

THE IMPACT OF QUANTUM-TOUCH® ON CLIENTS
WITH CHRONIC MUSCULOSKELETAL PAIN

by

ADARA L. WALTON

A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
Clayton College of Natural Health

BIRMINGHAM, ALABAMA

2010

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Approved by:

Committee Chairperson

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ABSTRACT

The purpose of this dissertation is to investigate, through the use of human subjects, whether Quantum-Touch® has an impact on chronic musculoskeletal pain and whether this relatively new non-invasive holistic healing modality may be used as an intervention to address chronic pain. This pilot study, experimental in nature, is a collaborative effort with a medical doctor, the second investigator, who specializes in Physical Medicine and Rehabilitation. The research involved an 8-week pilot study in which the investigators used 12 volunteer adult patients (men and women ages 18-64) who were randomly selected and randomly assigned to an experimental and control group of 6 volunteers in each group. Both groups were blindfolded and received hands-on touch; however, only the experimental group was given the Quantum-Touch® energy. This study seeks to determine the impact of hands-on Quantum-Touch® energy healing on both genders and any differentiation in pain. The experimental study will use 2 measurement instruments as follows: 1) a standardized pain rating form used in Physical Medicine and Rehabilitation and; 2) a functional questionnaire used to address specific functional change(s) in skills/tasks that may occur in the volunteer. The volunteer will use the pain rating form at the start and end of each session while the functional questionnaire will only be used twice—at the first session (start of study) and again at the last session (end of study). All relevant data and pain ratings will be tabulated to show statistical compilations with the goal of indicating the efficacy of Quantum-Touch® healing on chronic pain reduction. The researchers also hope to show that, as an

intervention, Quantum-Touch® should be considered alongside conventional allopathic treatment as a complementary supplemental method to address pain and alleviate stress, offering another source of healing to mankind.

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(Reverend) AdaRA Lynn Walton, N.D.

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LIST OF ABBREVIATIONS

CCNH – Clayton College of Natural Health

IRB – Institutional Review Board for the Protection of Human Subjects

QT – Quantum-Touch®

RR – Relaxation Response

TT – Therapeutic Touch

U.S. – United States

CHAPTER ONE

INTRODUCTION TO THE PROBLEM

Everyone has experienced physical pain in his/her life for one reason or another; however, musculoskeletal pain is prevalent among humans. As such, there are many ways to address this pain through either conventional western methods or holistic methods.

There have been many holistic and conventional techniques and modalities to address chronic musculoskeletal pain. This paper is being written to offer information on one relatively new modality called Quantum-Touch[®] that offers itself as an innovative modality to join the ranks of other hands-on modalities like Reiki and Therapeutic Touch that have also been used to address chronic musculoskeletal pain. This researcher is interested in studying Quantum-Touch (abbreviation with use of permission) to determine if this non-invasive modality can be used to address chronic musculoskeletal pain in humans. If the medical community and the public can understand more of this modality, both sectors may be able to use this as another natural intervention to address musculoskeletal pain. In this manner, Quantum-Touch may be able to take its place alongside Reiki and Therapeutic Touch as another viable complementary modality to the conventional allopathic treatment of chronic musculoskeletal pain in humans.

Statement of the Problem

As a modality, Quantum-Touch has been operating in the United States since 1978; however, the general public and many in the holistic health field are unaware of its existence. This investigator is challenged with informing the public not only of its existence but of its value in addressing chronic musculoskeletal pain as a natural healing modality for humans. Quantum-Touch must be considered as a viable natural modality to address chronic musculoskeletal pain in both men and women. This investigator will evidence the importance of this modality in alleviating and reducing chronic musculoskeletal pain in humans through specific research conducted on both genders. We must then examine this evidence to justify whether Quantum-Touch can take its place along with other holistic modalities that address chronic musculoskeletal pain in humans as an alternative to conventional pain treatment. In conducting the research, this researcher will closely examine Quantum-Touch and its unique approach to the issue of chronic pain, thus demonstrating its innovative approach to this issue.

Background and History of the Problem

The modality called Quantum-Touch is ripe and open for research. Currently, the only book initially written about this healing modality, *Quantum-Touch, the Power to Heal* was authored by Gordon, the successor, developer and founder of Quantum-Touch. As a modality, Quantum-Touch had its beginnings in 1978 with a man named Bob Rasmussen who initially helped Richard Gordon with understanding it and subsequently trained him in the work. Richard Gordon was so taken with the impact of Quantum-Touch that, upon Rasmussen's death, he decided to promulgate the work and further

develop it. Mr. Gordon opened an office, hired staff and developed Quantum-Touch into a full modality after having spent years tirelessly offering the benefits of Quantum-Touch to others. Before going further, this researcher needs to have you understand some of the basics of this modality---just what is Quantum-Touch? As defined by Gordon (1999), “Quantum-Touch is a method of hands on healing that literally must be seen to be believed” (p. 3). Quantum-Touch uses a light touch with various hand positions, various breathing techniques and body awareness meditations; however, does not require any spiritual, religious or philosophical beliefs. It does impact the “life force” of the body (known as “chi” by the Chinese and ‘ki” by the Japanese) which allows self-healing to occur in the client’s body-the facilitator does not heal the person. As Gordon (1999) further declares,

The practitioner simply holds a tremendously strong harmonizing energy, and the client’s energy matches that vibration. The innate body intelligence of the person receiving the energy will do whatever the body deems useful to cause healing to occur. The body heals itself with an unfathomable level of intelligence. Western civilization often takes the body’s innate healing ability for granted, but it is the true healer. (p.18)

The intention of the practitioner to use his/her hands and breath to increase and raise the life force energy for oneself or another person is what makes this modality poised to takes its place among other already existing modalities that use similar techniques. Also, since the practitioner does not heal the client, the client is responsible for self-healing -- the innate self-healing ability of the body is activated by the flow of Quantum-Touch energy. The client’s/receiver’s body determines what it will use and

where the energy will go. Also, the impact of “love is a universal vibration... healing as a skill that can be taught... energy follows thought... and trusting the process is essential” (p.26) are all principles espoused by Gordon (1999).

Quantum-Touch is also based upon specific principles that deal with the life force energy, resonance and entrainment, breathing techniques and body intelligence (see Definition of Terms later in this Chapter). In this respect, Quantum-Touch is similar to other hands-on healing techniques like Reiki and Therapeutic Touch which encompass a respect for the innate healing intelligence of the body. Both these modalities have also been used to address chronic pain in humans; however, Quantum-Touch has not had the exposure, the longevity or been the subject of long-time research (or controversy) as the other two modalities have. Herein lies the problem and issue for Quantum-Touch. While the modality has expanded in the United States and is now practiced and taught by Certified Instructors in over thirty-five foreign countries, there is not yet enough serious research and documented studies presented as to why this modality can be considered as a primary stand-alone healing modality. Herriott is author of a second book (2007) and he and his wife co-authored a third book (2009); however, these books are still indicative of internal-based documents. While they are excellent sources for advanced techniques for Quantum-Touch, they do not contain any clinical studies of the impact of Quantum-Touch techniques on pain—acute or chronic. Although there is a website for Quantum-Touch, www.quantumtouch.com, the information and testimonies presented on the website are not considered “evidence” or “scientific” proof that this holistic modality can reduce stress and pain in the body. The website offers a multitude of wonderful accounts

of healing stories by practitioners and their clients/patients; however, these accounts are considered as “anecdotal” and do not represent actual research.

Further, studies done with both Reiki and Therapeutic Touch also address the overall well-being of the individual, like Quantum-Touch. All three modalities are non-invasive and with all three the client/recipient determines the amount of healing s(he) receives. Although these modalities differ from one another in other aspects, this researcher found both to be qualifying modalities to support the experimental research that this study on Quantum-Touch proposes to undertake.

Last, there is insufficient data and documentation as to why Quantum-Touch can also supplement other hands-on healing modalities like massage, Reiki, Therapeutic Touch, cranial sacral, acupressure polarity or adjunct western treatments. It must be clearly stated that, other than the books and articles offered through the Quantum-Touch organization, no scholarly studies or research exists for this modality. Since Reiki and Therapeutic Touch have addressed similar areas as Quantum-Touch and are also considered as holistic modalities, they have contributed to the growth and development of this topic on Quantum-Touch. Quantum-Touch is poised and ready to take its place among other holistic modalities in addressing chronic pain and its history has now presented itself for further research and significant study.

Purpose of the Study

The purpose of this study is to investigate, through the use of human subjects, whether Quantum-Touch has an impact on chronic musculoskeletal pain. Quantum-Touch is a new holistic healing modality similar to Reiki that may be used as an

intervention to address pain. The clinical study to be conducted is experimental in nature, and will only address the issue of chronic pain. It will use human subjects in the study who currently are patients under the care of an M.D. who will serve as the second Investigator for this study. This researcher will serve as the primary Investigator. The medical doctor specializes in orthopedic and neurological pain, working with muscles, bones and nerves. The experimental method involves having a control group and an experimental, i.e. non-control group of both adult men and women who will serve as volunteers in the study. It is the intent of this researcher to demonstrate that Quantum-Touch has a positive impact on chronic pain as evidenced through the study to be conducted.

Significance of the Study

At this current time, conventional western treatment for musculoskeletal pain includes heat packs, medications, shots and injections and surgery. Holistic methods to address chronic pain include such things as essential oils, homeopathy, Ayurvedic medicine, Traditional Chinese Medicine (TCM), biofeedback interventions such as visualization and meditation, vibrational remedies and various hands-on modalities like Reiki and Therapeutic Touch. Quantum-Touch, as a modality, has the potential to be of importance in the issue of pain intervention as a new modality in addressing musculoskeletal pain in humans. As such, it is imperative that research be conducted that can evidence its impact to reduce and or alleviate musculoskeletal pain in men and women. The potential for Quantum-Touch as an additional non-invasive modality cannot be overlooked. Therefore, it is important that this researcher pursue a course that will evidence the efficacy of Quantum-Touch as an effective modality to be considered for

chronic pain reduction. The positive implications for Quantum-Touch are many. Although the modality is relatively new and unstudied for clinical purposes, the results of this research could have a great impact on the consideration of Quantum-Touch in alleviating chronic musculoskeletal pain in men and women. The accounts, descriptions and stories that many of its practitioners and proponents have shared with their clients and posted on the Quantum-Touch website may, in fact, be given some validity in the area of pain reduction. No longer would Quantum-Touch be seen as another method of quackery or as another unproven holistic modality relative to the issue of pain reduction. Therefore, while there have been an overwhelming number of cases and clients attempting to substantiate that Quantum-Touch is an effective method for pain reduction, having the clinical evidence for these assertions dispels initial doubts and questions. Just as Reiki and Therapeutic Touch have had to be subjected to the rigors of scientific study, Quantum-Touch cannot be exempt from undergoing this same type of investigation through research. It is the aim of this researcher to assist in substantiating the claims that Quantum-Touch can be used as an effective method to address chronic pain in humans. In addition, it is also the aim of this researcher to evidence that this modality can take its place with other non-invasive complementary modalities as a supplement to conventional pain treatment. Therefore, the significance of conducting this study with its anticipated possibilities and conclusions cannot be overlooked--it propels the research forward in light of the implications in the field of holistic health and in the area of pain reduction.

Research Questions

The problem and issue of Quantum-Touch as a modality to be used in addressing chronic pain in humans easily raises questions around this area. One significant question

is what is the impact of Quantum-Touch healing on clients with chronic musculoskeletal pain? A subsidiary question then follows which is: Is Quantum-Touch effective in addressing chronic musculoskeletal pain? Last, a third query must be raised which is: Should Quantum-Touch serve as an adjunct to supplement conventional western treatment in a clinical setting in the same/similar manner that both Reiki and/or Therapeutic Touch are currently used? Therefore, this researcher will address these three questions and use the results of this study to offer a response to each of those questions. Further, the researcher and medical doctor are hopeful that the results and conclusions evidenced from the study may provide a claim that Quantum-Touch can be used for integrative purposes with conventional methods in addressing chronic pain in humans.

Hypotheses

As this researcher is undertaking a study that is experimental in nature to be conducted with adult humans of both genders, there are two hypotheses to be tested as follows which are: 1) Quantum-Touch is effective in the area of chronic musculoskeletal pain and; 2) Quantum-Touch healing is a complementary modality that can be used to reduce chronic musculoskeletal pain in humans. The statistical analysis that will be conducted will demonstrate the effectiveness of Quantum-Touch healing on both men and women in the two groups that the clinical study will address. An analysis will be conducted on the control group of men and women as well as the experimental group of men and women to determine pain reduction levels. The statistical analysis will also test the second hypothesis-- demonstrating the efficacy of Quantum-Touch as a modality to be included as a complementary modality alongside conventional treatment for pain

reduction. This researcher is hopeful that the research design and instrument used will support positively the results anticipated by this study.

Scope, Delimitations and Limitations

The scope of this study is narrow in that the researcher is specifically studying the problem of chronic musculoskeletal pain in adult humans, not general or acute pain. Also, the focus is not on children, teenagers or the elderly. However, one delimitation is that many adults have chronic musculoskeletal pain so the design of the study was simple. Another delimitation was that the study's design forms were easily developed from existing forms in the field of Rehabilitative and Physical medicine. The variables of age, gender, lighting and room temperature were also easily set forth for the study as were the locations for the clinical study to be conducted. One of the limitations to the design, however, was the length of time for the study to be conducted-this was not designed as a longitudinal study. Another limitation was the sample size for the study in that due to the medical doctor's schedule, only a certain number of individuals could participate in the study. Although there were many patients/clients that the medical doctor and this researcher could observe, there were restrictions due to scheduling hours and Maryland state laws to observe. Therefore, a smaller number of volunteers for the sample than what the researcher originally desired could actually participate in the study. This imposes a possible weakness upon the resulting statistics and the statistical tests to be used for greater validity and reliability. Whatever is beyond the control of the researcher may limit her to some degree, but this researcher will use the available resources and statistical tests that are available to prove the hypotheses and evidence the results that Quantum-Touch has an impact on chronic musculoskeletal pain.

Definition of Terms

There are terms associated with Quantum-Touch and this proposed study that require definition in order that the reader appreciate and fully comprehend the significance of researching the problem.

Control group – group set up to receive hands-on light touch but *no* Quantum-Touch energy.

Experimental group – group set up to receive hands-on Quantum-Touch energy.

Functional Form – a form developed by the medical doctor to measure client mobility in performing various skills.

Life Force energy – the intrinsic and animating force of life.

Pain Rating Scale – a numerical rating scale adapted from the Industrial Rehabilitative Professional Program used by Rehabilitative and Physical medical doctors to measure pain.

Quantum -Touch[®] – a natural method of hands-on and distant healing that uses visualization, breath patterns and specific techniques to stimulate the body's ability to heal itself.

Reiki – a natural non-invasive method of healing rediscovered by Mikao Usui that uses both hands-on and remote (long-distance) healing to activate the body's self-healing mechanism to promote harmony and well-being.

Resonance and entrainment – principles of quantum physics which maintain that all matter vibrates (resonates) and if two things vibrate at different frequencies, the tendency will be to move toward a common vibration (entrainment).

Therapeutic Touch – a natural non-invasive technique of hands-on healing developed by Delores Kreiger used initially in hospitals and hospices.

Summary

The focus of this research and the study is to set forth information regarding the relatively new modality called Quantum-Touch and its use in addressing chronic pain in men and women. The research to be conducted is an experimental clinical study using human volunteers that all currently have chronic pain and are patients of a medical doctor. This collaborative effort is one that will integrate instruments to measure pain before and after hands-on Quantum-Touch energy is given to one group while the second group receives hands-on touch but *not* Quantum-Touch energy. Also, the study will demonstrate whether Quantum-Touch warrants serious consideration as an adjunct holistic method to be used along with conventional methods when addressing chronic pain in humans. Statistical analysis of both groups –the experimental and control-will evidence the impact of Quantum-Touch healing energy upon chronic pain clients and prove the hypotheses set forth earlier in this paper. This paper is designed to: 1) establish the importance of why this research must be conducted; 2) show the significance of this research to the general public and the implications for Quantum-Touch practitioners around the issue of chronic pain, 3) show the design of the study in terms of participants, method and data collection in order to quantify the findings of the study and; 4) anticipate data analysis, assumptions and conclusions.

CHAPTER TWO

REVIEW OF RELATED LITERATURE AND RESEARCH

Introduction

First, a descriptive literature review conducted by this researcher was specifically in the area of holistic/natural hands-on healing methods. Second, it was mandatory that this investigator research literature specifically related to pain with human beings. There was a real challenge for this researcher in discovering related literature and research since, as indicated in Chapter One, Quantum-Touch is a relatively new modality with three books in publication by the developer and successor, Richard Gordon and two senior Certified Instructors, Alain and Jody Herriott. Aside from the three books in print, articles, essays and short writings have been written mostly by Quantum-Touch training staff, practitioners and instructors based upon their own observations and clients' comments/feedback. This researcher found in a review of observational studies, randomized controlled trials and published scholarly articles, there are none, to date, for Quantum-Touch. Therefore, in the initial search, this researcher sought to review studies involving chronic pain using general hands-on touch techniques but not any specific modality. Two studies meeting these criteria were found, one by Dressler (1990) and a second by Castronova and Oleson (1991). Both studies provided useful information and a clear direction for this research. The study by Dressler (1990) on chronic back pain was conducted with 27 subjects using a light touch manipulative technique. Sixteen (16) of

the 27 subjects treated showed improvement while only four of the eleven controls improved. The second study conducted by Castronova and Oleson (1991) was also conducted regarding chronic back pain. The goal of this study was to reduce pain, somatization, anxiety and depression with 37 clients. Both psychotherapy and touch healing were used with the results being significant as there were decreases in both groups. It must be noted that in the healing group, after weeks one, three and six, the subjects reported that their pain was either all gone or nearly gone.

After reviewing these two studies, this researcher determined that there needed to be specific modalities for observation that are similar to Quantum-Touch for the literature review. Since there are no published studies yet for Quantum-Touch in the area of pain and specifically chronic pain, a literature review was conducted using similar natural hands-on healing methods in the area of pain instead of general healing touch studies. Subsequently, a descriptive literature review using both Reiki and Therapeutic Touch was selected. Both modalities have some commonalities and similarities to Quantum-Touch and this researcher is trained in both Reiki and Quantum-Touch. Due to this researcher's knowledge and experience with all three modalities, she chose to conduct a methodological descriptive quality review using books, journals, newspaper articles and randomized controlled trials and studies written on Reiki and Therapeutic Touch. Also, based upon the study and statistical analysis that is to be conducted, the methodological descriptive review is best suited to research the problem.

