

A CHAIR BASED YOGA WORKSHOP FOR SELF-CARE AND STRESS
MANAGEMENT FOR SOCIAL WORKERS AND MENTAL HEALTH
PROFESSIONALS

By

Aileen McCabe-Maucher, RN, LCSW

A dissertation submitted to the faculty of the University of Pennsylvania in partial
fulfillment of the requirements for the degree of

Doctor of Social Work

School of Policy and Social Practice

University of Pennsylvania

July 2015

A CHAIR BASED YOGA WORKSHOP FOR SELF-CARE AND STRESS
MANAGEMENT FOR SOCIAL WORKERS AND MENTAL HEALTH
PROFESSIONALS

© 2015

Aileen McCabe-Maucher, RN, LCSW

Dedication

“To be deeply loved by someone gives you strength while loving someone deeply gives you courage.” -Lao Tzu

I dedicate this dissertation to my father and hero, John V. McCabe, who died after a protracted battle with five brain tumors caused by exposure to Agent Orange during his service in the Vietnam War. I am eternally grateful for the way you taught me to live and love without restriction and bitterness, despite the fact that your own life was severely limited. Thank you for always encouraging me to pursue my dreams and for being a true example of perseverance, forgiveness, and unconditional love. Carpe diem!

Acknowledgements

“Even after all this time, the sun never says to earth, “You owe me.” Look what happens with a love like that. It lights up the whole sky.” -Hafiz

I am deeply grateful for the wisdom, patience and dedication of many people. Dr. Carolyn Walter, thank you for supporting and nurturing me throughout this entire process. I am forever grateful for your wisdom and guidance. Dr. Andrew Newberg, I am honored and thankful for your support and your groundbreaking work. Leela Mata, you are a Divine soul and I am deeply touched by your grace and knowledge. Dolly McCabe, my paternal grandmother and first yoga teacher, thank you for introducing me to this practice in 1977 and always allowing me to do the postures in my own way. I extend deep gratitude to all of my yoga teachers over the past 38 years, especially, Dolly McCabe, Leela Mata, Darshanie Radha, Dawn Mehan, Lori Valentino, Alison Smith Driscoll, Lakshmi Voelker, and Prajna Ginty. Thank you, Rebecca Warren, for your beautiful editing work. My husband Michael and my daughter Vivian, mere words cannot express my love and gratitude for you both. Lastly to my mother, Colleen McCabe, I love you to the moon and back; you are my rock and my inspiration.

ABSTRACT

This dissertation is a continuing education unit (CEU) course that teaches social workers and other mental health professionals how to cultivate resiliency and enhance self-care through the ancient practice of yoga. The course explores emerging research that reveals how yoga and other mindfulness-based practices can positively impact neurochemistry and brain biology. Most of the yoga positions and breathing exercises are practiced from a chair and can be adapted to any level of flexibility and fitness level. Designed to make yoga accessible for everyone, the techniques are gentle and available to individuals with various physical abilities, including participants who may be in a wheelchair. The program is experiential in nature but also includes power point slides and traditional classroom style instruction.

The literature review clearly demonstrates that mindfulness is an established theoretical orientation rather than a simple technique. Additionally, the dissertation compares and contrasts social work values and ethics with ancient yoga philosophy to establish the compatibility of the two disciplines. Furthermore, the course compares and contrasts the eights limbs of yoga with the seven core values of The Sanctuary Model, an established and evidence based organizational paradigm that is used to promote resiliency and prevent burnout among social service and mental health/ healthcare professionals in agencies worldwide.

In conclusion, implications for social work practice and areas of potential research are identified and discussed. Once mastered, the chair based yoga skills that are taught may be used by social workers in clinical practice to help clients reduce anxiety and enhance self-care.

Table of Contents

Dedication.....	ii
Acknowledgements.....	iii
Abstract.....	iv
Table of Contents.....	v
Introduction.....	1
Chapter 1: Mindfulness and Clinical Social Work Practice.....	3
Chapter 2: Yoga and The Sanctuary Model: Burnout in Social Work.....	20
Chapter 3: Comparing and Contrasting Yoga Philosophy and Social Work Philosophy.....	35
Chapter 4: Yoga and the Brain.....	79
Chapter 5: Discussion.....	92
Chapter 6: Chair Yoga Guidebook.....	101
Conclusion.....	117
References.....	123

