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Toward the Application of Skilled Human Touch to Enhancing  
Perceptions of Biopsychosocial Well-Being and Alleviating  
Symptoms of Depression in Older Adults

by

Sarianna Elo

A Dissertation  
Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy in Psychology

California Coast University  
2008

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Theory and research in the area of touch therapy suggests that human touch has positive effects in alleviating depression and associated symptoms in various populations. The purpose of this investigation was to identify the key components of the existing theoretical models which have been found to alleviate the symptoms of depression and enhance well-being in these populations and apply these components to the development of a structured model intervention program for geriatric population. Through a critical analysis of existing theory and research related to traditional and emerging treatments for depression, possibilities of touch based therapy programs in alleviating the symptoms of depression, and special considerations for geriatric population, the key components which might be included in a structured manual therapy intervention appropriate for geriatric population were identified.

The goal of an intervention for geriatric population would be to alleviate depression and associated symptoms and increase the overall sense of well-being by providing skilled human touch in a form of therapeutic

massage. To accomplish this goal, a ten-session structured intervention for older adults was developed. The main targets are geriatric residents/patients in different types of institutions, retirement homes, home-health care and other facilities, where opportunities for regular nurturing touch are limited. This model program could be modified and adapted for both clinical and research use in different types of institutions and facilities concerned with the promotion of the well-being of their residents or patients. Components of the intervention included: identifying and defining the characteristics of human touch as a therapeutic intervention; identifying and defining the elements and variables of geriatric depression; identifying and challenging traditional, complementary; and emerging therapies used in alleviating the symptoms of geriatric depression; identifying strategies to promote well-being in older adults; devising intervention goals and strategies, and developing a model ten-session manual therapy program with a goal of enhancing perceptions of biopsychosocial well-being and alleviating symptoms of geriatric depression. The program consist of guidelines for participant selection, instruments for screening participants, a structured 30-minute model protocol designed for geriatric population, suggestions for follow-up programs, and suggestions for both short-term and long-term assessment instruments for evaluating the effectiveness of the intervention.

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## CHAPTER ONE

### Introduction

#### *Background of the Problem*

Touch is known to be the earliest and most elementary form of communication, and it is known to play a critical role in human development. In a series of studies, it has been shown that infants who are touched in a form of regular massage therapy develop significantly better. In massage therapy protocols using moderate pressure, preterm infants have gained 31-49% more weight on average (Field, 2002a). In most studies, pre-term infants were massaged daily for several weeks, although Dieter, et al., (2003) study showed 53% greater daily weight gain than the control group in stable preterm infants after only five days of massage therapy. Current research suggests that pre-term infant massage has consistently been associated with increases in vagal activity and gastric motility that may underlie the effects of massage therapy on preterm infant weight gain (Diego, et al., 2007).

The need for touch does not disappear when we grow older; it remains throughout the life and may become intensified during, i.e., periods of stress. Furthermore, in the other end of the spectrum, as people grow old and may start to lose their vision and hearing, touch again becomes increasingly significant. With other illnesses and possible loss of cognitive abilities due to Alzheimer or other forms of dementia, touch can provide a communication

channel in maintaining contact with the environment at the time in life when effectiveness of other communication channels is reduced. Sadly, many elderly are not touched on a regular basis.

Traditionally, the epidemiology, symptoms, and causes of depression in the geriatric population have been linked to various psychosocial losses in life. Loss of a spouse or other significant people late in life is likely, and many elderly live without satisfactory physical contact with other people (Belsky, 1999). Often, however, clinicians consider the depression associated with adverse life events and losses to be a normal consequence, and even though the depressive symptoms persist, a diagnosis is not made and, subsequently, patients are not appropriately treated. Parmelee, et al., (1998) have linked physical frailty and the presence of other chronic medical conditions and pain to depression and anxiety in the geriatric population, although the depressed mood has been found to be the strongest predictor of health decline over time. Studies have shown that sensory decline in the elderly can lead to depression, social isolation, and even to hallucinations (Nusbaum, 1999). A correlation between touch deprivation or unsatisfactory physical contact experience in the elderly and predisposition to depression has been documented in literature (Cochrane, 1990). Gupta, et al., (1995) and Gupta & Schork (1995) suggested a correlation between perceived touch deprivation, both in childhood and current life, and one's perception of self, specifically in body image pathologies. Current research suggests that touch deprivation

increases depression in conditions that are associated with social stigma (Gupta, Gupta & Watteel, 1998), and that touch deprivation increases violence and depression in adolescences (Field, 2002b).