There have been randomized controlled studies conducted on human subjects using hands-on Reiki and Therapeutic Touch healing to study the topic of general pain and musculoskeletal pain. Further, studies done with both Reiki and Therapeutic Touch

also address the overall well-being of the individual, like Quantum-Touch. Last, all three modalities are non-invasive and with all three, the client/recipient determines the amount of healing s(he) receives. Although these modalities differ from one another in other aspects, this researcher found both Reiki and Therapeutic Touch to be qualifying modalities to support the experimental research that this study on Quantum-Touch proposes to undertake. The specific commonalities and their differences as relates to Quantum-Touch will be discussed under each sub-heading. Therefore, there are two sub-sections for this literature research--one for Reiki and one for Therapeutic Touch.

Reiki

In the selection of Reiki as a modality for the literature review, one must inquire as to why Reiki was chosen. A description of Reiki, as a modality, will evidence itself as to why this natural healing method was selected. What is Reiki? As Baginski and Sharamon (1988) declared,

The word Reiki means universal life energy. It is defined as being that power which acts and lives in all created matter. The word consists of two parts. The syllable *rei* describes the universal, boundless aspect of this energy while *ki*, is in itself part of *rei*, being the vital life force energy which flows through all living beings. (p.15)

Reiki was rediscovered by a Japanese educator, Dr. Mikao Usui, in the mid-nineteenth century. There are varying accounts of the history but it is known that Reiki was brought to the United States in 1980 by Mrs. Hawayo Takata where it spread within the U.S., Canada and to other countries. While this researcher could easily go into depth about Reiki as a modality, that would not serve the purpose for which this section is

written. This researcher's purpose is to simply offer the commonalities with Quantum-Touch to lend clarity as to why it was selected for study. Reiki uses the concept of the laying-on of hands and has a remote /long distance aspect to it as well. It is used for stress reduction relaxation and to promote healing in the body. Only the hands-on aspect is addressed for this study as Quantum-Touch also uses the hands-on technique of administering the energy; the remote aspect of Quantum-Touch is also not the focus of this study. Reiki practitioners learn to use their hands to allow Reiki to flow into the body; however, it is the Reiki itself that impacts the body's innate healing ability. As Lyles (2001) notes, "Some other modalities that may be self-administered are: Reflexology, Aromatherapy, Self-Shiatsu and self-massage. Many healing modalities that use the hands enhance the immune system and aid in restoring homeostasis. Reiki, however, is the only one that functions through the laying-on of hands with no mental effort, except right intention" (p. 50). Earlier in her book she also lists, "What Reiki is not - Religion, Hypnotherapy, Twelve-Step Spiritual Program, Medical Practice, Massage Therapy, Homeopathic Practice, Chiropractic, Osteopathic, Acupuncture" (p. 39). In this respect, herein lie some of the commonalities of Quantum-Touch and Reiki as follows: 1) both are natural healing modalities that speak of the innate self-healing function of the body; 2) both speak of the impact of the energy on the life force (ki or chi) of the body; 3) the energy is administered through the use the hands; 4) practitioners of both modalities do not heal the client; 5) neither modality requires a religious or philosophical belief; 6) the client is responsible for his/her own healing and; 7) intention is used by the practitioner. Last, but not least, both Reiki and Quantum-Touch have been taught in the U.S. and several countries worldwide. Lyles' quote around intention was not to slight

Quantum-Touch at all. As stated in Chapter I, Quantum-Touch is still a relatively new modality—had Lyles known it existed, it is possible she certainly would have included it in with her statement. With the common areas addressed, it is also appropriate to state critical differences between Quantum-Touch and Reiki before going further into the literature review. Most notably is the notion of resonance and entrainment (see Chapter I, Definition of Terms). As Gordon (1999) establishes under Quantum-Touch Principles, “Resonance and entrainment cause the area being healed to change its vibration to match that of the practitioner. The practitioner simply raises and holds the new resonance” (p. 26). Also, while doing Reiki, the practitioner normally breathes but with Quantum-Touch there are specific breathing techniques such as the 4-4 breath, the 1-4 breath, fire breathing followed by 2-6 or 1-4 and finally the 2-6 breath. These breathing patterns are all described in Gordon’s (1999) Quantum-Touch book (p. 45-46).

Essential to learning Quantum-Touch at the basic level are body sweeping and breathing. To breathe and sweep (feeling the sensation of the energy either physically or mentally in long strokes) up the front and/or back of the body are what practitioners learn in a basic Quantum-Touch class. As Gordon (1999) states, “Breathing techniques are an essential and crucial part of running energy. Breathing amplifies the power of the life-force and its value cannot be overstated” (p.44). In describing Quantum-Touch, he earlier offers that, “Reiki masters call it ‘Reiki empowerment’ or ‘turbocharging the Reiki’ (p. 4). There may be other differences between Reiki and Quantum-Touch but for purposes of this study, these appear most critical. More important, however, are the aforementioned commonalities which served as the basis for Reiki being chosen as one of the two areas for the literature review.

In addressing Reiki and pain, Usui and Petter (2000) claim that, "...Dr. Usui recommends treating the affected body area until the pain has disappeared for all types of pain. For headaches, for example, treat the head; for backaches, treat the back" (p. 60). There was no distinction between acute or chronic pain—Reiki simply handled the pain wherever it was in the body. In another book on Reiki by Honervogt (1998), she states, "...It is capable of reinforcing every therapy and activates your own self-healing powers. Reiki is particularly helpful before and after an operation, as it produces harmony and calms the receiver" (p. 58). To this end, most of the studies with Reiki address pain and Reiki's potential usefulness as a non-medical intervention with medical clients and the impact of Reiki upon the well-being of the client. In a 1998 study conducted by Dressen and Singg on chronically ill people with pains present for at least one year, ten 30-minute treatments were given twice weekly for over five weeks. Reiki, progressive muscle relaxation (PMR) and what was called "false Reiki" were given to the volunteers. When comparing pre and post treatment scores, it was clearly shown that Reiki proved significantly superior to the other two treatments on 10 out of 12 variables. There was a 3-month follow-up on the groups and the changes remained consistent but with highly significant reductions in the total pain rating index.

In a 1999 study conducted by Horn, Reiki was used successfully on patients at a Massachusetts hospital to relieve pain and speed recovery. As Reiki came out of the shadows and into more hospital and clinic settings, more studies became available. Nield-Anderson and Ameling (2000) studied Reiki on patients to see its impact and use as a complementary therapy along with conventional medical treatment. At the conclusion of the study, it was demonstrated that Reiki had positive and empowering effects on the

patients studied. Another study by Brill and Kashurba (2001) also looked at the impact of Reiki along with touch therapy to determine its positive impact on patients. In research with Reiki and Therapeutic Touch, a scientific study by Koontz (2003) looked at subjects in a medical setting and how energy medicine may work on a wide range of medical problems, such as chronic conditions of back pain and headaches. The study also included Acupuncture in its review as a popular therapy. Barnett and Chambers (1996) state that Reiki “is particularly useful during the postoperative period to help manage pain and promoting healing (p. 61). Nurses reported certain changes in patients following a Reiki session such as: 1) patients sleep calmly and for extended periods; 2) relaxation response is elicited; 3) patients have a more positive attitude; and 4) patients report decreased pain (p. 56-57). In some cases, while the pain didn’t stop, it was made more tolerable by administering Reiki (p. 61). Reiki is useful for easing pelvic exams and eases labor and delivery. The use of Reiki during childbirth seems to be associated with reduced use of drugs, shorter labor and fewer complications (p. 62). Also, it appeared that patients had less anxiety and tension which contributed to their overall sense of well-being” (p. 46).

Eos (1995) offers several cases and accounts of her use of Reiki as a medical doctor. She gives “diary accounts” and documents cases where Reiki was used for chronic obstructive pulmonary disease, tooth pain, migraine headache pain and several cases of trauma (p. 29-78). As Reiki made its way into a few more hospitals for consideration as a complementary modality, Coleingo, Wentworth and Sabo (2005) looked at how to integrate Reiki into a community mental health practice in an effort to offer it along with conventional treatment. Burden, Herron and Clifford (2005) also

looked at the increasing use of Reiki as a complementary therapy. In looking at palliative care, they found an increase in the use of Reiki as an adjunct with conventional treatment. They documented that when Reiki was used, there was increased relaxation and decreased perception of pain in patients. Doheny's (2006) article speaks directly to how Reiki's energy techniques "revitalizes mind and body, banishes stress, and mends aches and pains," indicating the positive benefits Reiki has upon its recipients.

Further, a news article by Desmon (2007) reviewed the practice of Reiki at the Maryland Shock Trauma Center (Center) that is part of the University of Maryland Hospital. At the Center, Reiki practitioners administer Reiki to patients with pain stemming from accidents, injuries and disease. The Center has a pain management team which responds to its patients and requests from hospital surgeons to give Reiki. The Desmon article reported that along with acupuncture and music therapy, Reiki was offered to over 350 patients during 2007 for the treatment of pain to surgery. What was important to note was that patients, as well as some of the medical doctors asked for Reiki.

In a study on oncology patients, Borsi, Ott and DeCristoforo (2008) studied Reiki as a clinical intervention on patients with tumors, showing Reiki's potential beyond addressing pain. Although still considered a non-conventional modality, nowhere has it shown better its growth for consideration than by a very current report done by Camarrow (2008). In this study, a therapist spent 20 minutes several times a week working with patients in their energy fields with an intention to balance the field. The study was so successful using both touch therapy and Reiki that the report speaks of and identifies an elite hospital using the techniques with children in "embracing alternative

care” (p. 31). Reiki has shown through these studies that it can be considered as an adjunct modality to the conventional treatment of chronic and general pain in humans with an impact on the well-being of the individual as well.

Therapeutic Touch

The choice of Therapeutic Touch as the second modality for comparison to Quantum-Touch is similar to that of Reiki. Again, the research must review both the similarities and differences between Quantum-Touch and Therapeutic Touch. In the early 1970's in New York state, two women, Dora Kunz, a clairvoyant and Delores Kreiger, Registered Nurse and Dora's friend and student, collaborated to develop a new healing modality which they subsequently named Therapeutic Touch. While Ms. Kunz' contributions will live on through her work, Dr. Kreiger has authored books and currently continues to teach and train people in Therapeutic Touch. In her words, Kreiger (1993) states that, “Therapeutic Touch is a healing practice based on conscious use of the hands to direct or modulate, for therapeutic purposes, selected nonphysical energies that activate the physical body (p. 3). Therapeutic Touch is a contemporary healing modality based on assumptions that we are complex fields of energy and that ability to enhance healing is a natural potential. Therapeutic Touch is used to balance and promote the flow of human energy” (p. 5). She further asserts that, “Research has shown it is useful in reducing pain, improving wound healing, aiding relaxation and easing the dying process” (p. 5). Initially, Therapeutic Touch was only taught at graduate schools of nursing since it was aimed at providing a therapeutic purpose; however, that soon changed due to the interest by other health- care providers and general lay people. Per Kreiger (1993), “Therapeutic Touch has also been taught to more than 36,000 professional persons in the

health-care field. Further, "... Therapeutic Touch has also been taught in more than eighty colleges and universities. In addition, "...Therapeutic Touch has been taught in sixty eight countries" (p. 5). Kreiger is also quite clear that..."in the final analysis, it is the healee (client) who heals her or himself. The healer or therapist, in this view, acts as a human energy support system until the healee's own immunological system is robust enough to take over" (p. 7). So, here again, there are commonalities with Quantum-Touch in that there is: 1) the healing of the body is based on its own natural ability to do so; 2) the energy impacts the human energy flow (life force); 3) the use of the hands (to be further discussed); 4) facilitator does not heal the client; 5) conscious use and attention of the facilitator (similar to intention); and 6) no required philosophical or religious belief . Like Quantum-Touch, Therapeutic Touch has been taught to people in the U.S. and worldwide. There are, however, some distinct differences with Therapeutic Touch. This researcher needs to clearly address the statement "use of the hands." Initially, Therapeutic Touch did involve the use of the hands lightly on the body, but as the modality developed, techniques evolved it into a non-contact energy healing method. While Quantum-Touch uses the hands on the body or hands slightly above or off the body, Therapeutic Touch currently uses the hands slightly above and off the body. Therefore, it is somewhat misleading to imply that the hands are placed directly on the body and that touching occurs. It may interest some readers to know that while Reiki was previously discussed, there is an article written by Potter (2003) that discusses the distinctions between Reiki and Therapeutic Touch. For purposes of this study and as a modality, Therapeutic Touch is still seen as a hands-on natural healing modality. Aside from this current major difference, there are other differences from Quantum-Touch that merit

discussion. Kreiger (1993) speaks of “a specific technique to move congested energy along or through the long bones of extremities involved in pain” (p. 45). There are also “cue specific” techniques in which the facilitator learns to pick up physical things from the client’s body (p. 54). More importantly, there are four required phases in learning this modality stated as follows: “Centering consciousness, Assessment, Rebalancing or repatterning the energy deficits, hyperactivity, blockages or dysrhythmias and making an informed decision based upon frequent reevaluations of the healee’s energy field about when to discontinue or redirect the healing interaction” (p. 174). While these are significant differences between the two modalities, it was imperative that Therapeutic Touch be considered for purposes of this study. Also, there is a base of clinical research and studies that Therapeutic Touch was able to provide when looking at pain in humans and the overall sense of well-being/relaxation too.

For purposes of the following discussion, this research will use TT for Therapeutic Touch. It should be noted that the professional organization, texts and workbooks all officially refer to Therapeutic Touch as TT.

One of the earliest studies done with TT was conducted by Keller and Bzdek (1986). This study looked at sixty subjects with tension headaches with the goal of reducing their pain. Actual TT was administered to one group while mock/placebo TT was given to the second group. While the effectiveness of TT was supported by 90% of the clients who had reduced headache pain on the post-test from the pre-test, some factors may have affected the study in that some of the subjects had used long-lasting pain medications which might have still been in effect. Another study by Redner, Briner, and Snellman (1991) also looked at headaches, lower back pain and arthritis in 47 subjects.

The goal of the study was also to decrease pain and anxiety of the subjects. Again, reduction of pain and anxiety were demonstrated but the results showed only modest significant differences in pain reduction. However, a study done a year earlier by Meehan (1990) and several others sought to reduce pain in post-operative elective abdominal or pelvic surgery. With 159 subjects in three randomized groups, the subjects were given eight treatments of TT. Those who received TT in conjunction with the analgesic waited a significantly longer time before requesting further analgesic medication. Meehan again conducted another study in 1993 looking at the same issue—reducing pain after major elective abdominal or pelvic surgery on 108 subjects. The subjects were divided again into three groups—one group to receive TT, second group to get mock TT and the third group to receive standard interventions. While there may have been some negative results due to a negative comment by some research staff, there was a reduction of pain in the TT group and the TT group showed a longer duration of pain relief than the mock TT group. The group that had standard interventions showed the most reduction; however, the pain increased in three of that group and substantially in the mock TT group.

A study by Mackey (1994) used charts and diagrams to outline and show the basic principles of TT. The study was attempting to show the importance of TT in current research at that time. Peck (1996) conducted a study to look at the efficacy of TT for improving functional ability in 108 elders with degenerative arthritis. One group was to receive TT while the other group received progressive muscle relaxation (PMR). After six weeks, there were results for 84 of the subjects. The results showed significant differences for both PMR and TT when comparing pre and post assessments for pain; however, the TT decreased pain and distress with higher significance. Turner and several

other researchers (1998) did a study on 99 burn patients with the goal of reducing pain and anxiety using TT. Both pain and anxiety decreased in the subjects. Another study by A. Gordon, Merenstein, D'Amico and Hudgens (1998) studied 27 patients that had osteoarthritis in one or both knees to determine whether TT had an impact on pain, physical disability and general well-being. One group was given TT and the other "mock" TT. They also used standardized validated instruments to measure patients' health status. The results of the study demonstrated that the group receiving real TT showed significant improvements on the pain scale and activity levels. In a recent study, Baird (2001) studied the effect of TT, as a non-pharmacologic intervention on osteoarthritis to determine whether there was a positive impact on pain in place of administering drugs as a first-line treatment. It appeared that TT also warranted consideration as an intervention instead of just medication for osteoarthritis. While osteoarthritic pain lends itself to TT, it is not the only area under study. Herdtner (2000) conducted an earlier study on shattered elbows and elbow pain to determine if TT was useful in addressing pain. It appeared that TT did decrease patients' pain in this area also. A study done by Courcey (2001) looked at the efficacy of TT as a healing modality to determine if TT would prove helpful in addressing pain. Results showed that TT was helpful. A study to evaluate if healing touch could reduce pain and anxiety was also conducted by Welcher and Kish (2001). This study involved 138 patients at a hospital aged 18-94. A determination was made that healing touch showed significant reduction both in pain and anxiety. Further, a study conducted by Abbot and several other researchers (2001) looked at chronic pain in a large randomized clinical trial of 120 people recruited from a major pain management clinic. The clients were given thirty (30)

minutes of TT for eight weeks. Again, TT had a major impact on reducing chronic pain in this trial. A large clinical study done by Newshan and Schuller (2003) showed the positive effects of the TT program on hospital patients. A more recent pilot study by Denison (2004) provided new research on the effectiveness of six TT treatments on pain and the quality of life for persons with fibromyalgia syndrome. It appeared that those clients receiving TT had a statistically significant decrease in pain in the pre and post TT session, as well as, a significant improvement in the quality of life.

As with Reiki, TT has also demonstrated through these formal studies that it too is to be considered as an adjunct modality to the conventional treatment of chronic and general pain in humans. Also, like Reiki, it has an impact on the well being of the individual and can positively impact their quality of life.

Contemporary Theoretical Perspectives

Everyone experiences physical pain at some point, whether acute or chronic caused by such things as a school sporting event, recreation activity, leisurely workout or as a professional athlete. Then there is pain resulting from an unfortunate accident or injury, infection, illness/disease and/or surgery. In any case, pain seems to permeate our lives but chronic pain can be disruptive and more than annoying—it can affect our lifestyles and be quite costly in terms of both time and money spent. Chronic pain appears to be a mystery in that no one seems to know where it comes from and why it persists. An apt description by Caudill (2002, Rev. ed.) declares that, “acute pain is limited in duration and the cause is usually known. Chronic pain lasts longer than three months, and is the result of multiple mechanisms, most of which are not fully

understood” (p.36). In Bellenir (2002) there is the statement, “But some people suffer from chronic pain in the absence of any past injury or evidence of body damage.

Whatever the cause, chronic pain is real, unremitting, and demoralizing...” (p. 3).