Introduction

For my dissertation, I have created a continuing education unit (CEU) course that teaches social workers how to cultivate resiliency and enhance self-care through the ancient practice of yoga. This engaging program will explore emerging research that demonstrates that yoga and other mindfulness-based practices can positively impact neurochemistry and brain biology. Most yoga positions and breathing exercises will be practiced from a chair and can be adapted to any level of flexibility and fitness level. The class is gentle and the exercises are designed to make yoga accessible and comfortable for everyone, including participants who may be in a wheelchair. This CEU program will be experiential in nature but will also include power point slides and traditional classroom style instruction. In the literature review, I will compare and contrast social work values and ethics with ancient yoga philosophy. Additionally, the literature review will compare and contrast the eights limbs of yoga with the seven core values of The Sanctuary Model, an established and evidence based organizational paradigm that is used to promote resiliency and prevent burnout among social service and mental health/healthcare professionals in agencies worldwide. This workshop will also include relevant research about yoga related to stress reduction and trauma, race-based traumatic stress, and an extensive meta-analysis of yoga based mental health research.

Once mastered, the yoga skills that are taught in this course may be used by social workers in clinical practice to help clients reduce anxiety and enhance self-care. There are many social workers who are also yoga teachers and these individuals have made significant and beneficial contributions to our field by integrating yoga into social work practice. After perusing the literature and speaking with colleagues, I do not believe that

there are any social work CEU courses, programs or articles that compare and contrast social work philosophy with yoga philosophy or, specifically Patanjali's Eight Limbs of Yoga. Furthermore, chair based yoga combined with social work philosophy is a unique offering in our field.

After I receive my Doctorate in Social Work, I plan to conduct a small qualitative study to explore and evaluate the effectiveness of the workshop that I create and implement. The aim of this study is to gain a better understanding of the impact of yoga in self-care and personal and professional development. Through semi-structured interviews, this study will utilize a qualitative approach to answer the following research question. How can social workers enhance self-care and reduce stress in the biological/psychological/social / spiritual person in environment domains using the practices of yoga?

Chapter One: Mindfulness and Clinical Social Work Practice

Mindfulness is a popular theoretical concept in social work practice that demands perusal and investigation. Yoga is a widely studied, mainstream practice that is grounded in the theoretical and conceptual framework of mindfulness. Mindfulness has its roots in ancient wisdom and recent literature suggests that the effectiveness of mindfulness-based interventions are being proven by advances in neuroscience (Siegel, 2007). This chapter explores the concept of mindfulness in the social work literature and traces its inception to the Eastern indigenous practices of yoga and Zen Buddhism. Additionally, mindfulness and present moment awareness are techniques that are heavily utilized in Gestalt therapy (Polster and Polster, 1974) as well as Dialectical Behavioral Therapy (Linehan, 1993). This chapter includes brief biographical sketches of Fritz Perls and Marsha Linehan, pioneers in the mental health field, who implemented mindfulness practices in their respective theories of Gestalt therapy and Dialectical Behavioral Therapy. Descriptions of mindfulness based practice methods, techniques and approaches related to clinical social work practice are critically examined and discussed in this chapter. This chapter also includes an evaluation of the empirical evidence supporting the usefulness of mindfulness based social work practice. Lastly, this chapter explores mindfulness concepts being taught in modern day schools of social work and the overall contributions mindfulness theory has made to clinical social work practice.

Definition of mindfulness and establishment of mindfulness as a theoretical framework

In the context of modern day research literature, mindfulness is generally defined as “nonjudgmental attention to experiences in the present moment.” (Kabat-Zinn, 1990, p.64). Mindfulness is a theoretical framework that draws deeply from the ancient

spiritual and religious traditions of Zen Buddhism as well as Hinduism and yoga. Its' definition, which is derived from the ancient indigenous language of Pali, means to remember (Brown, Ryan & Creswell, 2007). It is inherent in these spiritual traditions that remembering involves acknowledging one's divine nature and alignment with God or a spiritual force (Schipper,2012). The tenets of mindfulness are rooted in the ancient religions of Hinduism and Buddhism, which are approximately 3,000 to 5,000 years old, respectively, and these teachings can be traced back to ancient sacred texts (Goldstein, 2012). According to Tibetan Buddhist tradition, mindfulness is defined as the ability to maintain and focus attention on a single object at a time and called samatha. In ancient Buddhist practice repeating a word, called a mantra, is a technique used to attain an elevated state of one pointed and focused attention called samatha (Kabat-Zinn, 1990). Similarly, in the ancient Hindu practice of yoga, mindfulness is called darana, and can be achieved by placing one's attention and mental focus on a fixed object in the environment. For example, in the ancient practice of yoga, a person can attain darana or mindfulness by staring into a candle flame for an extended period of time. This intense period of concentration and mental focus, otherwise known as mindfulness, is believed to be a precursor to attaining higher spiritual states (Mata, 2012).

