

changes in a woman's body or the way in which a woman interprets them (Bart, 1972; McKinlay, et al., 1987). She may abhor the whole idea of menopause because she sees it as a sign of old age, that she is no longer attractive, or even that she is useless (Stimpson, 1982; Wilk & Kirk, 1995). She may feel a loss of control over her body, and generally, over what is happening in her life (Stimpson, 1982). Negative reactions can also result from identification with a mother who experienced a difficult midlife and menopausal transition (Cate & Corbin, 1992). Woods and Mitchell (1996) noted that a woman who experienced negative socialization regarding midlife exhibited a pattern of depression that they termed as "emerging depressed mood" (EDM). Compared with women who did not experience depression at midlife, the EDM women were also more likely characterized by "a history of PMS, poorer health status…fewer family resources, and less social support" (Woods & Mitchell, 1996, p. 121). During the first year of a two-year study, these women scored below the depressed mood level but they scored above that level in the second year. Fortunately, for some women who had negative expectations about menopause, the actual experience of menopause resulted in a more positive attitude (Avis et al., 1994). If this change did not occur, Woods and Mitchell (1996) suggested that negative socialization and lack of positive social support may be modifiable through psychoeducational programs that provide accurate information about midlife and menopause, may inspire positive attitudes, and may provide connections with other women experiencing similar midlife challenges.

Given some exceptions, most women report neutral or positive attitudes about menopause (Avis & McKinlay, 1991; Hunter, 1992). Instead of being a "syndrome" or major event causing health and mental health difficulties, menopause is more truly a

nonevent. If anything, there are gains from menopause, such as simply not menstruating anymore. With no worry about pregnancy, a woman's sex life may be revitalized (Perlmutter & Bart, 1982; Schlossberg, 1986; Chiriboga, 1989). Relief about not having to worry about pregnancy is far more commonly experienced than is despair over no longer being able to bear children (Clausen, 1986).

The situation for midlife lesbians is also positive. Cole and Rothblum (1990) conducted the first empirical survey of lesbian women at menopause with a nonclinical sample. They asked the respondents about positive changes in their lives relative to menopause. Aside from the cessation from menstruation, positive changes included more sex, more orgasms, greater self-acceptance, and enjoyment of their maturity. Only 22 percent of the sample indicated that they experienced no positive changes following menopause.

Sociocultural Changes That Occur in Menopause

We cannot fully understand the psychological effects of menopause without knowing, apart from the biological changes occurring in a woman's body, how different cultures treat this transition. If anything causes discomfort, it may be, for example, social circumstances, role changes, negative expectations, and negative cultural attitudes about aging women and menopause.

What women anticipate during the menopausal transition can influence the results. During the baseline measures of attitudes in several longitudinal studies, some respondents reported that they thought women became depressed or irritable during menopause. These same women were significantly more likely at follow-up to report

depression, irritability, and troubles with hot flashes, night sweats, and/or insomnia. Women at baseline who rejected negative views were much less likely to show any negative signs of menopause (Avis, Brambilla, McKinlay, & Vass, 1994; Woods & Mitchell, 1999). Bareford (1991) also found that midlife women reported more negative signs when they held more negative attitudes about menopause and when they experienced more difficult life events. Educational intervention, however, may reduce the negative attitudes. Liao and Hunter (1998) evaluated a short-term health education intervention (at three and 15 months) that provided information and group discussion about the normal menopausal transition. The women in this study reported fewer negative beliefs about menopause following the intervention.

Menopause, therefore, does not have to be a negative biological, social, or psychological event. When there are uncomfortable signs of menopause, such as hot flashes, women should have a variety of treatments available to them. It is informative to observe or examine the various traditional and nontraditional treatments for menopause.

Traditional Treatments for Hot Flashes

Before HRT, the treatments for hot flashes, or any of the symptoms of menopause, were few and far between. In fact, as Gail Sheehy pointed out in her book, *The Silent Passage* (1991) the following:

> Gynecologists by and large find the menopausal woman an unappealing patient. She isn't going to have any more babies. Apart from a hysterectomy, there is little chance that she will require surgery – the moneymaking part of the practice – but

> she can be expected to complain about vague symptoms and ask questions for which even the sympathetic physician has only unsatisfactory answers. (p. 36)

The treatments for menopause were often surrounded by folklore and old wives tales. For example, in her book *The Greatest Experiment Ever Performed on Women*, Barbara Seaman quotes the following from an Egyptian Medical Text in 2000 BC: "If a menopausal woman has pain or makes trouble, pound her hard in the jaw". She further reports that more than five hundred years ago, a medical book from the Renaissance Europe recommended that the woman having problems in menopause receive "a decoction of myrrh and apples." If that was not successful, "a cure may sometimes also be affected by pouring some of this same substance into her sandals, and urging the patient to walk" (p. 7). In her book, *Hot and Bothered: Women, Medicine, and Menopause in Modern America*, Judith A. Houck, assistant professor of medical history, bioethics, and history of science and women's studies writes:

> One hundred years ago, menopause barely attracted either medical or cultural notice. As the 20th century got under way, menopause was feared more for what it could do to a woman's nerves than for what it could do to her body. By mid-century, many regarded it as a threat to domestic life, as women became cranky with their families and uninterested in maintaining their physical appearance. By the 1970's, once common construction of menopausal women characterized them as diseased, desexed, depressed and decayed. As this shift occurred, treatment protocols changed.

Until the 1940's, most doctors seemed to advise their menopausal patients to quit worrying and take up a hobby, Houck says. After the 1940's, sedatives and short-term

hormone therapies emerged as possible additions to advice and reassurance. “In the late 1960’s and „70’s, the „disease’ model of menopause became more widespread. As a result, both long-term and short-term use of estrogen therapy increased,” Houck adds. A critical catalyst in this evolution was a paper that Brooklyn gynecologist Robert A. Wilson published in 1963. The paper later became the best-selling 1966 book “Feminine Forever,” which presented menopause as “living decay,” a hormonal deficiency that should be treated with estrogen replacement therapy (ERT).

The science of hormone replacement has been in continual evolution since estrogen replacement was introduced initially in 1949 and the first birth control pills hit the market in the 1960’s (Northrup, 2001). The pill, for the first time, gave women the ability to alter their natural hormonal and fertility rhythms. Women could choose, with a greater accuracy, when or whether they would have children. Unfortunately, as Dr. Northrup writes in her book The Wisdom of Menopause (2001):

> The downside is that these rhythms and the natural wisdom that created them have become pathologized, leading women to believe that synthetic, man-made hormones are safer and better than the “unpredictable” ones found naturally in our bodies. Conventional hormone replacement is an extension of this thinking: that the female body is deficient and needs to be fixed. (p.137)

The traditional medical treatment for menopause symptoms involves hormone replacement therapy (HRT). HRT is a treatment that is used to supply the body either with estrogen alone or estrogen with progesterone combination. Estrogen and progesterone are hormones that are naturally produced by a woman’s ovaries. When the ovaries no longer produce adequate amounts of these hormones (as in menopause)

hormone therapy can be given to supply the body with adequate levels of estrogen and progesterone (webMD Health, 2004). HRT may be delivered to the body via patches, tablets, creams, troches, IUDs, vaginal rings, gels or, more rarely, by injection. Dosage is often varied cyclically, with estrogens taken daily and progesterone or progestins taken for about two weeks every month or two (www.wikipedia.org). Estrogen became commercially available in the 1930's, and in 1942 the federal Food and Drug Administration approved Premarin, to relieve hot flashes (Minkin and Wright, 2004). Premarin is a patented drug made up of conjugated estrogens obtained from the urine of pregnant mares (PREgnant MARes' urINe, or PMU). Manufactured exclusively by Wyeth-Ayerst at Ayerst Organics Limited in Brandon, Manitoba, Canada, Premarin is Canada's most lucrative pharmaceutical export to date. It is the most widely prescribed drug in the United States and holds 80% of the estrogen supplement market worldwide. In the '90's Premarin had become the drug of choice for hormone replacement therapy.

Some estimates claim that close to nine million women are currently taking Premarin (about a third of the thirty million plus post menopausal women in the United States are on estrogen replacement therapy, and of them, about 80% use Premarin). Wyeth's revenues from Premarin are currently $1billion a year and rising (http://www.project-aware.org/Managing/Hrt/PremarinFacts_Opinion.shtml).

As previously noted, women and their doctors became concerned about the use of HRT for menopause because of many risks associated with their use. In recent years, numerous observational studies have been reported regarding various issues associated with HRT and its risks and benefits in preventing chronic disease. Until 2001, the belief that HRT provided benefits in relation to heart disease was widely accepted and the risks

associated with short- or long-term hormone therapy in terms of breast cancer were largely unknown. However, in 2001 and 2002, two randomly controlled studies found that HRT caused adverse events in women already diagnosed with heart disease, as well as in women not yet diagnosed with heart disease. In the Heart and Estrogen/Progestin Replacement Study (HERS), use of HRT in women with established heart disease was found to be ineffective in preventing the progression of coronary artery disease, especially when cardiac medications or lipid-lowering drugs were already being used (Hulley, Grady, Bush, and Furberg, 1998).

In the more recent Women's Health Initiative Randomized Control Study (WHI), sponsored by the National Institutes of Health (NIH), a large, randomized clinical trial of over 16,000 healthy women ages 50 through 79, in which half of the participants took hormones and the other half took a placebo pill, was halted early; in July 2002, investigators reported that the overall risks outweighed the benefits. The WHI found that the use of HRT increases the risk of breast cancer, heart disease, stroke, and blood clots. The incidence of breast cancer increased by 26% for women in the HRT group. The risk of breast cancer begins to increase after two years of HRT and the risk of cardiovascular disease increased shortly after hormones were started. Similar findings were shown in the first year of the study in women with no diagnosis of heart disease. Participants on the combined hormone arm of the study showed an increased risk for cardiac events in the first 5 years of the study (Writing Group for the Women's Health Initiative Investigators, 2002). Critics of these studies have pointed out that HRT and primary prevention of heart disease were not studied because the average age of the participants in the HERS trial was 67 years at baseline and in the WHI, 63 years at baseline. The studies did show that

HRT can have deleterious effects on older women who already have risk factors for heart disease. Because participants were older at the start of the study, critics determined that it did not thoroughly investigate primary prevention with HRT started in younger women at the time of menopause (Karas, and Clarkson, 2003). Although findings in the WHI study showed a low but modest increased risk for breast cancer in women on the combined hormone regimen, there was no increased risk for breast cancer in the unopposed estrogen arm of the study (Writing Group for the Women's Health Initiative Investigators, publication in process). Data from many observational studies suggest that HRT, when taken long-term, modestly increases the risk for breast cancer (Collaborative Group on Hormonal Factors in Breast Cancer, 1997; Colditz, 1998; Schairer, Lubin, and Troisi, 2000; Bush, Whiteman, and Flaws, 2001).

Further findings from the WHI study showed a reduction of risk for hip fracture in women on HRT. This was the first, randomized control trial supporting findings from previous observational studies demonstrating the efficacy of HRT for stabilizing bone after menopause (Vestergaard, Herman, and Gram, 1997; Writing Group for the Women's Health Initiative Investigators, 2002). In addition, the WHI showed a significant reduction in risk for colon cancer for those women on combined HRT, supporting previous findings in studies investigating HRT and colon cancer (Vestergaard, Herman, and Gram, 1997; Writing Group for the Women's Health Initiative Investigators, 2002).

WHI researchers have found that estrogen plus progestin does not protect but may increase the risk of heart disease among generally healthy postmenopausal women. The study also showed that women who were studied doubled the combined rate of blood

clots in the lungs and legs, a 41 percent increase in the incidence of strokes, and gall bladder disease (Writing Group for the Women's Health Initiative, 2002).

A study related to HRT and its role in the cognitive function and prevention of Alzheimer's was recently reported (Shumaker, Legault, and Rapp, 2003). In this study, known as the Women's Health Initiative Memory Study (WHIMS), women aged 65 years and older taking combined HRT were found to have doubled the risk of developing dementia as compared with the placebo group within the same age range. Critics of this study point to the advanced age of the women in the study group and limited application of the findings to younger women taking HRT during the menopause transition. Data from past observational studies, such as the Cache County Study, have shown a significant reduction in risk for Alzheimer's in women who initiated HRT during the menopause transition, and had taken HRT for more than 10 years (Zandi, Carlson, and Plassma, 2002)

Additionally, an analysis of the quality of life of a subgroup of WHI participant's ages 50 through 79 found no change in general health, vitality, mental health, depressive symptoms, or sexual satisfaction associated with use of estrogen plus progestin (Hays, Ockene, and Brunner, 2003). The results were similar to results found in the HERS study (Hlatky, Boothroyd, and Vittinghoff, 2002), showing no improvement in quality of life in older, postmenopausal women starting HRT. Critics of both of these studies point to the later age of the study participants. In the case of the WHI study, women who were experiencing menopausal symptoms were dissuaded from participating in a randomized study in which they could possibly be given a placebo. In addition, progestin, one of the study drugs used in the WHI and HERS trials, has some known side effects including

mood swings, breast tenderness, and uterine bleeding. There have been numerous observational studies reporting benefits from HRT in symptomatic menopausal patients. However, it has also been found that it is most often healthy, upper middle class women who tend to take HRT for any length of time (Brett and Madans, 1997). Whether or not the results from the HERS or WHI studies can be extrapolated to other known forms of HRT is unclear.

In another large study, designated the "Million Women Study", current users of HRT were more likely to develop breast cancer. Risk was seen with almost all estrogen preparations, but the magnitude was significantly greater for estrogen combined with progesterone (Beral, 2003).

Nonhormonal Medical Treatment for Hot Flashes

The North American Menopause Society (NAMS) is the leading nonprofit scientific organization devoted to promoting women's health and quality of life through an understanding of menopause. They reviewed the evidence obtained from the medical literature to look at the effectiveness of some nonhormonal medical treatments, including antidepressants such as venlafaxine, paroxetine, fluoxetine, and gabapentin. According to the review, certain prescription antidepressants may decrease hot flashes in women, including those with a history of breast cancer. This effect on hot flashes most likely results from alterations of central serotonin or norepinephrine concentrations. Serotonin, injected into the hypothalamus, widens the thermoneutral zone in rats and guinea pigs; no human data are available. A review of the data for three antidepressants follows.

Venlafaxine. One antidepressant investigated for treating menopause-related hot flashes is venlafaxine HCl, a combined serotonin and norepinephrine reuptake inhibitor (SNRI). A randomized, double-blind, placebo-controlled clinical trial (Loprinzi, Kugler, and Sloan, 2000) enrolled 229 women who were experiencing at least 14 hot flashes per week (69% were taking tamoxifen) and either had a history of breast cancer or chose not to take ET/EPT. Women were randomized to 4 weeks of treatment either with a placebo or with one of three venlafaxine doses: 37.5, 75, or 150 mg/day. At the end of the study, venlafaxine recipients had hot flash score reductions from baseline of 37% for the 37.5-mg/day dosage and 60% for both higher doses, as compared with a 27% reduction for placebo recipients. The effect on reducing hot flashes was relatively rapid, with full effect noted within 1 to 2 weeks. An uncontrolled pilot trial also supports this finding (Loprinzi, Pisansky, and Fonseca, 1998).

In the clinical trial, venlafaxine was relatively well tolerated at doses of up to 150 mg/day. Doses used to treat depression start at 75 mg/day and increase to150 to 225 mg/day. The most problematic side effect was nausea or vomiting, which led to drug discontinuation in 5% to 10% of women, depending on the dose. In women who developed nausea but continued therapy, nausea largely dissipated over the following 1 to 2 weeks. In addition, those taking venlafaxine had more dry mouth and a decreased appetite. Only the highest dose arm had greater degrees of constipation than the placebo arm.

Contraindications to using venlafaxine include concomitant use with MAO inhibitors. Other adverse effects observed in venlafaxine trials for depression include somnolence, dizziness, constipation, and sexual dysfunction. There is also a dose-related

risk of increased blood pressure with the use of venlafaxine, affecting about 3% of those using less than 100 mg/day (Wyeth Pharmaceuticals, 2003).

Paroxetine. A selective serotonin-reuptake inhibitor (SSRI), paroxetine HCl has also been associated with decreased hot flash rates. The only randomized, double-blind, placebo-controlled trial used controlled-release paroxetine in 165 women without a history of breast cancer who were experiencing 2 or 3 hot flashes per day (Stearns, Beebe, Iyengar, and Dube, 2003). At doses of either 12.5 or of 25.0 mg/day for 6 weeks, paroxetine significantly decreased hot flash composite scores by 62.2% (12.5 mg/day) and 64.6% (25.0 mg/day), compared with a 37.8% decrease for placebo recipients. Results from two uncontrolled pilot studies also support this study (Weitzner, Moncello, Jacobsen, and Minton, 2002; Stearns, Isaacs, and Rowland, 2000).

Contraindications to using paroxetine include concomitant use of MAO inhibitors or thioridazine. Caution is advised with concomitant administration of warfarin. Adverse effects observed in trials for depression include asthenia, sweating, nausea, decreased appetite, somnolence, insomnia, and dizziness. The recommended initial dose for treating depression is 20 mg/day.

Fluoxetine. Another SSRI, fluoxetine HCl, is government approved to treat depression and premenstrual dysphoric disorder, but it also has been studied as an antidote for hot flashes at the same dose (20 mg/day) that has been recommended as the initial dose to treat depression. In a double-blind, placebo-controlled, crossover trial (Loprinzi, Barton, and Sloan, 2002), 81 healthy women with a history of breast cancer or

a perceived risk of breast cancer who had at least 14 hot flashes per week were randomized to fluoxetine (20 mg/day) or placebo for a 4-week period, with the alternative treatment given for an additional 4 weeks. The crossover analysis found additional reductions in hot flash frequency of about 20% for fluoxetine recipients compared with placebo recipients (no difference in results based on age). The magnitude of benefit in this study, however, did not seem to be as great as was seen with venlafaxine. Fluoxetine was well tolerated in this trial.

Gabapentin. This anticonvulsant has been studied for treating hot flashes. Its mechanism of action on hot flashes is unknown, although it has been speculated that gabapentin may modulate calcium currents.

A randomized, double-blind, placebo-controlled trial performed in 59 postmenopausal women averaging seven or more hot flashes per day found that, after 12 weeks of gabapentin therapy (900 mg/day, administered in three divided doses), hot flash frequency was reduced by 45%, with a 54% reduction in a hot flash composite score (Guttuso, Kurlan, McDermott, and Kieburtz, 2003). The differences were statistically significant compared with placebo recipients, who had reductions of 29% and 31%, respectively. Gabapentin was relatively well tolerated in this clinical trial, with dizziness and lightheadedness (especially at initiation of therapy) and peripheral edema being the major observed adverse effects. Results from a prospective, single-arm study (Loprinzi, Barton, and Sloan, 2002) and an open-case series (Albertazzi, Bottazzi, and Purdie, 2003) also support these findings.

Although higher doses of gabapentin are commonly used for treatment of seizures or neuropathies (up to 3,000–3,600 mg/day), doses as low as 100 mg/day are typically used as starting doses for hot flashes; this particularly true for older women. Hypersensitivity to the drug is the only contraindication to gabapentin use. Adverse effects observed in seizure trials include somnolence, dizziness, ataxia, fatigue, and nystagmus.

Antihypertensives. Two older antihypertensive drugs, clonidine HCl and methyldopa HCl, have been studied for treating hot flashes.

Clonidine. Two randomized, placebo-controlled trials (N = 10 and N = 29) found that the [alpha] 2-adrenergic agonist clonidine, given either orally or transdermally, reduced hot flash frequency by 46% (for 0.4 mg/day) and 80%, respectively, in healthy women (Laufer, Erlik, Meldrum, and Judd, 1982; Nagamani, Kelver, and Smith, 1987). However, in one of these studies, (Laufer et al., 1982) four women in the clonidine group withdrew because of drug-related side effects, which included nausea, fatigue, headaches, dizziness, and dry mouth.