Bellenir (2002) found the following:

- Every year in the United States, low-back pain accounts for 93 million lost work days and costs more than \$5 billion in healthcare.
- An estimated 40 million Americans suffer chronic headaches. This includes migraine sufferers who lose 65 million workdays each year.
- Arthritis affects 20 million Americans and costs an estimated \$4 billion each year in lost income, productivity, and healthcare. (ix)

Before delving deeper into the issue of chronic pain and approaches to alleviating such pain, it is necessary to present a short discussion on the theory of pain. Most people are familiar with the “fight or flight syndrome” in which the nervous system releases certain chemicals in the body that prepare it for one or the other activity. It was discovered that the brain also produces chemicals to suppress pain. Bellenir (2002) notes that, “The smaller members of the family were named enkephalins (meaning ‘in the head’). In time, the larger proteins were isolated and called endorphins, meaning ‘the morphine within.’ The term endorphins is now often used to describe the group as a whole” (p. 5). She further finds that “...endorphins lent weight to an overarching theory of pain: endorphins released from the brain nerve cells might inhibit spinal cord pain cells through pathways descending from the brain to the spinal cord. Laboratory experiments subsequently confirmed that painful stimulation led to the release of endorphins from nerve cells” (p. 5). Therefore, when endorphins get into the cerebrospinal fluid that goes

to the brain and spinal cord, they have a calming effect on the nerve cells. O'Hara (2002) sets forth a schematic showing how pain is processed at the site of the injury, in the spinal cord and in the brain. She claims that, "In the spinal cord, narcotic-like small molecules (neuropeptides like the enkephalins and endorphins) are released. These natural narcotics help modify the response in the body and mind..." (p. 42-43). When the body goes into stress, the chemical interaction on the receptors at the pain/injury site determines whether there will be an increase or decrease of pain. O'Hara offers a critical and important argument as follows:

Treating chronic pain problems take time. Clinical experience shows that subjecting the body to a multitude of drugs and invasive treatments has only a limited chance of success, and often only temporarily. Medicines alone rarely provide a cure. Why is this so? There are several contributing factors to chronic pain. Pain memory, central pain and pain receptors...lifestyle issues, body/mind interactions and psychic pain... (p. 79-80)

While these are further discussed in-depth in her book, this researcher will simply address the holistic perspectives and natural methods as alternatives to medicine for the reason stated by O'Hara. Another reason this researcher will address only holistic measures and modalities is due to the view that western/conventional medicine takes toward the body. Caudill (2002) offers the argument that Western culture makes a division between mind and body that is reinforced daily. Caudill (2002) further claims that people have become disenchanted over the past several years with this division declaring that,

In the past 20 years, there has been a growing discontent with the fragmentation of our bodies and minds. Such terms as “behavioral medicine” and “holistic medicine” have been used to describe the integration of mind and body in medical practice. The division of body and mind is a false one, and nowhere is it more ineffective than in dealing with chronic pain. (p. 34)

It is not just a discussion of chronic pain warranted by this study but the holistic modalities that impact chronic pain that are at the heart of this research study. It should be noted that while there are medical interventions that can be considered contemporary and theoretical (new drugs and new invasive surgery), it is the intent to only offer and review non-invasive and nondrug interventions for the relief and reduction of chronic pain in humans. Clearly claimed by Laliberte (2003), “Alternative treatments, in contrast to traditional medicine tend to be relatively cheap (though out-of-pocket costs can add up), patient-controlled, and low-tech. Just as important, they tend to see the body-along with the mind and, often, the spirit-as an integrated whole, not as a collection of isolated parts” (p.110). To that end, only the mind-body natural approaches, methods and modalities will be discussed.

Aside from Reiki and Therapeutic Touch, there are additional complementary (alternative) holistic approaches to addressing and handling chronic pain. Certain methods based on the mind-body connection raised previously are used to address chronic pain. The basis for this as stated before is that the body is not fragmented or separated – the mind can affect the body and vice-versa, so methods can be used to impact the body as a whole functioning unit. A few nondrug theories will be briefly discussed; however, the approaches and modalities are not meant to be exhaustive as the

focus of this study is more upon the hands-on modalities that address chronic pain. Acupuncture, Shiatsu, biofeedback, meditation and the relaxation response (RR) are natural holistic nondrug interventions that come to mind as contemporary perspectives. A short discussion of each follows.

Acupuncture

One modality that readily comes to mind for the relief and reduction of chronic pain as well as invoking a sense of calm and relaxation in the body is Acupuncture. The theory around Acupuncture, which is part of Traditional Chinese medicine (TCM) per Bellenir (2002, 2nd ed.) is “that the more than 2,000 acupuncture points on the human body connect with the 12 main and 8 secondary pathways, called meridians. Chinese medicine practitioners believe these meridians conduct energy, or qi, between the surface of the body and internal organs” (p.402). Further, “Western scientists have found meridians hard to identify because meridians do not directly correspond to nerve or blood circulation pathways” (p.402). For this reason, many Western doctors and scientists dispelled the existence of these pathways and even the idea of qi. Therefore, in their thinking, Acupuncture could not address pain, whether acute or chronic.

As noted by Becker and Selden (1985), “Because of Western medicine’s biochemical bias, no pain killers other than drugs were seriously considered” (p.234). Also, “At that time the prevailing view in the West was that if Acupuncture worked at all, it acted through the placebo effect, as a function of belief. Hence, it should be effective only about one-third of the time, just like dummy pills in clinical tests” (p.234). The “time” referred to in this quote was the early ‘60s. However, one of the participants in a study - an unnamed army colonel-stated about Acupuncture, “It definitely relieves pain.

But we don't know *how* it works" (p.231). "In 1971, while touring China as one of the first western journalists admitted by the Communists, *New York Times* columnist, James Reston saw several operations in which acupuncture was the only anesthetic, and he himself had postoperative pain relieved by needles after an emergency appendectomy" (p.234).

With the changes in mind-body medicine and the acceptance by many that the body is not unconnected to its many systems and parts, formal studies and research have dispelled the past prevailing views on Acupuncture. Also, Acupuncture has been practiced for over 2,000 years by the Chinese who have conducted their own formal studies on the balance of yin (female, dark) and yang (male, light) energies and their impact on qi to keep the body in a state of homeostasis. Simply put, the qi flows through the meridians and Acupuncture is used as part of TCM to keep the flow balanced. So what exactly is the technique? It involves the insertion of fine, slender needles that are inserted under the skin at selected points on the body (along a specific meridian). The needles are then twirled and manipulated by the practitioner to induce pain relief. However, Bellenir reports (2000, 2nd ed.) that "Many specialists agree that patients report benefit when the needles are placed near the site of the pain, not at the body points indicated on TCM acupuncture charts" (p 6). "Wiring the needles to stimulate nerve endings electrically (electroacupuncture) also activates endorphin systems, they believe"(p.6). "Some experiments have shown high levels of endorphins in the cerebrospinal fluid after acupuncture" (p.24). In any case, O'Hara (2002) noted "Pain problems treated with acupuncture include headache, trigeminal neuralgia, peripheral nerve injuries, musculoskeletal pain, low back pain, sciatica and osteoarthritis; this is not

an exhaustive list. Acupuncture also appears to produce relaxation and a sense of calm” (p.135). To sum it up, Acupuncture is worth investigating for many types of pain, both acute and chronic.

Shiatsu

A second modality to consider is another hands-on natural technique known as Shiatsu. Shiatsu is a form of massage that was developed in Japan that found its way into the Western world. It is based upon the TCM ideas of the energy flow of qi and its flow through the meridians as discussed above in Acupuncture. While developed by a Japanese practitioner, he drew upon his Western knowledge and understanding of anatomy and physiology. The best description of shiatsu follows from Laliberte (2003), “Much of shiatsu focuses on diagnosis, using a method known as *hara* in which energy is detected and mapped by palpating areas of the abdomen said to correspond to other sites in the body” (p. 117). Shiatsu practitioners use stretching and squeezing techniques to put pressure on specific points. It is thought that by doing these techniques, that blockages that impede the flow of qi can be broken up and released so that the body can rebalance itself, thereby reducing stress and pain.

Biofeedback

The method of using biofeedback to reduce stress and tension also helps control and /or reduce chronic pain. A biofeedback session is one that uses a trained therapist who, through the process, teaches the client how to control her/his stress and pain. Electrodes are attached to the client which are connected to monitoring devices that give feedback on bodily functions. As discussed by Swanson (1999), “Once the electrodes are

in place, the therapist uses relaxation techniques to calm you, reducing muscle tension and slowing your heart rate and breathing” (p. 134). After this is done a number of times in several sessions, the person learns to control his/her own responses. O’Hara (2002) also suggests that, “The goal of biofeedback is to help you enter a relaxed state in which you can better cope with your pain” (p. 134). Further, O’Hara (2002) declares that, “Biofeedback is an established proven technique by which one learns to control automatic physiologic effects.... Often, other sensations, such as intensity of pain, are controlled in the process” (p. 144). The technique appears to be so effective that, in most cases, once clients learn to automatically control processes occurring in their bodies, they don’t need to be connected to the monitoring devices anymore. Finally, O’Hara (2002) concludes that, “Biofeedback is effective for many types of chronic pain, especially headache, arthritis, muscle pain and temporomandibular joint pain (TMJ)” (p.145).

Meditation

Meditation is another alternative method used for stress reduction and pain control. In its simplest form, meditation is a way to relax and calm the mind. This practice dates back thousands of years and stems from various religious and cultural traditions, but has evolved into forms that may use repetitive secular or religious words (mantra), phrases and/or positive thoughts (called affirmations). Meditation can also focus on the breath, nothing (no-thing) or use quiet rhythmic music and frequencies to still and calm the mind. Meditation can be done on an individual basis or in a group. Swanson (1999) of the Mayo Clinic states that, “Regular meditation can help reduce anxiety and chronic pain. It may also reduce blood pressure and possibly even increase longevity” (p.135). Bellenir offers that, “Meditation, which aims at producing a state of

relaxed but alert awareness, is sometimes combined with therapies that encourage people to think of pain as something remote and apart from them” (p.10). Therefore, meditation can be combined with biofeedback to address chronic pain. Kabat-Zinn and his colleagues at the University of Massachusetts Medical Center became famous for their program at The Stress Reduction Clinic (SRC) of the Center. As founder and director of the Clinic, Kabat-Zinn (1990) offered examples and studies they conducted of people with chronic pain and the impact that their program had on their lives. The SRC was developed to address both chronic illness and chronic pain in patients a conducting several studies with its participants. As he evidences, “These studies have shown that there is a dramatic reduction in the average level of pain during the eight-week training period in the clinic, as measured by a pain questionnaire called the McGill-Melzack Pain Rating Index (PRI). In one study, 72 percent of the patients with chronic pain conditions achieved at least a 33 percent reduction on the PRI while 61 percent of the pain patients achieved at least a 50 percent reduction. This means that the majority of people who came with pain experienced clinically significant reductions in their pain levels over the eight weeks they were practicing the meditation at home and attending weekly classes at the hospital” (p. 288). The technique taught at the SRC is known as “mindfulness” a form of meditation originally developed in the Buddhist traditions of Asia. Simply put, mindfulness is “a moment to moment awareness...cultivated by purposefully paying attention to things we ordinarily never give a moment’s thought to” (p. 2). The follow-up study indicated that an overwhelming 93 percent of the pain patients continued their meditative practice after they left the SRC with 43 percent of them stating that 80-100 percent of their pain improvement was due to what they had learned there. Another 25

percent said that 50-80 percent of their pain improvement was due to learning at the SRC (p. 289). This was in light of the fact that they compared the meditating group with non-meditators at the SRC.

There was little change in the group that did not meditate for purposes of pain control and stress reduction. In fact, the results of the SRC were consistently reproducible year after year-- quite impressive and significant for the practice of meditation. Last, when combined with medication, the SRC proved with other studies that medication alone did not produce the results in patients where both meditation and medication were used together. The evidence was irrefutable that meditation could be used as an intervention along with conventional medical treatment.

Relaxation Response

The last of the mind-body areas to address is that of the relaxation response (RR). Mindfulness can evoke the RR and merits attention and discussion all on its own. Benson's (1976) highly acclaimed book was initially written about the term he coined. Subsequent to that, another book by Benson and Stuart (1993) goes into depth regarding this response and how one can reeducate the body and mind to successfully use it for combating stress-related illness and improving overall health and wellness.

Benson affirms that, "The relaxation response is an inborn set of physiological changes that offset those of the automatic fight-or-flight response. These changes are coordinated; they occur together in an integrated fashion" (p. 35). Benson and his colleagues have studied meditation and the stress response for over 20 years. The beneficial effects of meditation were evidenced through the RR; however, the RR is not meditation and it is not automatic like the fight-or flight response. As discussed by

Caudill (2002), “The RR is a natural bodily response, but it needs to be trained and practiced. It involves (1) focusing your mind on a repetitive phrase, word, breath, of action; and (2) adopting a passive attitude toward interfering thoughts” (p. 56).

Through extensive research, Benson (1993) discovered that various techniques, like diaphragmatic breathing, mindfulness, using progressive muscle relaxation (PMR), repetitive exercise, self-hypnosis and visualization/imagery could elicit the RR (p. 37). Once elicited, the person must practice any one of the several techniques associated with the RR. It must be noted that the RR techniques are divided into what are considered basic techniques and advanced techniques. Until a person is practiced and skilled at doing the basic techniques, s(he) should not attempt the advanced techniques. To sum in Benson’s own words “...you could use your mind to change your physiology in a beneficial way, improve health, and perhaps reduce your need for medication. I subsequently coined the term *relaxation response* to describe this natural restorative phenomenon that is common to all of us” (p. 35).

Relationship of Current Literature to Present Study

There are three common threads found in the research literature and prevailing perspectives that will impact Quantum-Touch as a modality regarding chronic pain. Even if this study was on another issue related to Quantum-Touch, one of the threads would exist. The first is the prevailing skeptical attitude of Western medicine toward non-conventional alternative modalities and forms of healing. The second thread, equally shared by all the modalities, techniques and practices addressed in this section is the view that the body must be dealt with in its wholeness, not its parts, because it has an innate

sense of healing and flow that can be impacted energetically. Invasive techniques and medication are not always required for the body to heal. The third thread is that these modalities, when used as an adjunct to conventional medicine, are documented to have some beneficial impact on chronic pain in humans, despite the prevailing Western attitude.

The concern by Western medicine for alternative approaches can be found in the following statement by Laliberte (2003):

Western medicine, based on scientific research, has long been skeptical of many alternative forms of treating the sick, such as acupuncture and hypnosis, that do not meet the strict criteria of rational proof required by science. In the field of pain management, however, doctors have seen patients receive relief from some of these practices that they have not received from other forms of treatment.

When side effects are minimal, doctors are beginning to look more kindly on such helpful alternatives that complement the use of drug and exercise therapies.

(p.109)

Quantum-Touch appears to fall in line with these modalities. With each one, questions have been raised as to their impact on health in general and specifically with pain. This will be no different for Quantum-Touch in that its impact, if any, must be determined through research and clinical studies. The findings and results shown from the research literature have a direct impact on Quantum-Touch in that they looked at chronic pain and, in some studies, at musculoskeletal issues. It is possible that the results from this study on Quantum-Touch will evidence that it too, can join the ranks of the

other holistic modalities in the quest to alleviate chronic musculoskeletal pain safely and beneficially.

Some of the issues raised by the theoretical perspectives may also relate to Quantum-Touch. One such issue is the “prevailing Western attitude” that Caudill (2002) and Laliberte (2003) addressed.

The following perceptions and statements have been drawn from Laliberte’s (2003) book on chronic pain. With regard to Shiatsu, it was suggested, “Shiatsu’s specific methods and theories have not been scientifically proven or even studied to any great extent...Still you may find it relaxing (though it has a reputation for being a ‘robust’ therapy that may not be comfortable) and it may work in ways similar to acupuncture” (p.117). Regarding Therapeutic Touch is the statement, “The medical establishment is skeptical about therapeutic touch, though nurses in some hospitals incorporate it in their healing practices. With suggestive research backing it up and no downsides, it’s a harmless, though unproven, option for treating pain” (p.118). About Reiki we find the following argument, “Few studies have been done on reiki, and the ideas behind it strike many doctors as exotic and far-fetched. But, like therapeutic touch, it appears to have few drawbacks and may be worth using if it provides comfort or relaxation” (p. 119). The most hopeful comment was about Acupuncture. About Acupuncture it was offered, “It still isn’t entirely clear how acupuncture works, but studies (and many doctors’ clinical experience) suggest it can help with a variety of pains, along with various pain-causing conditions. While still mainly practiced by non-physicians, a number of medical schools across the country (including Harvard) now offer courses on acupuncture for physicians, and enough doctors have become practitioners that they’ve formed their own

organization, the American Academy of Medical Acupuncture. Still, acupuncture may not help everybody...” (p. 114). Further was the statement, “Some NIH studies have been done on acupuncture. Early findings suggest it may help reduce pain and improve function in patients with OA (osteoarthritis) of the knee” (p. 176). Of the mind-body techniques and modalities was found the statement, “On the mind-body front, methods such as meditation, imagery, and deep breathing can better help you cope with pain—and they cost nothing (apart from training sessions) and have no side effects” (p. 176). As the research has shown, well-designed studies must be conducted in the field of Quantum-Touch that evidence the efficacy and worthiness of this modality in addressing chronic pain. Moreover, Quantum-Touch may have to enter the medical realm of hospitals, integrative clinics and pain management centers to find subjects and volunteers willing to undergo scrutiny and testing using different variables by which to prove its techniques. It must be willing, as a modality, to forego the route of simple anecdotal evidence within its own ranks. As with the other modalities, the interest and desire for non-invasive techniques has been expressed by the fact that Quantum-Touch has spread so rapidly in the U.S. and abroad. It is now time for Quantum-Touch to establish sound research literature as reflected by those investigators and researchers included in this literature review. The clinical study proposed by this researcher is an effort to initiate that with the results reflecting the positive impact that Quantum-Touch has on chronic musculoskeletal pain.

Summary

The results of the literature review beg for more study and research on behalf of Quantum-Touch in the area of chronic pain. The literature review clearly indicates that

Quantum-Touch is an area that has not been discussed. Clearly apparent, one of the current barriers for study is the lack of scholarly research and observational studies done with regard to Quantum-Touch and the need for clinical studies so that a body of literature can be developed for future researchers. This is precisely why Quantum-Touch lends itself to scholarly inquiry, required research and what led this researcher to seriously raise the question for study. The modality is lagging behind other hands-on holistic healing modalities and is in sore need of dedicated researchers for several aspects of Quantum-Touch that show potential of this modality in other aspects of wellness and not just for chronic pain.

