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Reconnecting the Mind and Body: Using Bodywork to Help Improve Mental Health

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Using Bodywork to Help Improve Mental Health

by

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Each person whose signature appears below certifies that this doctoral project in his/her opinion is adequate, in scope and quality, as a doctoral project for the degree Doctor of Psychology.

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ABBREVIATIONS

ADHD Attention-Deficit/Hyperactivity Disorder

ASD Autism Spectrum Disorder

BHS Beck Hopelessness Scale

BP Blood Pressure

BSI Brief Symptom Inventory

CAM Complementary and Alternative Medicine

CNS Central Nervous System

CST CranioSacral Therapy

CTV MOST Centre for the Rehabilitation of Torture Victims and their Families, Sarajevo

EEG Electroencephalogram

EFT Emotional Freedom Technique

GAD Generalized Anxiety Disorder

HR Hearth Rate

LAc Licensed Acupuncturist

NCCIH National Center for Complementary and Integrative Health

NICU Neonatal Intensive Care Unit

NIH National Institutes of Health

OCD Obsessive-Compulsive Disorder

PTSD Post-Traumatic Stress Disorder

QOL Quality of Life

RRT Rapid Resolution Therapy

TAT Tapas Acupressure Technique

TFT Thought Field Therapy

TMJ Temporomandibular Joint

VA United States Department of Veterans Affairs

W.H.O. World Health Organization

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ABSTRACT

Reconnecting the Mind and Body:
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The connection between mind and body has been a topic of study since the beginning of medicine. In Eastern medicine, there has been an integration of the two; however in Western medicine, the paring of the mind and body is becoming a new mainstream form of treatment. This literature review considers four different types of bodywork, which include massage therapy, CranioSacral therapy, acupuncture and Reiki, that can be used to help in the treatment of mental illnesses. Research shows that using these types of bodywork in combination with psychotherapy can be beneficial to patients who experience depression, anxiety, attention-deficit/hyperactivity disorder, post-traumatic stress disorder, eating disorders, and/or autism spectrum disorders. Other types of mind-body treatments that are currently used, such as rapid resolution therapy, tapas acupressure technique, emotional freedom technique, thought field therapy, body psychotherapy, and biodynamic massage, are also discussed. With healthcare going to a more integrated approach, it is an ideal time to pay attention to these types of bodywork as adjunctive treatment for mental illness.

CHAPTER 1

INTRODUCTION

For centuries, the connections between the mind and the body have been explored and science has been able to bridge the gap in many different ways. In healthcare, there is a growing body of research that views the mind-body connection and its interactions as ways to heal the body not only from physical pain but from emotional or mental trauma. As long as medicine has existed, there has been a focus on strategies to help promote health using a variety of techniques such as "relaxation, hypnosis, visual imagery, meditation, yoga, biofeedback, tai chi, qi gong, cognitive-behavioral therapies, group support, autogenic training, and spirituality" some of these which are traditions that can be found in ancient Chinese medicine and Ayurvedic traditions and others that are based on Western medicine (NCCAM, 2005). These, as well as other techniques, fall under the category of bodywork, which can be defined as "a collection of techniques for restoring health and balance to the entire person by working through the body" and can be performed by applying "any number and combination of the therapeutic touch paradigms that have been developed" (Bodywork, 2005). In other words, bodywork is any technique that involves manual manipulation of the body to promote general health and wellbeing in a person.

The purpose of this review is to specifically look at bodywork in relation to psychotherapy to see how the use of different modalities in this type of therapeutic work can help clients to overcome various forms of psychological distress. It is of particular clinical significance for several reasons. A combination of psychotherapy with bodywork

has been found to increase general quality of life which includes the patients' physical and mental health, relationships, as well as performance levels at work. It has also been found that this combination has long-lasting effects on patients and has an existential component, such that this treatment can improve different facets of the patients' lives leading them to better overall living and general existence (Ventegodt et al., 2007). Some studies that focused on certain forms of bodywork, such as massage therapy or therapeutic touch, found that it is effective against the symptoms of depression, anxiety, stress, eating disorders and ADHD (Rattray & Ludwig, 2000; Field, Hernandez-Reif, Diego, Schanberg, & Kuhn, 2005; Field et al., 1992; Khilnani, Field, Hernandez-Reif, & Schanberg, 2003; Hart et al., 2001). These findings support the idea that bodywork as an addition to traditional psychotherapy could help increase the effects of psychological treatment and further could help patients become aware of their bodies in relation to the emotions it carries consciously or unconsciously.

It would be ideal to be able to teach bodywork practitioners how to deal effectively with their clients as emotions and thoughts come up during a bodywork session; however, this is currently outside of their scope of practice. Therefore, if a patient experiences any form of mental distress during a bodywork session, once the session is over and, as it is not the bodywork practitioner's job to be a client's psychologist as well, bodywork practitioners who partner up with a psychologist can refer the client to the psychologist who can then process these feelings with the patient. The patient will be able to work through the issues brought up in the bodywork session and overcome the symptoms experienced, thus closing the mind-body gap. On the other hand, sometimes a patient and psychologist may to get stuck in the process

psychotherapy, to the point where neither is sure how their sessions are helping anymore. Knowing about the different bodywork modalities offered and how each can impact the body, psychotherapists can refer their patients out to a bodyworker who can help their patient become aware of the body and can help work out the psychological issues from a somatic perspective. Currently, there are some bodywork modalities that offer a psychotherapeutic component so that the patients can use bodywork as a way to deal with the psychological issues they may be facing.

Before detailing the different types of bodywork that can be used for these purposes, it is important to note that touch is very important for basic human survival. In a society where touch is not often encouraged, this is a basic social component that has been lost. Everyday interactions are not as warm as they could be and people are finding it harder and harder to share basic life experiences with others, which often causes isolation and a lack of necessary socialization. Especially in a technologic age, it is harder to share the experience of human touch with others.

As important as it is for adults to feel warmth from other adults, so it is with children and infants. This idea has been explored in studies and it has been found that infants benefit from human touch. In 2007, a study done by Diego et al. found that massage for premature babies helped in their development and decreased their chances for infant mortality. These researchers took 80 neonates and placed 40 of them in a massage therapy group and 40 in a standard NICU care control group. Neonates in the massage group received three 15-minute massages per day for 5 days. Vagal activity and gastric motility were assessed before and after treatment and it was found that both had increased for the massage group after treatment as well as greater weight gain for this

group (Diego et al., 2007). This study demonstrated that massage, even just for newborns, is an effective tool in helping them to reach their early developmental milestones.

Another study, from 2002, focused on mothers experiencing postnatal depression. Mothers who has just given birth to a single healthy baby about 9 weeks before the beginning of the experiment were placed in either a massage group (n=12) or a control group (n=13). Both groups attended support group sessions throughout the duration of the study to discuss issues and offer mutual support but only those in the massage group attended massage classes to promote mother-child interaction. It was found that both groups had a decreased depression score but that the massage group had better mother-child interaction. Researchers in this study attributed the significant increase in oxytocin to the improved bonding of the mothers with their babies (Glover, Onozawa, & Hodgkinson, 2002). Touch, when administered correctly, can improve broken relationships between mothers and their children and possibly between adults as well.

Healing touch has been found to benefit patients undergoing treatment for various diseases as well as for their caretakers. Wilkinson et al. experimented with healing touch by recruiting 22 participants for a repeated-measures design in which the participants were first in no treatment, then in a healing touch treatment and finally in a healing touch with music and guided imagery treatment, all conditions were completed within a 2-week period. It was found that after the two healing touch treatments, participants reported feeling significantly less stress, increased relaxation, connection and enhanced awareness, which was not the case for the no treatment group (Wilkinson et al., 2002).

A 2003 study looking at the effect of massage therapy and healing touch on cancer patients found that patients who had these types of treatments as opposed to just a

caring presence experienced increased relaxation and decreased symptoms. Researchers tested these effects on 230 subjects for 4 weekly, 45-minute sessions during 4 weeks of massage therapy, healing touch or caring presence and 4 more weeks of standard care alone for all conditions. In addition to the results mentioned previously, subjects of the massage therapy and healing touch conditions experienced decreased blood pressure, respiratory rate and heart rate, lowered anxiety, fatigue and total mood disturbance (Post-White et al., 2003).

Another study conducted by Rexilius, Mundt, Megel, & Agrawal in 2002, studied the effect of massage therapy and healing touch on caregivers of cancer patients. Researchers took 36 caregivers and placed them in a massage therapy group, a healing touch group or a control group consisting of usual nursing care. They found that after giving two 30-minute massages or healing touch treatments to caregivers per week for 3 weeks there was a significant decline in anxiety scores, depression, general fatigue, reduced motivation, fatigue, and emotional fatigue for the massage therapy condition but non-significant changes in the healing touch group or control group. These findings support the idea that massage therapy in the clinical setting can also benefit caregivers (Rexilius, Mundt, Megel, & Agrawal, 2002).