In breast cancer survivors using tamoxifen, two randomized, placebo-controlled clinical trials also found clonidine effective in relieving hot flashes (Goldberg, Loprinzi, and O'Fallon, 1996; Pandya, Raubertas, and Flynn, et al., 2000). An 8-week trial (Pandya et al., 2000) found that oral clonidine (0.1 mg/day) significantly reduced hot flashes in 194 postmenopausal women (by 38% v 20% for placebo), although the clonidine group reported more difficulty sleeping than those receiving placebo (41% v 21%,

respectively). In 110 women (median age, 54) (Goldberg et al. 1996), transdermal clonidine (equivalent to 0.1 mg/day) for 4 weeks significantly decreased hot flash frequency and severity compared with placebo. However, clonidine was associated with more side effects than the placebo, including dry mouth, drowsiness, constipation, and itchiness under the patch.

The exact mechanism of action is unknown, but it is thought to relate to clonidine's ability to reduce vascular reactivity (Goldberg et al., 1996). Contraindications include cardiac sinus node function impairment. Clonidine lowers blood pressure, heart rate, and pulse rate; arrhythmias have been observed at high doses. Adverse effects observed in hypertension trials include dry mouth, drowsiness, dizziness, constipation, and sedation.

Methyldopa. Two randomized, double-blind, placebo controlled, crossover trials reported that methyldopa, in daily oral doses of 500 to 1,000 mg, decreased menopause-related hot flashes, although improvement was modest (Hammond, Hatley, and Talbert, 1984; Nesheim and Saetre, 1981). Nesheim and Saetre (1981) reported a median reduction in hot flashes of 65% with methyldopa (250 mg/day), compared with 38% for placebo, a significant between-group difference. Hammond et al. (1984) found significant reductions in hot flashes in a trial involving 10 women.

Contraindications include active hepatic disease and use of MAO inhibitors. Methyldopa lowers blood pressure. A positive Coombs test, hemolytic anemia, and liver disorders may occur with methyldopa therapy. Side effects observed in hypertension trials include sedation, headache, asthenia, edema, and weight gain

.

Bellergal Spacetabs. There are limited data to support the efficacy of this older sedative, a combination tablet of low-dose phenobarbital (a barbiturate), ergotamine tartrate, and levorotatory alkaloids of belladonna, in treating menopause-related hot flashes. Its specific mechanism of action is unknown.

A randomized, double-blind, placebo-controlled study in 72 women found that Bellergal significantly reduced hot flashes, compared with placebo (60% v. 22%, respectively) after 12 weeks of treatment (Lebherz and French, 1969). In a randomized, placebo-controlled, double-blind trial of 66 women, (Bergmans, Merkus, Corbey, Schellekens, & Ubachs, 1987) significant decreases in hot flashes from baseline were reported after 8 weeks for both the Bellergal (75%) and placebo (68%) groups. However, the between-group difference was not significant.

Contraindications include cardiovascular or hepatic disease and glaucoma. Adverse effects include visual disturbances, dry mouth, flushing, dizziness, and somnolence. Bellergal reduces the efficacy of certain drugs, including anticoagulants and OCs. Bellergal intoxication can lead to death. Barbiturates are addictive and should not be recommended for long-term use.

In its review, NAMS adds that no therapy is government approved either in the United States or in Canada for treating hot flashes in women who are at high risk for or have been diagnosed with breast cancer or other hormone-dependent neoplasias.

In another review published in the journal of the American Family Physician (2006), Carroll observed nonhormonal therapies for hot flashes in menopause. She found that studies of selective serotonin reuptake inhibitors (SSRIs) and venlafaxine (Effexor),

a serotonin and norepinephrine reuptake inhibitor, have shown an absolute risk reduction (ARR) in hot flashes of 19 to 60 percent with these agents, compared with placebo primarily in women with a history of breast cancer (Evans, Pritts, Vittinghoff, McClish, Morgan, and Jaffe, 2005; Stearns, Beebe, Iyengar, and Dube, 2003; Weitzner, Moncello, Jacobsen, and Minton, 2002; Barton, Loprinzi, Novotny, Wilwerding, and Sloan, 2002; Loprinzi, Kugler, Sloan, Mailliard, LaVasseur, and Barton, 2000; Stearns, Isaacs, Rowland, Crawford, Ellis, and Kramer, 2000; Loprinzi, Sloan, Perez, Quella, Stella, and Mailliard, 2002; Loprinzi, Pisansky, Fonseca, Sloan, Zahasky, and Quella, 1998). Two studies involved women who did not have a history of breast cancer. In one study 165 postmenopausal women were randomized to receive controlled-release paroxetine (Paxil CR) in a low or high dosage or a placebo. Participants experienced reductions in hot flash scores of 37 percent in the placebo group, 62 percent in the low-dosage group, and 65 percent in the high-dosage group ($P < .001$) (Stearns et al., 2003). In a study of 80 postmenopausal women receiving extended-release venlafaxine (Effexor XR) or a placebo for 12 weeks, the participants reported decreases in hot flash scores of 51 and 15 percent, respectively (Evans et al. 2005). However, the U.S. Food and Drug Administration (FDA) withdrew Paxil CR from the market in March 2005 because of concerns regarding its manufacturing quality.

Most of the studies reported transient, dose-related adverse effects. The most common adverse effects reported were insomnia or excitement, nausea, constipation, and anorexia (Stearns et al., 2003; Loprinzi, Kugler et al., 2000; Loprinzi, Sloan et al., 2002) In the trials using venlafaxine for hot flashes, there were no reported increases in blood pressure, which is a dose-related adverse effect commonly associated with this agent

(Barton et al, 2002; Loprinzi et al., 1998). The dosage and duration of these medications most appropriate in alleviating hot flashes is unknown; however, regimens using low to moderate dosages seem to be as effective as those using high dosages and they have significantly fewer reported adverse effects. Therefore when using an SSRI or venlafaxine to treat hot flashes, it is prudent to initiate the medication at a low dosage and titrate to effect.

The exact mechanism of action by which these medications alleviate hot flashes is unknown, although hot flashes have been linked to an imbalance in serotonin. (Stearns, et al., 2003; Berendsen, 2000; Loprinzi, et al., 1998).

Alternative Treatments for Hot Flashes

With the growing concerns of HRT for hot flashes, the Women's Health Initiative influenced many women to discontinue estrogen therapy and to explore alternative treatments, such as botanical medicine and dietary supplements (Messina, 2002). The National Center for Complementary and Alternative Medicine at the National Institutes of Health defines alternative therapies as "those treatments and health care practices not taught widely in medical schools, not generally used in hospitals, and not usually reimbursed by medical insurance companies".

Consumer demand, coupled with the support of the US Congress, has led to two defining events that have increased the acceptability and legitimacy of complementary and alternative medicine in the United States. In 1992, the office of Alternative Medicine was started as a branch of the National Institutes of Health, with minimal funding of $2 million dollars. Today, the National Institutes of Health invests over $200 million

annually in research on alternative therapies and the National Center for Complementary and Alternative Medicine, with a budget of $89 million, has become a major provider of funding for research on CAM practices. Moreover, the Congress passed the Dietary Supplement Health and Education Act, which exempts botanical medicines from drug regulatory processes by classifying them as dietary supplements. Supplements can be sold neither with oversight nor with testing by the Food and Drug Administration.

An article published in the New England Journal of Medicine in 1993 described the enormous impact of alternative medicine on health care in the United States. The authors reported that in 1990 Americans made 425 million visits to alternative providers, such as chiropractors, massage therapists, acupuncturists and naturopathic physicians, for charges totaling $12 billion. The number of CAM providers is expected almost to double between 1997 and 2010, meaning that a decade from now there will be one CAM provider for every six medical doctors. According to a nationwide government survey released in May 2004, 36 percent of U.S. adults aged 18 years and over use some form of complementary and alternative medicine. When prayer, specifically for health reasons, is included in the definition of CAM, the number of U.S. adults using some form of CAM in the past year rises to 62 percent (http://nccam.nih.gov/news/camstats.htm).

In 2000, the retail sales of natural products in the United States surpassed $15 billion, (National Nutritional Foods Association Northwest Region) with sales of products for treating menopause symptoms accounting for approximately $600 million (Kass-Annese, 2000). However, there is not much evidence that these “alternative” treatments are beneficial (Quella et al., 2000; Barton et al., 1998; Pandya et al., 2000; Kronenberg & Fugh-Berman, 2002).

Millions of dollars are spent on over-the-counter products for menopausal symptoms by women who have little knowledge of their quality, safety, or effectiveness. The 25 million women who will move through menopause during the next decade face an increasingly complex array of alternative therapies for their symptoms (Woods, 1999).

The most recognizable and widely used CAM treatment is botanical medicine, which is the use of plants or plant extracts for medicinal purposes. A review by Taylor (2002) looked at evidence-based alternative treatments for hot flashes.

Soy. Studies of soy for menopausal women are mixed. The outcomes are difficult to compare because of different amounts of soy protein in differing food stuffs with different amounts of the active component, the isoflavones. Moreover, studies have been of very short duration, fewer than 3 months. Representative studies include Washburn, Burke, Morgan, and Anthony (1999), during which women were given 20 g of soy protein with 34 mg of isoflavones or a 20-g carbohydrate complex for 1.5 months. Hot flashes decreased in severity but not in frequency in the treatment group. Albertazzi, Pansini, Bonaccorsi, Zanotti, Forini, and De Aloysio (1998) studied more than 100 women with seven or more hot flashes per day, and randomized them to a 60-g soy protein supplement with 76 mg of isoflavones or to a casein control. Hot flashes decreased by 45% in the treatment arm, compared with only a 30% decrease in the control group. In another study, women were given a soy flour supplement (Scambia, Mango, Signorile, Anselmi, Palena, and Gallo, 2000). After 3 months the soy group evidenced a 40% reduction, whereas the controls fed wheat flour experienced about a 25% decline. The difference was not significant.

Knight, Howes, Eden, and Howes (2001) conducted a randomized, double-blind, placebo-controlled, parallel-group trial with 24 postmenopausal women. After 3 months of treatment, women on a dietary beverage with 60 g of soy protein with a total isoflavone concentration of 134.4 mg were compared with a control group ingesting the same shake but an isoflavone-poor version. There were no observed differences in the responses of subjects in hot flashes. The soy group had a 25% drop-out rate from the study because of bad taste. Other studies have also had very high discontinuation rates in the soy arms because of gastrointestinal distress, gas, cramps, and stomach pains.

Other studies conducted to investigate the use of soy supplements for hot flashes found that soy was less effective than a placebo (Quella et al., 2000), or than vitamin E (Barton et al., 1998). Kronenberg & Fugh-Berman, 2002, found that soy does not seem to be much more effective, or only modestly more effective than placebo.

Black cohosh. Black Cohosh (*Cimicifuga racemosa* L. Nutt, family, Ranunculaceae) goes by many folk names including black snakeroot and bugbane. Before the recognition of a potential link between estrogen and breast cancer, the basic science research of the manufacturer sought to prove that black cohosh had estrogenic activity. The company, however, took a different tack after 1990, trying to characterize black cohosh as something other than estrogen.

Quality clinical trials are limited. Seven of eight published trials did not use placebo controls and seven of eight are available only in German. Duker, Kopanski, Jarry, and Wuttke (1991) conducted a comparison of black cohosh with a placebo using 40 mg twice daily (twice the standard dose) and found that Remifemin suppressed hot

flashes about 25% better than the placebo in the 2-month trial. Another trial compared this product, 40 mg twice daily, with conjugated equine estrogen, 0.625 mg, and with a placebo. The herbal remedy provided good relief, whereas estrogen, surprisingly, performed no better than a placebo. Closer scrutiny may explain this apparent contradiction to the basic understanding of the role of hormone replacement therapy. Another study by Lehmann-Willenbrock and Riedel (1998), which includes women presumed in many review articles to be menopausal, involved 60 subjects under the age of 40, posthysterectomy. This study is highly flawed as a proof of the efficacy of black cohosh in menopausal women. The women in this study were said to be post menopausal. Careful reading, however, reveals that all subjects had their uterus removed; however, one or both ovaries were retained. Given the fact that all women were under the age of 40, almost all would also retain a high potential for continued ovulatory ovarian function. Although they would not menstruate, they would not be truly menopausal if menopause is defined as ovarian failure, rather than simply the absence of menstrual periods. The study compared the efficacy of estriol 1 mg, conjugated equine estrogen 1.25 mg, estrogen plus progestin, and Remifemin 2 twice daily, but no placebo arm was included. All of these women had high menopausal symptom rating using Kupperman's index, and all treatment groups improved during the 6 month study period. This outcome proves only that given time and any sort of treatment modality, women who have multiple problems after surgical hysterectomy improve over time.

Studies in Germany by Schaper Brummer, the manufacturer of Remifemin, and by others have demonstrated repeatedly and reassuringly that black cohosh has no estrogen activity *in vivo*. A study that examined endometrial thickness, maturation index

of the vaginal epithelium, serum leutinizing hormone, FSH, estradiol, and prolactin confirm that black cohosh does not exhibit peripheral estrogenic effects (Liske, 1998). Black cohosh does not cause changes in renal, hepatic, or coagulation functions, and has no major side effects, except for some minor gastrointestinal complaints.

The most recent publication on black cohosh was done in 85 breast cancer survivors. Subjects received a placebo or black cohosh, 20 mg twice daily. Both the treatment and the placebo groups evidenced significant declines in number and intensity of hot flashes over time, but the differences between the groups were not statistically significant. This study may not be universally applicable. Fifty-nine of the 85 women were on tamoxifen. Only nine women who took black cohosh were not taking tamoxifen, and these nine women had very marked reductions in symptoms, but the subset was too small for independent statistical analysis. These findings do not completely eliminate all hopes regarding black cohosh. Tamoxifen may greatly dampen the effectiveness of black cohosh (Jacobson, Troxel, and Evans, 2001). Further trials with meticulous study design are needed.

Dong quai. Dong Quai (*Angelica sinensis*) is also called dang gui and tang kuei (*Angelica polymorpha* Maxim. var Sinesis Oliv, aka A. sinensis [Oliv] Diels). The root is used as the female balancing agent in traditional Chinese medicine, and is a panacea for almost every gynecologic ailment including hot flashes, dysmenorrhea, oligomenorrhea, PMS, amenorrhea, and menopausal syndrome. Dong quai is said to be estrogenic, because it has been associated with episodes of uterine bleeding and has uterotropic effects in ovariectomized rats.

One branded product of dong quai, Rejuvex, also contains bovine ovarian, uterine, mammary, and pituitary tissues. The ingestion of bovine brain and spinal cord tissue imposes a high risk for development of new variant Creutzfeldt-Jakob disease, also known as *bovine spongiform encephalopathy* or *mad cow disease*. Considering an absence of proved efficacy, adulteration with animal tissues, and potential for photosensitization, neoplasia, coagulopathy, and herb-drug interactions, practitioners should advise women to avoid dong quai.

Evening primrose. Evening primrose (evening star, *Oenothera biennis* L family onagraceae) is a source of linolenic acid, a type of omega-3 essential fatty acid. Other sources include cold water fish, canola oil, soybean oil, and a few vegetable oils. Gamma linolenic acid comes from seed oils of current, borage, and evening primrose. These fatty acids are eicosanoid precursors and are part of cell membranes. The pathway for dietary gamma linolenic acid leads to dihomo-gamma-linolenic acid, which in turn is converted by inflammatory cells to 15-(S)-hydroxy-8, 11, 13-eicosatrienoic acid and prostaglandin E_1, with potent anti-inflammatory activity. Gamma linolenic acid and dihomo-gamma-linolenic acid seem to affect inflammatory processes by regulating T lymphocytes, and gamma linolenic acid inhibits angiogenesis. Null results were found in the one, well-constructed clinical trial using evening primrose oil for menopause (Chenoy, Hussain, and Tayob, 1994).

Ginseng. The genus name for many types of ginseng, *Panax*, derives from the word panacea, meaning cure-all. Regarding menopause, Wiklund, Mattsson, Lindgren,

and Limoni (1999) reported a relatively large and long-term study of G115, the active ingredient in a commercial product sold in the United States and Europe called Ginsana. A randomized, multicenter, double-blind, parallel group study was done in 384 postmenopausal women over a 16 week period. They reported that hot flashes were no better in the treatment arms versus the placebo arms.

Soy- and red clover-based isoflavone supplements. Soy and red clover, *Trifolium pratense*, are legumes and rich sources of a large number of phytoestrogens. Although soy is the most common source of isoflavones in the human diet, red clover is the richest source of isoflavones of any plant. Red clover is also a rich source of coumestans, a phytochemical with steroid-like activity.

A number of isoflavone isolates are being promoted in the United States as alternatives to isoflavones from soy foods. The source plant material is washed with alcohol and the isoflavones, which are alcohol soluble, are extracted. The alcohol is evaporated and the remaining isoflavone residue is packaged as a food supplement. Literature promoting the use of isoflavone isolates refers to observational studies on populations who consume high soy diets, and then suggest that supplements can provide similar health benefits. Products such as *Healthy Woman* from soy and Promensil from red clover are being heavily promoted as alternatives to pharmaceutical estrogens here and abroad.

Trials of various isoflavones isolates for hot flashes have been equivocal. A red clover–derived commercial preparation containing 40 mg total isoflavones was given to 51 women, and 43 women received a placebo. Barber, Templeman, and Morton (1999)

found after the 6-month crossover trial that the product was not more effective than a placebo. Hot flash frequency decreased in both of the groups, 18% and 20% in the treatment group and the placebo group, respectively. Knight, Howes, and Eden (1999) studied the same product using isoflavone, 40 mg, 160 mg, or a placebo for 12 weeks. Hot flash frequency decreased in all groups by 35%, 29%, and 34%, respectively. Isoflavone isolates cost around $22 to $50 per month. The evidence does not support this kind of extravagant expenditure.

The use of traditional medical treatments including hormones, nonhormonal medical drugs, and alternative treatments for hot flashes have been shown to be beneficial, yet they also have negative side effects or do not have enough evidence to indicate that they are effective. In many cases, such as with HRT, the negative side effects can be dangerous and life threatening. More research is needed to find safe and effective options for women with hot flashes. Hypnosis may be one of these options.

Hypnosis

Hypnosis can be defined several ways. One definition is that hypnosis involves the induction of a state of mind in which a person's normal critical or skeptical nature is bypassed, allowing for acceptance of suggestions. This state of heightened receptivity for suggestions (induction) is developed with the cooperation of the patient and is followed by the delivery of positive suggestions (Elman, 1964; Fromm, 1987). Hypnosis is also described as an "attentive, receptive focal concentration," with the trance state being a "normal activity of a normal mind," which occurs regularly, as when reading an absorbing book, watching an engrossing movie, daydreaming, or performing monotonous

activity (Spiegel, Greenleaf, & Spiegel, 2000). A common assumption is that, during hypnosis, the subconscious mind is in a suggestible state and the conscious mind is distracted or guided to become dormant.

The American Psychological Association's (APA) Division of Psychological Hypnosis issued a formal definition of hypnosis in 1985. They defined hypnosis as "A procedure during which a health professional or researcher suggest that a client, patient, or subject experience changes in sensations, perceptions, thoughts, or behavior."
In 1999, APA's Division of Psychological Hypnosis went a step further in addressing hypnosis stating that, "Hypnosis is not a type of therapy like psychoanalysis or behavior therapy. Instead, it is a procedure that can be used to facilitate therapy."

In 2003, the APA Division 30 gave a more detailed definition of hypnosis. They stated that:

> Hypnosis typically involves an introduction to the procedure during which the subject is told that suggestions for imaginative experiences will be presented. The hypnotic induction is an extended initial suggestion for using one's imagination, and may contain further elaborations of the introduction. A hypnotic procedure is used to encourage and evaluate responses to suggestions. When using hypnosis, one person (the subject) is guided by another (the hypnotist) to respond to suggestions for changes in subjective experience, alterations in perception, sensation, emotion, thought or behavior.

For the purpose of this research, hypnosis was defined as an altered, concentrated and focused form of inner attention that then enhances the subject's acceptance and use of a particular suggestion which is then evidenced in specific emotional, cognitive,

behavioral and physiological responses (P. L. Accaria, personal communication, February 14, 2007.).