As Quantum-Touch is so similar to both Reiki and Therapeutic Touch, this study seeks to determine the impact that Quantum-Touch potentially has on chronic pain and the well-being of humans. There is no other alternative that can be taken in order to demonstrate/evidence that Quantum-Touch must have an opportunity to be integrated with other conventional treatment. As there is no existing body of knowledge for research on Quantum-Touch in the area of pain and with specific regard to chronic pain, the most viable research option is to utilize Quantum-Touch in humans to determine its impact. The modality and the field are ready to be developed from the seeds that have been planted by the proposed research. This study will serve as the beginning for a body of literature to be studied and critiqued. This proposal allows Quantum-Touch techniques to be given to human subjects to determine the efficacy of the modality for pain reduction and its potential contribution as a new healing modality for society. While both Reiki and Therapeutic Touch have shown that they too have had a positive impact on alleviating pain and contributing to the well-being of the client, an obvious conclusion from the

literature review is that more research is required. The statistical analysis resulting from this study will contribute to a call for further statistics, expanded variables and a larger clinical study inclusive of other age groups (older and younger).

Contemporary theoretical approaches must continue to investigate and study promising modalities like Quantum-Touch even if they continue to come under scrutiny and skepticism. By conducting more clinical trials and studies, this will provide more opportunities to evidence the efficacy of natural non-invasive modalities so that a more integrative approach to the study of chronic pain in humans can be taken.

Benor (2007) may prove to facilitate the awareness of the modality of Quantum-Touch in that it contains hundreds of research reviews on healing and a meta-analysis on healing, in general. He declares, “There are two broad categories of healing. In the first, prayers or meditation for the ill person’s return to health are conducted either by an individual or a group. ...The second form of healing involves some variation of the laying on of hands. Healers place their hands either on or near the body and may move them slowly or in sweeping fashion around the body.” His book addresses the questions of “Does spiritual healing work,” and “How does spiritual healing work?” (p. 4). His work found in four volumes answers the first question most positively with the following volumes examining anecdotal evidence and a myriad of research studies, (some robust and some not). He asserts, “More controlled experiments have been conducted on healing than on all the other complementary therapies (with the exception of hypnosis and psychoneuroimmunology. There is significant evidence for healing effects on humans, animals, plants, yeasts, bacteria, cells in a laboratory, enzymes, and DNA. These findings challenge Western medicine to make major adjustments in its basic understanding of

health and illness and reflect more general winds of change overtaking Western science” (p. 5). Based upon the studies and research discussed previously for Reiki and Therapeutic Touch and the work compiled by Benor (2007), Quantum-Touch may be able to garner softer criticism than its predecessor modalities. At the least, Quantum-Touch will deserve open and fair examination, if sound clinical studies can be developed.

Additional study of Quantum-Touch in the area of chronic pain will make a contribution toward stimulating tremendous actualization for more study thus creating a body of literature for future investigators.

CHAPTER THREE

DESIGN OF THE STUDY

Introduction

The purpose of this study is to investigate, through the use of human subjects, whether Quantum-Touch has an impact on chronic musculoskeletal pain. The study to be conducted is experimental in nature, and will only address the issue of chronic pain. It was set up as a controlled random trial in which two groups of volunteers were studied in a clinical setting. It used adult human subjects in the study who were current patients under the care of a medical doctor who served as the second Investigator for this study and who specializes in orthopedic and neurological pain, working with muscles, bones and nerves. The study was conducted to determine the impact of Quantum-Touch energy healing on clients with chronic musculoskeletal pain. This study evaluated: 1) whether hands-on Quantum-Touch can enhance the reduction of chronic pain in humans, 2) whether Quantum-Touch can enhance the functional mobility of the same clients and; 3) if Quantum-Touch can take its place with Reiki and/or Therapeutic Touch as a viable, complementary holistic modality to allopathic treatment of pain. The hypotheses tested were: 1) Quantum-Touch is effective in the area of chronic musculoskeletal pain and; 2) Quantum-Touch healing is a complementary modality that can be used to reduce chronic musculoskeletal pain in humans. Other questions answered were: Does Quantum-Touch help create a more positive attitude in the client? Is the client more relaxed after a

Quantum-Touch session? Did the pain actually lessen, according to the Pain Rating Scale the client used? Data was collected using two forms (see Methodology) to obtain the results for these questions. Pain ratings were tabulated and skill/task results were collected and assessed as well. Both types of data were set forth in computer and paper charts. The study evaluated, in a controlled clinical setting, whether Quantum-Touch helps alleviate/reduce/lessen chronic pain. The data collected and the results evidenced that Quantum-Touch healing is a viable complementary holistic modality that can be integrated with western conventional practice in addressing chronic pain.

Participants

The study was made up of both adult men and women between the ages of 18-64. Twelve volunteers were randomly assigned to one of two groups each containing six volunteers. One group served as the experimental group and received hands-on light touch Quantum-Touch energy while the second group received hands-on light touch but no energy. There were no pregnant women, children, minors, prisoners or cognitively-impaired individuals used in this study. The volunteers were both men and women who had been given a musculoskeletal diagnosis which met the definition of chronic. The volunteers were all current patients of the medical doctor, Dr. Doriscine Colley, who had been determined (medical diagnosis) to be otherwise healthy, but had chronic pain in their hands, back or some other part of their body.

The reason human subjects were used for this experimental research is because there has been other documented study using humans for Reiki, Therapeutic Touch and other hands-on healing modalities in the area of pain and stress reduction. Nurses, nurse-

practitioners, doctors and those in mainstream medicine have allowed Reiki and Therapeutic Touch to supplement regular conventional care. Although these modalities may serve as “complementary” or “alternative care,” or be seen as an adjunct to mainstream medicine, clients and patients have requested and opted for such non-mainstream, non-conventional care. Since Quantum-Touch, as a modality, is similar to Reiki and Therapeutic Touch in its techniques and how it is administered to the person (laying on of hands on or above the body), it is of significant importance, almost mandatory that human subjects were used for this research in order to show that Quantum-Touch should also be given consideration as a new intervention for pain and stress reduction.

Since this clinical study involved human subjects, the research was approved March 2009 from the CCNH Institutional Review Board for the Protection of Human Subjects (IRB). As part of that approval, the permission and authorization letter, selection criteria, recruitment source and process, study location, risks involved and potential benefits to the volunteers are discussed below.

Selection Criteria. The researcher collaborated with the medical doctor to determine selection criteria for inclusion and exclusion in the study. The specific criteria and the rationale were developed as a QT Screening Checklist (see Appendix A). This was a strict medical assessment conducted solely by the medical doctor prior to the study. There were eight inclusion criteria and ten exclusion criteria (see Appendix A). The rationale for the selection criteria was based upon having volunteers who were determined as otherwise healthy (through medical diagnosis) and did not have any life-threatening or terminal disease or another disorder that could complicate the study. The overwhelming

majority of these patients' age and condition fell within the scope of Dr. Colley's medical practice and were under her care. Therefore, the CCNH Informed Consent Form - Adult was only used. The inclusion and exclusion criteria were assessed directly from current medical records and from confidential discussion between Dr. Colley and her patients during their initial appointment.

A checklist of the criteria above (Appendix A), was completed and signed by each client and Dr. Colley and kept in the individual client's/volunteer's file. The checklist along with the "Consent to Act As A Research Subject (Adult)" letter described below in the Informed Consent Process, was also completed prior to the start of the study. The researcher insured that both the checklist and consent forms were completed and on file for all twelve volunteers prior to scheduling any appointment for the Quantum-Touch session.

Recruitment Source. Dr. Doriscine Colley's medical practice, Maryland Medical Rehab, is located in two different cities in the state of Maryland. The first office is located in Silver Spring, MD and the second office is in Baltimore, MD. The volunteers were both men and women between the ages of 18-64 who all had a musculoskeletal diagnosis which met the definition of "chronic." A letter typed on Maryland Medical Rehab letterhead gave support and approval by Dr. Colley to this researcher for this study to be conducted and was given to the IRB. This letter also gave the researcher authorization to access medical records as stipulated in the letter. All volunteers were seen at the office where they have their regular appointments. Appointment times for the volunteers were those used during regular business hours. No volunteer was asked to come outside of

regular business hours or told to go to another office in order to accommodate the progress of the study.

Recruitment Methods. The volunteers were all identified from the medical records of Dr. Colley who had expressed interest in bringing holistic techniques into her medical practice. Many of her patients also stated their interest in and readiness to experience alternative and complementary techniques. Therefore, Dr. Colley informed them that she would make available, in the future, a complementary healing method and its techniques. There was no flyer distributed, no written notice or telephone calls made. Dr. Colley simply told patients and by “word- of –mouth” it was spread to many. Several patients expressed high interest and said they would welcome holistic techniques to address their pain. Therefore, Dr. Colley informed them that there was a project brought to her office in which people could volunteer to experience a new intervention called Quantum Touch. This information was given to the patient during their private appointment with her. Once the researcher told Dr. Colley that the pilot project was approved, Dr. Colley also told those interested that participation was on a voluntary basis. She further stated she would hold a meeting where the Principal Investigator and all interested patients could discuss the specifics of the study and address all questions at that time. About twenty-three patients expressed interest and wanted to volunteer for the study. A meeting was held by this researcher for the interested patients in which she answered all concerns and questions. The researcher also let all potential volunteers know that the selection criteria would be applied when reviewing the medical records. Each client/patient who met the criteria would have an equal chance to have his/her name submitted. Selection of the

volunteers was made randomly until there were twelve volunteers who met the requirements for the two study groups.

Informed Consent Process. Dr. Colley made the initial contact with the patients who were potential volunteers in this study. As stated above, Dr. Colley introduced the proposed study by discussing complementary healing techniques with them. She had specifically held talks about her recent training in both Reiki and Quantum-Touch healing and answered questions and concerns. She stated to this researcher that many of her patients were eagerly waiting for her to offer a complementary healing modality in her office and had indicated that this study was an excellent way in which to introduce this to her patients. Dr. Colley also held a preliminary meeting with all potential volunteers and discussed the experimental study. At that meeting, Dr. Colley introduced the Informed Consent Document. Further, she discussed the pilot study's purpose, potential benefits, risks, all survey instruments, confidentiality, duration, number of volunteers, groups, etc. In short, all aspects were addressed. Questions about medical issues were answered by Dr. Colley while the researcher answered questions of a non-medical nature other questions about the study. Since the Office Manager/Secretary also had access to retrieving the client's (patient's) file, that individual was required to attend that meeting. The background information, educational information and telephone number of the Principal Investigator was shared at that meeting. All questions about participation, temporarily stopping or permanently ending participation in the experimental study were answered. The "Consent to Act As A Research Subject (Adult)" letter was also discussed at that meeting (see Appendix B).

Study Location. The research was conducted at the two medical offices in Silver Spring, Maryland and in Baltimore, Maryland. Both offices are housed in a professional office building. A suite containing a waiting room, private exam rooms, records room and the doctor's private office made up the professional setting. Both sites had all medical equipment required by her profession and the state of Maryland to offer medical services in the field of Rehabilitative Medicine. Further, the doctor had a private office where the computer was kept. In addition, there was a file cabinet in the records room that held all medical records, confidential patient information, survey instruments, questionnaires, and other forms pertaining to her practice. Each volunteer was seen in a private exam room and given the Quantum-Touch session. The records for this study were kept at the main office in Baltimore, MD. Paper and computer charts were generated that were kept by this researcher. Also, the screening checklists, pain surveys and functional questionnaires were also kept in one file with the appointment records.

Identification of Risk. Dr. Colley and this researcher discussed the possibility that when the volunteer received Quantum-Touch energy, s(he) could have an increase in pain in the exact area where the energy is given. A second risk was that, during the twenty-minute session, the pain could move from the area that was identified and rated. For example, a volunteer may have chronic pain in her lower back that s(he) rated. The Investigators may give the energy and at the end of the session, the volunteer states that the pain moved to the upper back. Both these risks were considered minimal as the volunteer had already experienced and been living with pain. Also, these risks were thoroughly addressed and discussed at the preliminary meeting that all volunteers attended. Apart from these possible physical impacts, the Investigators did not see any

psychological, economic or social risks for the participants. Last, the provisions stated below addressed these minimal risks.

Management of Risk. As all the volunteers were current patients of Dr. Colley, there were already provisions her offices used in case of increased pain. One such measure was the administration of a hot pack to the area of pain. Per Dr. Colley, other measures she takes to reduce severe or increased pain is to give injections or increase medication. All these measures serve to shorten the duration of any pain. In this manner, harm to the volunteer is greatly minimized. Dr. Colley stated that most of her patients were already on medication prescribed by her. One of the three measures above would be used by Dr. Colley, once the volunteer made the Investigators aware of any increase in pain. Since these are common medical treatments used by doctors in this field, both Investigators felt that these provisions were sufficient to address the risks that may occur during this study. During the study, no risk arose in which a volunteer required an injection or needed a hot pack as a result of the actual session. Also, no volunteer in either group received an increase in medication subsequent to the session.

Assessment of Risk. While the well-being of each patient/volunteer is of utmost importance to the Principal Investigator, the anticipated benefits may not be made known to society or to science, if this study is not undertaken. Quantum-Touch is untested as a modality that may bring both physical comfort and pain reduction to people. Further, Quantum-Touch has the same potential as Reiki to reduce stress and provide a more positive attitude. These possible benefits can result in volunteers who may feel, and in actuality, become more productive human beings. The real changes that may be made to the volunteer/patients' lives cannot be seen or measured if this study is not undertaken.

Another consideration is that all of the volunteers asked to experience and undergo an alternative, complementary technique to combat their pain. This was not a request for medication or another conventional technique, but a request for a holistic method or technique each was willing to undergo. The knowledge and results that the Principal Investigator expects to see, share and make known outweigh the risks involved to the volunteers. Further, the Principal Investigator hopes to unveil, through the results, that Quantum-Touch has a positive impact on the volunteers in specific areas of chronic pain. If this can be demonstrated in this study, Quantum-Touch can also be made available in more private clinical settings, in hospitals, hospices and in integrative clinics and in teaching hospitals. To date, there has been no scholarly study undertaken on behalf of Quantum-Touch since the field is so new. The researcher was aware of the risks to the subjects/volunteers who participated in this study; however, in the pursuit of scholarly research, it was critical that the research be done without further delay. It is hoped that Quantum-Touch can take its place along with other holistic modalities that have also struggled and are finding their place alongside of conventional treatments in western medicine. Last, although the risks were real, so are the tangible benefits to the volunteer- -the possible alleviation or reduction of pain. The potential for Quantum-Touch to reveal this knowledge and provide relief to people with chronic musculoskeletal pain cannot be evidenced without this research at this time.

Potential Benefits. One of the anticipated benefits to the volunteer is that his/her pain will be reduced. Once the volunteer receives the Quantum-Touch energy, s(he) may have a decreased perception of pain. Also, it is possible that the volunteer may have little to no pain after the session. Another potential benefit is that the volunteer may feel more

relaxed at the end of the session. This relaxed state may transmit an overall sense of well-being that allows the volunteer to be in a more positive state of mind. Depending upon the area of chronic pain, another possible benefit is that the volunteer may have more mobility in the area where the Quantum-Touch was given. Since this laying on of hands Quantum-Touch technique is very similar to Reiki, it is anticipated that volunteers may sleep better or deeper as those did who received Reiki. With reduced pain for any given volunteer, it is also anticipated that s(he) may spend less money on prescribed pain medicine and over-the-counter drugs. Since the volunteers were taken from a population of those who all have chronic pain, it is anticipated that the possible benefits could be applied to the total population. From this research, it is anticipated that society and science may see the effectiveness of Quantum-Touch with regard to chronic pain. This would allow consideration for Quantum-Touch to be offered in different medical settings as an adjunct like Reiki or Therapeutic Touch--both of which are offered in some hospitals, hospices and integrative medical clinics. Since society appears to be more willing to experience complementary techniques and methods, Quantum-Touch can make its contribution to holistic medicine more widely known. Science and society both can benefit from the anticipated results of this research as it represents another non-invasive holistic technique offered for the overall well-being of the individual.

Methodology

This section details the method, design, procedures, forms and analysis completed for this study.

Method. This experimental study used random selection and random assignment. A sample of twelve patients with chronic pain was chosen from the patient population, after the inclusion and exclusion criteria were applied. Then, this selected sample was randomly assigned to two groups each containing six volunteers. The experimental group (E) received hands-on light touch Quantum-Touch energy from both investigators for twenty minutes and the control group (C), received hands-on light touch but no Quantum-Touch energy. Both E and C groups were seen individually in a private exam room while a timer was used to quantify the exact number of minutes Quantum-Touch or light touch was given. Also, both groups were blindfolded so that no volunteer knew whether s (he) was given the Quantum-Touch energy. Both men and women in the age group of 18-64 were to be given the energy in the experimental groups in order to determine if Quantum-Touch had an effect on both genders in the adult population. In other words, both men and women with chronic musculoskeletal pain can benefit from Quantum-Touch. Also, using results from the two surveys described below, the researcher desired to show that Quantum-Touch is effective in reducing pain and that this modality should be used (like Reiki and/or Therapeutic Touch) to supplement conventional medical treatment. The researcher recorded relevant data from the pain survey to see if pain was reduced and from the functional survey to see if beneficial changes occurred in the volunteer with regard to performing tasks or skills. Both these measurements will address the two hypotheses set forth previously.

Design. Factors that were controlled in this study were lighting, heat and time. All exam rooms had the same type and amount of lights used since the study must have consistency. These variables were the same. Also, each appointment was thirty (30)

minutes for both groups although the exact time for the Quantum-Touch energy (E) and the light touch (C) was exactly twenty (20) minutes. The other ten (10) minutes was allowed for the volunteer time to complete the study surveys. The pain rating scores on the Pain Rating Scale (Appendix C) allowed the researcher to see if pain increased or decreased at each session and over the span of the study (4 sessions). Also, the design of the Functional Questionnaire (Appendix D), allowed the researcher to determine any benefits or changes in terms of functional mobility from the first session (Appendix D - Before) to the last (Appendix D-After). Consistent increases in pain or the inability to improve in mobility and/or tasks will disconfirm the hypotheses while consistent decreases in pain and improvement in mobility and/or tasks will confirm both hypotheses.

Procedure. All volunteers attended a preliminary meeting to: 1) meet the researcher; 2) discuss the research to be conducted and; 3) address all aspects of the study's proposal. The letter (see Appendix B) and any questions about the experimental study were presented and discussed at that meeting. All volunteers were required to read and sign the consent letter before beginning the study at that meeting.