CHAPTER 2

REVIEW OF BODYWORK

As stated above, physical touch alone has a positive effect on people and other forms of bodywork have been found to promote wellbeing for clients. There are hundreds of different types of bodywork which include manual therapies as well as therapies that do not require a lot of touch or that can be considered energy work (Kuoch, 2010). Some manual therapies include massage therapy, acupressure, shiatsu, swedish, deep tissue, thai, tuina, reflexology, lymphatic, craniosacral, sports, and various others. Energy work can be done through touch or no touch and some of these types of work include acupuncture, reiki, polarity therapy, zero balancing and many others. Some of the modalities that will be discussed in this review include massage therapy, craniosacral therapy, acupuncture, and Reiki, all which involve a different level and type of touch, and are some of the more commonly known bodywork modalities in our current society, which have been found to have a positive effect on those who have experienced them.

Massage Therapy

The most common use of massage therapy is relaxation. The type of massage used for this end is called Swedish massage. This technique "applied in a slow, rhythmical and repetitive manner will evoke a relaxation response and decrease sympathetic nervous system firing… [which] can achieve a soothing effect" (Rattray & Ludwig, 2000). Usually this type of massage is done in a comfortable environment where the client can choose the type of music, aromatherapy (if it is being used), and duration of the treatment. Based on conversations with several massage therapy clients and from

personal experience, this researcher has found that clients typically feel that getting regular massage treatments helps to decrease their stress on the whole and helps promote their overall positive health.

Massage therapy has physical effects on the body that lead to better health. As an alternative form of medicine, massage therapy can be used to increase circulation, stimulate the flow of lymph, relax and soften overused muscles, increase joint flexibility, release endorphins, and many other effects (Benefits of massage, 2001). As opposed to conventional medicine, massage therapy is a drug-free, non-invasive way for the body to heal itself. It does this by moving the different fluids in the body due to the mechanical pressure of the tissue on the vessels, leading to vasodilation (Rattray & Ludwig, 2000).

Massage therapy has physical effects on the mind that lead to better health as well. Even though it would not be considered a direct effect, like physical movement of fluid, massage therapy is also known to improve mental function. As stated previously, at its most basic form, mere touching has been known to encourage positive emotions and to promote developmental benefits in infants (Benefits of massage, 2001). Massage is also known to "reduce stress, anxiety and depression and give the client a feeling of well-being" (Rattray & Ludwig, 2000). However, the body also experiences feelings that could be considered confusing for client. It has been found that there is "a phenomenon known as *tissue memory* which can trigger an emotional response in the client." This experience occurs as a result of past trauma that is stored in the tissue as kinetic energy and when that specific part of the body is touched, the client may have a flood of memories linked to the original traumatic incident, leading to a possible release of emotion, such as crying (Rattray & Ludwig, 2000). Sometimes the client does not know

where the sudden outburst of emotions comes from because the traumatic event may have happened so long ago that he may not have any recollection of what had happened. This is an important issue to keep in mind as often it is these clients that would benefit from seeing a psychotherapist.

In connection to the movement of fluids around the body, massage also helps with movement of fluids in the brain. Evidence shows that massage therapy helps to increase and decrease certain types of neurotransmitters in the brain and other hormones in the body. In turn, these help regulate emotions and influence other psychological processes. In a study carried out with depressed pregnant women by Field, Hernandez-Reif, Diego, Schanberg, & Kuhn, 84 women were randomly assigned to a massage therapy group, a relaxation group or a control group of standard prenatal care. The massage therapy group received two 20-minute massages from their partners each week for 16 weeks of pregnancy during the second trimester and the relaxation group participated in progressive muscle relaxation sessions during the same time. It was found that women in the massage therapy group had decreased levels of saliva cortisol and increased urine dopamine and serotonin levels, suggesting that massage therapy benefited these participants (Tiffany Field, Hernandez-Reif, Diego, Schanberg, & Kuhn, 2005).

In 2002, a study done on fibromyalgia patients analyzed the difference between the effects of massage therapy versus relaxation therapy on sleep, substance P, and pain. For five weeks, 24 adult fibromyalgia patients, randomly assigned to the massage or relaxation group, received 30-minute treatments twice weekly. Researchers found that patients in the massage therapy group experienced better sleep and levels of substance P had decreased, reducing the sensation of pain in these patients (T. Field et al., 2002) .

It has also been found that massage therapy helps lower psychological suffering such as stress, anxiety and depression. Patients experiencing these conditions generally affirm the benefits that massage therapy has had on them. A study done on 52 hospitalized children and adolescents with depression and/or adjustment disorder found positive effects of massage therapy. The participants of this study were divided into a massage therapy group and a control group who viewed relaxing videotapes. After receiving a daily 30-minute massage for 5 days, the children in the massage therapy group reported feeling less depressed and less anxious (T. Field et al., 1992).

Another study looked at the effect of massage therapy on anxiety linked to performing a stress-invoking task, such as doing math computations. Researchers randomly assigned 26 adults to a chair massage group and 24 adults to a control group who were told to just sit in a massage chair and relax. Both groups received these respective treatments for 15 minutes, 2 times a week for 5 weeks. Upon completion of the 5 weeks, the massage group showed increased alertness suggested by the EEG scan performed on all participants, decreased anxiety levels, and less job stress (T. Field et al., 1996).

Over the past couple of decades, and as a result of industrial and organizational psychology, there has been an increased interest in chair massage for large corporations. These companies hire massage therapists to come to the workplace and give chair massages to their employees to increase productivity and decrease stress. A study in 1997 evaluated the effectiveness of this intervention and found that after a 15-minute chair massage, 52 employees recruited for this study showed a significant decrease in blood

pressure. This finding suggests that stress levels had decreased as a result of the massage treatments (Steven & Jones, 1997).

Expanding on what has been said previously, massage therapy helps with other forms of severe mental illness. While most people know that massage helps reduce stress, anxiety and depression, they may not know that it also helps reduce symptoms of eating disorders, autism spectrum disorder and other types of psychological disorders. Typically these patients would be receiving some form of psychotherapy and massage therapy is not a treatment that they would have considered to be an option for the treatment of these disorders. However, research shows that these patients benefit from massage as well.

A study done by Hart et al. (2001) focused on eating disorders, specifically anorexia nervosa. Nineteen women were put into a control group receiving standard treatment or a group receiving standard treatment plus massage therapy; they received these treatments twice a week for 5 weeks. After treatment, participants in the massage group reported lower stress and anxiety, had decreased cortisol levels, increased dopamine and norepinephrine levels, and reported decreases in body dissatisfaction suggesting that massage therapy benefits people diagnosed with eating disorders (Hart et al., 2001).

A study conducted by Field et al. looked at the effect of touch therapy on 22 children diagnosed with autism. Participants were randomly assigned to a touch therapy group or a touch control group. Those in the touch therapy group were lightly massaged over their clothes while those in the touch control group sat on a participant's lap as they played a game together. Both groups received treatments for 15 minutes per day, 2 days a week, for 4 weeks. It was found that even though both groups improved on behaviors

such as touch aversion and off-task behavior, only children who received touch therapy experienced an improvement in attentiveness and responsiveness (T. Field et al., 1997).

Another study conducted in 2003 looked at the effect of massage therapy on students diagnosed with attention-deficit/hyperactivity disorder. This study took 30 students between the ages of 7 and 18 years and randomly assigned them to a massage group or a wait-list group in which they were told that they could not receive massages until more massage therapists became available but were asked to simply relax for the 20-minute period. The students in the massage group received two 20-minute massages per week for a total of nine treatment sessions. It was found, after the month of treatment, that the massage group showed an improved short-term mood state and had improved classroom behavior long-term (Khilnani, Field, Hernandez-Reif, & Schanberg, 2003), adding to the evidence that massage therapy helps improve the moods and behaviors of children who are psychologically distressed.

According to the NIH National Center for Complementary and Integrative Health, there has been a lot of research done on massage therapy. However, the findings in these studies often disagree or are incomplete. They report that based on the studies completed and when done by a trained massage therapist, there are few risks involved with massage therapy, aside from the already established contraindications. Research conducted by the NCCIM has concluded that as far as mental health is concerned, massage therapy is effective in the treatment of depression, anxiety, general relaxation, and the behavior of children with ASD (Field, Furlan, Sherman, Khalsa & Killen, 2006).

CranioSacral Therapy

CranioSacral Therapy is light-touch manual modality that uses the body's internal healing mechanisms to bring wellness to an individual. By using about 5 grams of pressure on certain points of the body, a CST practitioner can assess the body's craniosacral system, which includes the brain, spinal cord, fluid, membranes and bones within the central nervous system. By paying attention to these particular parts, and specifically the rhythm of the cerebrospinal fluid, the practitioner is able to note if the CNS is out of balance. The practitioner is then able to help the body restore its balance and this is done through following the body's cues to reset the system (Moon, 2004; Scherr, 2014). This modality has been found to help with many types of disorders including migraines and headaches, neck and back pain, brain and spinal cord injuries, scoliosis, TMJ syndrome, bruxism, chronic fatigue, moto-coordination impairments, orthopedic problems, Bell's palsy, CNS disorders, Amyotrophic Lateral Sclerosis (Lou Gehrig's disease), Crohn's disease, lupus, multiple sclerosis, seizure disorders, stress and tension-related problems, Alzheimer's disease, aphasia, learning disorders, ADHD, ASD, sensory integration dysfunction, post-traumatic stress disorder, congestive heart failure, depression, dermatitis, ear infection, infantile colic, and emotional difficulties.