Within any study about hypnosis, the subject of hypnotic responsiveness, or hypnotizability, must be discussed. Hypnotizability refers to individual differences in suggestibility as a function of the induction of hypnosis (Weitzenhoffer, 1980). Differences in response to hypnosis have been recognized since the time of Mesmer, who is considered the "founder" of hypnosis (d'Elson, 1965). Braid, an English physician during the 19th century and originator of the term hypnosis, noted that "there is a remarkable difference in the degree if susceptibility of different individuals to the hypnotic influence, some becoming rapidly and intensely affected, others slowly and feebly so" (1962, p. 72). But it was not until the turn of the century that these long observed differences in the individual response to hypnosis eventually led to the development of the first viable measures of hypnotizability, the Stanford Hypnotic Susceptibility Scale, Forms A and B (SHSS:A and SHSS:B) by Weitzenhoffer and Hilgard (1959). The introduction of the Stanford Hypnotic Susceptibility Scale, Form C (SHSS:C) by Weitzenhoffer and Hilgard (1962) represented an improved version of the two earlier forms; it was composed of a greater proportion of more difficult cognitive items. The SHSS:C is still the prevalent measure of hypnotic susceptibility in current use and is often the criterion by which other measures of hypnotizability are evaluated (Perry, Nadon, & Button, 1992). A recent study by Kurtz & Strube (1996), comparing a number of hypnotic measures, described the SHSS:C as the gold standard of susceptibility tests. The Stanford Hypnotic Clinical Scale for Adults (SHCS:A) was developed in the late 1970's by Morgan and Hilgard. The SCHS:A is a brief scale designed to measure

hypnotic responsiveness, producing a rating of patient hypnotic susceptibility, ranging from 0 (low) to 5 (high). The reliability of the SCHS:A was found to have a correlation of .72 with the SHSS:C (Morgan & Hilgard, 1978/1979) and has been used in much clinical research (Price & Barber, 1987; Kuyk, Spinhoven & van Dyck, 1999; Rucklidge & Saunders, 1999; Patterson & Jenson, 2003; Bryant, Moulds, Guthrie & Nixon, 2005). The SCHS:A was the scale used in this present research.

As previously stated, numerous studies have shown the benefits of hypnosis for a wide range of medical disorders in contemporary medicine (Stewart, 2005), including anesthesia for pain relief and surgery, healing from surgery or injury, dermatology, gastroenterology, hematology, neurology, obstetrics, oncology, otorhinolaryngology, smoking cessation, rheumatology, and urology.

Anesthesia for pain relief. Numerous studies have shown the benefits of hypnosis for pain relief (Simon, & Lewis, 2000; Lu, Lu, & Kleinman, 2001). A meta-analysis published in 2000 evaluated the use of hypnosis for pain relief in the preceding 20 years (Montgomery, DuHamel, & Redd, 2000). That review of 18 studies indicated that hypnosis offered a moderate to large analgesic effect for many types of pain. It was determined that hypnosis met "the criteria for well established treatment". Hypnosis was noted to benefit most patients, and therefore a broader application of its use was advocated. A 2003 comprehensive review by Patterson & Jensen observed hypnosis for pain relief and found it superior to placebo for acute pain and, at times, superior to pain relief achieved by other means. It was concluded that hypnosis for chronic pain was a viable option and a useful component of a "multidimensional assessment and treatment."

Anesthesia for surgery. A report from the 1960s indicated that surgical patients should be considered in a state of hypnosis and suggested that patients were able to comprehend much of the conversation around them, even while under anesthesia (Cheek, 1962). In the perioperative state, the patient is fixated on the forthcoming process and is in a receptive, compliant state of mind, comparable to the state formally induced with hypnosis. The article cautioned that patients in this receptive state may interpret comments made within an audible range as having negative implications for them. More recently, it has been emphasized again that health care personnel should be aware that patients under anesthesia have unconscious auditory perception and tend to interpret comments negatively (Erickson, 1994). The report also stressed the fact that, along with the potential deleterious effects of this awareness, the opportunity arose for using "semantics of positive suggestion" (emphasizing comfort, safety, and success) that should be "an integral part" of surgical and obstetrical care. It appears appropriate to consider the use of suggestions for patients in the perioperative period as a part of the practice of hypnosis.

Hypnosis has been used as the sole agent of anesthesia for both major and minor surgical procedures. The use of hypnosis as the sole agent for anesthesia has been virtually abandoned because of the availability and dependability of pharmacological agents. Nevertheless, a few such cases have been described in contemporary medical literature. An oral surgeon documented his own cholecystectomy (surgery to remove the gallbladder) performed with use of only self-hypnosis for anesthesia (Rausch, 1980). He walked back to his room after surgery and returned to work on the 10th postoperative day.

A 1991 review of clinical trials using hypnosis, suggestion, or relaxation in the care of surgical patients found that 89% of the trials showed that these techniques produced a positive outcome in facilitating physical or psychological recovery from surgery (Blankfield, 1991). The use of live therapists (rather than suggestions from audiotapes) and positive and appropriate semantics (avoiding words that bring to mind undesired outcomes) at the most receptive times were advocated to foster shorter hospital stays, to support earlier recovery, and to improve patient well-being.

A 1999 review by Faymonville, Meurisse, and Fissette, of more than 1650 surgical cases using hypnosis combined with other methods for conscious sedation promoted not only the safety, but also the comfort of the patient afforded by hypnosis. Hypnosis was used instead of general anesthesia for a broad range of surgical procedures. The authors concluded that hypnosis prevents pharmacological unconsciousness, allows patient participation, and may allow a faster recovery and a shorter hospital stay. Other studies support the multiple benefits of hypnosis as an adjunct to conscious sedation for many types of surgery (Weinstein & Au, 1991; Lang, Joyce, Spiegel, Hamilton, & Lee, 1996; Faymonville, Mambourg, and Joris 1997; Lang, Benotsch, & Fick, 2000; Montgomery, Weltz, Seltz, & Bovbjerg, 2002).

Healing from surgery or injury. Hypnosis has been evaluated for its effectiveness in the use of suggestion to facilitate faster wound healing after injuries or surgery. Research by Ginandes & Rosenthal (1999) examined hypnosis for patients with non displaced ankle fractures and showed marginally faster healing, diminished pain, and increased mobility and functionality. A meta-analysis evaluated hypnosis for surgical

patients for its overall effect and benefits for specific clinical outcomes. Hypnosis as an adjunct to surgery was believed to be "successful for the majority of individuals", with benefits such as decreased pain, anxiety, nausea, and recovery time (Montgomery, David, Winkel, Silverstein & Bovbjerg, 2002). Ginandes, Brooks, Sando, Jones, and Aker, (2003) compared the relative efficacy of an adjunctive hypnotic intervention, supportive attention, and usual care only on early post-surgical wound healing. Hypnosis was found to have the best outcome for wound recovery.

Dermatology. Many trials have evaluated hypnosis for eliminating warts (Spanos, Williams, & Gwynn, 1990; Ewin, 1992; Shenefelt, 2000; Goldstein, 2005, Lankton, 2007)). Hypnosis was advocated to avoid pain and scarring, reactions to anesthetics, and the need for wound care and special equipment. The technique may be particularly applicable for warts in sensitive or inaccessible areas.

Hypnosis has been used successfully for other dermatologic conditions. Patients with atopic dermatitis noted decreased pruritus, scratching, sleep disturbance, and tension after treatment with hypnosis (Stewart & Thomas, 1995). In many patients, improvements persisted at follow-up evaluations up to 18 months later.

Gastroenterology. Hypnosis for irritable bowel syndrome (IBS) has been studied extensively, showing significant benefits from hypnosis (Prior, Colgan & Whorwell 1990; Houghton, Heyman, & Whorwell, 1996; Galovski & Blanchard, 1998; Vidakovic-Vukic, 1999; Gonsalkorale, Houghton & Whorwell, 2002). It was concluded that "in addition to relieving the symptoms of irritable bowel syndrome, hypnotherapy

profoundly improves the patient's quality of life and reduces absenteeism from work." (Houghton, Heyman, & Whorwell, 1996). Other studies and reviews have shown similar results for IBS (Palsson, Turner, Johnson, Burnett, & Whitehead, 2002; Spanier, Howden, & Jones, 2003). Hypnosis was the primary treatment for IBS in a study conducted by Galovski, and Blanchard (2002). After 6 hypnotherapy treatments, the IBS symptomatology had improved 53%.

Patients with peptic ulcer disease have benefited from hypnosis. In a study of 126 patients with functional dyspepsia (a pain or an uncomfortable feeling in the upper middle part of the stomach caused by a stomach ulcer or acid reflux disease), those treated with hypnosis noted improvement in quality of life and long-term symptoms, fewer physician visits, and less health care spending compared with the group treated with medication (Calvert, Houghton, Cooper, Morris, & Whorwell, 2002).

Postoperative gastrointestinal motility has been affected positively by hypnosis. Patients scheduled to undergo abdominal surgery were assigned randomly either to a treatment group that were read suggestions for an early return of bowel function and appetite or to a control group, given only general preoperative instructions for an equal period (Disbrow, Bennett, & Owings, 1993). With their surgeons unaware of the study, patients who were read a 5-minute script before surgery had a significantly earlier return of bowel function ($P<.05$). They also had a shorter mean duration of hospital stay (6.6 vs. 8.1 days) and a cost savings of $1200 per patient.

Hypnosis has been used alone or in combination as anesthesia for liver biopsy, esophagogastroduodenoscopy, and colonoscopy. A gastroenterologist reported the use of only an anesthetic throat spray and hypnosis for 200 upper gastrointestinal tract

endoscopy procedures with a reduced overall duration of the procedure (Zimmerman, 1998). No complications were noted, and patients were able to leave immediately afterward. In another report, patients either with anxiety or with allergy to local anesthetics safely underwent liver biopsies with use of hypnosis (Adams & Stenn, 1992). 80% of patients in a pilot trial using hypnosis before colonoscopic evaluations noted only mild or no discomfort (Cadranel, Benhamou & Zylberberg, 1994).

Hematology

One medical center reported favorable results with the addition of hypnosis for patients with hemophilia (LaBaw, 1992). Patients who were assigned to receive hypnosis had a significantly decreased need for transfusions, compared with controls (p =.01).

Neurology. Hypnosis has been used successfully for treatment of headaches. Patients with chronic (>=6 months) tension headaches were assigned, at random, either to a group receiving hypnosis or to a control group (Melis, Rooimans, Spierings, & Hoogduin, 1991). The hypnosis group had a significant reduction in the number, duration, and intensity of headaches. Instruction in self-hypnosis produced significant benefits for tension headaches in other studies (Spinhoven, Linssen, Van Dyck & Zitman, 1992; ter Kuile, Spinhoven, Linssen, Zitman, Van Dyck, & Rooijmans, 1994).

Obstetrics. Hypnosis as an anesthesia for childbirth has a long, successful history. A large trial compared a self-hypnosis group with a control group to study the effects of hypnosis on labor (Jenkins & Pritchard, 1993). The hypnosis group reported less discomfort and shortened labor. Another study looked at pregnant adolescents who were assigned randomly to individual sessions of hypnosis or to supportive counseling. The

medical staff was blinded to their group assignments (Martin, Schauble, Rai & Curry Jr., 2001). At delivery, the hypnosis group had a significant decrease in complications, fewer surgical interventions, and a shorter hospital stay.

Oncology. Chemotherapy often is associated with nausea and vomiting. Hypnosis has been studied for reducing these and other adverse effects (Jacknow, Tschann, Link & Boyce, 1994; Walco, Conte, Labay, Engel, & Zeltzer, 2005). Zeltzer, Dolgin, LeBaron and LeBaron (1991) studied the effects of hypnosis with children and found that children receiving chemotherapy who were assigned randomly to hypnosis had less anticipatory nausea and vomiting and less vomiting with chemotherapy, compared with a control group. There was also a significant decrease in the need for antiemetic (preventing vomiting) medications. Children who learned self-hypnosis techniques were believed to have gained feelings of control over their situations.

Hypnosis has been used successfully in other areas of oncology. Patients undergoing bone marrow transplantation treated with hypnosis experienced significantly less oral pain than control patients (Syrjala, Cummings & Donaldson, 1992).

A National Institutes of Health panel issued a statement published by the AMA in 1996 indicating that there was "strong evidence for the use of hypnosis in alleviating pain associated with cancer." A study conducted by Lynch (1998) investigated how hypnosis could be a successful adjunct to the treatment of cancer. Specific areas of usefulness include the management of stress and anxiety, the modulation of pain, the diminution of treatment- and disease-related anorexia, nausea, and emesis, and achieving with the patient some sense that he or she is again somewhat in control of life and disease.

Otorhinolaryngology. In a study by Attias et al. (1993), patients with chronic tinnitus treated with hypnosis improved significantly in 7 of 10 disturbing symptoms, compared with a group treated with masking techniques or supportive measures ($P<.05$).

Smoking cessation. Numerous studies have reported various techniques and outcomes in the use of hypnosis for smoking cessation, many with beneficial results. In a 1992 meta-analysis of 633 smoking-cessation studies involving almost 72,000 participants, hypnosis was the most successful cessation method, with a 12% to 60% success rate (mean, 36%), 3.5 times that achieved by self-care methods (Viswesvaran & Schmidt, 1992). More aggressive but less acceptable techniques that combined hypnosis with aversion methods (rapid smoking with negative imagery and electrical shocks) for smoking cessation resulted in a 3-month abstention rate of 86% in male volunteers and 87% in female volunteers (Johnson & Karkut, 1994). Another study that combined hypnosis with aversion methods reported a 90% abstention rate (39 of 43 consecutive referral patients) at 6 to 36 months (Barber, 2001).

A 2000 review of 59 studies showed a greater than 50% success rate, with 3 studies (200 participants total) documenting 12-month abstention rates of 63% to 88% (Green & Lynn, 2000).

One study examined the effect of suggestions for smoking cessation delivered during elective surgery. In a double-blind trial, 122 patients listened to audiotapes during general anesthesia containing either simple or direct suggestions to stop smoking or simple counting without suggestions (Hughes, Sanders, Dunne, Tarpey & Vickers, 1994).

After 1 month, significantly more patients in the suggestion group (8 patients) had stopped smoking compared with no patients in the control group (P<.005). No patient could actively recall the message on the tape. This is one of several studies supporting the assertion that postoperative behavior can be influenced by suggestions given during general anesthesia without conscious recall of the suggestions.

Rheumatology. Patients with refractory fibromyalgia (mean duration, 8.5 years) who were randomly assigned to receive hypnosis obtained significant improvement compared with those assigned randomly to physical therapy alone (Haanen, Hoenderdos & van Romunde, 1991). Benefits included improvements in morning fatigue, in sleep, in muscle pain, in overall assessment, and in use of pain medications, with results persisting for at least 6 months.

Urology. Since the 1960's, medical literature has indicated a strong potential for the use of hypnosis for impotence (Elman, 1964) and support for this assertion has come from recent clinical trials. A review of a study by Crasilneck (1990) cited an 88% success rate using hypnosis for impotence in almost 3000 patients. The hypnosis techniques used in this trial were studied in 2 randomized controlled trials of men with nonorganic impotence. One trial that compared hypnosis with a placebo showed an 80% improvement in sexual function with hypnosis compared with 36% with a placebo (Aydin, Odabas, Ercan, Kara & Agargun, 1996). The second trial compared hypnosis with acupuncture and an injected or an oral placebo. The success rate (moderate improvement or "cure") was 75% for hypnosis (Aydin, Ercan & Caskurlu, 1997).

Menopausal symptoms in cancer patients. Only one study was found that used hypnosis to control menopausal symptoms. This was a study that investigated whether or not hypnosis would be beneficial for breast cancer survivors in the reduction of hot flashes (Elkin, Marcus, Palamara & Stearns, 2004). The treatment for breast cancer often puts women into an early menopause. In two case studies hypnosis was found to be effective 77% and 76% of the time.

In the Elkins et al. study, the women were experiencing menopause that was medically induced due to the medicine used for the treatment of breast cancer. The protocol that was used required the women to imagine themselves in a cool environment when they initially felt the hot flashes occurring. This present research will examine the use of hypnosis for naturally occurring menopause and the protocol will be more proactive than in the Elkins study. The treatment given to the women, instead of being useful when a hot flash occurs, will lessen or diminish the frequency and intensity of the hot flashes before they occur.

For the purposes of this qualitative study, research questions were posed rather than specific hypotheses stated. The first question explored the experience of women who are menopausal and the ways in which this affects their quality of life. Next, this study looked at the frequency and intensity of hot flashes for woman in three different areas: negative thoughts, negative feelings, and physical discomfort. This study also investigated whether or not hypnosis is a viable treatment to control or eliminate hot flashes in women who are experiencing naturally occurring menopause. Finally this study also looked at whether or not the hypnotic treatment works better for women with a higher hypnotic responsiveness.

Chapter 3

Methods

Participants

A total of 3 participants were involved in the present study. The women were experiencing hot flashes occurring from natural menopause. They were private clients that were seen in this investigator's Toms River, NJ counseling office.

Measures

The Hot Flash Rating Scale (HFRS) was developed by George McCloskey, Ph.D. and the investigator for the purpose of this study (See Appendix A). On the HFRS, the women use a 5 point Likert scale to measure the frequency and intensity of their hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. The HFRS was administered before the treatment had been given, one week after the treatment, and then again 2 weeks later during a follow-up session. The investigator, in collaboration with Philip Accaria, Ph.D wrote the treatment scripts that were used during this study : the *Progressive Muscle Relaxation Induction and Treatment Script* (Appendix B) and the *Treatment for Hot Flashes* protocol (Appendix C). The *Treatment for Hot Flashes* protocol is the hypnosis script that was used with the participants.

The Stanford Hypnotic Clinical Scale for Adults (SHCS:A)(Appendix D) was read verbatim to the participants. The SCHS: A is a brief scale designed to measure hypnotic responsiveness, producing a rating of patient hypnotic susceptibility ranging

from 0 (low) to 5 (high). Their experiences were recorded and scored for responsiveness to the exercises.

Procedures

Each woman was asked to participate in 3 sessions. The sessions ranged from 60 to 90 minutes and all but the last were spaced at one week apart. All sessions were conducted in the investigator's counseling office in Toms River, New Jersey.

During the first session each subject was asked to fill out The HFRS for the first time and was read the Progressive Muscle Relaxation Induction and Treatment Script . The subjects were then asked to return after a week for the second session. The second session included the participants providing a verbal report about the nature of their hot flash symptoms during the previous week. The subjects were then asked to complete the HFRS; following its completion, they were asked to come back 2 weeks later for the third and final session.

During the third session the subject was given the HFRS for the last time. The purpose of this was to see how the effects of the treatment held up over time. During this session the SHCS: A was also administered to the subjects. One of the objectives of this study was to examine whether or not the hypnotic treatment works better for women with a higher hypnotic responsiveness.

Data Analysis

This study examined the effectiveness of hypnosis treatment from a descriptive point of view. The responses from the three participants were graphed. Evidence was

gathered from the 3 participants using additional sources such as their reactions to the hot flashes and how these impacted their lives. The hypnotizability of the women was observed and compared with their scores on the HFRS.

Chapter 4

Results

The goal in conducting the present study was to answer several questions:

1. What is the experience of women who are menopausal and how does this affect their quality of life?
2. What is the frequency and intensity of hot flashes for women in three different areas: negative thoughts, negative feelings, and physical discomfort?
3. Is hypnosis a viable treatment for controlling or eliminating hot flashes in women who are experiencing naturally occurring menopause?
4. Does the hypnotic treatment work better for women with a higher hypnotic responsiveness?

Subject 1

Subject 1 is a 53 year old woman. She was married for 14 years although she and her husband had been together for 22 years. During the course of her participation in the present study, she and her husband were divorced and she describes their relationship as "still good friends". She recently began talking with someone on an online dating service and was "bummed out" because he did not turn out to be as he described himself to be. She was hopeful, however, that she would eventually meet someone.

Subject 1 describes herself as being "happy about my life". Other than the hot flashes, Subject 1 does not see menopause as a negative experience nor does she see

getting older as anything but having “more candles on a cake” and another “reason to have a party”.

Subject 1 has no children. She is employed and added that she “loves her job” and feels that she is very good at it. Subject 1 reports that she is “very healthy” but added that she is about 40 pounds overweight. She is presently taking Lipitor for cholesterol and Celexa for depression. She has been taking Celexa for 8 or 9 years and describes a long history of depression dating back to high school. Besides using Black Cohosh, which she did not find helpful, she has never used any medical or nonmedical treatment for her hot flashes.