Each volunteer was told to dress comfortably and warmly and wear socks to each of four appointments. Each participant chose a specific area in his/her body for the Quantum-Touch energy to be given. Volunteers also rated his/her pain at the beginning of each session and again at the end for that specific area using the Pain Rating Scale (Appendix C). The same area was rated and addressed at each session, maintaining consistency for the study. Also, at the first session, the volunteer answered the Functional Questionnaire (Appendix D- Before) to see what tasks or skills s(he) could/could not do

at the start of the study. At the last session, each volunteer also answered the Functional Questionnaire (Appendix D- After) to determine if there had been any improvement in tasks or skills.

Questionnaires and Forms. The medical doctor made the initial contact with the patients who were potential volunteers in this study and introduced the pilot study by discussing complementary healing techniques with them. The doctor also held a preliminary meeting with all potential volunteers and discussed the experimental study. At that meeting, she introduced the Consent Letter (Appendix B). Further, the discussion addressed the study's purpose, potential benefits, risks, all survey instruments, confidentiality, duration, number of volunteers, groups, etc. Questions about medical issues were answered by the medical doctor while questions of a non-medical nature and the specifics of the study were answered by the researcher. Prior to the volunteer's participation, a signed and dated copy of the consent letter (Appendix B) was on file.

Each volunteer completed two additional forms for the study. The Pain Rating Scale (Appendix C), developed by R. Matheson & Associates (2005), is a form that all clients had previously used which is a simple form that allows a person to rate the pain using a number system from 0-10. The scale contains numbers attached to a very short description of the pain. This scale is used to provide a subjective, yet measurable, self-report of pain levels and subsequent effect on function. This form is also a standard form used to rate pain by doctors in the field of Physical Medicine and Rehabilitation. This researcher had each volunteer identify one area of pain then rate the pain before the start of the session and again after the Quantum-Touch energy is given. The second form, the Functional Questionnaire (Appendix D), was used in order to address specific functional

changes that occurred in the volunteer. This form was developed by the medical doctor with input from this researcher and is a broad skills assessment form. The Functional Questionnaire was used at the beginning of the study (first session) and a second time at the end of the study (fourth session). The researcher collected only two ratings for the Functional Questionnaire. There were no other tests or surveys used for this research other than those described in this section. The QT Screening Checklist, Consent to Act as A Research Subject-Adult, Pain Rating Scale and Functional Questionnaire are specifically described in appropriate sections of this study and included as Appendices.

Data Collection

As stated previously, each volunteer was required to sign a “Consent to Act As a Research Subject” letter that allowed only personal information relevant to the Quantum-Touch study to be released from Maryland Medical Rehab to this researcher. This included information such as the diagnosis, age, QT Screening Checklist information, Pain Scale Ratings and the Functional Questionnaire. Distribution of all checklists and forms was handled by both the medical doctor and this researcher subsequent to the meetings where all forms were discussed. All data tabulated from the study was stored in each subject's chart. All records and/or files containing patient information were kept at the Baltimore location in a locked file cabinet and on a computer when not in the possession of the researcher or the medical doctor. The Office Secretary was the only other person who had access to the file cabinet and computer.

A specific coding system was developed by the researcher to protect the identity of the individual volunteer but indicated whether the client was male or female. All

names of volunteers/patients were changed to include only a first and last initial. Also, identification numbers (ID) were assigned to all volunteers in each group so that all individual identifiable data was kept at a minimum. Female volunteers were coded with an “F” while male volunteers were coded with an “M.” A coding system was jointly developed by the doctor and the researcher to identify the control group that received the Quantum-Touch energy and the group that did not. Both investigators recorded the coded data and any related information from the pain survey. Once all data was tabulated and processed for the entire study and all results were collected, the code linking the data to each volunteer was destroyed by shredding. The shredding of any and all data linked to this research was done by the researcher. No personnel other than these two were authorized to shred information pertaining to this research study. Study records currently are maintained in a locked secure location by the researcher and will be kept for a minimum period of three years following this completed study. When these records are destroyed, they will be shredded by a secure facility.

Both the medical doctor and researcher recorded the coded data and all related information from the Pain Rating Scale. All data has been tabulated and processed for the entire study and all results have been collected. Therefore, the code linking the data to each volunteer was destroyed by shredding. More in-depth discussion of this process will be discussed in the full dissertation. The QT Screening Checklist, Pain Rating Scale and Functional Questionnaire was given to each volunteer but handled only by the researcher and the medical doctor. For this study, there were no other human observers or recorders of the data.

While there were no significant departures from the approved research design, there were two hindrances and one problem. As stated earlier, the researcher desired to have a larger sample but due to the time frame for the study and the doctor's current schedule, a larger sample size could not be taken. Further, the study started later than approved due to unanticipated funerals that both the researcher and medical doctor had to attend which impacted the study start date. It should be noted that this researcher did inform the IRB and a later start date was approved for the study. The biggest problem that hampered the study was one volunteer in the Male Control group who decided, in the middle of the study to drop out. The researcher and doctor discovered that he had seen a second medical doctor in order to get more medication but had not informed his primary doctor, Dr. Colley. Unfortunately for the volunteer, this was brought to Dr. Colley's attention. Due to MD state law, the medication prescribed for this patient/volunteer had a limit. This would have resulted in a serious infraction of the law. When the volunteer was confronted with this information and the fact that Dr. Colley could not prescribe further medication and planned to inform the second doctor, the volunteer got angry and wanted to end his participation in the study. After his session, this researcher and Dr. Colley decided to end his participation. This researcher felt that had he not chosen to drop out, this researcher would have dismissed him from the study due to his illegal action and compromising behavior. However, this reduced the sample size from the original twelve volunteers to eleven. At this point in the study, this researcher immediately contacted her dissertation Adviser. After a thorough discussion, this researcher was informed to continue with the study with the eleven volunteers without replacing the former volunteer. The Adviser agreed with this researcher and doctor that it appeared that the

former volunteer was attempting to comprise the study. Aside from those issues, there were no other problems. The impact this caused was that the variables of comparing pain ratings between males and females of both groups could not be done as it would not prove to be statistically valid-a larger sample size must be used. Therefore, ANOVA sampling could not be done. While initial data was collected and tabulated for the former volunteer, it could not be used. The data analysis that resulted, however, still evidenced positive information for Quantum-Touch and the small pilot study.

Data Analysis

The researcher reviewed all tabulations for all eleven volunteers from the Pain Rating Scale to determine the results of increased/decreased pain for a specific area for each volunteer. She also determined whether there were increases, decreases or no changes for the tasks and functions as specified on the Functional Form. These scores from the Pain Rating Scale were translated into percentages for each volunteer and also applied to the entire sample so that the researcher could assess the impact of Quantum-Touch healing on chronic pain. Data came from both categorical and continuous measurement scales. The words on the Pain Rating Scale were descriptive enough to indicate whether Quantum-Touch had or had not reduced pain. The independent variables of this study were gender and age. Dependent variables were the new skills or tasks that the volunteer were able to perform at the end of the study and the overall sense of well-being that the volunteer had at the end of the study. Also, volunteers' comments made on the Functional Form will be used as anecdotal information in Chapter Four of this dissertation.

Based upon the small number of volunteers (11) for the study and only two groups, a simple *t*- test for validity was selected as opposed to ANOVA since the sample size was not large enough to warrant this analysis. The choice of the simple *t*- test for statistical reliability and validity was based upon the four sub-groups analyzed - Female Experimental, Female Control, Male Experimental and Male Control. All data was put into illustrated tables and figures so that the results are clearly and easily visible to the reader. In short, the reader will be able to view: 1) individual pain ratings for each participant over the 8-week period; 2) graphs of the increases or decreases for each group and, 3) statistical descriptions (mean, variance, Pearson Correlation) in chart form. Specific results and findings that arose from the analysis for the two major groups will be discussed in detail in Chapter Four. The conclusions, implications and recommendations that drawn from this study will be discussed in Chapter Five of this dissertation.

The statistical data that resulted from this small clinical study proved the study's hypotheses having answered both questions raised in Chapter One regarding the impact of Quantum-Touch as follows: 1) its effectiveness on clients with chronic musculoskeletal pain, and; 2) whether Quantum-Touch as a modality deserves to be considered as an adjunct to the conventional treatment of pain in a clinical setting. In short, the descriptions of how Quantum-Touch reduced or alleviated pain in people can no longer be viewed as anecdotal evidence and reduced to the placebo effect theory. Quantum-Touch must not be relegated as quackery and is a holistic modality worthy of consideration as a new complementary method to consider in the allopathic treatment of chronic pain along with Reiki and Therapeutic Touch. The statistical results demonstrated that the clinical intervention of Quantum-Touch clearly had a positive on chronic

musculoskeletal pain in both men and women. An in-depth statistical analysis of the experimental and control groups based upon the Pain Rating Scales and Functional Form is fully discussed in Chapter Four of this dissertation.

Scope and Limitations

The scope of this study was narrow in that the researcher specifically studied the issue of chronic musculoskeletal pain in adult humans, not general or acute pain. Also, the focus was not on children, teenagers or the elderly. One of the limitations to the design, however, was the length of time for the study to be conducted-this was not designed as a longitudinal study. Another limitation was the sample size for the study in that due to the medical doctor's schedule, only a certain number of individuals could initially participate in the study. Although there were many patients/clients that the medical doctor and this researcher could observe, there were restrictions due to scheduling hours and Maryland state laws to observe for Medicaid patients. Therefore, a smaller number of volunteers for the sample than what the researcher originally desired could actually participate in the study. This imposed a possible weakness upon the resulting analysis and the statistical tests to be used for greater validity and reliability. A further limitation was the problem with one volunteer as previously described in the Data Collection section of this dissertation. Whatever was beyond the control of the researcher limited her to some degree, but this researcher used the available resources and statistical tests that are available to prove the hypotheses and present valid evidence on the positive and effective impact of Quantum-Touch on chronic musculoskeletal pain in men and women.

Summary

The research design involved conducting an eight-week clinical study of eleven, (initially twelve), adult men and women volunteers of a medical doctor who all had chronic musculoskeletal pain. The researcher obtained the required permission and authorization letters needed to satisfy the IRB, as well as addressed all requirements stipulated in the IRB document for approval of this study. The clinical intervention for this study was Quantum-Touch hands-on healing in order to determine its impact on the volunteers' chronic pain, as measured and evaluated through two specific forms (Pain Rating Scale and Functional Form). The volunteers, after having attended a required meeting, completed a QT checklist and signed consent letter, were randomly assigned to either the experimental group (received Quantum-Touch energy) or the control group (received simple touch with no Quantum-Touch energy) for study. The results from the study were collected, tabulated and coded anonymously but reflected the statistical analysis required to prove the hypotheses of this study and present valid evidence to ultimately answer the three research questions. All confidentiality with regard to participants, data collection, storage and elimination was satisfied by this researcher. The requirements for maintaining confidentiality subsequent to this study will be met by this researcher. While there was initial collection of data for twelve subjects/volunteers, one participant was dropped due to an issue (see Data Collection). Data to be collected and analyzed did the following: 1) yielded the conclusions and positive answers for Quantum-Touch in terms of its impact and effectiveness in addressing chronic pain in humans and; 2) evidenced that Quantum-Touch can be considered as a valid supplemental holistic

modality alongside of conventional treatment for chronic musculoskeletal pain in men and women.

CHAPTER FOUR

RESULTS AND FINDINGS OF THE STUDY

Introduction

The purpose of Chapter Four is to present and analyze the data from the Pain Rating Scale (Appendix C), the Functional Questionnaire-Before and After (Appendix D), and any related findings from the experimental research study. The data were statistically analyzed using the standard Excel statistical package from Microsoft Office 2007. The researcher used the current formulas and language from those compilations to analyze the data. The data for the subjects' actual pain ratings are separated into tables as female and male within the experimental and control groups. Then individual pain ratings are depicted graphically within the appropriate group in order to see the increase or decrease in pain during each session of the study. The last data presented are the t-test results which are also separated into tables as female and male within the experimental and control groups. Specific volunteer comments taken from the Pain Rating form are also included in this chapter. The final analysis is a comparison of the skills and functions for volunteers at the beginning of the study and again at the end, as notated from the Functional Questionnaire-Before and After (Appendix D). All tables and figures related to data collected for this study on Quantum-Touch and its impact on chronic pain are listed in the table of contents; however, all data and comments are displayed in this chapter as the sample size for this study was small.

Initially there were twelve adult volunteers between the ages of 24-60 for the study with six females and six males assigned to either the experimental or the control group. A further breakdown assigned three females to the experimental group, three females to the control group, three males to the experimental group and three males to the control group. Unfortunately for the study, one male in the control group dropped out and would have been eliminated due to reasons explained in Chapter Three. The study collected and analyzed data for these eleven subjects.

As taken from the QT Screening Checklist (Appendix A), five of the eleven volunteers representing 45% had surgery as a prior conventional medical intervention. A further breakdown shows that of those five having surgery, three were females and two were males. The remaining six had no surgeries. However, also taken from the QT Screening Checklist, five of the six female subjects and all five male subjects were on conventional pain medication at the beginning of the study. Since ten of the eleven volunteers were on medication, this represented 90% of study's participants who were taking conventional medication to address their chronic pain at the start of the study. All of the eleven subjects or 100% believed that the hands-on Quantum-Touch energy modality would help their pain and had asked the physician, Dr. Colley, to allow them to participate in the study.

Data Analysis

Each volunteer used the Pain Rating Scale (Appendix C) at the beginning and the end of each timed 20-minute session for the eight week study. At the beginning of end of each session, each subject had to rate his/her pain before s(he) was blindfolded and administered either the Quantum-Touch energy (experimental group) or the hands-on

light touch (control group). At the end of the session, each subject was allowed a timed five-minute rest before rating the pain again. Participants used the following scale to provide a numerical rating:

No pain to mild pain:	0-2
Moderate pain:	3-4
Severe pain:	5-6
Very severe pain:	7-9
Emergency pain:	10

Specific areas of pain rated by the subjects were the hand/wrist, elbow, shoulder, hip, abdomen/pelvis, knees/legs and back. The same area of pain was rated by each subject for each session during the study while the researcher and doctor gave either the Quantum-Touch energy or the hands-on light touch energy to the designated area of pain. Comments from each subject, where noted on the Pain Rating Scale, are compiled in a separate section following the data analysis displayed in the tables and figures.

Table 1 shows the session ratings for each of the three females in the Experimental Group. In reviewing this table, it is clear that every woman for each session had at least a 50% or greater reduction in pain from the start of the session to the end of the session. In one case, there was a 100% reduction in pain to “0” for every session. These reductions occurred throughout the entire study. Figures 1 and 2 display the dramatic decreases in the pain ratings. The table and figures clearly show that the intervention of Quantum-Touch energy significantly impacted the female subjects’ pain.

Table 1

Experimental Female Before and After Pain Ratings

	Week 1		Week 2		Week 3		Week 4	
	Start	End	Start	End	Start	End	Start	End
F#1	4	2	6	2	7	2	5	1
F#2	3	1	6	2	4	0	4	0
F#3	3	0	3	0	4	0	4	0

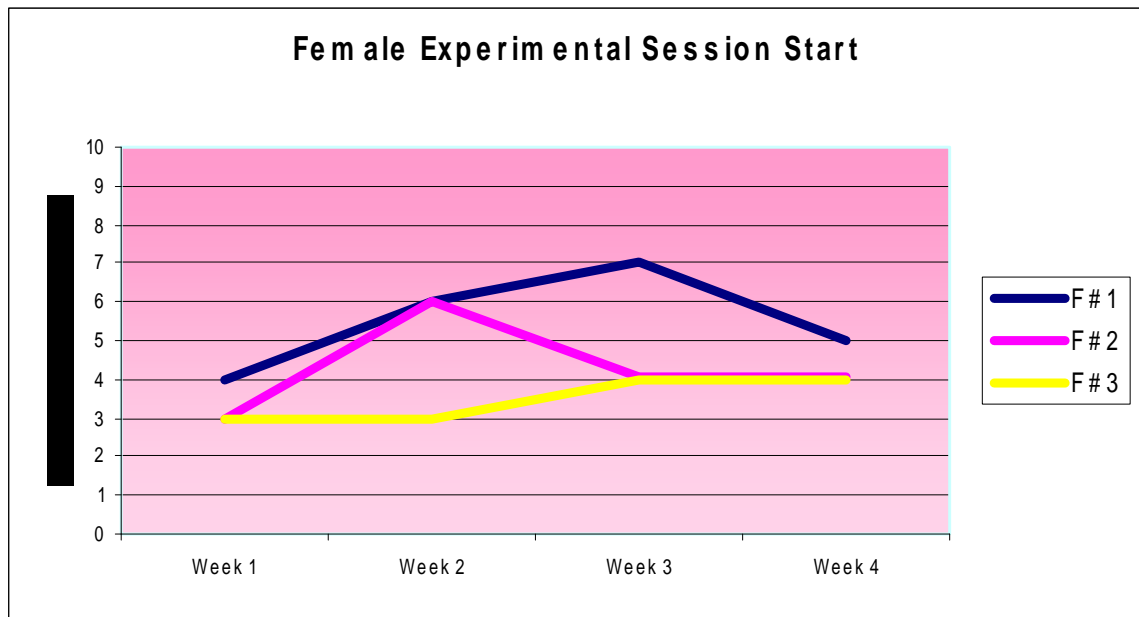


Figure 1. Experimental Female Before Pain Rating

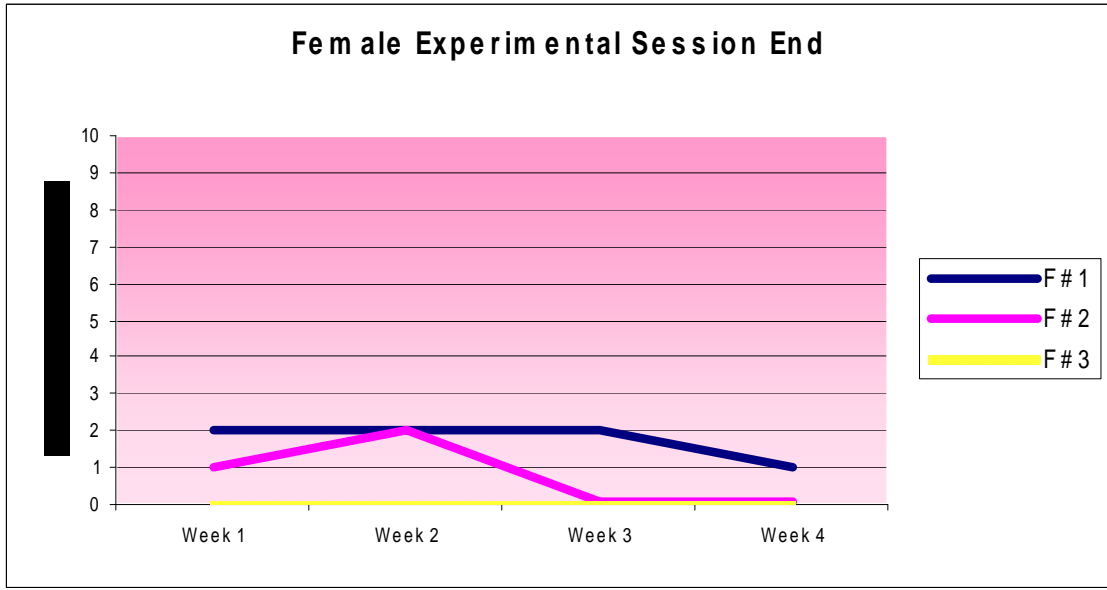


Figure 2. Experimental Female After Pain Rating

Table 2 shows the session ratings for each of the three females in the Control Group. In reviewing this Table, there is a different and distinct pattern. In two of the three female subjects, there was a decrease of only 1 point in the pain rating; however, all the other pain ratings remained exactly the same or increased for each session. Figures 3 and 4 display the unchanged pain ratings and the increases. This is the group of female subject that did not have Quantum-Touch energy as an intervention but instead were given light hands-on touch energy.