In his 2014 article, Wanveer described the way in which CST has a direct effect on mental health. He explained that the brain is surrounded by meninges, which are three layers of connective tissue that protect it and these are connected to the brain through glial cells. Glial cells are also important in that they help in the production of neurons as well as clean and maintain the neural network within the brain. Wanveer continued to relate how having an overly stressed glial environment in the brain may cause mental

illness as the extracellular space becomes toxic by accumulating brain waste. He added that connective tissue from the body can also cause strains in the connective tissue of the brain as the two are connected through a matrix. When a part of the body becomes thick or congested, due to bodily injuries, this pulls at the connective tissue throughout the body and into the brain's extracellular space, making the space smaller. This compromise of the extracellular matrix can lead to complications such as increased toxicity, scarring, inflammation, decrease neuromodulator flow, lack of blood flow, and decrease flow of the cerebrospinal fluid, as well as added pressure to the neurons, glia and blood vessels. Practitioners of CST learn to encourage movement throughout the bones, membranes and fluids to reset the rhythm of the craniosacral system and release some of the pressure within the extracellular space (Wanveer, 2014).

As CST can be used for both physical and mental illness, it has been studied in different types of capacities. A 2011 study conducted in Spain focused on the use of CST on fibromyalgia patients and its effect on their depression, anxiety and quality of life. Researchers recruited patients who were taking medication for their fibromyalgia symptoms and were between the ages of 16-65. Of the 104 participants who were included in the study, half were assigned to an intervention group and half to a placebo group. In order to measure their depression, anxiety and QOL, participants were administered the Visual Analogue Scale for pain, Short Form-36 health survey, Pittsburgh Sleep Quality Index, Beck Depression Inventory and the State Trait Anxiety Inventory. Participants in the intervention group underwent a CST protocol twice weekly for 1 hour for 25 weeks and those in the placebo group had 2-weekly 30-minutes sessions of a sham ultrasound treatment in which a disconnected probe was applied to several

areas of the body. During treatment, both groups were instructed not to change their pharmacological treatments so that this would not interfere with the results. When analyzed 35 weeks after the intervention, it was found that the intervention group had significant improvements in state and trait anxiety. Pain had also improved, as well as physical and social function, general health and sleep. However, none of these changes were seen in the placebo group and neither group's depression scores changed significantly. At 6 months post-intervention, sleep and physical function had continued to show significant improvement in the intervention group but anxiety, depression and pain were not significantly different between or within the groups. Finally at one year post-intervention, sleep seemed to be the only significant improvement for the intervention group while depression, anxiety, pain and QOL did not show significant inter- or intra-group differences from baseline (Matarán-Peñarrocha, Castro-Sánchez, García, Moreno-Lorenzo, Carreño & Zafra, 2011). This research indicates that the use of CST for patients with fibromyalgia is mostly effective when it is an ongoing treatment and it can help mostly with the anxiety, pain and sleep accompanied by this disorder. Using CST as a treatment for this population can be more beneficial when used as a complementary therapy with psychotherapy.

The Upledger Institute, known for doing research in the area of CST, has found that the use of this modality can help in the amelioration of ASD. In his 2007 article, Wanveer explained that one of the symptoms of ASD is the tightening and inflammation of the membranes in the brain. As stated previously, when the membranes are tight, they restrict the function of various sections of the brain and compromise other systems. This, in turn, leads to inner turmoil in the brain of a person with ASD, causing them to act out

or seclude themselves in different ways. Therefore, the use of CST helps to restore the balanced motion of the craniosacral rhythm, which gives the membranes, fluid and other areas of the body more space to complete their functions. CST practitioners do not claim that this treatment can cure ASD, however, it can be enhance other forms of treatment such as sensory integration therapy, occupational therapy, and physical therapy. It is also recommended that CST be continued throughout the lifespan to keep the membranes loose due to the idea that the membranes tend to tighten as the child grows and can add to restrictions already in place (Wanveer, 2007).

Due to the nature of this modality, mainstream medicine has found it hard to believe that there is enough evidence to support CST as a viable treatment for various disorders. While there is not a lot of scientifically researched evidence pointing toward the effectiveness of CST as a treatment for ASD, there are many families who look to the knowledge of CST practitioners for help with their children. Some of the CST practitioners who have noticed a significant improvement in their clients have documented these results. One such practitioner wrote about her patient with ASD, Michael, who had been in treatment for about 5 years. Kratz reported that Michael was brought to her clinic to get help with severe emotional and behavioral problems such as mood swings, aggression toward others, self-abuse, and trouble self-regulating and maintaining self-control. At the beginning of treatment, Michael was nonverbal and needed help with all of his activities of daily living but was independent in his ambulation and could follow simple instructions from caregivers. He also had trouble falling asleep but once he feel asleep he could do so for up to twelve hours. Baseline testing of his motor and sensory processing were found to be dysfunctional, consistent

with that of a patient with ASD. During his time having CST done on him, it was reported that Michael was not using any other type of therapy that could have contributed to the changes seen during and post-treatment. Michael was treated weekly for one-hour for an initial trial of 3 months. After this 3-month trial was over, changes seen in Michael warranted a continuation of therapy. Though it took some time to be able to work on specific areas of the body, as there were extreme sensitivities to touch and sound, eventually Michael was able to tolerate the CST sessions and learned to trust the practitioner as well as the environment within which his treatment took place. After the 5 years of treatment, Michael continued to have bimonthly follow-up CST sessions and demonstrated signs of increased stress if he did not a have a session for 3-4 weeks, which demonstrated the need for continued treatment. Changes found from this treatment included a cessation of headaches, increased tolerance of others around him without aggression, better performance of schoolwork, decreased episodes of incontinence, purposeful seeking of others during playtime, increased vocalization, improved typing skills, better deep breathing skills, and having better days in general (Kratz, 2009). While this is one case of treating a child with ASD, several other authors have reported the use of CST to be a beneficial tool in the treatment of ASD and have related similar findings.

While conducting some of his own research on craniosacral rhythm Dr. Upledger, the developer of CST, hypothesized that children who are often labeled as having behavioral problems or acting in a bizarre manner are just responding to their internal environment. When testing these individuals he found that the areas where some children would bang their heads were the most restricted and that it was nearly impossible to feel any craniosacral rhythm (Upledger, 1982). In another research article, he reported that

infants, whose mothers had a complicated pregnancy and delivery, tended to have abnormal craniosacral structures. Therefore, as far a treatment is concerned it has been determined that children with complicated deliveries would benefit from early CST as it could aid in brain and central nervous system enhancement (Upledger, 1978; Muir, 1997).

In an interview, Dr. Upledger reported that CST is also an effective tool for ADHD. He stated that he had been working with children who have ADHD for years and believed that if their craniosacral system would be corrected, their symptoms would disappear. He did a research project at Michigan State University where he was looking into the possibility of the movement of cranial bones. Dr. Upledger believed that the problem of ADHD, amongst other issues, sometimes stemmed from the way in which the child was delivered. He stated that when an infant is born, the awkward position of the infant's body presses on the occipital bone and this in turn pushes on the first cervical vertebrae. This may also cause the muscles in this area to tighten and, in some children, the muscles have trouble going back to a state of relaxation. When tightening also makes the foramen smaller and subsequently changes the blood pressure going in and out of the cranium. Upledger believed that if the cranial bones were corrected in their position, these children would no longer experience the symptoms of ADHD. He reported that when he worked on the children with ADHD who came to his clinic, they no longer needed to follow a special diet, called the Fiengold Diet, and they would behave appropriately. Some of these children needed treatment about 3 to 5 times before any changes were seen but no child received more than 5 treatment before the changes were noticeable and their symptoms improved (Upledger, 2000).