Subject 1 has not had a menstrual period for 4 years. She began having symptoms 10 to 12 years ago and described them in the following way:

“At age 41 I started to notice that I became hateful, angry, wimpy, emotional, cried at the drop of a hat and I couldn’t stop. That continued until a year after post menopause so probably until 2004 or 2005. It was very long. In another way it was very weird. My mom died very young. My sister had a hysterectomy. And my aunt died very young so I don’t know what their experience was. I have a cousin who had a similar experience to me. But it was the 10 – 12 year plan. And the only thing that hasn’t gone away is the hot flashes”.

She added that what she hated the most is the sweating. Before menopause she did not consider herself a “sweater” but during the first session described herself as a “fat, hot, sweaty pig” and added that every part of her body sweats, even her earlobes. Subject 1 complained that she is embarrassed sometimes to go dancing, which used to be a

favorite activity, because now she sweats a lot. Her face gets red and the sweat makes her hair look thinner and stick to her head.

She said, "I hate sweating. I hate being hot. I have a fan at both of my desks. I have two offices. I have the fan on me at all times. And even when I work at home I have the fan on me at all times. I think it is temperature related. But I have the ceiling fan and if it is really hot, I put on the air conditioner. Most people would be freezing in my room. I just don't seem to be able to regulate my temperature. The regulator is broken. I rarely get cold and I haven't worn a winter coat in years".

Hypnosis experience. Subject 1 had never been hypnotized before but had wanted to try hypnosis for her depression at a previous time in her life because, as she stated:

> "I think, like with the depression, I think I could convince myself to not feel that way. And I know it is chemical. My life is wonderful. I have nothing to be depressed about. But I still have anxiety. I still have that feeling, that empty hole. So I kept thinking that maybe that would work". When she was asked what her thoughts or ideas were about being hypnotized she reported, "I think the thought is quite intriguing. I am a firm believer that our brain is much more powerful then we use. In fact I had wanted to do it several years ago but the only hypnotic person I knew was a pervert skeevy. So I thought I will just wait until another opportunity comes".

During the pretreatment session, Subject 1 filled out the Hot Flash Rating Scale (HFRS) for the first time. She was asked to rate the frequency of her flashes in 3 different

areas: negative thoughts, negative feelings, and physical discomfort. She rated the frequency of negative thoughts about her hot flashes as a 3. A score of 3 is defined as: *I have had negative thoughts about my hot flashes on several days but not every day*. She also rated the frequency of negative feelings about her hot flashes as a 3, which is defined as, *I have had negative feelings about my hot flashes on several days but not every day*. She also rated the frequency of physical discomfort about her hot flashes as a 3, which corresponds to the statement: *I have had physical discomfort related to my hot flashes on several days but not every day*.

During the pretreatment session Subject 1 was also asked to rate the intensity of her hot flashes in the same 3 areas: negative thoughts, negative feelings, and physical discomfort. She rated the intensity of negative thoughts as a 3. A score of 3 is defined as: *Negative thoughts about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur.* She also rated the intensity of negative feelings about her hot flashes as a 3, which is defined as *Negative feelings about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur*. She also rated the intensity of physical discomfort about her hot flashes as a 3, which corresponds to the statement: *The physical discomfort related to my hot flashes is somewhat intense; sometimes it is slightly disruptive when they occur*.

At the end of the pretreatment session, the *Progressive Muscle Relaxation Induction and Treatment Script* was read to Subject 1 (See Appendices E and F). She was asked to return the following week.

When Subject 1 returned the following week she was debriefed about how her hot flash symptoms had been. She made several comments worth noting:

"I am doing really good. This week I had 2 night sweats compared to 5 the week before. A couple of times I was able to stop the hot flashes in the day as soon as I felt the onset just by thinking the word relax."

During the posttreatment session, Subject 1 was again asked to complete the HFRS. She rated the frequency of negative thoughts about her hot flashes as a 2. A score of 2 corresponds to the statement: *I have negative thoughts about my hot flashes on only a few days.* She also rated the frequency of negative feelings about her hot flashes as a 2. A 2 is defined as, *I have negative feelings about my hot flashes on only a few days*. She also rated the frequency of physical discomfort as a 2, which corresponds to the statement: *I have had physical discomfort related to my hot flashes on only a few days*.

During the posttreatment session Subject 1 was also asked to rate the intensity of negative thoughts about her hot flashes for the previous week. She rated the intensity of the negative thoughts as a 2. A score of 2 corresponds to the statement, *Negative thoughts about my hot flashes are mild and do not disrupt what I am doing when they occur.* She also rated the intensity of negative feelings about her hot flashes as a 2. A 2 is defined as: *Negative feelings about my hot flashes are mild and do not disrupt what I am doing when they occur.* She also rated the intensity of physical discomfort as a 2, which corresponds to the statement: *The physical discomfort related to my hot flashes is mild; it does not disrupt what I am doing when it occurs.* Subject 1 was then asked to return for a follow up session after 2 weeks.

Subject 1 returned for her final session after 2 weeks. The following are several comments that she made about her symptoms for the previous 2 weeks: "It has been quite delightful. I sweat a little at night. It has actually been quite delicious. I feel

wonderful." When she was asked to describe her overall experience she added, "I thought it was going to be like flipping a switch but it feels more gradual. I'm still doing well. Overall the hot flashes have diminished. It went from 4 to 5 a week to 0 in 2 weeks".

During the 2-week follow-up session, Subject 1 was again asked to fill out the HFRS and rate the frequency of her hot flashes in the 3 areas: negative thoughts, negative feelings, and physical discomfort. She described the frequency of negative thoughts about her hot flashes as a 1. A one corresponds to the statement: *I have not had negative thoughts about my hot flashes on any day*. She also rated her frequency of negative feelings about her flashes as a 1, which corresponds to the statement: *I have not had any negative feelings about my hot flashes on any day*. She also rated the frequency of physical discomfort about her hot flashes as a 1, which corresponds to the statement: *I have not had physical discomfort related to my hot flashes on any day*.

During the 2-week follow-up session, Subject 1 was also again asked to fill out the HFRS and rate the intensity of her hot flashes. She described the intensity of her negative thoughts about her hot flashes as a 1. A 1 corresponds to the statement: *There is no intensity and no disruption occurs because I have not had any negative thoughts about my hot flashes.* She also rated the intensity of negative feelings about her flashes as a 1 which corresponds to the statement: *There is no intensity and no disruption occurs because I have not had any negative feelings about my hot flashes*. She also rated her intensity of physical discomfort about her hot flashes as a 1, which corresponds to the statement: *There is no intensity and no disruption occurs because I have not had any physical discomfort related to my hot flashes*.

Figure 1 presents the scores for Subject 1 on the HFRS. These scores were based on the self-report responses of the participant's perceptions of her frequency of hot flashes at 3 different sessions; pretreatment, posttreatment and then again after the 2-week follow-up session.

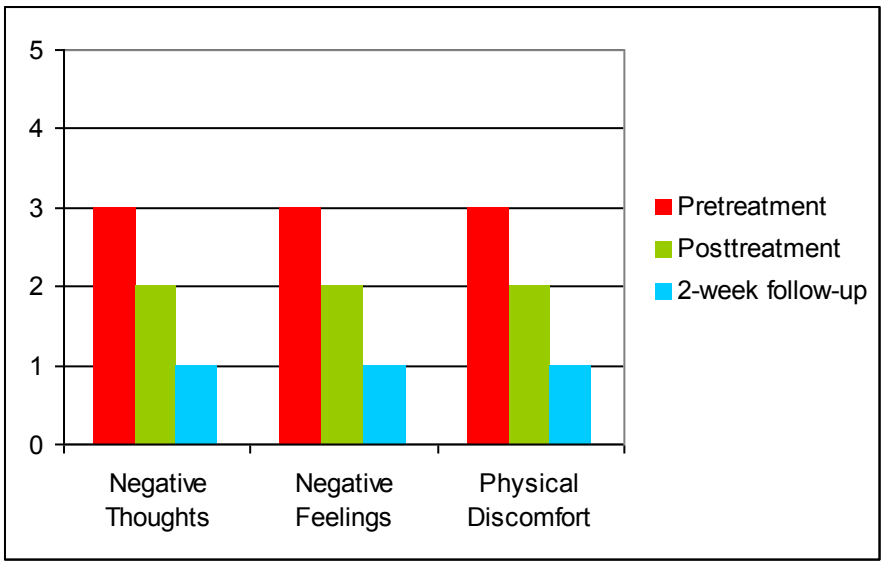

Figure 1. Frequency of hot flashes - Subject 1

Figure 2 presents the scores for Subject 1 on the Hot Flash Rating Scale HFRS with regard to the intensity of her hot flashes. These scores were based on the self-report responses of the participant's perceptions at 3 different sessions: pretreatment, Post Treatment and then again after, a 2-week follow-up session.

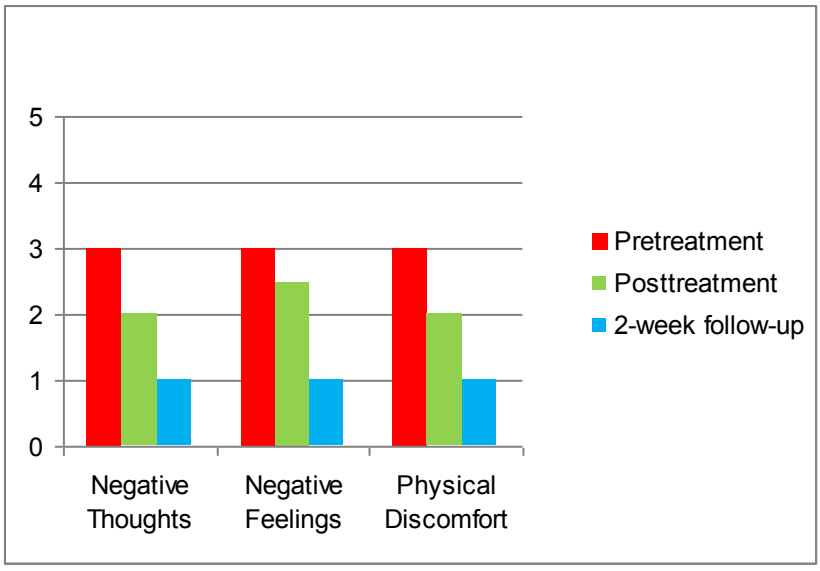

Figure 2. Intensity of hot flashes - Subject 1

Subject 2

Subject 2 is a 49 year old woman. She has been divorced since 2000 and describes her life as being "very stressful". She has a 22 year old daughter who is away at college. She is presently living with her mother who, she reports, "is very depressed and has been all my life". She has been unemployed since 2007 and does not feel hopeful about finding a job as a teacher soon. She has recently placed her name on several lists for substitute positions. Subject 2 would have liked to be at a "better place at this point in her life" and added that she had "hoped to be happily married, happily employed and not always worrying about money".

Subject 2 appears to be a very bright woman and can speak 5 languages. According to Subject 2, she is in "excellent health" and works out on a regular basis. She reports that she lost 55 pounds last year by exercising and eating healthy. She stated, "I lost weight by eating right, exercising. I ate really healthy. I am a very disciplined person.

At first when I started to crave sweets, the willpower kicked in. Exercise has a lot to do with it".

Subject 2 appeared to be a very anxious person and often seemed to be on the verge of crying. She finds it difficult being alone. She has recently started a relationship that she feels "hopeful" about but added, "I tend to get very involved much too fast and I did it again this time".

Subject 2 has not had a menstrual period since July of 2007. The following is how she describes her symptoms:

"I keep waking up drenched, completely drenched. I am seeing someone and it's like every 5 minutes the covers are off, the covers are on and off. I don't give myself and anyone else peace and I don't give the people around me any peace. My heart starts to pound and I can just feel it. It is like the furnace fire is up. They are really noticeable at night. I wake up. They are unpredictable. I had them during the day and I can feel them starting up and the heat starts to radiate down my body, down my core. They last for about a minute. I start to sweat. I can feel my heart pounding. My breathing becomes rapid. I used to get very emotional with PMS. I would cry at the drop of a hat. Even now I get very emotional. I actually think that stress put me into menopause earlier. I completely lost my period for 3 months a few years ago. I read a couple of books and they said that stress can affect it. I eventually got my period back on a regular basis.

Subject 2 added that her hot flashes are embarrassing because her face gets red; she sweats a lot and she feels as if she cannot breathe. Her heart starts to pound and she feels as if she is going to throw up. She also feels as if she is losing control of herself at

those times. She added that this is a major problem for her because she likes to feel as if she is in control at all times.

Subject 2 has tried Estroven, Black Cohosh, and Red Clover for her hot flashes, without success. She is presently not using any medical or nonmedical treatment for her symptoms.

Hypnosis experience. Subject 2 has never been hypnotized before. She reports that she has considered it before saying, "I actually have come across self hypnosis books a couple of times and I thought that would be cool. It has peaked my curiosity about what it would be like".

During the pretreatment session Subject 2 filled out the Hot Flash Rating Scale (HFRS) for the first time. She was asked to rate the frequency of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. Subject 2 rated her frequency of negative thoughts about her hot flashes as a 4. A score of 4 is defined as: *I have had negative thoughts about my hot flashes a few times each day.* She rated her frequency of negative feelings about her hot flashes as a 4, which is defined as: *I have had negative feelings about my hot flashes a few times each day*. She rated the frequency of physical discomfort about her hot flashes as a 5, which corresponds to the statement: *I have had physical discomfort related to my hot flashes many times each day*.

During the pretreatment session Subject 2 was also asked to rate the intensity of her hot flashes in the same 3 areas: negative thoughts, negative feelings, and physical discomfort. She rated the intensity of the negative thoughts about her hot flashes as a 5. A score of 5 is defined as: *Negative thoughts about my hot flashes have been extremely*

intense; they greatly disrupt whatever I am doing when they occur. She rated the intensity of negative feelings about her hot flashes as a 4 which is defined as: *Negative feelings about my hot flashes are intense; they disrupt to some degree whatever I am doing when they are present.* She also rated the intensity of physical discomfort about her hot flashes as a 4 which corresponds to the statement: *The physical discomfort related to my hot flashes is intense; it disrupts to some degree whatever I am doing when it occurs*.

At the end of the pretreatment session the *Progressive Muscle Relaxation Induction and Treatment Script* was read to Subject 2 (See Appendices E and F). She was asked to return the following week.

When Subject 2 returned the following week, she was debriefed about how her hot flash symptoms had been the previous week. According to Subject 2 she was doing well for 3 days and then, "Things fell apart. I was able to feel relaxed and when I felt a hot flash start I could just relax. But then my life got so crazy I wasn't able to do that. I felt very much rejected because of a relationship that I was very hopeful about. I just kept thinking about that. My life has become even more stressful and I am not able to stop thoughts once they occur."

During the posttreatment session, which was a week after the treatment, Subject 2 again was asked to rate the frequency of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the frequency of negative thoughts about her hot flashes as a 2. A score of 2 corresponds to the statement: *I have negative thoughts about my hot flashes only on a few da*ys. She also rated the frequency of negative feelings about her hot flashes as a 2. A 2 is defined as: *I have negative feelings about my hot flashes on only a few days*. She rated the frequency of physical

discomfort as a 4 which corresponds to the statement: *I have had physical discomfort related to my hot flashes a few times each day*.

During the posttreatment session, Subject 2 rated the intensity of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the intensity of her negative thoughts about her hot flashes as a 3. A score of 3 corresponds to the statement: *Negative thoughts about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur*. She rated the intensity of negative feelings about her hot flashes as a 2. A 2 is defined as: N*egative feelings about my hot flashes are mild and do not disrupt what I am doing when they are present*. She rated the intensity of physical discomfort as a 4, which corresponds to the statement: *The physical discomfort related to my hot flashes is intense; sometimes it disrupts to some degree whatever I am doing when it occurs*. Subject 2 was asked to return for a follow up session after 2 weeks.

When Subject 2 came back for the final session she was asked about her hot flash symptoms during the previous 2 weeks. She reported that, “I just forgot about them. Like today I was in the middle of a task, helping someone, and I felt one coming on, and I just forgot about it”. When she was asked if she was able to do that before, she responded that she was not. According to Subject 2, the hot flashes have decreased in the overall frequency. She added, “During the day they have decreased and during the night I only remember 2 nights that I woke up. It was happening almost every night but now only 2 hot flashes. It has decreased them for me”. When she was asked how she would describe the overall experience, she replied, “It was good. I would recommend it to someone.”

During the 2-week follow-up session, Subject 2 was again asked to fill out the HFRS and rate the frequency of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She described the frequency of her negative thoughts about her hot flashes as a 2. A 2 corresponds to the statement: *I have negative thoughts about my hot flashes on only a few days*. She also rated the frequency of negative feelings about her flashes as a 1 which corresponds to the statement: *I have not had negative feelings about my hot flashes on any day*. She rated the frequency of physical discomfort about her hot flashes as a 2, which corresponds to the statement: *I have had physical discomfort related to my hot flashes on only a few days*.

During the 2-week follow-up session, Subject 2 was also asked to fill out the HFRS and rate the intensity of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She described the intensity of her negative thoughts about her hot flashes as a 2. A 2 corresponds to the statement: *Negative thoughts about my hot flashes are mild and do not disrupt what I am doing when they occur.* She also rated the intensity of negative feelings about her flashes as a 2, which corresponds to the statement: *Negative feelings about my hot flashes are mild and do not disrupt what I am doing when they are present*. She rated the intensity of physical discomfort about her hot flashes as a 3, which corresponds to the statement: *The physical discomfort related to my hot flashes is somewhat intense; sometimes it is slightly disruptive when it occurs.*

Figure 3 presents the scores for Subject 2 on the HFRS. These scores were based on the self-report responses of the participant's perceptions of the frequency of her hot flashes at 3 different sessions; pretreatment, posttreatment and the 2-week follow-up session.

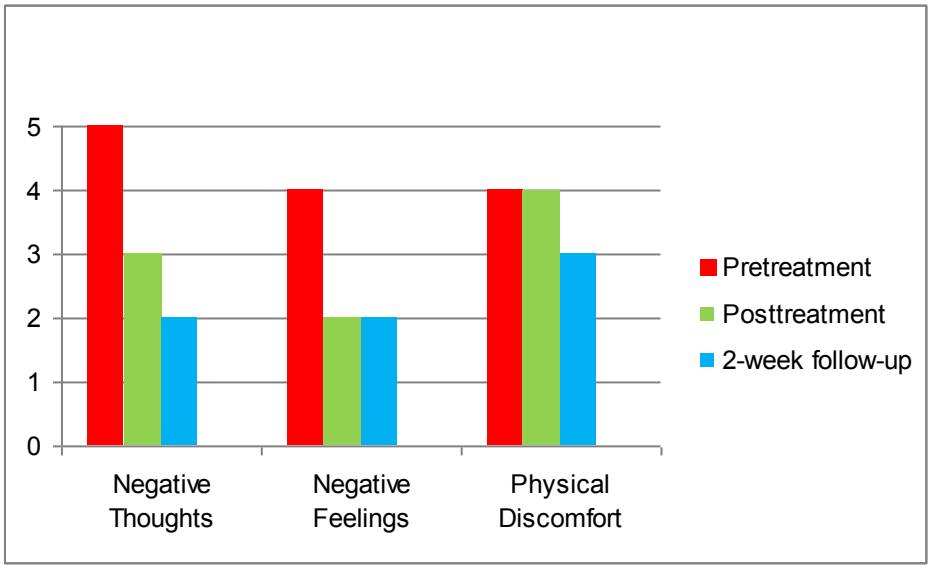

Figure 3. Frequency of hot flashes - Subject 2

Figure 4 presents the scores for Subject 2 on the Hot Flash Rating Scale (HFRS). These scores were based on the self-report responses of the participant's perceptions of her intensity at 3 different sessions; pretreatment, posttreatment and then again after a 2-week follow-up session.