Table 2

Control Female Before and After Pain Ratings

	Week 1		Week 2		Week 3		Week 4	
	Start	End	Start	End	Start	End	Start	End
F#4	5	6	4	4	7	7	6	8
F#5	8	8	6	6	8	7	7	8
F#6	4	4	3	3	5	4	5	4

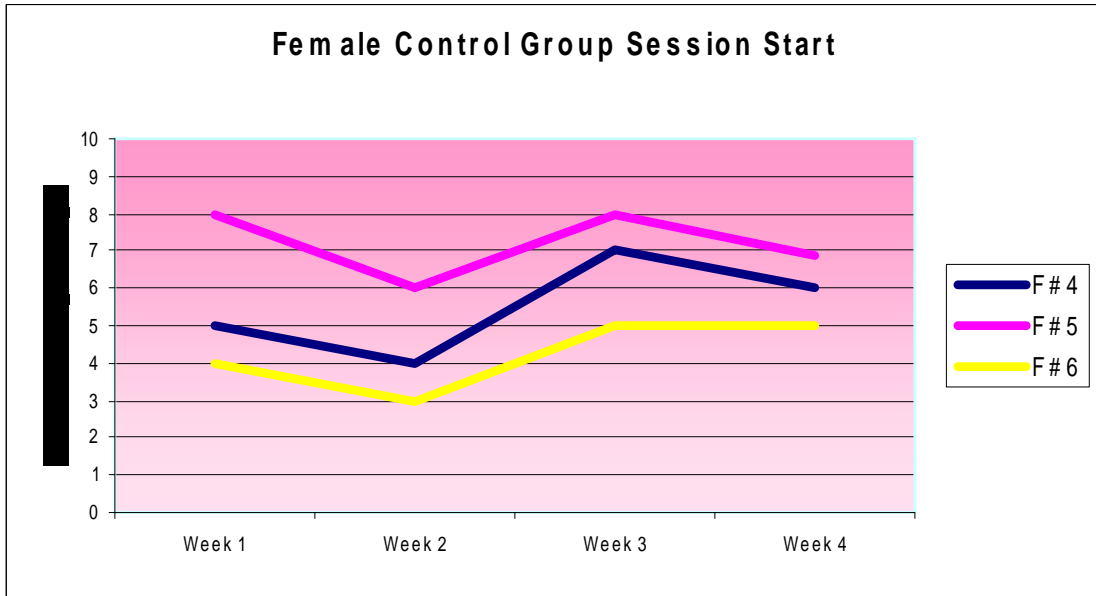


Figure 3. Control Female Before Pain Rating

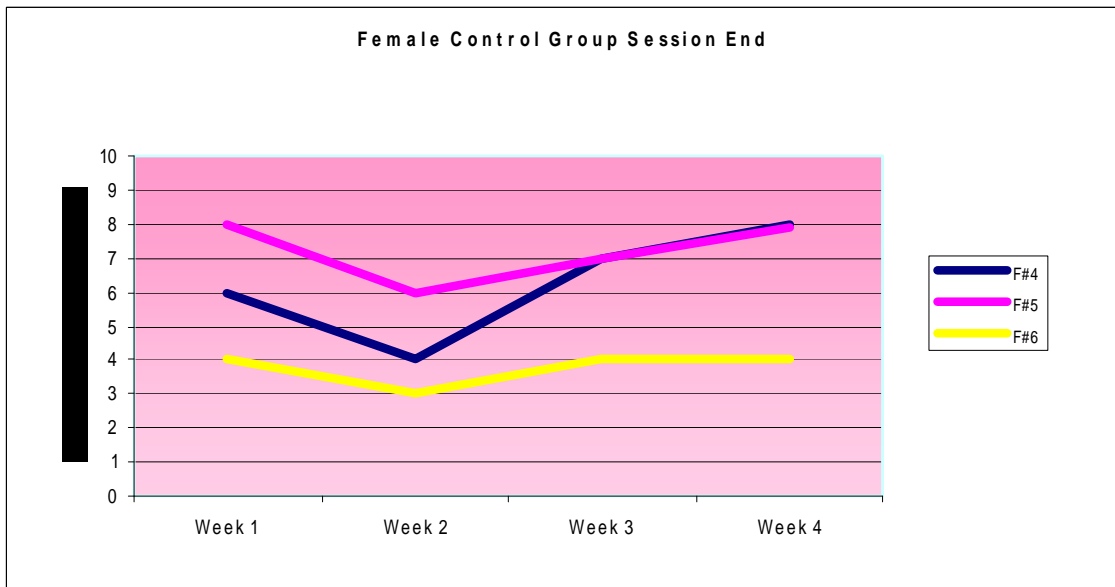


Figure 4. Control Female After Pain Rating

Table 3 displays the session ratings for each of the three males in the Experimental Group. A review of this table clearly depicts pain reductions for every

male for each session. The reductions were at least 50% or greater for each session with only two exceptions in which the decrease was only by one point. These reductions occurred throughout the entire study. Figures 5 and 6 display the decreases in the pain ratings. The table and figures again clearly show the intervention of Quantum-Touch energy significantly impacted the male subjects' pain.

Table 3

Experimental Male Before and After Pain Ratings

	Week 1		Week 2		Week 3		Week 4	
	Start	End	Start	End	Start	End	Start	End
M#1	7	4	5	1	6	3	6	4
M#2	4	2	4	2	2	1	3	1
M#3	8	4	6	4	9	6	6	5

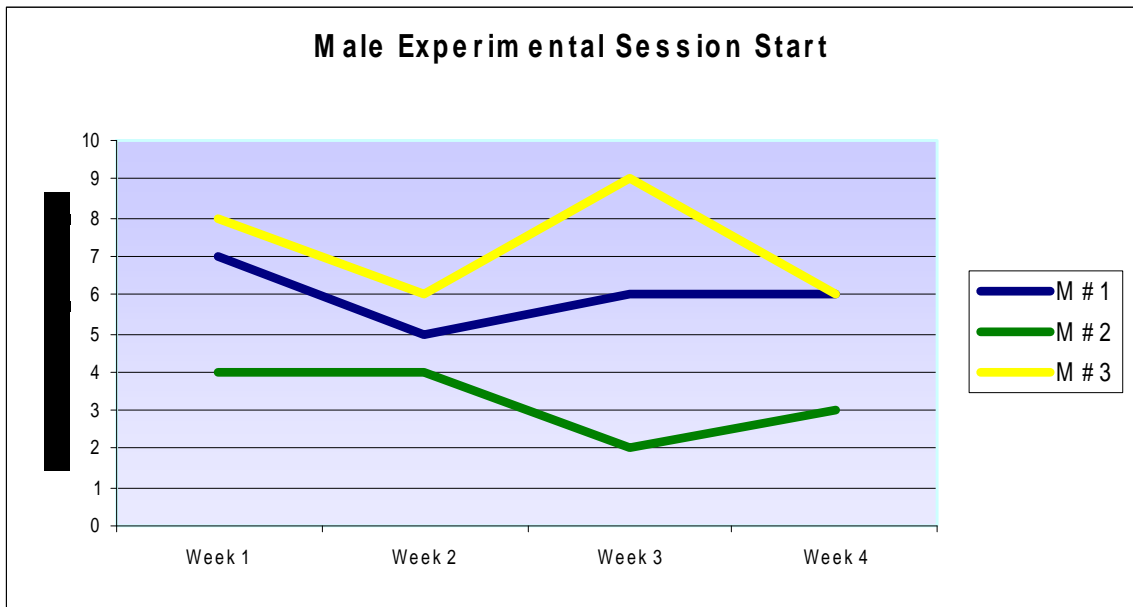


Figure 5. Experimental Male Before Pain Rating

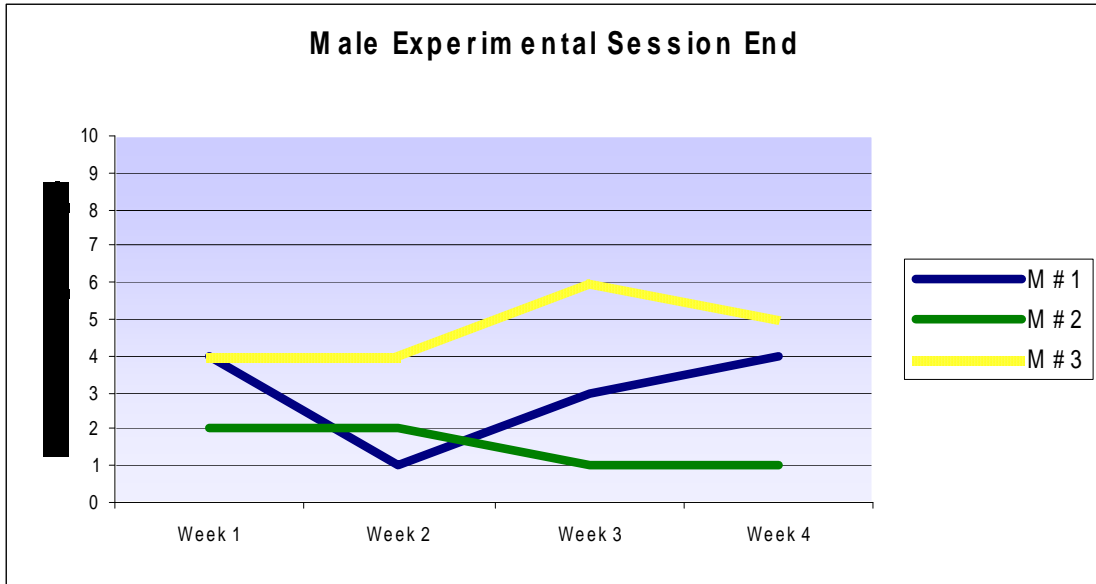


Figure 6. Experimental Male After Pain Rating

Table 4 displays the session ratings for the two males in the Control Group since the third male dropped out prior to the end of the study. For one of the males, there was no change in the pain rating for any session. This individual rated the pain exactly the same at the start and end of each session using the same numerical rating throughout the entire study. For the second male, there was a reduction in pain by one point for three of the four sessions, but there was also an increase in pain for one session. Figures 7 and 8 display the unchanged rating for the one male and the decrease and increase in ratings for the second male. This is the group of males who did not receive Quantum-Touch energy but hands-on touch energy.

Table 4

Control Male Before and After Pain Ratings

	Week 1		Week 2		Week 3		Week 4	
	Start	End	Start	End	Start	End	Start	End
M#4	7	7	7	7	7	7	7	7
M#5	5	4	7	6	6	7	7	6

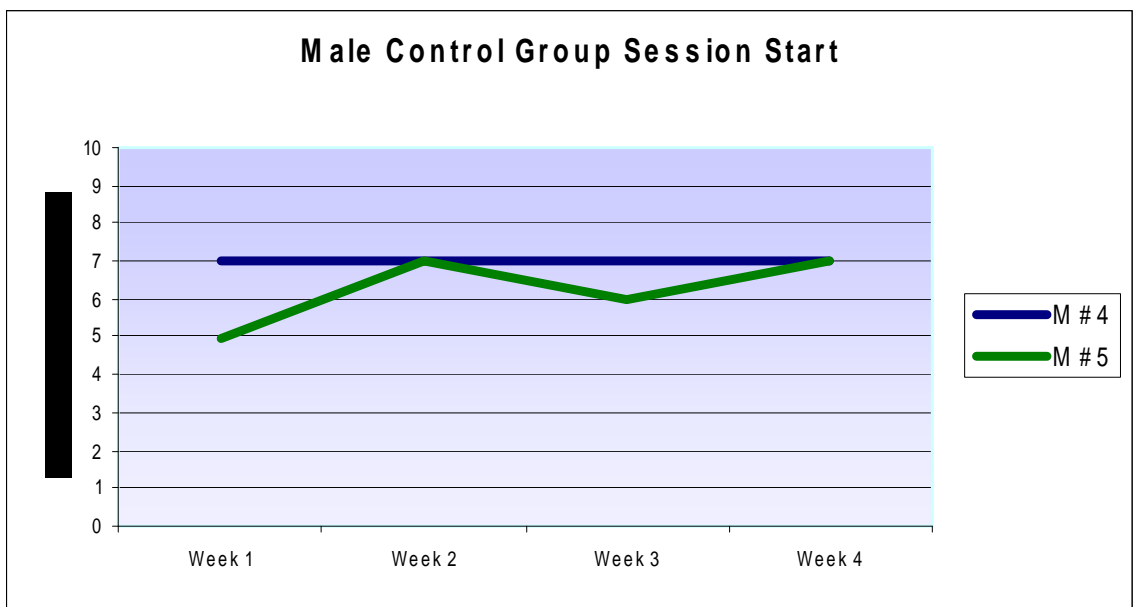


Figure 7. Control Male Before Pain Rating

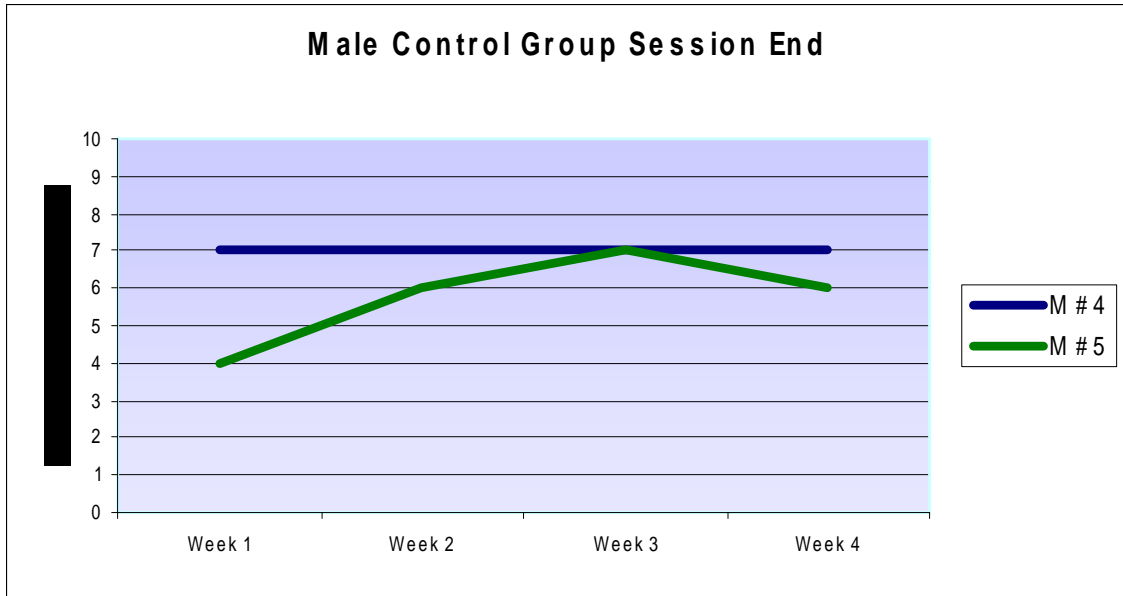


Figure 8. Control Male After Pain Rating

The study collected and analyzed data for the eleven volunteers. While there were only eleven subjects, there were twelve data points for each subject except for the Male Control Group due to the male that dropped out. The twelve data points consisted of four sessions for each of the three subjects in both groups except for the Male Control Group. The data points made up the observations before the intervention and after the intervention. Therefore, this allowed the researcher to test the effects of the intervention in each session, pre and post. Since this was a small study, the *t*-test used was the paired two sample for means. Tables 5, 6, 7 and 8 show the matched-pairs *t*-test for each group in order to assess the statistical significance of the mean change from these data points. Variable 1 in each table represents the “Start” of each session while Variable 2 represents the “End” of each session. Further, each of the tables displays the Pearson statistics and associated P-values for testing whether there was an impact resulting from the

intervention. Each table is presented and includes a short statement for that specific group.

Table 5 shows the results for the Experimental Group of females. The t -test =13.787. It can be readily interpreted by this researcher that the pain levels for the women in the Experimental Group changed significantly in each of the four sessions following the intervention.

Table 5

Experimental Female t -Test

	Variable 1	Variable 2
Mean	4.416666667	0.833333333
Variance	1.71969697	0.878787879
Observations	12	12
Pearson Correlation	0.727176916	
Hypothesized Mean Difference	0	
df	11	
t Stat	13.7870995	
P(T<=t) one-tail	1.37956E-08	
t Critical one-tail	1.795884814	
P(T<=t) two-tail	2.75911E-08	
t Critical two-tail	2.200985159	

Table 6 shows the results for the Control Group of females. Since the t -test = -0.320, it can be interpreted by this researcher that the pain levels for these women did not change significantly in each of the four sessions without intervention.

Table 6

Control Female *t*-Test

	Variable 1	Variable 2
Mean	5.666666667	5.75
Variance	2.606060606	3.47727273
Observations	12	12
Pearson Correlation	0.875777291	
Hypothesized Mean Difference	0	
df	11	
t Stat	-0.320630221	
P(T<=t) one-tail	0.377249674	
t Critical one-tail	1.795884814	
P(T<=t) two-tail	0.754499347	
t Critical two-tail	2.200985159	

Table 7 displays the results for the Experimental Group of males. As shown, the *t*-test= 8.403. Therefore, the researcher interpreted that the pain levels for the men in the Experimental group changed significantly in each of the four sessions following the intervention.

Table 7

Experimental Male *t*-Test

	Variable 1	Variable 2
Mean	5.5	3.083333333
Variance	4.090909091	2.810606061
Observations	12	12
Pearson Correlation	0.871326198	
Hypothesized Mean Difference	0	
df	11	
t Stat	8.403470748	
P(T<=t) one-tail	2.03958E-06	
t Critical one-tail	1.795884814	
P(T<=t) two-tail	4.07917E-06	
t Critical two-tail	2.200985159	

Table 8 displays the results for the Control Group of males. Since the *t*-test = 1.000, it can be interpreted by this researcher that the pain levels for the men in the Control group did not change significantly in each of the four sessions without intervention.