CST has also been found to be an effective treatment for PTSD. A study conducted on Vietnam combat veterans in 2000 focused on patients who had been diagnosed with PTSD by the Veteran's Affair medical division. During this 2-week intensive program, participants were involved in treatment for about six-to-seven hours per day for eight full days and for three-to-four hours on the first and last days of the program. The treatment administered by the researchers included group discussions and meditation as well as CST and its derivatives, Energy Cyst Release, SomatoEmotional Release, and Therapeutic Imagery and Dialogue. They were also psychologically evaluated before and after the program and were administered five assessments on the first day: Mississippi Scale for Combat Related Post traumatic Stress Disorder, Trauma Symptom Inventory, Quality of Life Questionnaire, Brief Symptom Inventory and Beck Hopelessness Scale, while the BSI and BHS were administered on the last day and one month post-treatment. Researchers found that by the end of the first week, participants were increasingly willing to trust the therapist whom they were cautious and distrustful of on the first day, they engaged in more openness in disclosing and exploring traumatic events which they had previously suppressed, they experienced healing of physical ailments, had decreased depressive and suicidal ideation which was replaced by a more hopeful attitude and an increase in their range of affect, had a decrease in hypervigilance, as well as insomnia, nightmares and flashbacks and had better concentration and reasoning skills. Researchers also found that during the weekend break, a lot of the participants began to explore their social environment more by going out to the surrounding city to socialize as well as by getting in contact with friends and family with whom they had not spoken in years. Some patients also decided that they wanted to begin

weaning themselves off their medications, if medically advised. By the time the second week was over, they began to notice that participants were feeling increased motivation to be creative and artistic, some decided to let go of the behavioral components of hypervigilance (i.e. carrying a gun for protection, keeping a knife under the pillow), they were increasing their self-disclosure and talked openly about fears of returning to their pre-program homes, and they accepted previous suggestions made to them about making changes to improve their physical health (Upledger, Kaplan, Bourne, Zonderman, 2000). The findings from this research suggested that CST is an effective tool for the treatment of PSTD within a program where psychotherapy is also included.

Another study looking at the effectiveness of CST for the treatment of PTSD was conducted by naturopathic physician, Dr. Lisa M. Chavez, who presented her findings at the American Association of Naturopathic Physicians in August 2009. She explored the use of CST with Tibetan ex-political prisoners in exile who had been imprisoned and experienced torture leading to severe trauma. During the study, the participants were administered three surveys: The Harvard Trauma Questionnaire, a W.H.O. Brief Quality of Life survey, and the Hopkins Symptom Checklist-25. Half of the 38 participants were given CST while the other half did not receive treatment. Researchers found that the scores for anxiety and somatic complaints decreased for participants who completed the CST while they increased for those who did not receive the treatment (Huntsberger, 2009).

The NIH NCCIM does not have CST as a standalone complementary medicine treatment as it is considered to be a type of massage therapy. However, based on the search for CST as treatment for mental health, most of the research has been conducted

by the Upledger Institute and this points to possible bias from the researchers. While it has been shown to be effective, more research needs to be done on this type of bodywork by mainstream researchers who have no connection to CST.

Acupuncture

Another type of bodywork typically used in the alleviation of physical and mental distress is acupuncture. Acupuncture is the use of thin needles placed on superficial anatomical locations of the body, called *acupuncture points*, which stimulate the nervous system, nerves and spinal cord (NIH, 1997; ACTION, 2009). Traditionally, acupuncture, as used in Western medicine, has been used in the treatment of pain and nausea, and research on the mechanisms of action on the body has pointed to the fact that acupuncture has a range of effects on various functions that help the body heal itself. Physiologically, acupuncture has been found to achieve effects "through local antidromic axon reflexes, releasing neuropeptides such as calcitonin gene related peptide and increasing local nutritive blood flow, improving, for example, the function of salivary glands" and in the CNS it has been found to cause a release of opioid peptides and serotonin in the alleviation of pain through the "inhibition of the nociceptive pathway at the dorsal horn (segmental effects) by activation of the descending inhibitory pathways, and possibly by local or segmental effects on myofascial trigger points" (ACTION, 2009).

Plenty of patients come into psychotherapy with chronic pain as well as other physical illnesses. Acupuncture has been found to be a highly effective treatment for pain in several areas of the body such as low back, neck, shoulder, joints, as well as for headaches, arthritis, fibromyalgia, cancer, labor pain, irritable bowel syndrome and other

pain syndromes. Research has demonstrated that acupuncture is well tolerated by different populations as it most of the side effects include transient symptoms such as tiredness, local pain, headache and temporary exacerbation of symptoms. Some severe side effects could include nausea, fainting, prolonged exacerbation on symptoms, and strong emotional reactions, all of which have been found in less than 1% of treatments. Treatments vary depending on several factors and is individualized based on the patient's symptoms, the assumed causes of these, and which techniques have traditionally been found to address them. Practitioner styles also vary based on training, styles, experience, and the use of related modalities (Kelly, 2009).

Aside from helping with pain and nausea, some research has indicated that acupuncture can also help with addiction treatment. An article published in 1993 focused on the influence of acupuncture on modern medicine and reported that while it has generally gained acceptance in Europe, Western medical science has yet to adopt this Chinese ancient tradition into its protocol (Brumbaugh, 1993). Drawing from various historical examples, the author reported that used properly, acupuncture can "enhance and support the program goals of virtually any traditional chemical dependency treatment setting." In 1987, the Hooper Memorial Detox Center in Portland, Oregon reported that clients who entered their 5-day residential detox-to-referral program, and who were given twice-daily acupuncture sessions, were 6 times less likely to return within the following 6 months as opposed to those who did not participate in the acupuncture sessions. They also found that the overall completion rate of the program increased from 60% to 92%. Another residential, social model, detox-to-referral program opened in 1991 by the Council on Alcoholism and Drug Abuse in Santa Barbara, California also offered twice-

daily acupuncture and found that of the first 150 clients who were late stage, chronic alcoholics, only 2 reported alcoholic seizures. Their completion rates were also comparable to the program in Portland. When treating acute heroin withdrawal it has also been found that those who undergo acupuncture treatment experience a decrease in cravings, anxiety, and depression to the point where these symptoms are manageable and the symptoms of "kicking" only resemble a mild flu (Brumbaugh, 1993).

In 1989, a placebo-controlled study focused on the efficacy of acupuncture for alcohol dependence. They recruited 80 severe recidivist alcoholic patients and assigned them to either a specific acupuncture (treatment) or a nonspecific acupuncture (control) group. They found that over half of those in acupuncture treatment completed the program while only 1 of 40 in the control group completed it. At the end of a 6-month follow-up, it was found that significant treatment effects were still present and that those who completed the control group expressed a moderate to stronger need for alcohol and had more than double the number for drinking episodes and re-admissions to a detoxification center (Bullock, Culliton, & Olander, 1989).

Another study looked at the effects of auricular acupuncture on heroin detoxification (Washburn et al., 1993). They recruited 100 heroin-addicted adults and assigned them either to an auricular acupuncture treatment or a "sham" treatment using points that were geographically close to those used for addiction treatment. While attrition was high for both groups, they found that those who were in the treatment group attended the clinic more days and stayed in treatment longer than those in the sham group. Researchers also found that lighter heroin users benefitted more from the treatment as they attended the acupuncture clinic more days and over a longer period than

those who were heavy users. Another interesting finding was that those who received the acupuncture treatment were more likely to return to the facility for additional treatment beyond the 21-day detoxification period than those receiving the sham treatment and some of these participants ended up using acupuncture as an addition to methadone detoxification or maintenance (Washburn et al., 1993). As it is one of the main goals for a drug treatment program to prolong the effects of a patient's treatment, the findings from this study are especially motivating in the application of acupuncture for drug addiction treatment.

A similar study conducted on smoking cessation placed 141 adults in a 4-week true acupuncture group, a true acupuncture with 5 additional weeks of educational smoking cessation program group, or a sham acupuncture with the 5-week education group. It was found that the 4-week acupuncture alone and combined with education were both effective in promoting a decrease in number of cigarettes smoked and smoking cessation. There was a 40% cessation for the combination acupuncture group and a 53% post-treatment reduction in total cigarettes smoked. It was also found that the combination acupuncture-education group maintained the smoking cessation at a rate of 40% through 18-month follow-up. Another interesting finding was the correlation between the estimated pack-year history before treatment and total number of cigarettes smoked per day after treatment, which indicated an inverse relationship. This meant that the greater pack-year history before treatment, the less total number of cigarettes smoked per day after treatment (Bier, Wilson, Studt, & Shakleton, 2002).

In 2007, a study looked at the difference between certain types of acupuncture and their effect on psychological functioning and quality of sleep in patients with neck and

low back pain (Hansson, Carlsson, & Olsson, 2007). Researchers recruited 144 patients and were placed into an intramuscular acupuncture group, a periosteal acupuncture group and an information control group. Using the Hospital Anxiety and Depression Scale (HADS) and a visual analogue scale for quality of sleep, they found no significant differences between the acupuncture groups or the control group. However, a month after treatment, levels of anxiety had decreased in both acupuncture groups but not in control groups.

A similar study focused on the application of acupuncture and response of patients with complaints of insomnia and who experienced anxiety as a result of it. They recruited 18 patients who qualified for the study and assessed their pre-post scores on the Zung Anxiety Self-Rating Scale. After 5 weeks of treatment, they assessed sleep duration and quality as well as state and trait anxiety, sleepiness, fatigue and alertness. They found that there was significant nocturnal increase in endogenous melatonin secretion and improvements in polysomnographic measures of sleep onset latency, arousal index, total sleep time, and sleep efficiency. Of further interest, they found reductions in state and trait anxiety scores. These findings support the idea that acupuncture is effective in the treatment of insomnia, daytime alertness, melatonin regulation, and anxiety (Spence et al., 2004).