Although late life depression is today well studied and documented, there is an under-diagnosis and therefore under-treatment of depression in this age group. Recent studies have found alarming prevalence of depression in geriatric population, especially in older adults who are institutionalized (Faison & Steffens, 2001; Gottfries, 2001; Sharp & Lipsky, 2002; Raj, 2004). Concern has been expressed about touch deprivation in geriatric population, especially those who live alone, have lost their spouse or are institutionalized (Belsky, 1999).

Human touch is frequently used as a therapeutic intervention, as trained, skilled human hands are a versatile tool to address a wide variety of physical problems. In addition to its ability to address physical problems, skillfully used human touch offers an added psychosocial dimension, which can be especially beneficial for those individuals who suffer from loneliness and lack of physical touch. Since touch has various intentions and interpretations, it is essential that massage therapists, physical therapists, nurses, and various other health care professionals who frequently use different forms of touch in their therapy, are aware how they use touch and what makes touch a therapeutic intervention. The meaning attributed to touch appears to be shaped by cultural, family, and educational experiences,

as well as the context of the situation in which the touch occurs. According to the literature, also a person's touch history affects the delivery and perception of the touch (Fritz, 2004; Zur, 2007).

Therapeutic massage, a form of skilled human touch used in therapeutic interventions, has been recognized as one of the oldest forms of treatment in the world, and can be found in some form in every known culture. Touch, as method of healing appears to have independently originated in several cultures, although without written records, historical evidence of the earliest health practices is difficult to find. However, written and pictorial records of ancient civilizations, such as Sumer, China, Japan, India, Greece and Rome do contain descriptions of the practice of massage and exercise. It can be seen that many of the modern forms of massage and bodywork techniques are clearly rooted in these ancient practices (Fritz, 2004).

Massage has been developing differently in the East and the West. In the East, it has always been a part of established medical practice, whereas in the West it became a part of folk culture. This application somewhat alienated massage from medical practice in the West until Per Henrik Ling (1776-1839), who is given credit for the development of Swedish massage and physical therapy, developed his own system of massage and physical therapy. Ling's system involves a variety of movements, pressure, friction, and vibration, which continue to be the basis of the modern Western forms of

medical and therapeutic massage. Ling taught many European physicians who later spread his techniques to their own countries. This helped massage to be accepted in the medical community, as the techniques were explained using the proper medical and scientific terminology (Fritz, 2004). The waves of immigration from Northern Europe helped to spread the therapeutic use of massage to the United States, where it remained a popular treatment of choice until the 1940s, when, as a result of pharmaceutical revolution, it almost disappeared. Recently, massage therapy, along with other ancient healing modalities which place great importance on human touch, have been regaining their popularity, although this old and fundamentally mainstream form of therapy, as Field (1998) maintains, is now considered as alternative or complementary therapy.

Despite the long history and popularity of massage, there have not been many adequately conducted studies in this area, until recently. The Touch Research Institute (TRI) at the University of Miami School of Medicine (est. 1992) is presently the only center in the world devoted solely to the scientific study of touch. The TRI has additional research centers in France and in the Philippines. In the TRI, the connection between touch therapies and the effective treatment of disease is rigorously studied under the direction of Dr. Tiffany Field, PhD. According to Dr. Field, some typical sampling problems found in many earlier massage studies include the failure to include control groups, and the lack of random assignment to treatment

and control conditions. Further, sample sizes used have typically been very small, and the treatment groups have often received more than one type of treatment. Finally, although the literature has been focused on clinical conditions, very few studies have been based on clinical trials, until recently (Field, 1998; Field, Diego & Hernandez-Reif, 2007).

Studies conducted by Dr. Field and others have demonstrated that the application of standardized moderate pressure massage has shown positive effects in alleviating depression and anxiety in variety of populations, e.g. newborns, child and adolescent psychiatric patients, adolescent depressed mothers, and sufferers of Chronic Fatigue Syndrome and Fibromyalgia (Field, 1998; Field, et al., 2004; Field, Diego & Hernandez-Reif, 2007).

Massage therapy has also been associated with enhancement of the immune system's cytotoxic capacity by increasing the natural killer cells and lymphocytes in immune compromised target populations (Hernandez-Reif, 2005). In the geriatric population, the effects of touch have been studied much less but both giving and receiving massage have been shown to alleviate depression and associated symptoms (Field, et al., 1998). Recent studies have shown that massage significantly reduces cortisol levels (average decrease of 31 %,) which are known as stress hormones, and increases activating neurotransmitters serotonin (average increase of 28%) and dopamine (average increase of 31%) (Field, et al., 2005). Overall, the mental and emotional effects of massage, which are often interrelated with

physical effects, support the use of massage to alleviate various symptoms, especially stress related ones, and to support emotional well-being.