Table 8

Control Male *t*-Test

	Variable 1	Variable 2
Mean	6.625	6.375
Variance	0.553571429	1.125
Observations	8	8
Pearson Correlation	0.746728657	
Hypothesized Mean Difference	0	

df	7	
t Stat	1	
P(T<=t) one-tail	0.175308331	
t Critical one-tail	1.894578604	
P(T<=t) two-tail	0.350616663	
t Critical two-tail	2.364624251	

As evidenced from the *t*-test results, there were significant changes in both the Female and Male Experimental Groups to the $p < .05$ level with the intervention. There were no significant differences, however, pre and post with the Female and Male Control Groups. Therefore, the intervention of Quantum-Touch energy proved highly significant in both experimental groups.

Pain Rating Scale Volunteer (Subject) Comments

The researcher and the doctor noted comments on the Pain Rating Scale that each subject made about her/his pain prior to the session and at the end of the session (after the five-minute rest period). One female from the Control Group came in with a moderate level of pain but felt that her pain increased by the end of the session. Another female subject from the Control Group stated that she had pain in the usual place at the beginning of the session but the pain moved to a different place on her body by the end of the session and she hurt just as much. A third female subject from the Control Group was using a cane when she started each session and complained that she was still on the cane at the end of each session. In the case of the male Control Group, one subject stated that his pain stopped momentarily in one leg, but he felt he got a new pain in another part of his body by the end of the session. That same male felt that his level of pain never

changed during any session for the entire study. The second male from the Control Group felt his pain increased at the end of the second session and he expressed difficulty in getting up. The comments resulting from the experimental groups were distinctly different and positive. One female from the Experimental Group said that her pain dissipated each session and that during one session she felt energy, felt very strong and had a lot less pain. A second female from the Experimental Group stated that at the start of the first session she had very little sensation in her hand, but by the end of the third and fourth sessions, she had no pain whatsoever and sensation had returned to her hand. The third female in the Experimental Group commented for one session that, “it felt like you pulled the pain right out.” She also said that she “feels great after” each session. In the Experimental Group of men, one male said that “the energy felt like a gust of wind down his back” and he could feel energy in his hands. The second male in the Experimental Group stated that he felt lighter and that he came into his third session with a swollen hand but by the end of that session, the swelling was all gone. That male subject also stated that he felt “real relaxed” during that session. The third male in the Experimental Group said that he fell two days prior to coming to the second session and hurt his back. He was experiencing back pain, as well as, his original pain coming into the second session. By the end of that session, he stated that his pain was reduced after the session and he felt much better.

Functional Questionnaire- Before and After (Appendix D) Analysis

The purpose of the Functional Questionnaire (Functional Form-Appendix D) was to assess the skills/ tasks that the subject could or could not do at the first session and at the last session. Therefore, it was developed as a “Before” and “After” form and only

used twice during the study. Both the researcher and the doctor wanted to determine if the Quantum-Touch energy was having any positive effect/impact on the subjects in-between the actual sessions with regard to performing specific tasks over the eight-week study period. Each subject was asked to state with a “Yes” or a “No” what s(he) could or could not perform on the “Before” Form at the first session and how easy or difficult the skill/task was to execute in the description section. The doctor and the researcher checked to see if there was any improvement or change in the functional skill/task level of the subject at the fourth session by again giving each subject the “After” form with the same instruction-- the subject was again to state how easy or difficult the skill/task was to execute after eight weeks.

Comments from each of the subjects in the experimental and control groups were notated on the forms. In the Experimental Female Group, one woman, at session one, could not stand on her feet long to prepare meals, could only stand for 30 minutes and could only walk for 30 minutes. At the end of session four, this subject said she could stand much longer for meal preparations, increased standing on her feet to 40 minutes and was walking for 40 minutes. She remarked that this was a great improvement for her that she increased her standing and walking by 10 minutes over an eight week period and was very pleased. She had not changed anything in her routine other than participate in the eight-week study. A second female in the Experimental Group had problems with driving, reaching and lifting at the first session. At the fourth session, she said while she didn't test her driving and thought it may be the same, there was a definite improvement in both reaching and lifting. The third female subject in the Experimental group had problems with heavy cleaning, walking, bending, getting up to stand, kneeling and

grocery shopping at session one. At the fourth session, this woman stated that she could grocery shop with less difficulty, her “knees didn’t give out like they used to,” she could kneel and the stiffness in bending was gone. She could now use both legs and not put all the weight on her right leg which she was doing at the first session. Last, she could wear short heels which she had not done in years. She was very thankful for the study she told her because of her positive changes. In the Experimental Male Group, one man stated at his first session that he could not vacuum, could only stand for ten minutes, had to elevate his feet when lying down, light cleaning was an issue and he always had pain when he slept. At the fourth session, he stated that sleeping was still the same, but “light cleaning is much better,” he could vacuum, “I stand a little longer and feel much better” and lying down was better and he didn’t have to elevate his feet all the time. The second man in the Experimental Male Group at his first session could not put on his belt when dressing, lying down was difficult, and he could not sleep in a bed and had to sleep in a recliner. By the fourth session, he stated that while he still had difficulty putting on his belt, lying down was much better and he could now sleep in a bed and not a recliner. He was very happy about his improvements. The third man in the Experimental Group stated that walking was very limited, grocery shopping was hard and “I have a hard time doing most everything” was his statement at the first session. By the fourth session, he had not grocery shopped and was unable to state whether that had improved or not and he felt he hadn’t tested walking enough. Surprisingly, however, he stated that he had gone out fishing for the first time in twelve years. He also said he tolerated walking and staying out for 4 and ½ hours with his medication with him but he didn’t need to take them. He was extremely pleased he said and felt that something positive had changed for him.

The results for the control groups were not positive. In the Female Control Group, one woman at her first session had problems with light cleaning, vacuuming and lying down. At the fourth session, she stated that, there was “no change or improvement” in any areas for her. The second woman in the Control Group at her first session had issues with both light and heavy cleaning, walking, could only stand if she took medication, could not bend and also needed medication for sleeping. At the end of her fourth session, she stated that “everything is the same.” The third woman in the Female Control Group at the first session had problems with pushing the vacuum cleaner, pain when folding laundry, needed pillows when lying down and had problems with using the computer. In her case, she felt that she could tolerate the computer a little longer but still had pain when folding laundry and there was no improvement with the other tasks at all.

In the Male Control Group, at the first session, the first man had problems with reaching, could not lift, had difficulty sometimes with bending, restless sleep and had problems with what he sits on and where he sits. At the end of the fourth session, his statement was “everything is the same as before. I don’t see where anything helped me” and “I rested good for 1 week in-between all those sessions.” The second man in the Control Male Group at his first session had problems with both light and heavy cleaning, with vacuuming, lifting, walking, bending, sitting and sleeping. By the end of his fourth session, he stated, “there is no change in my status. Nothing improved.” In reviewing the comments from the two main groups, the Experimental Group and the Control Group, it’s very clear that there was great improvement in the skill and task level for both the men and women in the Experimental Group. Some of the subjects were doing things that they had not done in years and improvements with standing and walking were marked for the

eight-week study. This was not true of the Control Group. As noted from the comments, there was almost no change and no improvement in any of the skills/tasks for either the men or the women. Most of the subjects in the Control Group indicated their frustration to the doctor and this researcher at the end of the study. Therefore, it was clear that the intervention, the Quantum-Touch hands-on energy given during the session, had a positive impact/effect in improving the task and skill level of the men and women in-between sessions for the Experimental Group over the eight-week study period. It also appeared that the comfort level with some things like sleeping, standing and walking also increased for this group.

Limitations

One of the obvious limitations of this study was the sample size. A larger sample size would have yielded more data with which to compile statistical data, do more comparison and use ANOVA instead of the paired two sample for means t-test analysis. This would have allowed for comparisons between the groups as opposed to the analysis and comparison done within each group. Also, there would have been more variables to compare such as grouping by the area of injury and comparing within specific age ranges. Also, another obvious limitation was the impact on the study of the man who dropped out of the Male Control Group in the middle of the study. His data would have been included and impacted the analysis of the Male Control Group. Further, his comments would have been included on both the Pain Rating Scale and Functional Questionnaire. For this researcher, there is no way to determine whether his dropping out was really detrimental or positive to the study. Regardless, he had to be dismissed had he not dropped out due to his behavior which, when discovered, compromised the study. Last, in the area of forms,

there may have been other questions included along with the skills and tasks on the Functional Questionnaire that may have yielded greater validity to the study's findings. That form could have collected the time frame for the subject in which s(he) was not able to perform specific skills and tasks.

Summary

This study collected the results of eleven volunteer subjects with chronic musculoskeletal pain over an eight-week study period with the majority on conventional pain medication. Six of the volunteers were female and five were male due to one male drop out were assigned to either an experimental group that received the intervention of Quantum-Touch or a control group that received hands-on light touch. All subjects used two forms, the Pain Rating Scale which collected numerical pain ratings for four sessions and the Functional Questionnaire which notated subjects' comments and assessed skills/tasks they could or could not perform at the start of the study (session 1) and at the end of the session (session 4).

As both forms were used for very different purposes of this study, they were analyzed differently. The Pain Rating Scale data was collected and put into tables and graphs for displaying the increase or decrease of pain and the subject's progress having received the intervention over eight weeks. The values were statistically analyzed using a protected or paired *t*-test for four groups. All figures and tables related to data collected for this study on the impact of Quantum-Touch energy on clients with chronic musculoskeletal pain are listed in the table of contents and located in Chapter Four. In addition to the statistical data tabulated from the four sessions, specific comments were

notated and taken from the Functional Questionnaire which was used at the first and fourth sessions only as that form assessed solely the impact and effect of the intervention on the subject's ability to perform specific skills/tasks. It was noted from the results of the statistical data that there was a 100% reduction of pain for each woman for all four sessions in the experimental group and at least 50% or more reduction in pain for each man for all four sessions in the experimental group over the eight week study period. This was clear evidence that the intervention worked on humans with chronic musculoskeletal pain and that the intervention was effective. Not only was the intervention highly significant as evidenced by the *t*-test results, the research also evidenced the positive effect of Quantum-Touch on clients from the comments made on the Pain Rating Scale form and the Functional Questionnaire. The subjects in the experimental group made significant improvements in their ability to perform skills and task with a positive impact on their comfort level also. Last, the research also evidenced that Quantum-Touch deserves to be considered as an adjunct to the conventional treatment of pain in that over 90% of all the subjects were on pain medication; however, their improvement in skill levels and comfort came as a direct result of the intervention of Quantum-Touch for the experimental group. The control group of men and women showed almost no improvement in pain reduction and, in some cases, showed an increase without the intervention.

Further, based upon the comments from the Functional Questionnaire of both men and women from the Control Group, there was no improvement in their ability to perform skills and tasks and no change in their comfort level. It would appear that this researcher

has answered the three research questions posed in the first chapter of this clinical study in that:

1. The intervention of Quantum-Touch has a positive impact on clients with musculoskeletal pain;
2. Quantum-Touch is effective in addressing chronic musculoskeletal pain in humans and;
3. As a modality, Quantum-Touch deserves to be considered as an adjunct to the conventional treatment of pain in a clinical setting.

It would appear that this researcher has successfully proven the hypotheses. Clear evidence from this small clinical study indicated that Quantum-Touch, as a complementary hands-on modality, deserves consideration as a modality along with Reiki, Healing Touch and the other supplemental modalities currently used to address chronic pain and/or pain reduction.

CHAPTER FIVE

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

FOR FURTHER RESEARCH

Introduction

The purpose of this chapter is to interpret the findings and results from the statistical data, draw logical conclusions and make recommendations for further research on the modality of Quantum-Touch. It is clear that further study is needed on a larger scale as this pilot study was conducted with a small sample within a short time period.

Conclusions and Implications

The initial problem statement involved evaluating whether the hands-on form of Quantum-Touch could enhance the reduction of chronic musculoskeletal pain in humans, enhance functional mobility and if it could take its place along with Reiki and Therapeutic Touch as a viable complementary holistic modality to the allopathic treatment of chronic pain. In studying the problem, the primary questions to be addressed were whether Quantum-Touch is effective for humans with chronic musculoskeletal pain and if the modality should serve as an adjunct to supplement conventional western treatment in a clinical setting? The initial evidence from the findings and results of this

study shown in Chapter Four clearly indicate the efficacy of hands-on Quantum-Touch and its impact on chronic musculoskeletal pain in humans. This statement is made based upon the significant decrease in pain ratings across the board for both men and women in the Experimental Group. In all cases for each volunteer over the eight-week study period, there was a significant reduction in pain from the initial rating. Therefore, it can be easily stated that Quantum-Touch, as an intervention, had a positive impact on all of the volunteers. Further, the descriptions and statements from the volunteers in the Experimental group taken from the Functional Questionnaire - Before and After, also indicated positive improvement in the skill and comfort level of the participants. In short, descriptions of how Quantum-Touch reduced or alleviated pain in people, whether chronic or acute, can no longer be viewed simply as anecdotal evidence or reduced to the placebo effect theory. Not only did the pain lessen in the Experimental groups, volunteers were relaxed after the sessions and had improved skill functions indicating an overall positive response to the intervention. With regard to the Control group, there was little positive that could be said. As a matter of fact, when reviewing the pain rating results from the Control group, there was very little improvement in pain reduction. Clearly for some volunteers during some sessions, there was actually an increase in pain. Further, the pain moved to different areas in the Control groups. Since these subjects had no intervention, no Quantum-Touch energy and only had hands-on light touch, it can be stated that Quantum-Touch does make a difference in the decrease of chronic musculoskeletal pain in humans. In this first clinical study, the following was found:

- High significance in reduction of chronic pain for both female and male Experimental groups (results of Pain Rating Scale)

- No significant differences in pre and post pain measurements with the Control groups
- That Quantum-Touch as an intervention can be used to address chronic musculoskeletal pain
- Positive impact for the Experimental groups in increasing skill mobility (results of Functional Questionnaire)
- Skill mobility remained the same for the Control groups
- Quantum-Touch appears to provide benefits of relaxation and calm during a session (comments taken from Pain Rating Form)
- Quantum-Touch needs to be considered as an effective modality to adjunct conventional allopathic treatment of pain

The results from the t-tests clearly evidenced the high statistical correlation when Quantum-Touch was administered to the subjects as opposed to when no Quantum-Touch energy was used. This further indicates the validity of Quantum-Touch as a healing tool to be used for chronic pain in humans. Upon further review, the statistical analysis also supported and proved the hypotheses in that the results clearly evidenced that Quantum-Touch healing is effective on men and women. The results demonstrated its efficacy so it can be considered along with Reiki and Therapeutic Touch to address and alleviate chronic pain. The research design and instruments used (forms) positively supported the findings and results of this study. Specifically, the forms compiled numerical ratings of pain with which all volunteers were familiar and also allowed room for comment. Since the volunteers had familiarity with the Pain Rating Scale, that made for a higher correlation between the decrease and/or increase in pain. The comments taken from the Functional Questionnaire - Before and After made it clear and easy to determine an improvement or lack thereof in performing skills and tasks. Also, it was

quite notable that one female individual in the Experimental group always had a pain reduction to zero for every session while one male in the Control group never changed his rating during the duration of the study.

There are clear implications from the findings and results presented. One question begs to be asked which is what is the impact of Quantum-Touch on acute musculoskeletal pain in humans? Since the evidence was overwhelmingly positive on the reduction of chronic pain, it can be implied that Quantum-Touch will have an impact on the reduction of acute pain. Therefore, it can be further implied that hands-on Quantum-Touch can be used to address and alleviate acute pain in humans. The administration of Quantum-Touch for 20 minutes should have a similar impact upon human subjects with acute pain. Another logical conclusion from the findings is that in the case of acute pain, the energy of Quantum-Touch should also enable the individual to feel relaxed and calm. This researcher can draw the logical conclusion from the evidence that with more time allowed for the administration of Quantum-Touch, a higher reduction in pain should occur as the subject gets calmer the longer the energy is given. Also, given the significant decrease in pain for adults after 20 minutes, what is the implication for the administration of Quantum-Touch for children? If Quantum-Touch had such a great impact on adults in a 20-minute time frame, what would its impact be on children who have acute or chronic pain? It would appear that Quantum-Touch could be used to alleviate pain in children and teens with the same calming effect it had on adults. In examining this further, perhaps Quantum-Touch healing could be used to address anxiety in children, especially those labeled as “ADHD” or “ADD” as it appears to have a calming effect on humans as evidenced on the adults in the study. When examining the larger picture of health and

self-care in society, there needs to be consideration of Quantum-Touch to be used to address and alleviate pain in general, not simply musculoskeletal pain. This researcher specifically chose chronic musculoskeletal pain for the study since so many people suffer from it and it is so costly to citizens in the United States (see Chapter Two). If Quantum-Touch can be used as successfully as Reiki and Therapeutic Touch, what would be the cost savings to current health expenditures? Society would have use of another healing modality that is non-invasive and drugless. Also, since Quantum-Touch is simple and easy to learn, adults and children alike could benefit from learning and administering it. The significance of Quantum-Touch in the area of pain left no doubts when examining the findings and results. To expand the discussion further, including Quantum-Touch as a modality in hospitals and hospices would indicate another positive step into mainstream medicine so that this holistic modality could be offered alongside conventional medicine in the treatment of pain. It certainly proved its efficacy for chronic pain in this small study. As for self-care, one can administer Quantum-Touch to the body for any length of time if the body is in pain. In caring for family members that are/were hurt in accidents or suffering from acute or chronic pain, people can use Quantum-Touch energy to address the pain and care for those individuals.

There is global applicability of this healing modality just as with Reiki and Therapeutic Touch. R. Gordon's vision (1999) is to expand Quantum-Touch into different healing organizations, into schools, having professional sports teams travel with Quantum-Touch practitioners, having at least one person in each family with the knowledge of how to administer/practice Quantum-Touch and taking Quantum-Touch into third-world countries. Quantum-Touch could easily be taught in nursing programs

and in medical programs. Just as with Reiki where teaching hospitals have included that modality, Quantum-Touch can be incorporated into teaching curriculums in the area of pain management. The current Quantum-Touch organization trains health professionals, nurses and massage therapists-all of whom receive credits that can be used in their studies and careers. These are the same people who will populate the hospitals, emergency care rooms, hospices, and walk-in clinics. Some will become the administrators and policy-makers at mainstream health institutions but also the fast-rising integrative health clinics. Quantum-Touch can make a huge impact due to its effectiveness in the area of pain and as a non-invasive modality with gentle healing techniques. The efficacy and importance of this modality cannot be overlooked any longer based upon the clinical study conducted in this research. It merits closer scrutiny due to the findings and results evidenced in this pilot study.