A 2001 article reported the effectiveness of auricular acupuncture as a treatment for anxiety. They recruited 55 healthy volunteers and randomized them into 3 groups: a shenmen group, a relaxation group, and a sham group. The shenmen and relaxation group used actual acupuncture points traditionally used in anxiety treatments while the sham group used a “sham” point. Press-acupuncture needles were inserted for 48 hours and

volunteers were assessed at 30 minutes, 24 hours and 48 hours post-insertion. Anxiety levels were found to be significantly different for the three groups. Post-hoc analysis demonstrated that the relaxation group was significantly less anxious at the 30-minute and 24-hour check-ins as compared to the other 2 groups and less anxious than the shenmen group at 48 hours (Wang & Kain, 2001).

A literature review on the efficacy of acupuncture for the treatment of anxiety and anxiety disorders looked at 12 controlled trials which included articles on acupuncture in generalized anxiety disorder or anxiety neurosis and anxiety in the perioperative period. They did not find any studies on panic disorder or obsessive-compulsive disorder. All of the trials had positive outcomes and specifically studies of perioperative anxiety found that acupuncture, especially auricular acupuncture, was more effective than sham acupuncture. They also found that acupuncture is as effective as pharmacological treatment in this situation. Overall, the findings from this study indicated that more research should be done on acupuncture and anxiety as the results could be promising (Pilkington, Kirkwood, Rampes, Cummings, & Richardson, 2007).

Acupuncture has also been found to be an effective treatment for depression. A 2007 review of randomized controlled trials located 9 trials using acupuncture as a treatment for disorders labeled either depressive disorder, depression, or dysthymic disorder. Several of the studies reported that acupuncture was found to decrease depression as evidenced by post-test results on depression assessments. They also found that acupuncture was superior to comparative groups and that it is equally as effective as antidepressants (Leo & Ligot, 2007).

A study focusing on the relapse of depression after acupuncture treatment was conducted in 2001. The researchers recruited 33 women and divided them into 3 groups: acupuncture for the treatment of depressive symptoms, the treatment of a condition other than depression, or wait-list. Using the Hamilton Rating Scale for Depression and the Structured Clinical Interview for DSM-IV- Patient Edition, they were interviewed before and after treatment. It was found that response and relapse rates were similar to those reported for other treatments of depression (Gallagher, Allen, Hitt, Schnyer, & Manber, 2001).

Another study focused on acupuncture as a treatment for pregnant women with depression. Researchers recruited 150 pregnant women who met diagnostic criteria for major depressive disorder and they were randomized to receive acupuncture for depression, control acupuncture, or massage. The Hamilton Rating Scale for Depression was administered at baseline, after 4 weeks and after 8 weeks of treatment. They found that acupuncture specific for depression produced a greater decrease in symptom severity and higher rate of response than that of participants in the control acupuncture group (Manber et al., 2010).

The NIH NCCIH reports that acupuncture has had a lot of research conducted on it and while it has been found to be effective in the treatment of pain, whether back and neck, osteoarthrities or headache, it has only recently been studied for the use of treatment in other health conditions. It has been found to be safe when is it practiced by a trained practitioner using sterile needles but when it is done improperly, it can cause adverse side effects. Used as a treatment for mental health, there is not enough evidence,

based on studies by the NIH, to conclude that it is effective for treating depression or smoking cessation (Lao, Sherman, Suarez-Almazor, Huntley, Khalsa & Killen, 2007).

Reiki

Reiki is a Japanese modality and it translates as "universal life force" which means the biofield, or energy, that exists in the environment and that maintains all living things. This biofield is able to flow through and around the human body to help it experience a sense of well being. It is believed that Reiki helps to rebalance the biofield, which gives the body the strength it needs to heal itself and increases the body's tolerance to stress. It has been found to reduce stress and stimulate the self-healing process by increasing relaxation and re-establishing the resting state of the autonomic nervous system. This rebalancing in turn may lead to better immune system functioning and increased production of endorphins. Reiki can be seen as a practice that includes spritiual healing, which brings well-being by helping an individual become part of the universal consciousness, as well as energy healing, which focuses on removing symptoms of disorders within the mind and body. Some practitioners add that the biofield exists as a continuum from vibrational, at deep and subtle levels, to bioenergetic, which is closer to a physical realm. Reiki is a treatment that is done with light touch and on a fully clothed recipient who is sitting on a chair or laying on a treatment table. The Reiki practitioner administers the treatment by placing the hands on 12 to 16 different positions throughout the body or on specific sites of pain or injury and these positions are held for up to 5 minutes or until the "rise and flow of energy" is felt. If touch is contraindicated, the hands can hover a few inches above the body. Sessions last as long as is needed by the recipient,

with an average of 45 to 90 minutes. The patient can be conscious or unconscious as the work is passive and is believed to have the potential of rebalancing the biofield through deep vibrational levels. Recipients of this modality have reported that they can feel sensations of warmth, electricity, pulsations, and energy waves when they are being worked on by a practitioner. While Reiki practitioners belive that the energy will essentially go where it is needed in the body, practitioners belive that the system used in providing the treatment is set in place to be helpful from both physical and energetic points of view (Miles & True, 2003; Wetzel, 1989).

Sometimes seen as a complementary treatment for physical health, Reiki has helped patients to cope with chronic diseases and ailments. In a case study done by a palliative care nurse, she relates the story of a patient, Tom, who was a 70-year-old male and had just been hospitalized for a deep vein thrombosis during which a mass was found in his right groin area and he was subsequently diagnosed with cancer. While he was treated with anticoagulant medication and given radiation to shrink the tumor, his physician also suggested that Tom go into hospice care due to the aggressive nature of the tumor and a prognosis of just a short time. He refused hospice care but agreed to home health care and was interested in complementary therapies, especially Reiki. When the practitioner met Tom, he was mostly chair-bound with a heating pad for his swollen legs and he used a walker for walking short distances. He had trouble standing straight and rated his pain level at a 2.5 on a one to five scale. He had increased swelling and tenderness throughout his right leg and was very anxious about this being the normal symptoms of cancer. His cancer had progressed to the point where his physicians decided that he could no longer receive treatment, but only rest with elevation of his legs and heat

applications. After Tom had his first Reiki treatment, he reported that his pain level had decreased to a 2 and that he felt very relaxed. After 2 days, during which time he had been in bed, he requested another session and stated afterward that he felt "superb" and had decreased pain, at which point he began requesting two sessions per day. When the practitioner came to their next visit, Tom answered the door and was happy to be able to walk again. His pain medications were decreased and he continued receiving Reiki treatments and at one point reported that his pain level was 0, he felt very relaxed and had more energy. While he experienced times of pain throughout the next few weeks, he always felt better after a Reiki session. During the span of about 1 month, he had stopped requesting any Reiki treatment as he felt minimal leg pain, no swelling and increased activity such as talking morning walks outside. His appetite and sleep had also improved. After about 5 months of treatment, Tom's new physician reported that his cancer was in remission but that he should continue having Reiki sessions with the practitioner. After some time, it was increasingly difficult for caregivers to manage his symptoms at home and he was admitted to an inpatient unit for pain and symptom management. While he continued living with cancer, it was evident that the Reiki sessions helped Tom regain some of his comfort and reach long-term stability (Bullock, 1996).

One of the findings of Reiki is that it can be empowering for patients as they can learn to use the modality on themselves and others. In a 2010 article, Reiki was reported to be a tool that was used in a treatment program for individuals with a diagnosis of depression, bipolar disorder, schizophrenia, alcohol and drug abuse, or developmental disabilities, all of which experienced anxiety in some way. The goal of the program, called The Clubhouse program, was to get "members" (as they were called instead of

"clients" or "patients") to go back to living a full and functional life by going back to school or work and getting stable housing. In this program, Darah, one of the Reiki practitioners began a Wellness Self-Management Program where she introduced members to alternative forms of healing, namely Reiki, and she led some groups on the use of this treatment as well as discussions about what members felt during a session. She stated that some of the recipients in the group looked forward to the group each week and that members reported increased sleep, relaxation, calm and peace, recovered memories of trauma, decreased need for medication, and increased social interactions. Later in treatment, the group's name was changed to the Energy Healing Circle and members who had been in the group for a while were trained to become Reiki practitioners themselves. Members who were involved in these groups described a surge of emotional energy, which they were able to deal with and overcome. The author of the article concludes the article by describing the impact it had on her as an outsider and relating how members of the Clubhouse learned so much from this modality that they felt a new sense of connection with God, themselves and others (Lipinski, 2010).