The continual practice of massage throughout history has been remarkable, and finally the scientific thinking of the day provides validation of its therapeutic value. To date, the growing body of controlled studies in various other populations suggests that therapeutic massage could be an effective, safe, and comprehensive intervention in addressing diverse biopsychosocial conditions that compromise the well-being and predispose the geriatric population to depression. The numerous effects, benefits, and indications of therapeutic massage support its use as a comprehensive treatment of choice, not only in treating specific physical symptoms of disease or injury but also in promoting optimal biopsychosocial health and wellness. However, since even the serious, well- designed massage studies have mostly been smaller-size pilot studies, more rigorous research is needed in this area. While pilot data suggests that moderate pressure has been found to be an effective component in massage (Field, 1998; Field, et al., 2004; Field, Diego & Hernandez-Reif, 2007) the pressure component and other components involved in skilled human touch warrant further research.

At the time in life when effectiveness of other communication channels is reduced, touch can provide a communication channel in maintaining contact with the environment and reducing symptoms of depression by improving the sense of biopsychosocial well-being and quality of life. The

proposed dissertation, therefore, intends to explore touch therapy as a comprehensive and complementary way to approach the area of geriatric depression as well as to call attention to the therapeutic effects of the component of skilled human touch in therapeutic massage.

### *Statement of the Problem*

The demonstrated effectiveness of standardized massage application in promoting biopsychosocial well-being and alleviating symptoms depression in various age groups and medical conditions (Field, 1998, 2005; Field, et al., 2004; Field, Diego & Hernandez-Reif, 2007), including the demonstrated benefits for older adults in both receiving and giving massage (Field, et al., 1998) suggest that a model treatment program designated to incorporate key elements of these previous models might be useful.

This critical analysis was designed to answer the following question:  
What components of skilled human touch in a structured therapeutic massage application can be adapted for older adults with a goal of enhancing perceptions of biopsychosocial well-being and alleviating symptoms of depression?

### *Purpose of the Study*

The purpose of this study was, through critical analysis of existing theory and research, to develop a structured intervention designed to enhance biopsychosocial well-being and alleviate symptoms of depression in older adults based on the therapeutic effects of skilled human touch in therapeutic massage. This model program could be modified and adapted for clinical use in different types of institutions, facilities and home-health care settings concerned with the promotion of the well-being of their residents or clients. The design of the program lends itself to be used in both individual and group clinical interventions. Moreover, this program might be easily modified to form a research program to evaluate the value of skilled human touch in therapeutic massage by using populations large enough for statistical significance, and adding appropriate controls and assessment methods. Ideally, this research program could later be administered and analyzed by this and/or other researchers to advance rigorous research in this under-researched area. The model program could also be modified to meet the needs of various touch practitioners and researchers treating and investigating various other populations.

The searched databases included PsycINFO, PubMed, Cochrane Collaboration, Loansome Doc Database, Touch Research Institute research database, and the Massage Therapy Foundation Massage Therapy Research Database. Keywords, such as depression, well-being, older adults, elderly,

geriatric population, touch therapy, touch deprivation, and manual therapy and massage were used to search pertinent articles. Manual search of the reference sections of relevant articles and other pertinent literature was also conducted. The Touch Research Institute provided this investigator a full access to all their published studies.

### *Definitions of Terms*

For the purposes of the present study, these definitions of terms have been used:

*Biopsychosocial Model:* Biopsychosocial model has been defined as “The view that biological, psychological, and social factors are all involved in any given state of health or illness.”(Taylor, 1991, p. 11). Unlike the *biomedical model*, which emphasizes illness over health, the biopsychosocial model has an emphasis in well-being and conditions that might promote health. The biopsychosocial model utilizes the *systems theory* approach to health and illness. Systems theory maintains that health and illness are interrelated processes in which “all levels of organization in any entity are linked to each other hierarchically, and that change in any one level will effect change in all other levels” (Taylor, 1991, p. 13). According to the author, this means that the micro level processes (such as cellular changes) are nested within the macro level processes (such as societal values), and that changes on the micro level can have macro level effects (and

vice versa). For the purposes of the present study, the definition will emphasize the state of biopsychosocial well-being in geriatric populations.