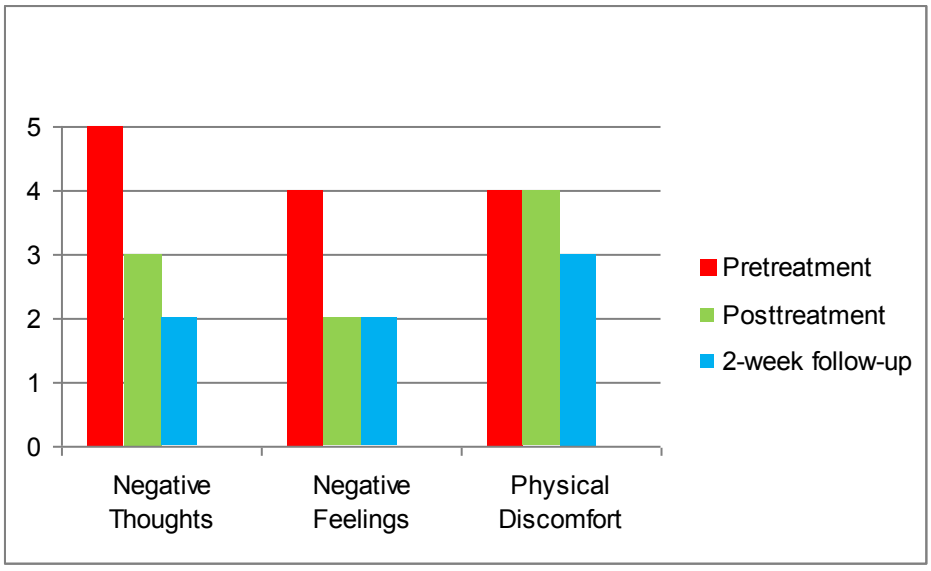

Figure 4. Intensity of hot flashes - Subject 2

Subject 3

Subject 3 is a 53 year old "happily" married woman. She reported that she doesn't think menopause is a "big deal" and although some of her friends are dreading getting older she could "care less". In fact, if it weren't for the hot flashes, Subject 3 says that she "would happily grow old with her hubby". She has no children and added that she tried very hard to have children and used fertility drugs and treatments for many years. She has worked in the same career field for 25 years and reports to like her job. According to Subject 3, she is in good health and has never taken any medical or nonmedical treatment for her hot flash symptoms. She added that she was always afraid to take any more hormones or chemicals after her many failed fertility treatment attempts.

Subject 3 has not had a menstrual period for 6 years. She is very much concerned about how long she will continue to have symptoms because her mother is still having hot flashes at age 70 and she stated,

"I can't imagine having hot flashes for all those years. I wouldn't know what to do. My symptoms have started out just like my mother's. When I first started getting hot flashes it was mostly at night but now, for the past 4 or 5 years, it has been at this level."

Subject 3 reports that she has hot flashes,

> "During work on tasks, anytime I get in line or a crowd with people, an elevator, all day, all night. I can't wear stockings and I have to wear short sleeves in winter. I feel like I am going to pass out, tired, lack of sleep, anxious, and quick to snap at people. I want to get naked and stand in front of a fan. When a hot flash starts I often feel dizzy, sweaty, nauseas, overwhelmed. They keep me from sleeping. I get tired and crabby. When I feel one starting, I stop breathing. I have to remember to breathe. I get them a minimum of 6 a day and 2 times at night. At night I wake up wet then get cold all night."

Hypnosis experience. Subject 3 has been hypnotized before and found it to be very helpful. She reports that she was going through a very stressful time in her life and was unable to eat without feeling nauseous. She went to a local psychologist and with 1 treatment she was able to eat.

During the pretreatment session, Subject 3 filled out the HFRS for the first time. She was asked to rate the frequency of her flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the frequency of negative thoughts about her hot flashes as a 5. A score of 5 is defined as*: I have had negative thoughts about my hot flashes many times each day.* She also rated the frequency of negative feelings about her hot flashes as a 5, which is defined as: *I have had negative feelings*

about my hot flashes many times each day. She also rated the frequency of physical discomfort about her hot flashes as a 5, which corresponds to the statement: *I have had physical discomfort related to my hot flashes many times each day*.

Subject 3 was also asked to rate her intensity of hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the intensity of negative thoughts about her hot flashes as a 5. A score of 5 is defined as: *Negative thoughts about my hot flashes have been extremely intense; they greatly disrupt whatever I am doing when they occur.* She also rated the intensity of negative feelings about her hot flashes as a 5, which is defined as: *Negative thoughts about my hot flashes have been extremely intense; they greatly disrupt whatever I am doing when they are present*. She also rated the intensity of physical discomfort about her hot flashes as a 5, which corresponds to the statement: *The physical discomfort related to my hot flashes is very intense; it greatly disrupts whatever I am doing when it occurs*. At the end of the pretreatment session the *Progressive Muscle Relaxation Induction and Treatment Script* was read to Subject 3 (See Appendices E and F). She was asked to return the following week.

When subject 3 returned for the posttreatment session, she was debriefed about her hot flashes the previous week. Subject 3 reported that she had seen a "great improvement" and had been able to stop many of her hot flashes totally when they first began. She added:

> "On several occasions I have been in situations where I could not stop what I was doing to use the technique and the flashes took over. I have had a lot of success in totally stopping flashes and feel a lot better. I have noticed that I am not taken

over by nausea and anxiety as often as I was prior to using the technique. I have even seen an improvement when I am driving or in a crowd. I have less anxiety all around. The only time that I have no control is when I flash during my sleep. I wake up totally wet and have to change pillows and sheets. Overall I am thrilled with my ability to have some control of my body again. I can't wait to see what happens in the coming weeks!"

During the posttreatment session, which was a week after the treatment, Subject 3 was asked to rate the frequency of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the frequency of negative thoughts about her hot flashes as a 3. A score of 3 corresponds to the statement: *I have had negative thoughts about my hot flashes on several days but not every day*. She also rated the frequency of negative feelings about her hot flashes as a 3. A 3 is defined as: *I have had negative feelings about my hot flashes on several days but not every day*. She rated the frequency of physical discomfort also as a 3, which corresponds to the statement: *I have had physical discomfort related to my hot flashes on several days but not every day*.

Subject 3 was also asked to rate the intensity of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She rated the intensity of negative thoughts about her hot flashes as a 3. A score of 3 corresponds to the statement: *Negative thoughts about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur*. She also rated the intensity of negative feelings about her hot flashes as a 3. A 3 is defined as: *Negative feelings about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur.* She rated the intensity of physical discomfort also as a 3, which corresponds to the statement: *The*

physical discomfort related to my hot flashes is somewhat intense; sometimes it is slightly disruptive when it occurs.

When Subject 3 returned for her final session, she was again debriefed about her hot flash symptoms over the past two weeks. Subject 3 reported the following: "Overall I feel better and less negative. Only discomfort is when I wake up from a flash. No negative feelings since I have some control back. During sleep I cannot control anything. I still wake up wet. I have had a decrease in the number of times my sleep is interrupted. I have slept without a fan several days a week. This has helped with hot flashes but more importantly it has decreased episodes of anxiety that I frequently experience while driving and standing in line. I just breathe. Thank you! This has been a life saver for me."

Subject 3 was again asked to fill out the HFRS for the last time. She was asked to assess the frequency of her hot flashes in 3 different areas: negative thoughts, negative feelings, and physical discomfort. She described the frequency of her negative thoughts about her hot flashes as a 1.5. She was not able to decide between 1 and 2. She stated that because she still had a few hot flashes at night a 1.5 would better correspond to her frequency of negative thoughts about her hot flashes. She rated the frequency of negative feelings about her flashes as a 1, which corresponds to the statement *I have not had negative feelings about my hot flashes on any day*. She rated the frequency of physical discomfort about her hot flashes as a 1.5. Subject 3 felt that because she still had a few hot flashes during her sleep, a 1.5 would best describe her frequency of physical discomfort.

She was also asked to assess the intensity of her hot flashes in the same 3 areas: negative thoughts, negative feelings, and physical discomfort. She described the intensity of her negative thoughts about her hot flashes as a 1.5. She was not able to decide between 1 and 2. She stated that because she still had a few hot flashes at night a 1.5 would best describe the intensity of negative thoughts about her hot flashes. She rated the intensity of negative feelings about her flashes as a 1, which corresponds to the statement: *There is no intensity and no disruption occurs because I have not had negative feelings about my hot flashes.* She rated the intensity of physical discomfort also as a 1 which corresponds to the statement: *There is no intensity and no disruption occurs* because *I have not had physical discomfort related to my hot flashes*.

Figure 5 presents the scores for Subject 3 on the Hot Flash Rating Scale HFRS. These scores were based on the self-report responses of the participant's perceptions at 3 different sessions; pretreatment, posttreatment and then again after a 2-week follow-up session.

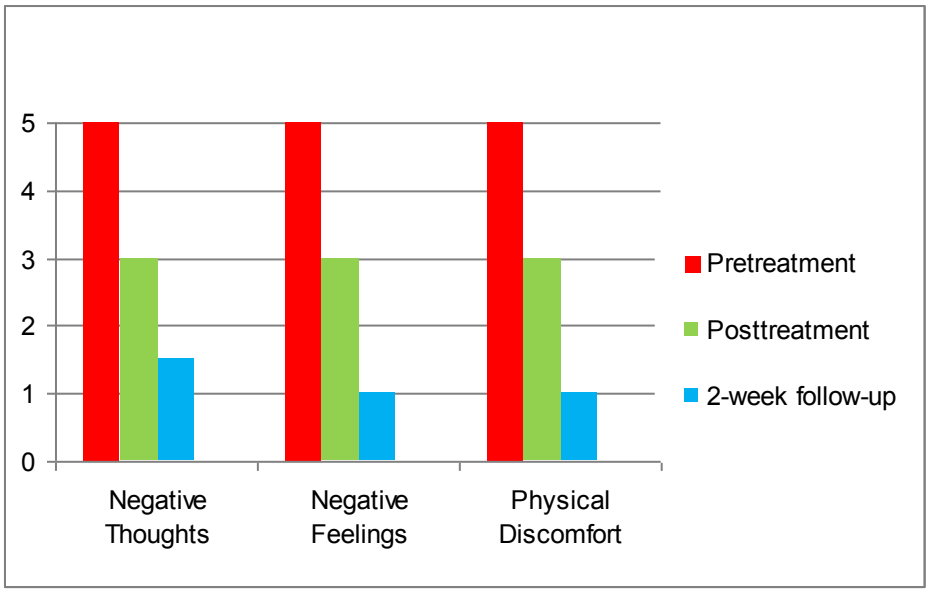

Figure 5. Frequency of Hot Flashes - Subject 3

Figure 6 presents the scores for Subject 3 on the Hot Flash Rating Scale HFRS. These scores were based on the self-report responses of the participant's perceptions at 3 different sessions; pretreatment, posttreatment and then again after a 2-week follow-up session.

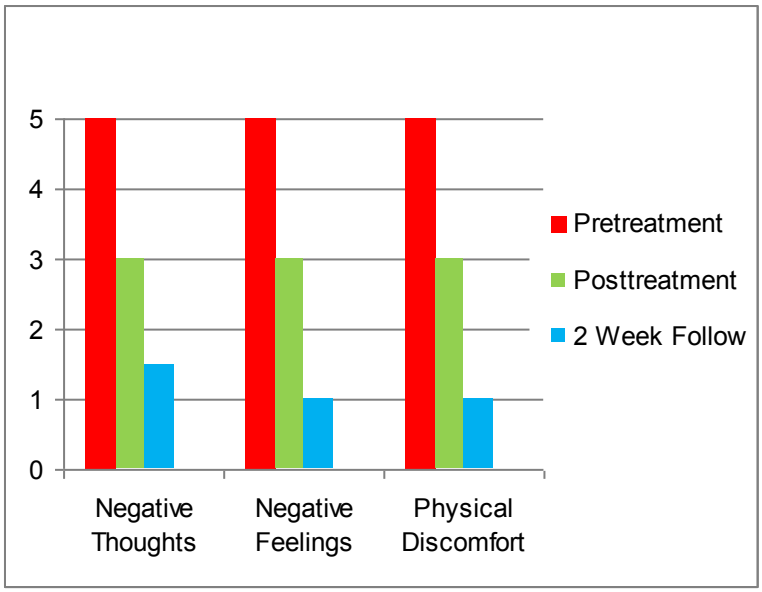

Figure 6. Intensity of Hot Flashes - Subject 3

Stanford Hypnotic Clinical Scale for Adults

The Stanford Hypnotic Clinical Scale for Adults (SHCS: Adults) was given to each subject as part of their last session. Each subject was read the SHCS: Adult verbatim (see Appendix D) which, after being placed into a comfortable trance, takes the person through a series of 5 different exercises to measure her hypnotic responsiveness. These exercises include: moving hands together, having a dream, age regression, posthypnotic suggestion, and amnesia. One point is given for each of the five exercises. The figure below shows that all three subjects scored a three. They were able to move their hands together, have a dream, and regress to a younger age. They were not able to produce a posthypnotic suggestion or experience amnesia.

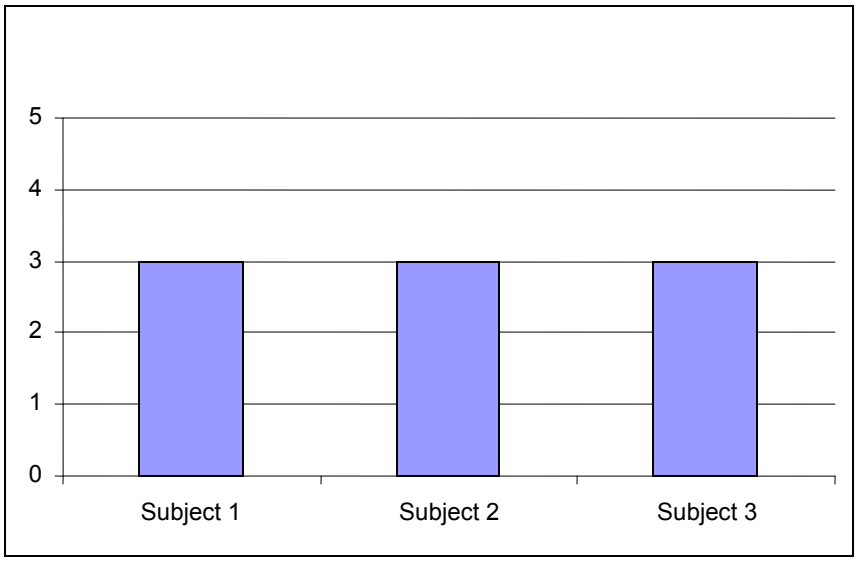

Figure 7. Results of all subjects on the SHCS: Adults

Chapter 5

Discussion

In conducting a qualitative study on the use of hypnosis as an effective treatment for the hot flashes caused by naturally occurring menopause, and to also explore the perception and experiences that women have about menopause, the aim of this study was to answer four questions: 1. What is the experience of women who are menopausal and how does that affect their quality of life? 2. What is the frequency and intensity of hot flashes for women in three different areas: negative thoughts, negative feelings, and physical discomfort? 3. Is hypnosis a viable treatment for controlling or eliminating hot flashes in women who are experiencing naturally occurring menopause, and 4. Does the hypnotic treatment work better for women with a higher hypnotic responsiveness?

Question 1: Menopausal experience and quality of life. For subject 1, the transition into menopause was a slow and long process lasting over ten years. In those ten years she experienced many physical and psychological symptoms including moodiness, irritability and hot flashes. After several years post-menopause all of her symptoms, except for the hot flashes, went away. She describes herself as being "happy about my life" and has a job that she loves and one that she feels she does well. Although she is recently divorced and "bummed out" by the disappointment of an online dating experience, she is optimistic about finding another partner.

Besides the hot flashes Subject 1 does not see menopause as a negative experience nor does she see getting older as anything but having "more candles on a

cake" and another "reason to have a party". This is consistent with Avis & McKinlay (1991) and Hunter (1992), who reported that most women report neutral or positive attitudes about menopause. Although she has experienced depression for several decades, starting initially in high school, Subject 1 does not think that menopause has made her depression worse. This is consistent with findings that suggest that some women may experience a slight heightening of psychological distress during premenopause (Bromberger & Matthews, 1996) and perimenopause (Hunter, 1990); however, there is no notable heightening of psychological distress in menopausal or postmenopausal women (Hunter, 1990b; Matthews et al., 1990; Stewart, Boydell, Derzko, & Marshall, 1992).

Subject 1 reported the same embarrassment and a fear of loss and control that was consistent with Hunter and Liao (1995), who found that one-third of women with hot flashes described embarrassment, and 20% described a general sense of loss of control.

Subject 2 describes her life as being "very stressful" and added that she would have liked to be at a "better place at this point in her life". She had "hoped to be happily married, happily employed and not always worrying about money". At the present time Subject 2 is unemployed, not very optimistic about finding a job as a teacher in the near future, and because of financial reasons needed to move into her mother's home whom she describes as being "very depressed and has been all my life".

Psychologically, Subject 2 is a very anxious and depressed person. She often feels like crying and has a difficult time being alone. During the course of her participation in this study she and a new relationship broke up and as a result she had difficulty sleeping and functioning during the day because of intrusive and ruminating

thoughts. She did not feel as if she could "control her thoughts". This was a particular concern to her because as she described the fact that she "likes to feel as if she is in control at all times".

Subject 2 is experiencing menopause just as she has experienced other developmental and life style changes, with difficulty and stress. This is consistent with studies by Costa, et al. (1987), and Matthews, et al. (1990) who found that the frequency of prior depression indicates that psychological distress is a stable characteristic over the lifetime. If women report psychological distress at menopause, they are likely to have previous episodes of distress, such as anxiety or depression. Woods & Mitchell (1996) also reported continuity of signs of depression over the life course and that women who experienced depressed mood consistently reported more stress and were more likely to have a history of premenstrual symptoms (PMS) than women with an absence of depression. This is consistent with Subject 2's PMS experiences. Also consistent with previous research by Hunter and Liao (1995), Subject 2 feels as if she is losing control and feels a sense of embarrassment when she is having a hot flash.

Subject 3 describes the quality of her life in positive ways: happily married and in a long standing career that she reports to like. She added that she does not think menopause is a "big deal" and although some of her friends are dreading getting older she could "care less". In fact, if it weren't for the hot flashes, Subject 3 says that she "would happily grow old with my hubby". As with Subject 1, this is consistent with Avis & McKinlay (1991) and Hunter (1992), who reported that most women report neutral or positive attitudes about menopause. The only area of menopause that bothers her is the hot flashes. For Subject 3, the hot flashes have been a major concern and affect her in

many ways including causing her to be irritable, anxious, tired, as well as making her feel physically ill.

It would appear that the 3 women in this study experienced the developmental phase of menopause in similar ways as they had experienced other changes in their lives and reflected their present quality of life. Subject 1 and Subject 3 appeared to be, overall, optimistic and dealing with their lives events in a positive way. Subject 2's life is different from either of the other two women and she is less optimistic and less hopeful about the direction in which her life is going.

The 3 women in this study appear to be typical of other women reported in menopausal research; their hot flash symptoms interfere with many aspects of their lives and cause a feeling of loss of control. As those who have been in previous menopausal research discovered, these women did not believe that any depression that they may have had before menopause worsened as they went through menopause. After the hypnosis treatment all 3 women felt as if they had gained control back in their lives; they felt a sense of efficacy over their hot flashes and also felt generally less stressful.

Question 2 and Question 3: Frequency and intensity of hot flashes and hypnosis as a viable treatment.

For all 3 subjects the frequency and intensity of the hot flashes interfered with many aspects of their lives. The responses to the HFRS indicated that the hot flashes impacted their feelings, thoughts, and physical discomfort on a daily basis. After the treatment, all 3 women reported a decrease in their symptoms. After the treatment, Subject 1 reported "It has been quite delightful. I sweat a little at night. It has actually

been quite delicious. I feel wonderful." When she was asked to describe her overall experience she added, "I thought it was going to be like flipping a switch but it feels more gradual. I'm still doing well. Overall the hot flashes have diminished. It went from 4 to 5 a week to 0 in 2 weeks". For Subject 2 the hot flashes also decreased. She reported, "It was good. I would recommend it to someone." Subject 3 also had good results. She reported, "This has been a life saver for me." She reported that her feeling of well being and confidence had generalized to other areas of her life such as work and social interactions.