A study looking at the effects of Reiki on self-perceived stress and depression took 45 adult participants, ages 19 to 78, who needed treatment for stress and depression and placed them into 3 randomly assigned groups. The treatment groups included hands-on Reiki and distance (non-touch) Reiki, and the control group was a distance Reiki placebo. The hands-on treatment group was told that they were placed in the placebo group in order to avoid unconservative effects on their results. During pre-treatment, participants were administered the Beck Depression Inventory, the Beck Hopelessness Scale, and the Perceived Stress Scale. During treatment, sessions lasted between 1 to 1.5

hours, once a week for 6 weeks. All Reiki practioners were instructed to provide similar treatments, including those who were doing the distance Reiki treatments, who used energetic bodies instead of the physical bodies of the participants and were not physically present at the location of the treatments. Prior to treatment, all three groups scored similarly on the measures administered. However, after treatment significant differences were found between the treatments and control groups, with no difference found between the 2 treatment groups. Throughout the year post-treatment, scores for depression and stress continually decreased with participants within the distance Reiki group demonstrating a higher effect. These findings indicate that Reiki has a long-term effect on the amelioration of stress or depression after 1 year of treatment and that it can be used as a low cost treatment for these individuals. Researchers suggest that Reiki not be necessarily used as a sole treatment for stress and depression but as a adjunct treatment to traditional therapies for mental illness such as psychotherapy (Shore, 2004).

Another study looked at the effect of Reiki on depression and anxiety. Researchers recruited 40 students who had depression and/or anxiety as demonstrated on the Hospital Anxiety and Depression Scale and these participants were randomly assigned to either a Reiki group or a control group. Overall, there were 4 groups: high-mood Reiki, low-mood Reiki, high-mood control, low-mood control due to the distinction between those with high depression or anxiety as high-mood and those with low depression or anxiety as low-mood. Prior to treatment, participants were administered the Depression, Anxiety and Stress Scale, the Hospital Anxiety and Depression Scale, the Pittsburgh Quality of Sleep Index, the Illness Symptoms Questionnaire, the Activation-Deactivation Adjective Checklist, and the Reiki Blinding

and Expectation Questionnaire, in which scores reported that there were no significant differences between groups. Participants then attentded 6 sessions for the next 2 to 8 weeks, that lasted for a half-hour each. During the sessions, participants in both groups were placed in a dimly lit room and listened to a 25-minute guided relaxation audiofile on headphones while blindfolded, with those in the treatment group receiving non-contact Reiki and those in the control group receiving no treatment. Results demonstrated that those with high depression and anxiety benefitted from Reiki and the effects remained through the five weeks at follow-up and the no Reiki control group participants showed no improvement in depression as well as an increase in anxiety at follow-up (Bowden, Goddard & Gruzelier, 2011).

A 2010 study focusing on depression, anxiety and pain looked at the effect of Reiki on these disorders in a community of older adults. Twenty-five community-dwelling older adults were recruited and were randomly assigned to an experimental group or a wait list control group. Pre-treatment data was collected through the completion of the Geriatric Depression Scale-Short Form, the Hamilton Anxiety Scale, and the Faces Pain Scale, and checking of blood pressure and heart rate. The interventions took place throughout an 8-week period during which participants received a 45-minute Reiki intervention 1 day per week. During treatment, participants were in a softly-lit room laying on a Reiki table with music playing in the background. It was found that participants within the intervention group had significantly improved depression, anxiety and pain scores on the measures as opposed to those who did not receive treatment. They reported that they had decreased back spasms, neck and shoulder pain, better sleep, and increased comfort as well as breathing deeper, a sense of "negative

energy leaving" and "emotional cleansing," more focus, and serenity. No significant changes were seen in BP or HR throughout or after treatment; however, this was no surprise as all of the participants were within normal range prior to treatment. Researchers suggest further studies that look at Reiki as a tool for improving health outcomes and increasing coping skills in individuals (Richeson, Spross, Lutz & Peng, 2010).

A 2006 study looking at the effect of Reiki on depression and anxiety did so within a dementia and Alzheimer's population. Eight participants, ages 58-89, were included in this study, of which half were assigned either to an experimental group, who received Reiki treatment, and half were assigned to a mock-Reiki control group. Participants underwent one 30-minute session weekly for eight weeks where they were fully clothed. Those in the experimental group received Reiki hands 1-4 inches above the body while participants in the control group received Reiki hands 12 inches away. Measures were also administered pre- and post-treatment which included the Geriatric Depression Scale and the simplified Spielberger's State-Trait Anxiety Inventory for Children as well as checking of participants' heart rate and blood pressure. Findings concluded that Reiki has a positive effect on depression and anxiety in the dementia and Alzheimer's population (Salach, 2006).

Another study looked at the effect of Reiki on pain, anxiety, and global wellness in patients diagnosed with cancer. Participants included 118 patients, between the ages of 33 to 77, at any stage of cancer and receiving chemotherapy. Prior to each session, pain and anxiety scores based on a numeric rating scale were recorded. Sessions were administered to patients going through chemotherapy infusion, seated on a chair or laying

on a bed, fully clothed. The treatments lasted for about 30 minutes and participants were offered up to 4 sessions each. After treatment, participants were once again asked to report pain and anxiety scores using the a Visual Analog scale along with a description of physical feelings during the session, such as temperature, relaxation or stress, well-being or discomfort, and pain referred to specific sites, if at all present. The results indicated that participants had improved overall well-being and relaxation, decreased pain, improved sleep quality and reduced anxiety. These findings led researchers to conclude that Reiki is a beneficial treatment for patients with no risk of side effects and is highly appreciated by these individuals. It can also make a hospital stay more comfortable and less stressful for patients undergoing any type of treatment. Reiki was also found to be an added support in the treatment against anxiety as it was seen to decrease after just one session and a decrease by one-third after 4 sessions (Birocco et al., 2012).

Reiki has also been found to be a promising treatment for trauma. A 2001 article explored the used of Reiki with torture survivors in Sarajevo. This article, written by a nurse, explains how being part of the Healing Hands Network, and specifically with the staff of the Centre for the Rehabilitation of Torture Victims and their Families, Sarajevo, was an eye-opening experience. After the war in Bosnia from 1992-1995, several patients of the center dealt with the effects of physical and psychological torture as well as how these impacted their families. While most of the staff at CTV MOST had their own staff for the treatment of the patients' trauma, Hands on Healing believed that the most helpful therapy for these patients would be Reiki. Many of the patients seen in the center were on antidepressants, sleeping medication, and had unbalanced endocrine systems, which the author described as a common side effect of this type of trauma. The Reiki sessions were

administered in a physiotherapy area where there were treatment tables set up and each session was accompanied by calming music. In this setting, it was difficult to set the tone in the room using other methods as candles could set off a fire alarm or could be used as a weapon and aromatherapy had the potential of bringing back unpleasant memories. Therefore, the author chose to wear clothes in warm colors and tried to appear as relaxed as possible despite the situation. During the sessions, some patients fell asleep, a sign of complete relaxation, and when the sessions were over patients looked happier and calmer; one patient also stated that "I think I can fly." After just a few sessions, some patients were also taken off their pain and sleep medications, as they had decreased or no more bodily pain, no headaches and nightmares, as well as increased energy. Some were even taking better care of themselves physically, grooming better and wearing makeup once again. During the time in Sarajevo, a report was sent to the United Nations in Geneva detailing the benefits of Reiki on torture survivors in hopes of promoting it as a widespread treatment for trauma (Kennedy, 2001).

In the United States, Reiki has also been found to help war veterans in the treatment for PTSD. On the basis that physical, mental and emotional issues have an effect on the energy field within the human body, a 2014 article was written explaining the idea that Reiki can be used for this population. In 2012, the author of this article, Heather McCutcheon, had decided to contact the Jesse Brown VA facility in Chicago to connect members of the Midwest Reiki Community to veterans in need. This opened up an invitation to the next VA Stand Down, a fair held for homeless veterans offering food, shelter, clothing, health screenings, VA and Social Security benefits, counseling, social opportunities, and referrals to services in the community. McCutcheon reported that

during the first year as a volunteer at the fair, she and the other Reiki practitioners were met with difficulty selling this modality. However, after some time a few veterans decided to take advantage of the opportunity. After the session was over, one recipient felt so good about his treatment that he stayed with the practitioners to help them advocate, which brought more veterans, and by the end of the day 20 veterans had received Reiki sessions. Many of them had trouble understanding how just some simple touches on different parts of their body could have such a calming effect (McCutcheon, 2014). Seeing as this and other experiences demonstrate a benefit of using Reiki in the treatment of trauma, more research in this area would be helpful to making Reiki a viable treatment option.

The NIH NCCIH states that not too much is known about Reiki as there has been little high-quality research on it to determine if it is effective in the treatment of any health conditions. They warn that even though Reiki has not been shown to be harmful to its patients, it should not be used as a replacement for conventional healthcare or to postpone it. There have been studies that looked at the effectiveness of Reiki on pain, anxiety, fatigue, and depression. However, most of these studies either had too few participants, did not have true experimental design, or made it hard to compare with other studies. Also, because of the nature of this modality, there is little evidence to suggest that there is an actual mechanism of change as energy is hard to feel, much less measure (Killen, 2006).