Recommendations for Further Research

This research raised an ancillary question that could not be answered due to the small sample of this study. While the study did use females and males in both groups, the sample size did not allow for a comparison of pain ratings between the men and women of either the Experimental or Control groups. Specifically, was there a difference in pain reduction based upon gender? Statistically this could not be addressed as a larger sample size is required. There is definite validity and value with the t-tests presented for this first clinical study; however, there could possibly be more value using F ratios of ANOVA. ANOVA statistics do allow for comparison between or within groups when the sample size is large enough. Therefore, the first recommendation of this researcher is to conduct a study of the same problem using the identical hypotheses but increase the sample size

so that ANOVA can be used. Further, this researcher suggests that additional variables be included so that results of the study can be greatly expanded, analyzed and discussed. A larger controlled experimental study using a longer time frame is needed in order to have a more in-depth exploration of Quantum-Touch and its impact in reducing chronic musculoskeletal pain. Also, future research could look at categories of musculoskeletal injuries within the selected female and male populations within the sample groups to determine whether Quantum-Touch has more or less impact and effectiveness upon specific areas of the body. For instance, with further research, Quantum-Touch may be shown to be more effective with back pain, scoliosis, sciatica and headaches as opposed to ankle and leg pain, shoulder and arm pain or with specific challenges like carpal tunnel syndrome. There is great potential for further study with Quantum-Touch and its effect upon children. Although not addressing pain as such, the implications pointed out earlier for reducing anxiety in children is an area ripe for study for Quantum-Touch and of interest to this researcher. The potential of Quantum-Touch as a tool for relaxation and its use in the field of body-mind medicine may be of interest to many as we live in such a stress-related world today. The research offered by this study is an initial starting point to the large area of potential study for Quantum-Touch. Research must also be conducted to address the population of elderly people – seniors- as the “baby boomers” will soon constitute the largest population of people to have lived beyond the age of 65. A study could be conducted on the types of musculoskeletal pain that exists in the elderly and the impact of Quantum-Touch healing upon this population and specific health challenges. All of these are additional avenues of research that are calling for study and statistical data. As more research is undertaken, it is only reasonable to expect that more questions

will be raised and more issues will have to be addressed. Just as the other fields of holistic healing (Reiki, Therapeutic Touch, Acupuncture, etc.) were initially questioned by mainstream medicine and skepticism arose around the efficacy of techniques and their impact, Quantum-Touch will undergo the same scrutiny, skepticism and sometimes unfair undermining and criticism that the predecessor modalities endured. Regardless, the need for more research, more clinical study and documentation must be conducted as more people in our society have demanded more non-invasive modalities and techniques to address their health challenges. Also, in order to challenge more conventional mainstream thought and criticism, the current field of holistic and integrative medicine must use more scientific methods and produce data based upon these methods so that a modality like Quantum-Touch may rightfully take its place in the world of integrative and complementary medicine and be recognized as a viable modality in the world of allopathic medicine as well.

Summary

In closing, this research studied the issue of a relatively new holistic modality, Quantum-Touch, and its impact on adult clients with chronic musculoskeletal pain using two measurable forms - one to compile subjects' pain ratings and one to assess improvement or lack thereof in individual skills and tasks. In the final analysis, the results and findings compiled from the Experimental and Control groups demonstrated with high statistical significance, that Quantum-Touch hands-on healing was effective on chronic pain when administered for a minimum of 20 minutes on both men and women. Further, it was evidenced that there was a positive impact on the skill/task level of those subjects who received Quantum-Touch hands-on healing. Last, over the duration of the

study, for those who received Quantum-Touch energy, there appeared to be a calming or relaxing effect resulting at the conclusion of the sessions. Therefore, logical reasoning resulting from the data collected and the t-test tables warrant that Quantum-Touch be considered as a modality to administer alongside with conventional treatment in the area of chronic pain management and specifically musculoskeletal pain. The implications for Quantum-Touch to be studied with regard to acute pain and pain in general are undeniable in light of the results and findings from this study. Further, since this small clinical study was the first conducted for Quantum-Touch, more research must be conducted for this field in order to gather more information and statistical data for other categories of pain and other groups of people such as children and seniors. In order to address this, a larger study must be conducted using more variables and a longer time period for the duration of the study. What was made very clear through the research, was the fact that Quantum-Touch healing is effective and has a positive impact on clients in the area of chronic musculoskeletal pain. This holistic modality like others before it can now offer itself to the world of health and wellness as a viable method worthy of consideration in the arena of pain management with documented evidence of its impact and effectiveness.

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APPENDIX A

QT Screening Checklist

Date: _____

ID#: _____ Initials: _____

Inclusion Criteria	Yes	No
1- Subject has chronic pain		
2- Subject fails to respond to physical therapy and/or surgery		
3- Subject is currently on pain medication(s)		
4- Subject has a well documented pathology/diagnosis		
5- Subject has never received Reiki		
6- Subject has never received Quantum-Touch		
7- Subject date of injury or surgery is not recent		
8- Subject has a diagnosis of a musculoskeletal issue		
Exclusion Criteria		
1- Subject has recent injury(ies)		
2- Subject has acute (recent) pain		
3- Subject is pregnant		
4- Subject is under the age of 18 (minor) or over the age of 65		
5- Subject is a prisoner		
6- Subject has a diagnosis of a terminal disease		
7- Subject is cognitively impaired		
8- Subject has a history of myocardial infarction, cardiac disease, or is on dialysis		
9- Subject has a history of renal disease, severe respiratory disease, or Complex Orthopedic Disorder		
10- Subject has a diagnosis of HIV and/or AIDS		
Subject Age:		
Diagnosis:		
Date of Injury:		
Surgery date:		

APPENDIX B

Consent To Act As A Research Subject

CLAYTON COLLEGE OF NATURAL HEALTH

(IRB Stamp of Approval)

CONSENT TO ACT AS A RESEARCH SUBJECT

The Impact of Quantum-Touch On Clients With

Chronic Musculoskeletal Pain

You are being asked to participate in a research study. Before you give your consent to participate, it is important that you read the following information and ask as many questions as necessary to be sure you understand what you will be asked to do.

INVESTIGATORS: Adara L. Walton, N.D., M.Ed. is the principal Investigator who attends Clayton College of Natural Health. This Investigator is affiliated with the Department of Natural Health. The second Investigator is Doriscine Colley, M.D., a Medical Doctor. She is Board Certified in Physical Medicine Rehabilitation. Dr. Colley deals with orthopedic and neurological injuries. The Research Advisor at Clayton College of Natural Health supervising this study is Janice E. Martin, Ed.D., N.D., LPC/S.

PURPOSE OF THE STUDY: This study is designed to see if Quantum-Touch, a natural “hands-on” method like Reiki, has an impact on clients (patients) with chronic musculoskeletal pain in their hands, ankles, back or other body part. “Musculoskeletal” means muscles and bones. “Chronic” means that the client (patient) has had pain for weeks, months or years beyond the

normal healing time. Also, the client's (patient) pain can be mild or severe. The client (patient) is currently under the care of Dr. Doriscine Colley.

There will be twelve (12) volunteers. These twelve volunteers will be randomly assigned to one of two groups. Each group will have six people. Both men and women between the ages of 18-64 will participate in this study. This study will take place at the two offices where Dr. Colley sees patients.

The study will cover a two-month period. You will go to the office you normally visit.

Dr. Colley stated that there would be an experimental study her office would offer to help with pain. The study involves a non-invasive hands-on process to help address the pain in your body. You showed interest and asked to volunteer for the study. So, you were asked to participate. It is hoped that Quantum-Touch energy will help ease the pain you have.

DESCRIPTION OF THE STUDY: If you agree to participate in the study, you will visit Dr. Colley's office two times for two months. This is a total of four visits. One group will receive Quantum-Touch energy and one group will not. You will not know which group you are in as you will be randomly assigned to one of the two groups.

Each office visit will be 25-35 minutes.

You will complete two forms. One form is to rate the pain on a scale from 0-10 at each visit. You will rate the pain before receiving Quantum-Touch and again at the end of the session. This means that you will have eight ratings for this study. The second form is to tell us the kinds of tasks you can or can't do at the first session. You will fill this form out again at the last (4th) session.

Quantum-Touch Process

You will lie down on a table, fully clothed with your shoes off. We will also put a blindfold over your eyes. You will receive a twenty (20) minute session of hands-on light touching. Both Adara Walton, N.D. and Dr. Colley will put their hands gently on the specific area of pain. They may allow the Quantum-Touch energy to flow. At each session, you will rate the same area of pain. They will give you Quantum-Touch energy to the same area. In this way, there will be consistency in your sessions that they can measure. We will use a time-clock so that Quantum-Touch is given for exactly 20 minutes. A five (5) minute rest period will be allowed at the end of each session.

You will interact with the same staff you normally do at Dr. Colley's office except that Adara Walton, N.D., will be with Dr. Colley during the study. Adara Walton only serves as the Principal Investigator for the study. She can't make medical recommendations. She has no other responsibilities with regard to Dr. Colley or her office.

WHAT IS EXPERIMENTAL IN THIS STUDY: Quantum-Touch is considered "experimental" in that two groups of people will participate in this new intervention (the experiment) of hands-on healing. There are two groups that make up this experimental study. The experimental group will receive the new techniques of hands-on Quantum-Touch energy while the control group will receive hands-on touch but no QT energy. Again, you won't know which group you are in as you will be randomly assigned to a group. The form you use to rate your pain is not experimental. It is a standard form used to rate pain in the field of Physical Medicine Rehabilitation. You should be familiar with this pain rating scale as Dr. Colley has used it before. The second form is new and was developed for this study.

The Quantum-Touch process and techniques have not been used before with clients (patients) with chronic pain in a clinical setting. Since it is new, Quantum-Touch is seen as a research intervention. So, Quantum-Touch healing must be considered experimental.

RISKS OR DISCOMFORTS: There may be some risks associated with this experiment. You already see Dr. Colley for chronic pain, but there could be a possible increase in pain in the exact area where we give the Quantum-Touch energy. Pain is uncomfortable so any increase is not welcomed by you or the Investigators. Another possible risk is that the pain may move from the area we work on to another place in your body. For example, we may give Quantum-Touch to your lower back but the pain may move to your upper back. Since there is the potential for discomfort, you must let us know if the pain increases or moves. We want you to be relaxed and comfortable for each session. If the pain increases or moves too much, you can choose to discontinue participating. You can stop either temporarily or permanently. Also, Dr. Colley can give you some other kind of treatment like a heat pack or an injection. We have made the room temperature, lighting and office itself as comfortable as possible so that you will have a pleasant experience during this study.

BENEFITS OF THE STUDY: Quantum-Touch, as a holistic modality, is similar to another holistic modality called “Reiki.” Quantum-Touch, like Reiki, is an energy medicine practice that has a goal of transmitting a healing, life-force energy to the client. Reiki has been used in clinical settings and in hospitals by both nurses and doctors. The benefits from Reiki have been written about and documented in many studies and books. It is hoped that Quantum-Touch can take its place along with Reiki to show how it too can potentially help reduce pain and stress in a person’s life. Clients (patients) who have received Reiki often state that there is a decrease in pain after a Reiki session. Also, after Reiki, many report having a more positive attitude and are very relaxed. Some studies state that people sleep better and longer after a Reiki session. Quantum-Touch, like Reiki, is very gentle and offers the same potential benefits. Since both modalities seem to induce a relaxation response, people/society can benefit from having less stress. People can live more peacefully with a calm attitude and be more productive. Another potential benefit is that there is no medication to take—the energy itself appears to reduce and ease pain. In this respect, there will be far less money spent on drugs and medications to lessen pain. This would be a benefit to our economy and society. While we cannot guarantee, however, that you will receive any benefits from participating in this study, we see the potential for you to receive some of the same benefits described above. Quantum-Touch, as a new non-invasive modality, has the potential to make a significant impact and contribution to science and society in the area of chronic pain.

ALTERNATIVE METHODS OF CARE: We note that you are already under the care of a primary Physician who has training in both Reiki and Quantum-Touch. Dr. Colley can also give you natural supplements and holistic remedies. If you want another option, Dr. Colley can refer you to a Chiropractor or for Acupuncture. Both of these health areas also address chronic pain.

CONFIDENTIALITY: The Principal Investigator, Adara Walton, N.D. will store and maintain all data and information collected for this study at Dr. Colley’s offices. Records and data collected and used will be stored in a separate room in a locked file cabinet. Adara Walton will

also keep a computer chart and a paper chart. The only two people with access to the computer password for this study will be Dr. Colley and Adara Walton. So, they will be the only ones with access to the computer chart. Your paper chart will be stored in your file.

There are three people who can retrieve paper records which are the Office Manager/Secretary, Dr. Colley and Adara L. Walton, N.D. No audio or video tapes will be used for this study. Both offices are locked at the end of the work day. Study records will be maintained in a locked secure location by the Primary Investigator, Adara L. Walton, N.D., for a minimum period of three years following the completion of the study. When the records are destroyed, they will be shredded by a secure facility.

We will keep all facts about you private. However, persons other than those doing the study may look at study records. Those with the right to look at your study records include the Clayton College Institutional Review Board (IRB). Records can also be opened by court order. We will keep your records private to the extent allowed by law. We will use your initials rather than your name on study records where we can. Your name and other facts that might point to you will not appear when we present this study or publish its results.

INCENTIVES TO PARTICIPATE: There are no monetary or financial incentives associated with this study, other than the potential benefits of Quantum-Touch, derived by the experimental group. Therefore, no participant/volunteer will be paid for participating in the study. At the end of the study; however, those volunteers who were in the control group will be offered an incentive. Since the control group does not receive the QT energy during the study, you will be offered a free QT session at the end of the study. Please note that you will not know who will be offered the free session until the study is completely over.

COSTS FOR PARTICIPATION: The only cost for participating is the usual cost for your office visit. This includes your travel to and from the office. There are no costs for exams or tests associated with this study.

COMPENSATION FOR INJURY: **It is unlikely that participation in this project will result in harm to participants. If any complications arise, we will assist you in obtaining appropriate attention. If you need treatment of hospitalization, as a result of being in this study, you are responsible for payment of the cost for that care. If you have insurance, you may bill your insurance company. You will have to pay any costs not covered by your insurance. Clayton College of Natural Health will not pay for any care, lost wages, or provide other financial compensation for any harm resulting from participation in this study.**

VOLUNTARY NATURE OF PARTICIPATION: Participation in this study is voluntary. Your choice of whether to participate will not influence your future relations with Clayton College of Natural Health. If you decide to participate, you are free to withdraw your consent and to stop your participation at any time without penalty of loss of benefits to which you are otherwise entitled.

Further, the study Investigators have the right to end your participation in this study for any of the following reasons; i) it appears that the sessions are causing you more pain; ii) it would be

dangerous for you to continue, iii) you are not following the study procedures as directed by the study Investigators, or iv) the sponsor or the Clayton College IRB decides to end the study.

QUESTIONS ABOUT THE STUDY: If you have any questions about the research now, please ask. If you have questions later about the research, you may contact Adara L. Walton, N.D. at 410-799-8066. If you have questions regarding your rights as a human subject and participant in this study, you may call the Clayton College IRB for information. The telephone number of the IRB is Toll Free (877) 782-8236. You may also write to the IRB at:

**Clayton College of Natural Health
IRB for the Protection of Human Subjects
Post Office Box 2488
Birmingham, Alabama 35201
Attn: Janice E. Martin, Ed.D.
Research Coordinator**

AGREEMENT: The Clayton College of IRB for the Protection of Human Subjects has approved this consent form as signified by the Committee's stamp. The consent form must be reviewed annually and expires on the date indicated on the stamp.

Your signature below indicates that you have read the information in this document and have had a chance to ask any questions you have about this study. Your signature also indicates that you agree to be in this study and have been told that you can change your mind and withdraw your consent to participate at any time. You have been given a copy of this consent form. You have been told that by signing this consent form you are not giving up any of your legal rights.

Name of Participant (please print)

Signature of Participant

Date

Signature of Principal Investigator

Date

APPENDIX C

Pain Rating Scale

ID#: _____ Initials: _____

Please rate your major area of pain on the 0-10 Pain Rating Scale by writing the number of your pain, considering the word descriptions.

Date: _____

Date: _____

<p>Pain Scale</p> <p>Before _____</p> <p>0- No pain at all 1- Very mild pain 2- Mild pain 3- Moderate pain 4- 5- Severe pain 6- 7- Very Severe pain 8- 9- 10- Emergency pain</p> <p>After _____</p> <p>Notes: _____ _____ _____</p>	<p>Pain Scale</p> <p>Before _____</p> <p>0- No pain at all 1- Very mild pain 2- Mild pain 3- Moderate pain 4- 5- Severe pain 6- 7- Very Severe pain 8- 9- 10- Emergency pain</p> <p>After _____</p> <p>Notes: _____ _____ _____</p>
---	---

Date: _____

Date: _____

<p>Pain Scale</p> <p>Before _____</p> <p>0- No pain at all 1- Very mild pain 2- Mild pain 3- Moderate pain 4- 5- Severe pain 6- 7- Very Severe pain 8- 9- 10- Emergency pain</p> <p>After _____</p> <p>Notes: _____ _____ _____</p>	<p>Pain Scale</p> <p>Before _____</p> <p>0- No pain at all 1- Very mild pain 2- Mild pain 3- Moderate pain 4- 5- Severe pain 6- 7- Very Severe pain 8- 9- 10- Emergency pain</p> <p>After _____</p> <p>Notes: _____ _____ _____</p>
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Adapted from the 1998 Industrial Rehabilitation Professional Program

APPENDIX D

Functional Form – Before and After

Functional Questionnaire

	Yes	No	Describe
Dressing			
Grooming			
Meal Preparation			
Grocery Shopping			
Light Cleaning			
Vacuuming			
Heavy Cleaning			
Driving			
Reaching			
Standing			
Lying Down			
Lifting			
Walking			
Bending			
Sitting			
Sleeping			
Other			

Session 1 (Before)

Date: _____

ID #: _____ Initials _____

Have you improved with the following?:

Functional Questionnaire
Session 4 (After)

Date: _____

ID #: _____ Initials _____

Have you improved with the following?:

	Yes	No	Describe
Dressing			
Grooming			
Meal Preparation			
Grocery Shopping			
Light Cleaning			
Vacuuming			
Heavy Cleaning			
Driving			
Reaching			
Standing			
Lying Down			
Lifting			
Walking			
Bending			
Sitting			
Sleeping			
Other			