The hot flashes decreased further after the 2-week follow-up session. This may be as a result of the women gaining a sense of control and a feeling of efficacy over their bodies and their symptoms, as Subject 3 reported, "Overall I am thrilled with my ability to have some control of my body again. I have less anxiety all around. This has helped with hot flashes but more importantly it has decreased episodes of anxiety that I frequently experience while driving and standing in line."

Question 4: Hypnotic Responsiveness

The last question that this study examined is: Does the hypnotic treatment work better for women with a higher hypnotic responsiveness? Hypnotic responsiveness is the ability to go into an altered state comfortably and to do so in the presence of another person. In order to answer this question, it would be helpful to discuss how hypnotic suggestion is experienced in the population in general.

Hypnotic suggestion can be looked at as a trait that follows a normal distribution curve, with the top 10 to 15% being virtuosos and the bottom percentage in vegetative

states, so that 65 to70% of people can be hypnotized to a degree that gives them effective results (P. L. Accaria, personal communication, January 03, 2009). It is expected that most women will benefit from hypnosis because research has shown that most people are at least within the mid-range of hypnotizability (Fromm & Nash, 1992).

The three subjects in this study were able to do three of the five exercises. This is consistent with the previously stated research that found even people with an average or mid-range level of hypnotizability would benefit from hypnosis.

Contribution to the Field

Review of the literature had highlighted the lack of research on hot flash symptoms from naturally occurring menopause. Although research is available on the efficacy of hypnosis and hot flashes for breast cancer survivors (1), the vast majority of women are healthy and do not have many alternative treatments that are safe and nonintrusive. The recent concerns about hormone replacement therapy (HRT) have made women and their doctors unsure about whether or not HRT is safe to use and yet there are few alternatives, leaving women who are suffering with hot flashes uncomfortable and confused. Hot flashes are not only uncomfortable and disrupt women's lives in many ways, but they also cause embarrassment and a sense of loss of control. This study demonstrates the fact that hypnosis can be an effective treatment that not only reduces or eliminates hot flashes but also gives the women a sense of control back in their lives.

The need for an effective alternative to HRT is clear. As previously discussed, menopause is a significant health issue because it will affect every woman in her lifetime and with an unprecedented number of women reaching midlife, and living beyond age 65

there needs to be a safe and effective treatment for these women. The use of hypnosis for hot flashes from naturally occurring menopause gives psychologists and other mental health care providers an excellent opportunity to make a significant impact on their female client's health and well being.

Limitations of the Study

There are several limitations to this study. The most prominent limitation to this study is the small sample size. The sample size did not provide the amount of information needed in order to utilize statistical measures. This limits the usefulness of the pre/post results. The small sample size also affects the external validity of the study and the ability to generalize the findings to a larger population.

Because the subjects were self selected, rather than any randomized means of selection, the internal validity of this study was diminished. The women may or may not have been typical of the general population. They were open to alternate medicine and curious about hypnosis. These 3 women were also highly motivated to decrease or eliminate their hot flashes because of the severity and intensity of their hot flashes.

Research quality is heavily dependent on the individual skills of the researcher; therefore, rigor is more difficult to maintain, assess, and demonstrate.

The women also had a difficult time fitting their responses into the artificial parameters of the likert scale; therefore, the likert scale may not have been the best instrument to use. Subject 1 and 2 had difficulty deciding between several scores and really struggled to have their experiences fit into the artificial rating scores. Subject 3 did

not feel that the parameters accurately assessed her experience so she made up her own scores.

Another limitation of this study was that the protocols used were standardized and therefore were read to the subject instead of being individualized. In hypnosis it is always more effective for the induction and the suggestion to match the behavior and the experience of the subject. This concept is what Erickson considered the "utilization principle" (Erickson & Rossi, 1979) and is recognized as being central to Erickson's work. Erickson often matched the subject's ongoing experience and behavior in order to facilitate acceptance and change. In a clinical or therapeutic setting, Subject 2 could have retreated after her rejection from a relationship and her feelings that "things fell apart" after 3 days posttreatment. This „individuation' may have yielded more robust results but even in the face of this complication and her significant depression and anxiety, she was able to gain benefits from this treatment.

Future Research

This study was the first attempt to investigate whether or not hypnosis would be an effective treatment for the hot flashes from naturally occurring menopause. In future research, ideomotor signaling, the use of physical manifestation of conscious and unconscious phenomena, might be a more realistic way to ascertain a base line and subsequent responses. Ideomotor questioning provides a convenient means of accessing and utilizing sensory, emotional, cognitive and physiological learning without needing to navigate through perceptual limitations. Cheek (1994) suggests ideomotor questioning is a way to communicate at a physiological level, bypassing cognition altogether.

Access to the body-mind gestalt that ideomotor questioning and signaling seems to provide, offers much encouragement for ascertaining and providing a more meaningful and useful baseline and subsequent measurement of posttreatment result.

Conclusion

The first research question for this study, "What is the experience of women who are menopausal and how does that affect their quality of life?" was answered. The interviews and anecdotal information suggested that the women in this study shared similar experiences and perceptions that previous research had found, including a sense of loss of control and that these 3 women experienced menopause in the same way as they had experienced other developmental and life changes.

The second and third research questions for this study, "What is the frequency and intensity of hot flashes for women in three different areas: negative thoughts, negative feelings, and physical discomfort?" and "Is hypnosis a viable treatment for controlling or eliminating hot flashes in women who are experiencing naturally occurring menopause?" were also answered. The results of this study suggested that for all 3 subjects, the frequency and intensity of the hot flashes interfered with many aspects of their lives. After the treatment, all 3 woman reported a decrease in their symptoms and reported that it was a good experience for them, stating, "I feel wonderful", "It has been quite delightful", "It was good", "I would recommend it to someone ", "great improvement", and "this has been a life saver for me." Subject 3 also commented that overall she feels better and less negative. All three subjects felt that they had some control back in their lives.

The last question "Does the hypnotic treatment work better for women with a higher hypnotic responsiveness?" was also answered. The results of this research were consistent with the literature and indicated that even people with an average or mid-range level of hypnotizability would benefit from this treatment.

Given the success of past and present studies utilizing hypnosis for medical issues, the current study suggests that the use of hypnosis for hot flashes with naturally occurring menopause is a promising treatment and warrants further research.

References

About Menopause. The North American Menopause Society. Retrieved February 7, 2005 http://www.menopause.org/aboutmeno/sga.pdf.

Adams, P. C. & Stenn, P. G. (1992). Liver biopsy under hypnosis. *Journal of Clinical Gastroenterology,* 15:122-124.

Albertazzi, P., Bottazzi, M., & Purdie, D. W. (2003). Gabapentin for the management of hot flushes: a case series. *Menopause,* 10:214-217.

Albertazzi, P., Pansini, F., Bonaccorsi, G., Zanotti, L, Forini, E., & Aloysio, D. (1998). The effect of dietary soy supplementation on hot flushes. *Obstetrics and Gynecology,* 91:6-11.

Attias, J., Shemesh, Z., Sohmer, H., Gold, S., Shoham, C. & Faraggi, D. (1993). Comparison between self-hypnosis, masking and attentiveness for alleviation of chronic tinnitus. *Audiology,* 32:205-212.

Avis N, Brambilla D, McKinlay S, Vass K. (1994). A longitudinal analysis of the association between menopause and depression: results from the Massachusetts Women's Health Study. *Annals of Epidemiology.* 4:214-220.

Avis, N. E., & McKinlay, S. M. (1991). A longitudinal analysis of women's attitudes toward the menopause: Results from the Massachusetts Women's Health Study. *Maturitas,* 13, 65-79.

Avis, N. E., & McKinlay, S.M. (1995). The massachusetts women's health study: An epidemiologic investigation of the menopause. *Journal of the American Medical Women's Association,* 50, no. 2: 45-63.

Aydin, S., Ercan, M. & Caskurlu, T. (1997). Acupuncture and hypnotic suggestions in thetreatment of non-organic male sexual dysfunction. *Scandinavian Journal of Urology*,31:271-274.

Aydin, S., Odabas, O., Ercan, M., Kara, H. & Agargun, M. Y. (1996). Efficacy oftestosterone, trazodone and hypnotic suggestion in the treatment of non-organic malesexual dysfunction. *British Journal of Urolology,* 77:256-260.

Ballard, K. D., Kuh, D. J., & Wadsworth, M. E. J. (2001). The role of the menopause in women's experiences of the ‚change of life.' *Sociology of Health and Illness.* 23:397-424.

Barber, J. (2001). Freedom from smoking: integrating hypnotic methods and rapidsmoking to facilitate smoking cessation. *International Journal of Clinical Experimental Hypnosis,* 49:257-266.

Barber, R. J., Templeman, C., Morton, T., &et al. (1999). Randomized placebo-controlled trial of an isoflavone supplement and menopausal symptoms in women. *Climacteric,* 2:85-92.

Bart, P. B. (1972). Depression in middle-aged women. In V. Gornick & B. K. Moran (Eds.), *Women in sexist society* (pp. 163-168). New York: New American Library.

Barton, D., La, V.B, Loprinzi, C., Novotny, P., Wilwerding, M. B., & Sloan, J. (2002). Venlafaxine for the control of hot flashes: results of a longitudinal continuation study. *Oncology Nurses Forum,* 29:33-40.

Barton, D., Loprinzi, C., Quella, S., Sloan, J., Pruthi, S., & Novotny, P. (2002). Depomedroxyprogesterone acetate for hot flashes. *Journal of Pain Symptom Management,* 24:603-607.

Barton, D. L., Loprinzi, C. L., Quella, S. K., Sloan, M. H., Veeder, J. R., Egner, P. F., Stella, P. J., Swan, D. K., Vaught, N. L., & Novotny, P. (1998). Prospective evaluation of vitamin E for hot flashes in breast cancer survivors. *Journal of Clinical Oncology. 16*(2), 495-500.

Beral, V. (2003). Million Women Study Collaborators. Breast cancer and hormonal replacement therapy in the million women study. *Lancet*, *362*(9382),419-27.

Berendsen, H. H. (2000). The role of serotonin in hot flushes. *Maturitas,* 36:155-64.

Bergmans, M. G., Merkus, J. M., Corbey, R. S., Schellekens, L. A., & Ubachs J. M. (1987). Effect of Bellergal Retard on climacteric complaints: a double-blind, placebo- controlled study. *Maturitas,* 9:227-234.

Beyene, Y. (1986). Cultural significance and physiological manifestations ofthe menopause. A biocultural analysis. *Culture Medicine and Psychiatr.* 10:47-71.

Blankfield, R. P. (1991). Suggestion, relaxation, and hypnosis as adjuncts in the care of surgery patients: a review of the literature. *American Journal of Clinical Hypnosis,* 33:172-186.

Brett, K. M., & Madans, J. H. (1997). Differences in use of postmenopausal hormone replacement therapy by black and white women. *Menopause,* 4: 66-70.

Bromberger, J. T., & Matthews, K. A. (1996). A longitudinal study of the effects of pessimism, trait anxiety, and life stress on depressive symptoms in middle-aged women. *Psychology and Aging,* 11, 207-213.

Bryant, R. A., Moulds, M. L., Guthrie, R. M. & Nixon, R. D. (2005). The additive benefit of hypnosis and cognitive-behavioral therapy in treating acute stress disorder. *Journal of Consulting & Clinical Psycholog,* 73(2):334-340.

Busch, C. M., Zonderman, A. B., & Costa, P. T. (1994). Menopausal transition and psychological distress in a nationally representative sample: Is menopause associated with psychological distress. *Journal of Aging and Health,* 6, 209-228.

Bush, T., L., Whiteman, M., & Flaws, J. (2001). Hormone replacement therapy: a qualitative review. *Obstetrics Gynecolog,* 98:498-508.

Cadranel, J. F., Benhamou, Y., & Zylberberg, P. (1994). Hypnotic relaxation: a new sedative tool for colonoscopy? *Journal of Clinical Gastroenterology,* 18:127-129.

Calvert, E. L., Houghton, L. A., Cooper, P., Morris, J., & Whorwell, P. J. (2002). Long-term improvement in functional dyspepsia using hypnotherapy. *Gastroenterology,* 123:1778-1785.

Carolan, M. (2000). Menopause: Irish women's voices. *Journal of Obstetric, Gynecologic, and Neonatal Nursing.* 4:397-404.

Cate, M. A., & Corbin, D. E. (1992). Age differences in knowledge and attitudes toward menopause. *Journal of Women & Aging,* 4, 33-46.

Cheek, D. B. (1962). Importance of recognizing that surgical patients behave as though hypnotized. *American Journal of Clinical Hypnosis,* 4:227-236.

Cheek, D. B. (1962). Some applications of hypnosis and ideomotor questioning methodsfor analysis and therapy in medicine. *American Journal of Clinical Hypnosis, 5*: 92-104.

Cheek, D. B. (1994). *Hypnosis: The application of ideomotor techniques*. Needham Heights, MA: Allyn & Bacon. Chenoy, R., Hussain, S., Tayob, Y., & et al. (1994). Effect of oral gamolenic acid from evening primrose oil on menopausal flushing. *BMJ,* 308:501-3.

Chiriboga, D. A. (1989). Mental health at the midpoint: Crisis, challenge, or relief? In S. Hunter & M. Sundel (Eds.), Midlife myths: Issues, findings, and practice implications (pp. 116-144). Newbury Park, CA: Sage.

Choi, W., M. (1995). The menopausal transition: change, loss and adaptation. *Holistic Nursing Practioner.* 9:53-62.

Clausen, J. (1986). The Life Course: A Sociological Perspective, Englewood Cliffs, NJ: Prentice-Hall.

Colditz, G. A. (1998). Relationship between estrogen levels, use of hormone replacement therapy, and breast cancer. *Journal of the National Cancer Institute,* 90: 814-29.

Cole, E., & Rothblum, E. D. (1990). Lesbian sex at menopause: As good or better than ever. In B. Sang, J. Warshow, & A. Smith (Eds.), *Lesbians at midlife:* The creative transition (pp. 184-193). San Francisco: Spinsters.

Collaborative Group on Hormonal Factors in Breast Cancer. (1997). Breast cancer and hormone replacement therapy: collaborative reanalysis of data from 51 epidemiological studies of 52,705 women with breast cancer and 198,411 women without breast cancer. *Lancet,* 350:1047-59.

Costa, P. T., Jr., Zonderman, A. B., McCrae, R. R., Cornoni-Huntley, J., Locke, B. Z., & Barnano, H. E. (1987). Longitudinal analysis of psychological well-being in a national sample: Stability of mean levels. *Journal if Gerontology,* 42, 50-55.

Crasilneck, H. B. (1990). Hypnotic techniques for smoking control and psychogenic impotence. *American Journal of Clinical Hypnosis,* 32:147-153.

Daly, J. (1995). Caught in the web: The social construction of menopause as disease. *Journal of Reproductive and Infant Psychology,* 13, 115-126.

Deeks, A., A. (2003). Psychological aspects of menopause management. *Best Practice and Research Clinical Endocrinology and Metabolism.* 17(1):17-31.

Dennerstein, L., Dudley, E., Guthrie, J., & Barrett-Connor, E. (2000). Life satisfaction, symptom, and the menopausal transition [On-line]. Available: http://womenshealth.medscape.com.

d'Eslon, C. (1965). Observations on the two reports of the commissioners named by theking to investigate animal magnetism. In R. E. Shor & M. T. Orne (eds.), *The nature of hypnosis: Selected basic readings* (pp. 8-20). New York: Holt, Rinehart & Winston.

Disbrow, E. A., Bennett, H. L., & Owings, J. T. (1993). Effect of preoperative suggestion on postoperative gastrointestinal motility. *The Western Journal of Medicine,* 158:488- 492.

Duker, E. M., Kopanski, L., Jarry, H., & Wuttke, W. (1991). Effects of extracts from Cimicifuga racemosa on gonadotropin release in menopausal women and ovariectomized rats. *Planta Medicinal,* 57:420-4.

Elkins, G., Marcus J., Palamara L., & Stearns V. (2004). Can hypnosis reduce hot flashes in breast cancer survivors? A literature review. *American Journal of Clinical Hypnosis*, *47*(1), 29-42.

Elman, D. Hypnotherapy. Glendale, Calif: Westwood Publishing Co; 1964.

Effexor [package insert]. Philadelphia, PA: Wyeth Pharmaceuticals Inc; 2003.

Erickson, M. H. (1961). Historical note on the hand levitation and other ideomotor techniques. *American Journal of Clinical Hypnosis, 3*: 196

Erickson, M. & Rossi, E. (1979). Hypnotherapy. New York: Irvington.

Erickson, J. C. III. (1994). The use of hypnosis in anesthesia: a master class commentary. *International Journal of Clinical Experimental Hypnosis,* 42:8-12.

Evans, G., J. (2000). 21st century: ageing and medicine. *Journal of International Medicine.* 247(2):159-167.

Evans, M. L., Pritts, E., Vittinghoff, E., McClish, K., Morgan, K. S., & Jaffe, R.B. (2005). Management of postmenopausal hot flushes with venlafaxine hydrochloride: a randomized, controlled trial. *Obstetrics & Gynecology,* 105:161-6.

Ewin, D. M. (1992). Hypnotherapy for warts (verruca vulgaris): 41 consecutive cases with 33 cures. *American Journal of Clinical Hypnosis,* 35:1-10.

Ewin, D. M.& Eimer, B.N. (2006). *Ideomotor signals for rapid hypnoanalysis: A how-to manual*. Springfield, IL: Charles C. Thomas Publishers.

Faymonville, M. E., Mambourg, P. H., & Joris, J. (1997). Psychological approaches during conscious sedation: hypnosis versus stress reducing strategies: a prospective randomized study. *Pain,* 73:361-367.

Faymonville, M. E., Meurisse, M. & Fissette, J. (1999). Hypnosedation: a valuable alternative to traditional anaesthetic techniques. ACTA Chirurgica Belgica, 99:141- 146.

Fromm, E. (1987). Significant developments in clinical hypnosis during the past 25 years. *International Journal Clinical of Experimental Hypnosis.* 35:215-230.

Fromm, E. & Nash M. (1992). Contemporary hypnotic research. New York; Guilford Press.

Galovski, T. E. & Blanchard, E. B. (1998). The treatment of irritable bowel syndrome with hypnotherapy. *Applied Psychophysiology Biofeedback,* 23:219-232.

Galovski, T. E., Blanchard, E. B. (2002). Hypnotherapy and refractory irritable bowelsyndrome: a single case study. *American Journal of Clinical Hypnosis*, *45*(1), 31-37.

Ginandes, C. (2002). Extended, strategic therapy for recalcitrant mind/body healing: Anintegrative model. *American Journal of Clinical Hypnosis, 45:2.*

Ginandes, C., Brooks, P., Sando, W., Jones, C., & Aker, J. (2003). Can medical hypnosis accelerate post-surgical wound healing? Results of a clinical trial. *American Journal of Clinical Hypnosis*, *45*(4), 333-352.

Ginandes, C. & Rosenthal, D. I. (1999). Using hypnosis to accelerate the healing of bone fractures: a randomized controlled pilot study. *Alternative Therapies in Health and Medicine,* 5:67-75.

Goldberg, R. M., Loprinzi, C. L., O'Fallon, J. R., & et al. (1996). Transdermal clonidine for ameliorating tamoxifen-induced hot flashes. *Journal of Clinical Oncology,* 12:155-158.

Goldstein, R. H. (2005). Successful repeated hypnotic treatment of warts in the same Individual: A case report. *American Journal of Clinical Hypnosis*, *47*(4), 259-264.

Gonsalkorale, W. M., Houghton, L. A., & Whorwell, P. J. (2002). Hypnotherapy in irritable bowel syndrome: a large-scale audit of a clinical service with examination of factors influencing responsiveness. *American Journal of Gastroenterology,* 97:954- 961.

Green & Lynn (2000). Hypnosis and suggestion-based approaches to smoking cessation: an examination of the evidence. *International Journal of Clinical Experimental Hypnosis,* 48:195-224.

Guttuso, Jr., T., Kurlan, R., McDermott, M. P., & Kieburtz, K. (2003). Gabapentin's effects on hot flashes in postmenopausal women: a randomized controlled trial. *Obstetrics and Gynecology,* 101:337-345.