CHAPTER 3

CURRENT INTEGRATED TREATMENTS

As healthcare moves toward a more integrated approach, patients are finding that different types of treatments and combinations of these can be helpful for their general health and wellness, whether these include more traditional, allopathic forms of medicine or complementary and alternative medicine. According to a 2005 article, CAMs are being used more frequently by two-thirds of Americans. The researchers in this article were curious about how complementary therapies and mental health practices could integrate. Within a mental health center in Maine, researchers began The Complementary Therapies Program as a result of several factors, which included the high incidences of trauma in the center's population, the slow pace of progress in the therapeutic setting, questions by clients about possible benefits of complementary therapies as well as exploration of these on their own, and motivation from clinical staff who also had training in different types of complementary therapies. Interventions were administered for up to 10 sessions of Swedish message, Healing Touch, or Reiki, or up to 5 sessions of Five Element Acupuncture. Clients were assigned to a modality based on their interest and willingness to receive a certain one as well the clinical judgment of their individual therapist and the director of the program, and also on practitioners' availability. A key component in this treatment was the communication between the client, the psychotherapist, and the complementary therapy provider. They each attended the first meeting so that the needs of the client could be discussed and to establish a safe environment. The psychotherapist then attended future sessions as needed to provide support for the client. Between sessions, the psychotherapist would meet with the complementary therapy provider to

discuss the client's progress and continued needs. A brief satisfaction survey was administered to 25 clients after receiving several complementary therapy treatments, which included a 10-point Likert scale answering the question, "How helpful was complementary therapy?" as well as open-ended questions for clients to detail their observations. These clients' psychological diagnoses ranged from trauma and PTSD to depression and anxiety, as well as a few with a dual diagnosis. Results revealed a mean rating of 8.6 on the question of helpfulness of the complementary therapies. It was also found that some clients felt a sense of interpersonal safety from the complementary therapy provider, they experienced bodily sensation instead of dissociation, they were able to set interpersonal boundaries which demonstrated comfort in communicating with the providers, and some felt a sense of bodily shame during treatment. These details were important because it had been years since many of these clients had been vulnerable or intimate with another individual. The successful implementation of this program demonstrates that it is possible and beneficial to use an integrative approach for mental health which includes innovative planning of a program and collaboration between providers in different healthcare fields (Collinge, Wentworth & Sabo, 2005).

Another exploratory article looked at the integration of CAM into psychological practice. Researchers stated that currently there are many psychotherapists who already integrate CAM into their practice without knowledge that this is what they are doing. Some of these forms of CAM include "biofeedback, hypnosis, and progressive muscle relaxation" as well as mindfulness meditation, guided imagery, deep breathing techniques and many others. The researchers recommended that in order for this integration to be beneficial to those who use it, psychotherapists must have a basic knowledge of CAM

and the different modalities as well as the uses, strengths, limitations, contraindications, and appropriateness for individual clients. The article reported that psychotherapists are in a unique situation to educate and communicate with not only their clients but the clients' physicians in order to make the best choices that meet the individual clients' needs due to the fact that they spend more time with clients but also have the language to communicate on both fronts. Having knowledge of CAM is also important for psychotherapists as they are on the search for the best available research in establishing Evidence-Based Practices in Psychology because knowing about the different modalities in CAM and the research in these fields helps psychotherapists make better treatment selections for the health and well-being of their individual clients (Barnett & Shale, 2012).

There are some touch modalities that have been developed more recently and are gaining knowledge within the community of mental health. As mentioned previously, some of these techniques have gained acceptance within the psychological community and are currently being used during individual psychotherapy. They include Rapid Resolution Therapy, Tapas Acupressure Technique, Emotional Freedom Technique and Thought Field Therapy.

Rapid Resolution Therapy, developed by Dr. Jon Connelly, is described as an "immediately effective, revolutionary and holistic psychotherapeutic approach to healing and positive behavioral change." The way in which it works is that it takes into account negative events from an individual's past, such as harsh speech from a parent or loved one or more traumatic experiences like rape or war, and eliminates the emotional or behavioral impact of the traumatic events. When this is done, the mind feels clearer and can organize itself in a more effective way. The unconscious issues that once blocked a

person's desired change are fixed and therefore positive modifications begin to occur and are sustained. RRT can be used in the treatment of "anxiety, panic attacks, PTSD, sexual trauma, childhood trauma, sexual violence, guilt and shame, social anxiety, rage and resentment, insomnia, addiction, and phobias and fears (Connelly, 2015). During treatment, psychotherapists work with the client to understand underlying thoughts, memories, emotions, desires, habits, dreams and automatic responses. Once the goal is established for the client and the intention is set, the therapist engages the client in guided imagery, followed by energy work shared though the client and therapist's hand. After the work is done, observations are discussed. Sessions can last anywhere from 30 to 50 minutes and changes can be noticed immediately after the session is over.

Tapas Acupressure Technique, a modality established by Tapas Fleming, LAc, is a form of energy therapy that focuses on trauma from a client's past and gives the mind and body a new way to process the trauma experienced. Once the trauma is no longer resisted, the body is able to let go of the stress that is has been holding on to since the traumatic event happened. Fleming states that "TAT reunites a person with parts of himself or herself that have been locked away or frozen in time" and some words that individuals have used to describe the results are "integration… unity… wholeness." The treatment involves touching certain acupuncture points on the cranium in unison. These points include the Urinary Bladder 1 or UB1, also called "Eyes Bright" in Chinese, which is a point half-inch above the space between the eyebrows, two other points located on the inner corner of both eyes, and the occipital area, which is associated with the area of vision in the brain. While the client is having these areas lightly pressed, the therapist

verbalizes certain steps and affirmations that help the blockages to release thus opening the way for healing (Fleming, 2015).

A similar modality, Emotional Freedom Technique, was developed by Dr. Joseph Mercola, to help patients "optimize [their] emotional health" and it aims to rid the individual of negative emotions, decrease food cravings, diminish or eliminate pain, and implement positive goals. Referred to as a form of psychological acupressure, this technique uses the body's energy meridians, which are the same accessed during acupuncture. It is done by tapping firmly, but not painfully, with the fingertips to introduce kinetic energy into particular meridians on the head and chest while voicing a positive affirmation such as "even though I have this anxiety, I deeply and completely accept myself." The areas that are tapped, for about 5 to 7 times or the time it takes to take one full breath, include the top of the head, eyebrows, side of the eyes, under the eyes, under the nose, the chin, the collar bone, under the arm and the wrists. It is recommended to do EFT about 10 times a day and when done in public it can be modified by holding each point for about 5 seconds while thinking about the issue and softly repeating the affirmation to oneself (Mercola, 2015).

Another very similar technique, called Thought Field Therapy, and developed by Dr. Roger Callahan, uses tapping to address problems at the basic level and cause, balance the body's energy system and help the individual to get rid of negative thoughts or fears instantly. This therapy is used in the treatment of weight loss, cessation of smoking, phobias, trauma, pain, anxiety, stress, and depression (Callahan, 2015). During the session, the patient and therapist discuss the specific problem that they want to target, which is usually an issue in which the patient has been stuck for a while and have found

no relief from in the past; then the client quantifies the feelings on a scale from 0 to 10. In the next step, the therapist has the client tap on specific energy areas in a particular order. After treatment, patients have reported that the problem disappears and even if they try, they cannot find the emotions attached to that specific issue (Connolly, 2015).

Some other types of therapy incorporate the mind and body to form more holistic treatments in and of themselves. These modalities are more experiential rather than verbal. Such modalities include Body Psychotherapy and one of its secondary modalities, Biodynamic Massage.

Body Psychotherapy, sometimes called Somatic Psychology or Somatic Psychotherapy, comes from a history of psychoanalysis under the practices of Wilhelm Reich. This treatment takes into account the connection between mind, body, and spirit to bring healing to an individual. It states that a person's way of being and relating in this world includes not only the mind and its thoughts but also the body and spirit. While traditional psychotherapy is based on talking, this form of therapy is more experiential. This form of treatment has been used to target "stress, anxiety, depression, relationship and sexuality issues, grief and loss, addictions, trauma, abuse recovery" as well as physical conditions such as "pain, headaches, and chronic fatigue syndrome." This treatment includes a variety of techniques that are tailored to the need of the individual patient and these include mindfulness, awareness of the self, relaxation and meditation, movement for a deeper physical awareness and to explore emotions better, and breathing techniques to increase awareness and improve breathing function (Tickner, 2015). The goal of this form of therapy is to "follow and support the client's process" or "to work out what is trying to happen and help it to happen." While a lot of body psychotherapists will

allow clients to experience and stay in painful or unpleasant bodily states, they do so in order to help the client release a psychological issue. There are three main models of body psychotherapy to help the bodymind integrate and these include: the adjustment model, which focuses on the energy flow and blockages within the body; the trauma/discharge model, which works thought traumatic shock to gain reparative emotional discharge; and the process model, which allows the body to go through its natural healing process. There are several forms of therapy that fall under the umbrella of body psychotherapy and each of these have a variety of their own. Some of the forms of therapies include Reichian therapies, primal therapies, trauma therapies, process therapies, expressive therapies, and integrative psychotherapies (Totton, 2003).