*Bodywork:* Bodywork had been defined by Burman & Friedland (2006, p. 341) both as a profession, and as a practice: “Bodywork, as a profession, is comprised of a wide variety of modalities designed to interact with the body in support of balance and good health. As a practice, Bodywork is the skillful, intentional application of the techniques of any modality”.

*Depression:* Depression has been defined as “Conditions involving dramatic, long lasting alterations in mood combined with a range of other physical and psychological symptoms. People who are clinically depressed often have trouble sleeping and eating. They feel apathetic and hopeless, unable to take pleasure in life. They may have trouble concentrating and thinking clearly, they may move slowly or be highly agitated. Depressive disorders occur with equal frequency at every age through midlife, dip to a low at about age 60, and rise in advanced age. Symptoms of depression are also dramatically higher among hospitalized and institutionalized older adults.” (Belsky, 1999, p. 263).

*Geriatric Depression:* For the purposes of the present study, the definition depression will emphasize the epidemiology, symptoms, and causes of depression in older adults.

*Geriatric Population/Older Adults:* For the purposes of the present study the definition geriatric population and older adults is used

interchangeably of older adults of age 65 years and older with an emphasis on populations that either live alone or reside in long-term care or other institutions.

*Manual Therapy:* Manual Therapy is the use of the hands in a curative and healing manner, and can be defined as the use of *manipulation* with therapeutic intent. For the purposes of this study, *manipulation* is a therapeutic *modality* that is not limited to the traditional users of manual therapy, such as physical therapists, therapists, chiropractors and massage therapists. According to the literature, professionals, such as nurses, psychotherapists, social workers and counselors are also included, as nurses may use touch to, e.g., nurture premature infants or massage in supporting terminally ill, psychotherapists may use touch as therapeutic modality in encouraging client self exploration or initiating emotional process, and social workers and counselors may use touch as support for the bereaved. (Lederman, 2005).

*Massage Therapy:* Massage therapy has been defined as “a profession in which the practitioner applies manual techniques, and may apply adjunctive therapies, with the intention of positively affecting the health and well-being of the client.” (American Massage Therapy Association, AMTA, 1999). AMTA has further defined the scope of practice of massage therapy as “*skillful* manipulation of soft tissue and/or body energy fields with the intention of maintaining or improving health by affecting change in

relaxation, circulation, nerve responses or patterns of energy flow.” (Burman & Friedland, 2006, p. 344).

*Modality/Touch Modality:* Touch modality has been defined Burman & Friedland (2006, p. 344) as “the method of application of a therapeutic agent or regimen; a system comprised of a selection and organization of touch skills, based on a particular viewpoint or organizing principle, applied to a body to affect an intended outcome. *Modalities* include a variety of philosophical approaches, theoretical frameworks, and specific combinations of skills.”

***Therapeutic Massage:*** **Therapeutic massage as an intervention has commonly been defined as “the manipulation of soft tissue by trained therapists for therapeutic purposes” (Field, 1998), or “manual soft tissue manipulation, and includes holding, causing movement, and/or applying pressure to the body.” (American Massage Therapy Association, AMTA, 1999).** Detailed definition of terms *massage therapy* and *therapeutic massage*, as these terms pertain into defining the elements of therapeutic massage, can be found in Chapter Four.

*Therapeutic Touch:* Therapeutic Touch as a method (Krieger, 1993) is a non-touch method in which the touch is applied to the energy field instead of physical body.

*Touch Therapy:* For the purposes of this study the touch therapy method is differentiated from *Therapeutic Touch* method (Krieger, 1993) by

the use of skilled human touch in various manual therapy techniques instead of no-touch energy techniques.

*Touch Deprivation:* For the purposes of the present study, touch deprivation is defined as unsatisfactory physical contact experience as predisposition to geriatric depression (Cochrane, 1990).

### *Limitations of the Study*

While it is anticipated that the proposed model program may be adapted for use in a variety of settings designed to alleviate symptoms of depression and therefore enhance the biopsychosocial well-being in the targeted older adults, there are limitations in how widely it might be used. Completing the needed questionnaires requires time and cognitive functioning necessary for self-awareness and some problem solving. Therefore, the model program may not be appropriate for older adults with severe cognitive deficiencies or dementia. In addition, the intervention would not be advisable for persons with any other medical conditions where moderate pressure massage would interfere with their medical treatment or would be contraindicated. Finally, the proposed intervention is not intended as a treatment for severe clinical depression, although it might be considered as a supplementary intervention on a case-by-case basis as prescribed by a qualified medical practitioner.

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