Haanen, H. C., Hoenderdos, H. T. & van, Romunde, L. K. (1991). Controlled trial of hypnotherapy in the treatment of refractory fibromyalgia. *Journal of Rheumatology,* 18:72-75.

Hallstrom, T., & Samuelsson, S. (1985). Mental health in the climacteric: The longitudinal study of women in Gothenburg. Acta Obsterica Gynecologia Scandinavian Supplement, 130, 13-18.

Hammond, M. G., Hatley, L., & Talbert L. M. (1984). A double blind study to evaluate the effect of methyldopa on menopausal vasomotor flushes. *Journal of Clinical Endocrinology Metabolism,* 58:1158-1160.

Hays, J., Ockene, J. K., Brunner, R. L., & et al, (2003). Effects of estrogen plus progestin on health-related quality of life. *New England Journal of Medicine,* 348.

Hewner, S., J. (2001). Postmenopausal function in context: biocultural observations on Amish, neighboring non-Amish, and Ifugao household health. *American Journal of Human Biology.* 13(4):521-530.

Hlatky, M. A., Boothroyd, D., Vittinghoff, E., & et al. (2002). Heart and Estrogen/Progestin Replacement Study (HERS) Research Group: Quality-of-life and depressive symptoms in postmenopausal women after receiving hormone

therapy: results from the Heart and Estrogen/Progestin Replacement Study (HERS) trial . *Journal of the American Medical Association,* 287(5), 591-7.

Holte, A. (1992). Influences of natural menopause on health complaints: A prospective study of healthy Norwegian women. *Maturitas,* 14, 127-141.

Holte, A., & Mikklsen, A. (1991). Psychosocial determinants of climacteric complains. *Maturitas,* 13, 205-215.

Houghton, L. A., Heyman, D. J., & Whorwell, P. J. (1996). Symptomatology, quality of life and economic features of irritable bowel syndrome: the effect of hypnotherapy. *Aliment Pharmacological Therapy*, 10:91-95.

Hughes, J. A., Sanders, L. D., Dunne, J. A., Tarpey, J. & Vickers, M. D. (1994). Reducing smoking: the effect of suggestion during general anaesthesia on postoperative smoking habits. *Anaesthesia,* 49:126-128.

Hulley S., Grady D., Bush T., et al. Randomized trial of estrogen plus progestin for secondary prevention of coronary heart disease in postmenopausal women. Heart and Estrogen/ progestin Replacement Study (HERS) Research Group. *Journal of the American Medical Association,* 1998;280:605-613.

Hunter, M. (1990). Psychology and somatic experience of the menopause: A prospective study. *Psychosomatic Medicin*e, 52, 357-367.

Hunter, M. (1992). The South East England longitudinal study of climacteric and post-menopause. *Maturitas,* 14, 117-126.

Hunter, M. & Liao, K. A. (1995). A psychological analysis of menopausal hot flashes. *British Journal of Clinical Psychology*, 34, 589-599.

Hunter, S., Sundel S. & Sundel, M. (2002). Women at Midlife: Life experiences and implications for the helping professions. National Association of Social Workers, Washington, DC.

Jacknow, D. S., Tschann, J. M., Link, M. P. & Boyce, W. T. (1994). Hypnosis in the prevention of chemotherapy-related nausea and vomiting in children: a prospective study. *Journal of Developmental Behavior Pediatrics,* 15:258-264.

Jacobson, J. S., Troxel, A. B., Evans, J., & et al. (2001). Randomized trial of black cohosh for the treatment of hot flashes among women with a history of breast cancer. *Journal of Clinical Oncology,* 19:2739-45.

Jenkins, M. W. & Pritchard, M. H. (1993). Hypnosis: practical applications and theoretical considerations in normal labour. *British Journal of Obstetrics and Gynaecology,* 100:221-226.

Johnson, D. L. & Karkut, R. T. (1994). Performance by gender in a stop-smoking program combining hypnosis and aversion. *Psychological Report,* 75:851-857.

Johnson, S. (1998). Menopause and hormone replacement therapy. *Medical Clinic of* North America, 82:297-320.

Johnson, S. (1999). Menopause and hormone replacement therapy. *Medical Clinic of* North America, 82:1489-1502.

Karas, R. H., & Clarkson, T. B. (2003). Considerations in interpreting the cardiovascular effects of hormone replacement therapy observed in the WHI: timing is everything. *Menopausal Medicine,* 10: 4: 8-12.

Kass-Annese, B. (2000). Alternative therapies for menopause. *Clinical Obstetrics Gynecology,* 43:162-183.

Kaufert, P. A., Gilbert, P., & Tate, R. (1992). The Manitoba Project: A re-examination of the link between menopause and depression. *Maturitas,* 14, 143-155.

Knight, D. C., Howes, J. B., Eden, J. A., & Lowes, L. G. (2001). Effects on menopausal symptoms and acceptability of isoflavone-containing soy powder dietary supplementation. *Climacteric,* 4:13-18.

Kronenberg, F. (1994). Hot flashes: Phenomenology, quality of life, and search for treatment options. *Experimental Gerontology*, *29* (3/4), 319-336.

Kronenberg, F., & Fugh-Berman, A. (2002). Complementary and alternative medicine for menopausal symptoms: a review of randomized, controlled trials. *Annals of Internal Medicine,* 137(10):805-13.

Kurtz, R. M. & Strube, M. J. (1996). Multiple susceptibility testing: Is it helpful? *American Journal of Clinical Hypnosis,* 38(3), 172-184.

Kuyk, J., Spinhoven, P.& van Dyck, R. (1999). Hypnotic recall: A positive criterion in the differential diagnosis between epileptic and pseudoepileptic seizures. *Epilepsia* 40(4):485-491.

LaBaw, W. (1992). The use of hypnosis with hemophilia. *Psychiatric Medicine,* 10, 89- 98.

Lang, E. V., Benotsch, E. G., & Fick, L. J. (2000). Adjunctive non-pharmacological analgesia for invasive medical procedures: a randomised trial. *Lancet,* 355:1486-1490.

Lang, E. V., Joyce, J. S., Spiegel, D., Hamilton, D., & Lee, K. K. (1996). Self-hypnotic relaxation during interventional radiological procedures: effects on pain

perception and intravenous drug use. *International Journal of Clinical Experimental Hypnosis,* 44:106-119.

Lankton, S. (2007). Psychotherapeutic intervention for numerous and large viral warts and adjunctive hypnosis: A case study. *American Journal of Clinical Hypnosis,* 49(3): 211-218.

Laufer, L. R., Erlik, Y., Meldrum, D. R., & Judd, H. L. (1982). Effect of clonidine on hot flushes in postmenopausal women. *Obstetrics & Gynecology,* 60:583-589.

Lebherz, T. B., & French, L. (1969). Nonhormonal treatment of the menopause syndrome. *Obstetrics & Gynecology,* 33:795-799.

Lehmann-Willenbrock, E., & Riedel, H. H. (1988). Clinical and endocrinologic studies of the treatment of ovarian insufficiency manifestations following hysterectomy with intact adnexa. *Zentralbl Gynakol,* 110:611-8.

Liao, K. L. M., & Hunter, M. S. (1995). Knowledge and beliefs about menopause in a general population sample of mid-aged women. *Journal of Reproductive and Infant Psychology,* 13, 101-114.

Liske, E. (1998). Therapeutic efficacy and safety of Cimicifuga racemosa for gynecologic disorders. *Advances in Therapy,* 15:45-53.

Lock, M. (1991). Hot flushes in cultural context: the Japanese case as a cautionary" tale for the West. In: Schonbaum E, ed. *Progress in Basic Clinical Pharmacology,* Vol 6. The Climacteric Hot Flush. Basel, Switzerland: Karger; 1991:40-60.

Loprinzi, L., Barton, D. L., Sloan, J. A., & et al. (2002). Pilot evaluation of gabapentin for treating hot flashes. *Mayo Clinic Proceedings,* 77:1159-1163.

Loprinzi, L., Kugler, J. W., Sloan, J. A., & et al (2000). Venlafaxine in management of hot flashes in survivors of breast cancer: a randomized controlled trial. *Lancet*,356:2059-2063.

Loprinzi, L., Pisansky, T. M., Fonseca, R., & et al (1998). Pilot evaluation of venlafaxine hydrochloride for the therapy of hot flashes in cancer survivors. *Journal* of Clinical Oncology, 16:2377-2381.

Loprinzi, L., Sloan, J. A., Perez, E. A., & et al. (2002). Phase III evaluation of fluoxetine for treatment of hot flashes. *Journal of Clinical Oncology,* 20:1578-1583.

Lu, D. P., Lu, G. P., & Kleinman, L. (2001). Acupuncture and clinical hypnosis for facial and head and neck pain: a single crossover comparison. *American Journal of Clinical Hypnosis,* 44:141-148.

Lynch, D. (1998). Empowering the patient: Hypnosis in the management of cancer. surgical disease and chronic pain. *American Journal of Clinical Hypnosis, 2*(2).

Martin, A. A., Schauble, P. G., Rai, S. H. & Curry, R. W. Jr. (2001). The effects of hypnosis on the labor processes and birth outcomes of pregnant adolescents. *Journal of Family Practice,* 50:441-443.

Matthews, K. A., Kuller, L H., Wing, R. R., & Meilahn, E. N.(1994). Biobehavioral aspects of menopause: Lessons from the healthy women study. *Experimental Gerontology,* 29, 337-342.

Matthews. K. A., Wing, R. Kuller, L.Meilahn, E. Kelsey, S., Costello, E., et al. (1990). Influences of natural menopause on psychological characteristics and symptoms of middle-aged healthy women. *Journal of Consulting and Clinical Psychology,* 58, 345-351.

McKinlay, S. M., Brambilla, D. J., & Posner, J.G. (1992). The normal menopause transition, *Maturitas,* 14, 105-115.

McKinlay, J. B., & McKinlay, S. M. (1987). Depression in middle-aged women: Social circumstances versus estrogen deficiency. In R. Walsh (Ed.), *The psychology of women* (pp. 157-161), New Haven, CT: Yale University Press.

Melis, P. M., Rooimans, W., Spierings, E. L. & Hoogduin, C. A. (1991). Treatment of chronic tension-type headache with hypnotherapy: a single-blind time controlled study. *Headache,* 31:686-689.

Messina, M. J. (2002). Soy foods and soybean isoflavones and menopausal health.*Nutrition in Clinical Care,* 5:272-282.

Minkin, M. & Wright, C. (2004). *A Woman's Guide to Menopause & Perimenopause.* CT: Yale University Press.

Montgomery, G. H., David, D., Winkel, G., Silverstein, J. H. & Bovbjerg, D. H. (2002). The effectiveness of adjunctive hypnosis with surgical patients: a meta-analysis. Montgomery, G. H., DuHamel, K. N., & Redd, W. H. (2000). A meta-analysis of hypnotically induced analgesia: how effective is hypnosis? *International Journal of Clinical Experimental Hypnosis,* 48:138-153.

Morgan, A.H. & Hilgard, J. R. (1978-1979). The stanford hypnotic clinical scale for adults. *American Journal of Clinical Hypnosis.* 21:134-147.

Morganroth Gullette, M. (2003). What to do when being aged by culture: brief annals of the twentieth-century hormone wars. *Tikkun.* 18, no.4 (July/August 2003):64.

Nagamani, M., Kelver, M. E., & Smith, E. R. (1987).Treatment of menopausal hot flashes with transdermal administration of clonidine. *American Journal of Obstetrics & Gynecology,* 156:561-565.

National Cancer Institute. (2003). Retrieved February 7, 2004. (http://www.cancer.gov/newscenter/estrogenplus).

Nesheim, B. I., & Saetre, T. (1981). Reduction of menopausal hot flashes by methyldopa: a double-blind crossover trial. *European Journal of Clinical Pharmacology,* 20:413- 416.

North American Menopause Society. (2000). *Menopause Core Curriculum Study Guide.* Cleveland: North American Menopause Society.

Northrup, C. (2001). *The wisdom of menopause*. Bantam Book: New York.

Our Bodies, Ourselves: Menopause. The Boston Women's Health Book Collective (2006). Touchtone, NY.

Palacios, S., Tobar, A. C., & Menendez, C. (2002). Sexuality in the climacteric years. *Maturitas.* 43:S69-S77.

Palsson, O. S., Turner, M. J., Johnson, D. A., Burnett, C. K., & Whitehead, W. E. (2002). Hypnosis treatment for severe irritable bowel syndrome: investigation of mechanism and effects on symptoms. *Digestive Diseases and Science,* 47:2605-2614.

Pandya, K. J., Raubertas, R. F., Flynn, P. J., Hynes, H. E., Rosenbluth, R. J., Kirshner, J J., Pierce, H. I., Dagalin, V., & Morrow, G. R. (2000). Oral clonodine in post menopause patients with breast cancer experiencing tamoxifen-induced hot

flashes: A University of Rochester Cancer Center Community Clinical Oncology Program study. *Annuals of Internal Medicine*, May 16, 132(10), 788-793.

Pansini, F., Albertazzi, P., Bonaccorsi, G., Calisesi, M., Campobasso, C., Zanotti, L., et al. (1994). The menopausal transition: A dynamic approach to the pathogenesis of neurovegetative complaints. *European Journal of Clinical Obstetrics and Gynecological Reproductive Biology,* 57, 103-109.

Patterson, D. R., & Jensen, M. P. (2003). Hypnosis and clinical pain. *Psychological Bulletin,* 129:495-521.

Perlmutter, E., & Bart, P. E. (1982). Changing views of "the change": A critical review and suggestions for an attributional approach. In A.Voda, M. Dinnerstein, & S. R. O'Donnell (Eds.), *Changing perspectives on menopause* (pp. 187-199). Austin: University of Texas Press.

Perry, C., Nadon, R., & Bufton, J. (1992). The measurement of hypnotic ability. In E. Fromm & M. Nash (Eds.), *Contemporary hypnosis research* (pp. 227-266). New York: Guilford Press.

Price, D. D & Barber, J. (1987). An analysis of factors that contribute to the efficacy of hypnotic analgesia. *Journal of Abnormal Psychology.* 96(1):46-51.

Prior, A., Colgan, S. M., & Whorwell, P. J. (1990). Changes in rectal sensitivity after hypnotherapy in patients with irritable bowel syndrome. *Gut,* 31:896-898.

Quella, S. K., Lopronzi, C. L., Barton, J. A., Knost, J. A., Sloan, B. I., laVasseur, D. W., Krupp, K. R. Miller, K. D., & Novotny, P. J. (2000). Evaluation of soy phytoesteogens for the treatment of hot flashes in breast cancer survivors: A north

central cancer treatment group trial. *Journal of Clinical Oncology*, *18*(5), 1068-1074.

Rausch, V. (1980). Cholecystectomy with self-hypnosis. *American Journal of Clinical Hypnosis,* 22:124-129.

Rossi, A.(1992, August). *Closing the gap: Bio-medical vs. social-behavioral factors in the experience of women and research in the menopausal transition.* Paper presented at the meeting of the American Psychological Association, Washington, DC.

Rucklidge, J. J., Saunders, D. (1999). Psychological hypnosis in a case of long-standing idiopathic itch. *Psychosomatic Medicine.* 61(3):355-358.

Scambia, G., Mango, D., Signorile, P. G., & et al. (2000). Clinical effects of a standardized soy extract in postmenopausal women: a pilot study. *Menopause,* 7:105- 111.

Schairer, C., Lubin, J., Troisi, R., & et al (2000). Menopausal estrogen and estrogen-progestin replacement therapy and breast cancer risk. *Journal of the American Medical Association,* 283: 485-91.

Schlossberg, N. K. (1986). Mid-life. In C. Tavris (Ed.), Every woman's emotional well-being. (pp. 238-257). Garden City, NY: Doubleday.

Shenefelt, P. D. (2000). Hypnosis in dermatology. *Archives Dermatology,* 136:393-399.

Short, M. (2003). Menopause, mood, and management. *Climacteric.* 6(2):33-36.

Shumaker, S. A., Legault, C., Rapp, S. R., & et al for the WHIMS Investigators. (2003). Estrogen plus progestin and the incidence of dementia and mild cognitive impairment in postmenopausal women: the Women's Health Initiative Memory

Study: a randomized controlled trial. *Journal of the American Medical Association,* 289:2651- 62.

Simon, E. P., & Lewis, D. M. (2000). Medical hypnosis for temporomandibular disorders: treatment efficacy and medical utilization outcome. *Oral Surgery, Oral Medicine, Oral Pathology,* 2000;90:54-63.

Ski Hunter, Sandra S. Sundel, and Martin Sundel. (2002). *Women at Midlife: Life Experience and Implications for the Helping Professions.* Washington, DC: NASW Press.

Spanier, J. A., Howde, C. W., & Jones, M. P. (2003). A systematic review of alternative therapies in the irritable bowel syndrome. *Archives of Internal Medicine,* 163:265-274.

Spanos, N. P., Williams, V., & Gwynn, M. I. (1990). Effects of hypnotic, placebo, and salicylic acid treatments on wart regression. *Psychosomatic Medicine,* 52:109-114.

Speroff, L., Glass, R., H., & Kase, N., G. (1999). *Clinical Gynecologic Endocrinology and Infertility.* 6th ed. Baltimore, MD: Lippincott, Williams & Wilkins; 643-724.

Spiegel, H., Greenleaf, M., & Spiegel D. *Hypnosis.* In: Sadock BJ, Sadock VA, eds. Kaplan & Sadock's Comprehensive Textbook of Psychiatry. Vol 2. 7th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2000;2138-2146.

Spinhoven, P., Linssen, A. C., Van Dyck, R. & Zitman, F. G. (1992). Autogenic training and self-hypnosis in the control of tension headache. *General Hospital Psychiatry,* 14:408-415.

Stearns, V., Beebe, K. L., Iyengar, M., & Dube, E. (2003). Paroxetine controlled release in the treatment of menopausal hot flashes: a randomized controlled trial. *Journal of the American Medical Association,* 289:2827-2834.

Stearns, V., Isaacs, C., Rowland, J., & et al (2000). A pilot trial assessing the efficacy of paroxetine hydrochloride (Paxil) in controlling hot flashes in breast cancer survivors. *Annals of Oncology,* 11:17-22.

Stewart, A. C., & Thomas, S. E. (1995). Hypnotherapy as a treatment for atopic dermatitis in adults and children. *British Journal of Dermatology,* 132:778-783.

Stewart, D. E., Boydell, K., Derzko, C., & Marshall, V. (1992). Psychological distress during the menopausal years in women attending a menopause clinic. *International Journal of Psychiatry in Medicine,* 22, 213-220.

Stewart, J. H. (2005). Hypnosis in contemporary medicine. *Mayo Clinic Proceedings,* 80(4):511-524.

Stimpson, C. R. (1982). The fallacy of bodily reductioning. In A. Voda, M. Dinnerstein, & S. O'Donnell (Eds.), *Changing perspective on menopause* (pp. 265-272). Austin: University of Texas Press.

Syrjala, K. L., Cummings, C. & Donaldson, G. W. (1992). Hypnosis or cognitive behavioral training for the reduction of pain and nausea during cancer treatment: a controlled clinical trial. *Pain,* 48:137-146.

Taylor, M. (2002). Alternative medicine and the perimenopause: an evidence-based review. *Obstetrics and Gynecology Clinics,* 29 (3): 1-17.

ter Kuile, M. M., Spinhoven, P., Linssen, A. C., Zitman, F. G., Van Dyck, R. & Rooijmans, H. G. (1994). Autogenic training and cognitive self-hypnosis for the

treatment of recurrent headaches in three different subject groups. *Pain,* 58:331-340.

Unger, R, & Crawford, M. *Women and Gender, A Feminist Psychology.* New York: McGraw-Hill, 1996.

Utian, W. (1989). Biosynthesis and physiologic effects of estrogen and pathophysiologica effects of estrogen defiency: A review. *American Journal of Obsterics and Gynecology,* 161, 1828-1831.

Utian, W. H., & Boggs, P. P. (1999). The North American Menopause Society 1998 Menopause Survey. Part I: postmenopausal women's perceptions about menopause and midlife. *Menopause*, 6:122-128.

Vestergaard, P., Herman, A. P., & Gram, J. (1997). Improving compliance with hormonal replacement therapy in primary osteoporosis prevention. *Maturitas,* 28: 137 - 45.