Biodynamic massage, a type of Reichian therapy, was developed by Gerda Boyesen to help treat a range of physical, nervous and psychological issues. This modality is a complete treatment that can be experienced by the patient for primarily relaxation purposes or to enter into psychotherapeutic process. It involves several methods such as "harmonisation, basic touch, emergency treatment, pulsatory touch, periost massage, energy distribution, emptying, deep-draining (psycho-postural treatment) and work on the aura and bio-field or electromagnetic field of the body" which can be included into an existing psychological, physical, medical or energy-based treatment. Biodynamic massage aims to bring the body back to its balance point, or homeostasis (Molloy, 2014). Some of the theoretical principles that biodynamic massage stand on state that 1) an individual is an energetic being, 2) good health comes from a free flow of energy throughout the system, 3) provided with the right situation, the body has the power to heal and regulate itself, 4) illness stems out of a lack of harmony within

an individual and the environment, and 5) the past and the present may contribute to the symptoms experienced. Based on these ideas, biodynamic massage does not try to only cure an illness, it strives to understand the meaning and message of a particular illness so that relief can come about by rebalancing the individual's internal and external environments (Wuebbeler, 2015).

While the bodywork modalities that have been mentioned in this section are not listed in the NIH NCCIH database, they may be of interest to healthcare as they have promising results when used properly. These modalities have been developed more recently than others as a response to the knowledge on prior modalities and their shortcomings. The fact that they have no research done on them yet is an opportunity for the scientific community to take a look at them and determine whether these could be worthwhile options for the integrated treatment of mental health issues.

CHAPTER 4

SYNTHESIS OF LITERATURE

As demonstrated by the literature, bodywork has positive physical as well as mental effects on a person. These forms of therapy affect the body in several different ways, even in ways that most people do not think are possible. However, the effects of bodywork make sense because of the body-mind connection, which is a phenomenon that has been studied for centuries. What happens in the mind affects the body and, just as importantly, what happens in the body affects the mind.

Based on the previously reported studies, massage therapy, craniosacral therapy, acupuncture, and Reiki all have been found to help ameliorate symptoms of mental illness such as depression, anxiety, stress, attention-deficit/hyperactivity disorder, autism spectrum disorders, eating disorders, trauma, addiction, and insomnia. The articles that have been mentioned have given several reasons for the use of bodywork with mental illness. While some of the treatments may have been found to be equally as effective as current psychological treatments for mental illness, such as psychotropic medication, these forms of treatment would be better suited for patients who prefer complementary and alternative treatments or for patients who are not responding to medication or psychotherapy alone. These modalities are also of benefit to populations who could not access medication or who have severe adverse effects from psychotropic medication. An example of this would be a pregnant woman who has a severe mental illness and is advised not to take medication due to the severe side effects it could have on her or the baby. Another example would be patients who cannot afford to take medication as it is too expensive and they have no insurance to cover the costs. Bodywork treatments are

more cost effective than even most psychological treatments at an average cost of less than sixty dollars for a one-hour treatment. Some other patients have a stigmatized idea of psychotherapy and would rather talk about or be seen coming out of a bodywork session as opposed to a psychologist's office. In many unfortunate cases, other patients have been going to psychotherapy or taking medication for a number of years and may have found that these are not helping them, whether because of patient, therapist or environmental factors and these such people could benefit from bodywork or even a combination of bodywork with psychotherapy. For many patients, nether bodywork nor psychotherapy has helped as an individual form of therapy but, as demonstrated in several of the articles, sometimes a combination of treatments is what is needed for the mind or body to respond effectively.

CHAPTER 5

DISCUSSION AND CONCLUSION

Treatment Recommendations

Based on the information discussed above, it seems that there needs to be a shift in mental health toward including bodywork treatments to treat the whole person. While bodyworkers are not dealing directly with the mind, their work affects the mental processes and conditions of the clients. One of ways that psychologists can help their clients to improve their mental health includes partnering up with bodywork practitioners in the community who can be contacted in case patients are not benefitting from psychotherapy or just cannot continue psychotherapy for any number of reasons.

Wellness centers can be created where both psychology and bodywork are offered so that patients do not have to even leave the center to get their various therapies. There can be times when patients may not want to participate in both forms of therapies or cannot afford to do so. In these instances, they can either switch off between psychotherapy and bodywork for any amount of time or the wellness center can have a billing plan that would incorporate both therapies for a lower cost.

If a psychologist would prefer to work in private practice and does not necessarily want to work with a healthcare team, they can offer referrals to bodywork practitioners in the community and vice versa. Just as there are websites for patients to find psychologists in their community, there are websites that can help patients to find bodyworkers such as the National Certification Board for Therapeutic Massage and Bodywork (www.ncbtmb.org).

Another way for both fields to integrate is to have curriculum set up in psychology programs that address CAM and the different modalities that patients can use and similar curriculum set up in bodywork schools that addresses mental health, types of disorders and the way in which bodyworkers can contribute to the mental well-being of their clients. As the healthcare system moves toward a more integrated arrangement of treatment, the way for patients to navigate the system is to have clinicians on their team that can help educate them and provide them with the best knowledge for their whole person care.

Limitations of these Studies

Some of the limitations of this review include the fact that research is restricted in the different bodywork fields and for some, the research that has been done may be partial. Due to the fact that each bodyworkers has a specific routine which is followed, this may have impacted the methodology of the studies mentioned. Specifically, for CST and Reiki, it is difficult to determine if the practitioners could feel the craniosacral rhythm or the energy emitted from the patients. Also, in the acupuncture studies, there are specific points that were used to treat participants, however, some of the sham points were close to the actual points, which means that any "placebo" effect that was felt for the sham points could have been actual effects. Another limitation mentioned was the partiality in some of the fields. Especially for CST, it was found that most of the articles written were done by Dr. Upledger, the founder of CST, or by other CST practitioners pointing to the idea that they may have been biased to the findings, even if none were

found. Furthermore, some of the findings reported in these articles may be anecdotal and have no actual scientific research included in the work.

Specifically for this review, a limitation is that only a small amount of modalities have been researched. However, there are hundreds of bodywork modalities that can be studied and used a complementary treatment for mental health. These include modalities that belong under the category of massage therapy as well as other touch therapies, energy therapies, and types of exercise that patients can complete on their own such as yoga or qi-gong. This is only a review of some of the more commonly known modalities or those that are somewhat less known but that are currently being used in some capacity for mental health treatment.

Conclusion

Due to the fact that healthcare is becoming more integrated, looking into these different types of bodywork as adjunctive treatments may prove to be useful. However, the research that is currently out there needs to be more fine- tuned and unbiased so that the findings are scientifically-based and can be more reliable. It would be ideal to teach curriculum in graduate or medical school where different types of complementary medicine are reviewed and can be discussed as viable options for treatment.

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Appendix A

Table 1
Bodywork Modalities and their use in Mental Health

Bodywork: A collection of techniques for restoring health and balance to the entire person by working through the body; can be performed by applying any number and combination of the therapeutic touch paradigms that have been developed

Modality	Definition	Possible MH Uses	Contraindications
Massage Therapy	Encompasses many different techniques. In general, therapists press, rub, and otherwise manipulate the muscles and other soft tissues of the body. They most often use their hands and fingers, but may use their forearms, elbows, or feet	Relaxation Stress Insomnia Pain Anxiety Depression Eating disorders ASD ADHD	Fever Contagious diseases Current AOD use Recent injuries or operations Neuritis Skin conditions Undiagnosed lumps/bumps Undiagnosed pain Inflammation Sunburn
CranioSacral Therapy	A gentle, hands-on approach that releases tensions deep in the body to relieve pain and dysfunction and improve whole-body health and performance	Pain Stress Learning Disorders ADHD ASD PTSD Depression Anxiety	Acute aneurysm Cerebral Hemorrhage Severe bleeding disorders
Acupuncture	A technique in which practitioners stimulate specific points on the body—most often by inserting thin needles through the skin. It is one of the practices used in traditional Chinese medicine	Addiction Sleep Pain Anxiety Depression	Certain points during pregnancy Uncontrolled movements Lymphedema Keloids Recent wounds Hemophilia or clotting disorders Current anticoagulant medication use

Reiki	A complementary health approach in which practitioners place their hands lightly on or just above a person (to sense their energy), with the goal of facilitating the person's own healing response	Pain Relaxation Depression Bipolar disorder Schizophrenia Addiction Developmental disorders Anxiety PTSD	None known
Other intergrated modalites that need further research: Rapid Resolution Therapy by Jon Connelly Tapas Acupressure Technique by Tapas Fleming Emotional Freedom Technique by Joseph Mercola Thought Field Therapy by Roger Callahan Body Psychotherapy derived from psychoanalysis by Wilhelm Reich Biodynamic Massage by Gerda Boyesen			

Note. MH=Mental Health; ASD=Austism Spectrum Disorders; ADHD=Attention-Deficit/Hyperactivity Disorder; AOD=Alcohol or Other Drug Use; PTSD= Post-Traumatic Stress Disorder.