Vidakovic-Vukic, M. (1999). Hypnotherapy in the treatment of irritable bowel syndrome: methods and results in Amsterdam. Scandinavian *Journal of Gastroenterol Supplement,* 230:49-51.

Viswesvaran, C. & Schmidt, F. L. (1992). A meta-analytic comparison of the effectiveness of smoking cessation methods. *Journal of Applied Psychology,* 77:554- 561.

Walco, G. A, Conte, P. M., Labay, L. E., Engel, R.& Zeltzer, L. K. (2005). Procedural distress in children with cancer: self-report, behavioral observations, and physiological parameters. *The Clinical Journal of Pain,* 21(6), 484-490.

Washburn, S., Burke, G. L., Morgan, T., & Anthony, M. (1999). Effect of soy protein supplementation on serum lipoproteins, blood pressure, and menopausal symptoms in perimenopausal women. *Menopause,* 6:7-13.

WebMD Health. (2004). Retrieved February 7, 2004. (http://my.webmd.com/content/article/51/40613).

Weinstein, E. J. & Au, P.K. (1991). Use of hypnosis before and during angioplasty. *American Journal of Clinical Hypnosis,* 34:29-37.

Weitzenhoffer, A. M. (1980). Hypnotic susceptibility revisited. *American Journal of Clinical Hypnosis,* 22:130-46.

Weitzner, M. A., Moncello, J., Jacobsen, P. B., & Minton, S. (2002). A pilot trial of paroxetine for the treatment of hot flashes and associated symptoms in women with breast cancer. *Journal of Pain Symptom Management,* 23:337-345.

Wiklund, I. K., Mattsson, L. A., Lindgren, R., & Limoni, C. (1999). Effects of a standardized ginseng extract on quality of life and physiological parameters in symptomatic postmenopausal women: a double-blind, placebo-controlled trial. Swedish Alternative Medicine Group. *International Journal of Clinical Pharmacology Research,* 19:89-99.

Wilk, C. A., & Kirk, M. A. (1995). Menopause: A developmental stage, not a deficiency disease, Psychotherapy, 32, 233-241.

Woods, N., F., & Mitchell, E., S. (1996). Patterns of depressed mood for midlife women: Observations from the Seattle midlife women's health study. *Research in Nursing and Health.* 19:111-123.

Woods, N., F., & Mitchell, E., S. (1997). Pathways to depressed mood for midlife women: observations from the Seattle midlife women's health study. *Research in Nursing and Health.* 20:119-129.

Woods, N., F., & Mitchell, E., S. (1999). Anticipating menopause: Observations from the Seattle midlife women's study. *Menopause: Journal of the American Menopause Society,* 6, 167-173.

Woods, N., F., & Mitchell, E., S. (2005). Symptoms during the perimenopause: prevalence, severity, trajectory, and significance in women's lives. *The American Journal of Medicine.* 118(12B):145-245.

Writing Group for the Women's Health Initiative, (2002). Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results from the women's health initiative. *Journal of the American Medical Association, 288*, 3, 321- 333.

Zandi, P. P., Carlson, M. C., Plassman, B., L., & et al. (2002). Hormone replacement therapy and incidence of Alzheimer disease in older women: The Cache County Study. *Journal of the American Medical Association,* 288:2123-29.

Zeltzer, L. K., Dolgin, M. J., LeBaron, S. & LeBaron, C. (1991). A randomized, controlled study of behavioral intervention for chemotherapy distress in children with cancer. *Pediatrics,* 88:34-42.

Zimmerman, J. (1998). Hypnotic technique for sedation of patients during upper gastrointestinal endoscopy. *American Journal of Clinical Hypnosis,* 40:284-287.

Appendix A

Hot Flash Rating Scale

Scale C

Please rate the frequency of negative thoughts about your hot flashes during the past week using the scale below:

1	2	3	4	5
I have not had negative thoughts about my hot flashes on any day.	I have negative thoughts about my hot flashes only on a few days.	I have had negative thoughts about my hot flashes on several days but not every day.	I have had negative thoughts about my hot flashes a few times each day.	I have had negative thoughts about my hot flashes many times each day.

Scale E

Please rate the frequency of negative feelings (i.e., being in a bad mood) about your hot flashes during the past week using the scale below:

1	2	3	4	5
I have not had	I have negative	I have had	I have had	I have had

negative feelings about my hot flashes on any day.	feelings about my hot flashes only on a few days.	negative feelings about my hot flashes on several days but not every day.	negative feelings about my hot flashes a few times each day.	negative feelings about my hot flashes many times each day.

Scale P

Please rate the frequency of physical discomfort caused by your hot flashes during the past week using the scale below:

1	**2**	**3**	**4**	**5**
I have not had physical discomfort related to my hot flashes on any day.	I have had physical discomfort related to my hot flashes only on a few days.	I have had physical discomfort related to my hot flashes on several days but not every day.	I have had physical discomfort related to my hot flashes a few times each day.	I have had physical discomfort related to my hot flashes many times each day.

Intensity of Hot flashes

Scale C

Please rate the intensity of negative thoughts about your hot flashes during the past week using the scale below:

1	2	3	4	5
There is no intensity and no disruption occurs as I have not had negative thoughts about my hot flashes.	Negative thoughts about my hot flashes are mild and do not disrupt what I am doing when they occur.	Negative thoughts about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they occur.	Negative thoughts about my hot flashes are intense; they disrupt to some degree whatever I am doing when they occur.	Negative thoughts about my hot flashes have been extremely intense; they greatly disrupt whatever I am doing when they occur.

Scale E

Please rate the intensity of negative feelings (i.e., being in a bad mood) about your hot flashes during the past week using the scale below:

1	2	3	4	5

There is no intensity and no disruption occurs as I have not had negative feelings about my hot flashes.	Negative feelings about my hot flashes are mild and do not disrupt what I am doing when they are present.	Negative feelings about my hot flashes are somewhat intense; sometimes they are slightly disruptive when they are present.	Negative feelings about my hot flashes are intense; they disrupt to some degree whatever I am doing when they are present.	Negative feelings about my hot flashes have been extremely intense; they greatly disrupt whatever I am doing when they are present.

Scale P

Please rate the intensity of physical discomfort caused by your hot flashes during the past week using the scale below:

1	2	3	4	5
There is no intensity and no disruption occurs as I have not had physical discomfort related to my hot flashes.	The physical discomfort related to my hot flashes is mild; it does not disrupt what I am doing when it occurs.	The physical discomfort related to my hot flashes is somewhat intense; sometimes it is slightly disruptive when it occurs.	The physical discomfort related to my hot flashes is intense; it disrupts to some degree whatever I am doing when it occurs.	The physical discomfort related to my hot flashes is very intense; it greatly disrupts whatever I am doing when it occurs.

Appendix B

Progressive Muscle Relaxation Induction and Treatment Script

The first thing that I want you to do is to find a spot or mark on the wall or ceiling. I want you to look at that spot without blinking your eyes. For as long as you can… look at that spot without blinking your eyes. You may notice, that after awhile, the spot will start to change in shape. You may notice that your eyes will become watery or might even become dry. I don't know which will happen, but you will notice a change. Your eyes will also become tired and you will feel the need to close them. When you are ready to do that you may go ahead and close your eyes. Notice how good it feels to have your eyes closed. How relaxed they have become. Take 5 seconds to feel that relaxation in your eyes. Now allow that relaxation to go UP to the top of your head and notice a body of water in your minds' eye. I don't know whether that water will be a lake or a pool or even a puddle. Notice how calm the top of the water is. And if a ripple of water appears on the surface watch how it slowly becomes calm and the top of the water becomes still. Now, allow that relaxation to go DOWN to the face, DOWN to the cheeks, DOWN to the jaw, and allow that relaxation to relax the jaw. Now, allow that relaxation to go DOWN into the chin, and Down into the neck, and DOWN to the shoulders. Allow that relaxation to go DOWN into the arms and DOWN into the wrists and DOWN into the hands and DOWN into the fingers. Allow the relaxation to go DOWN into the chest. Notice a change in the heartbeat. It may either become faster or you may notice that it slows down. Allow that relaxation to go BACK into the lungs and with every breath allow the

relaxation to go into every cell of the body. Take a deep breath and allow that relaxation to go into every cell of the body. Allow the relaxation to go DOWN into the stomach and BACK into the back and DOWN into the hips and DOWN into the thighs. Allow the relaxation to go DOWN into the knees and DOWN into the calves and DOWN into the ankles and DOWN into the feet. Allow that relaxation to go DOWN into the toes and DOWN into the bottom of the feet. With another relaxing breath allow any tension or stress to leave the body. Take 5 seconds and scan the body. If there is any tension or stress allow that tension or stress to leave the body with another relaxing breath. Notice how good it feels to be this relaxed and know that you can become this relaxed at anytime you want. All you have to do is think the word RELAX and with a relaxing breath allow the body to become RELAXED. Think the word RELAX and with a relaxing breath allow the body to become RELAXED. Think the word RELAX and with a relaxing breath allow the body to become RELAXED.

(Insert **Treatment for Hot Flashes** protocol here)

In a few moments I will count to five and when I reach five you can continue to enjoy feeling and being fully RELAXED, fully awake and able to continue with your normal activities. And remember that at anytime you want to feel this quality of relaxation again, which then helps your body to produce the perfect amount of hormones and chemicals, all you have to do is think the word RELAX and with a relaxing breath allow the body to become RELAXED. And so before you reorientate and awaken fully, isn't it nice to know that you can know what an effective and useful trance this has been, when you begin to know that what seemed to take a short time, turns out to have been a long time, or what seemed a long time was really no time at all..

One, two, you are become aware of your body and notice the chair that you are sitting on. Three. Your eyes are beginning to open, yet still relaxed. Four, your eyes are opened and your senses are coming back to you, become more and more alert. Five, fully alert, comfortably relaxed and able to continue your daily activities.

Appendix C

Treatment for Hot Flashes

After Progressive Muscle Relaxation Induction, but before reawakening.

Know that you can become this relaxed at any time you want by remembering this experience and also know that the body can produce the perfect amount of hormones and other chemicals needed to subdue any hot flashes as soon as one might occur and because you have a conscious and unconscious mind those 2 minds can work independently to even further quell and eliminate, if you like, the hot flashes. And isn't it interesting and curious to know that both minds can do this independently of you. The body can produce the perfect amount of hormones and chemicals needed to eliminate any hot flashes before they arise or quell and stop them if one had already begun. You can become this relaxed and produce the perfect balance of hormones and chemicals to quickly stop hot flashes that might begin. The body can regulate its temperature and eliminate any hot flashes before they arise or shortly thereafter.

Proceed with reawakening.

Appendix D

Stanford Hypnotic Clinical Scale for Adults (SHCS: ADULT)

(Patient may be seated in any kind of chair with arms)

Introductory Remarks

In a moment I shall suggest to you a number of experiences which you may or may not have and a number of effects which you may or may not produce. Not everyone can have the same experiences or produce the same effects when hypnotized. People vary greatly. Please remember always to respond to what you are feeling.

Induction

Please close your eyes and listen carefully to what I say. As we go on, you will find yourself becoming more and more relaxed…Begin to let your whole body relax…Let all the muscles go limp…Now you will be able to feel special muscle groups relaxing even more. If you pay attention to your right foot, you can feel the muscles in it relax…feel the muscles in the right lower leg relaxing…in the right upper leg relaxing…Now on the left side concentrate on the way that the left foot is relaxing…and the left leg, how the lower part and the upper part are both relaxing more…Next, you'll be able to feel the muscles of the right hand relaxing, the right lower arm and the right upper arm relaxing…Now

direct your attention to your left hand. Let it relax, let the lower arm and the upper arm relax…As you have become relaxed, you body begins to feel rather heavy. Just think of the chair as being strong, sink into it, and let it hold you…Your shoulders…neck and head, more and more relaxed…The muscles of your scalp and forehead, just let them relax even more…All of this time you have been settling deeper and more comfortably into the chair.

Your mind has relaxed, too, along with your body. It is possible to set all worries aside. Your mind is calm and peaceful. You are getting more and more comfortable…You will continue to feel pleasantly relaxed as you continue to listen to my voice…Just keep your thoughts on what I am saying…more and more deeply relaxed and perhaps drowsy but at no time will you have any trouble hearing me. You will continue in this state of great relaxation until I suggest that it is time for you to become more alert…Soon I will begin to count from 1 to 20. As I count, you will feel yourself going down further and further into this deeply relaxed hypnotic state. You will be able to do all sorts of things that I suggest, things that will be interesting and acceptable to you. You will be able to do them without breaking the pattern of complete relaxation that is gradually coming over you…1 – you are becoming more deeply relaxed…2 – down, down into a deeper, tranquil state of mind…3 – 4 – more and more relaxed…5 – 6 – 7 – you are sinking deeper and deeper. Nothing will disturb you. You are finding it easy just to listen to things that I say…8 – 9 – 10 – halfway there…always deeply relaxed…11 – 12 – 13 – 14 – 15 – although deeply relaxed you can hear my clearly. You will always hear me distinctly no matter how hypnotized you are…16 – 17 – 18 – deeply relaxed.

Nothing will disturb you…19 – 20 – *completely relaxed.*

You can change your position any time you wish. Just be sure you remain comfortable and relaxed.

You are very relaxed and pleasantly hypnotized. While you remain comfortably listening to my words, I am going to help you learn more about how thinking about something affects what you do. Just experience whatever you can. Pay close attention to what I tell you, and think about the things I suggest. Then let happen whatever you find is happening, even if it surprises you a little. Just let it happen by itself.

1. Moving hands together (or, if one arm is immobile, go to 1a. Hand lowering) All right, then…please hold both hands straight out in front of you, palms facing inward, hands about a foot apart. Here, I'll help you. (Take hold of hands and position them about a foot apart.) Now I want you to imagine a force attracting your hands toward each other, pulling them together. Do it any way that seems best to you – think of rubber bands stretched from wrist to wrist, pulling them together – the closer they get the stronger the pull…As you think of this force pulling your hands together, they will move together, slowly at first, but they will move closer together, closer and closer together as though a force is acting on them…moving…moving…closer, closer…

   (Allow ten seconds without further suggestion, and note extent of motion.)

   That's fine. Everything is back to normal now. Just place your hands in their resting position and relax.

   (Score + if hands move slowly toward each other, and are not more than six inches apart at end of ten seconds.)

   1a. Hand lowering (alternative to Moving hands together)

If one hand is immobile for any reason, we recommend substituting a hand lowering suggestion, similar to that given as Item I in SHSS-C. The arm is held straight out at shoulder height, with the palm of the hand up. The suggestion is given to imaging something heavy in the hand pressing it down. After a few suggestions of downward movement, if the arm is not completely down, a 10-secong wait is introduced. The item is passed if the one hand has lowered at least six inches by the end of the 10 seconds.

2. Dream

Now I am going to ask you to keep on relaxing, and this time you are going to have a dream… a real dream…much like the kind you have when you sleep at night. When I stop talking to you very shortly, you will begin to dream. Any kind of dream may come…Now it is as though you are falling asleep, deeper and deeper asleep. You can sleep and dream about anything you want to. As soon as I stop talking, you will begin to dream. When I speak to you again in a minute or so you will stop dreaming if you are still dreaming, and you will listen to me just as you have been doing. If you stop dreaming before I speak to you again, you will remain pleasantly and deeply hypnotized. Now just sleep and have a dream.

(Allow 1 minute. Then say:)

The dream is over, but you can remember it very well and clearly, very clearly…I want you now to tell me about your dream while remaining deeply hypnotized. Please tell me about your dream…right from the beginning. Tell me all about it (Record verbatim.)

(If subject has no dream:) That's all right. Not everyone dreams.

(If subject hesitates, or reports vaguely: probe for details.)

Inquiry: How real would you say your dream was?

Termination: That's all for the dream. Remain as deeply hypnotized as you have been.

(Score + if subject has an experience comparable to a dream…not just vague fleeing experiences or just feelings or thoughts. The dream should show imagery, some reality, and to give evidence of being under voluntary control.)

3. Age regression

Something very interesting is about to happen. In a little while you are going back to a happy day in elementary school. If you had a choice to return to the third, fourth, or fifth grade, would you prefer one of these to the other?

(If yes:) Which grade?

(If no preference, use fourth grade.)

All right then, I would like you now to think about when you were in the (selected) grade of school, and in a little while, you are going to start to feel like you are growing younger and smaller, going back to the time you were in the (selected) grade…1, you are going back into the past. It is no longer (state present year), nor (state an earlier year), nor (state a still earlier year), but much earlier…2, you are becoming much younger and smaller…in a moment you will be back in the (selected) grade, on a very nice day. 3, getting younger and younger, smaller and smaller all the time. Soon you will be back in the (selected) grade, and you will feel an experience exactly as you did once before on a nice day when you were in school. 4, very soon you will be there…Once again a little girl in the (selected) grade. Soon you will be right back there. 5! You are now a small girl in school…Where are you?...What are you doing?...Who is your teacher?...How old are you?...What are you wearing?...Who is with you?...

(Ask additional questions as appropriate. Record answers.)

That's fine…Now you can grow up again. You are no longer in the (selected)grade but getting older, growing up. You are now your correct age, this is (current day and date), and you are in (locale of testing). You are no longer a little girl, but an adult, sitting in a chair deeply hypnotized. How old are you?...And what is today?...Where are you?...Fine, Today is (correct date) and you are (correct age) and this is (name place where subject is being tested). Everything is back as it was. Just continue to be comfortably relaxed…

(Postpone scoring until inquiry at end.)

4. Posthypnotic suggestion (Clearing throat or Cough)

5. Amnesia

Stay completely relaxed, but listen carefully to what I tell you next. In a little while I shall begin counting backwards from ten to one. You will gradually come out of hypnosis but you will be the way you are now for most of the count. When I reach "five" you will open your eyes, but you will not be fully awake. When I get to "one" you will be entirely roused, as awake as you usually are. You will have been so relaxed, however, that you will have trouble recalling the things I have said to you and the things you did. It will take so much effort to think of these that you will prefer not to try. It will be much easier just to forget everything until I tell you that you can remember. You will forget all that has happened until I say to you: "Now you can remember everything!" You will not remember anything until then. After you wake up you will feel refreshed. I shall now count backwards from ten, and at "five," not sooner, you will open your eyes, but not be fully aroused until I reach "one." At "one" you will be fully awake. A little later I shall tap my pencil on the table like this (demonstrate with two taps). When I do, you will feel

a sudden urge to clear your throat or to cough. And then you will clear your throat or cough. You will find yourself doing this but you will forget that I told you to do so, just as you will forget the other things, until I tell you, "Now you can remember everything." All right, ready – 10 – 9 – 8 – 7 – 6 – 5 – 4 – 3 – 2 – 1.

(If subject has eyes open:) How do you feel? Do you feel alert?

(If groggy:) The feeling will go away soon. You feel alert now!

(If subject keeps eyes closed:) Please open your eyes. How do you feel? (If groggy:) You are beginning to feel more alert and refreshed…You feel alert now!

(Hypnotist now taps pencil against table twice. Wait ten seconds.)

(Score + if patient clears throat or coughs after pencil tap.)

Now I want to ask you a few questions about your experience. Please tell me in your own words everything that has happened since I asked you to close your eyes.

(Record subject's responses verbatim. If blocked ask, "Anything else?" and record answers until subject reaches a further impasse.)

Listen carefully to my words. Now you can remember everything. Anything else now?

(Again record subject's responses verbatim. Remind subject of any items not recovered; note these also.)

(Score + if subject recalls no more than two items before memory is restored.)

(If subject is awake and comfortable: That's all now. You are completely out of hypnosis, feeling alert and refreshed. Any tendency that you may have to clear your throat or to cough is now completely gone.

FOR CORRECTING DIFICULTIES WHEN NECESSARY:

(If there is residual difficulty, e.g., difficulty in restoring alertness or persistence of a cough, proceed as follows with appropriate suggestions:) Please close your eyes and drift back into hypnosis as I count to 5. 1 – 2- 3 -4 -5… Now I am about to arouse you by counting backwards from 5 to 1. You will feel alert, refreshed, with no tendency to cough. (Wait ten seconds.) 5 -4 -3 0-2 -1. Fully aroused!