According to modern day psychological research, mindfulness is typically something that is acquired through the implementation of specific practices including focused breathing, guided imagery, sitting meditation and movement-based meditative exercises such as yoga or walking, which will be further explored later in this chapter (Siegel, 2007). However it is important to note that increasingly mindfulness is not considered simply a technique but rather a theoretical concept that can be applied in

various clinical settings with diverse populations and diagnoses. A compelling article by Brown Ryan and Creswell (2007), consolidates the literature on mindfulness and firmly establishes the theoretical foundations of mindfulness in addition to illustrating compelling empirical research. Furthermore, a groundbreaking article by Holzel, Lazar, Gard, Schuman, Olivier, Vago and Ott (2010) , clearly conceptualizes a theoretical construct that illustrates the four components of mindfulness mediation. This article, in scientific detail, vividly describes the “mechanism of action through which mindfulness meditation works.” (Holzel, et al., 2011, p. 539). Impressively, these authors illustrate neuroscientific findings that demonstrate how mindfulness meditation changes the brain as evidenced by functional MRI brain imaging studies. According to Holzel (2011), these four components, which were derived from an extensive review of mindfulness literature, are as follows: attention regulation, body awareness, emotional regulation, and lastly, a change in perspective on the self. (Holzel, et al 2011). A review of mindfulness research by the author of this chapter revealed that these four components are common factors in mindfulness across the literature.

Social work scholar Steven F. Hick (2009) defines attention regulation as the skill of being able to focus and maintain one’s mental attention to a single meditative object such as a word, breath or bodily sensation. World-renowned physician and psychotherapist Daniel Siegel, MD also cites body awareness as a vital part of mindfulness. According to Siegel, body awareness is defined as the ability to discern bodily sensations and relate one’s body sensations and one’s breath to emotional states (Siegel, 2007). Holzel (2011) claims that emotional regulation is deemed as a person’s ability to control their affective state. Additionally, Holzel (2011) states “reappraisal is

one of the ways emotions get regulated during mindfulness and is an adaptive process through which stressful events are reconstrued as beneficial, meaningful, or benign” (Holzel et al, 2010, p. 543). Hick (2009) describes mindfulness as a process in which clients are encouraged to welcome unpleasant feelings, instead of avoiding them. Hick (2009) describes this type of emotional regulation as an opportunity to expose clients to their unpleasant feelings such as fear and thus extinguish or make this unwanted emotion extinct (Hick, 2009). Lastly, the fourth component of mindfulness theory is a change of self (Holzel, et al, 2011). The component of a changed self is also echoed by Brown, Ryan and Creswell (2007), who suggest that mindfulness allows a person to truly be present “and not react to the present moment by habitually processing it through conceptual filters” (p. 212).

Mindfulness and Gestalt Therapy

Gestalt therapy is a phenomenological-existential therapy that embodies mindfulness concepts and has underpinnings in Buddhism (Polster & Polster, 1974). Gestalt therapy was founded by Fritz Perls and Laura Perls in the 1940s, and its main purpose is to help people develop and maintain present moment awareness so that they have richer contact, both with their internal selves and the larger social environment (Shepherd, 1975). Due to historical and cultural forces in the 1960s and 1970s, Gestalt was embraced and popularized during this time in American history (McBride, 1998).

Fritz Perls believed deeply in focusing on the here and now with clients. Perls postulated that the present moment was a fertile ground in which clients could perceive, feel and act, instead of simply interpreting and attempting to change their emotions and behaviors (Wilkinson, 2003). Gestalt therapists are trained to find creative ways to bring

a client's attention into the therapy room and focus upon what is occurring in their bodies and minds in the present moment. Gestalt therapy postulates that the social environment is comprised of a field in which each person contacts in the present moment (Shepherd, 1975). This process of contacting the present moment is often referred to as contacting the boundary, which is the way energy is experienced that occurs between two or more people as they meet in real time. (Polster and Polster, 1974). Gestalt therapy encourages the client to experience their unique contact boundary with present moment awareness and views living in the present as a healthy endeavor. Avoidance of present moment contact is viewed as pathological and occurs when clients unconsciously internalize the voices of a parent or authority figure or view the present through the lens past or project with anxious affect into the future (McBride, 1998). Many Gestalt techniques invite clients to become aware of the present moment through a process, created by the therapist, called an experiment (Polster and Polster, 1974). This experiment is usually rooted in something that is occurring in the treatment room in the here and now. For example, an experiment could involve asking the client to exaggerate his or her current posture or breathing pattern. Most Gestalt techniques endeavor to dive into the present moment and encourage the client to feel, think and act in the present moment versus in habitual, and largely unconscious, conditioned ways (Polster & Polster, 1974).

Fritz Perls was a German- born psychiatrist of Jewish descent who was born on July 8, 1893 and died on March 14, 1970. Dr. Perls fled Nazi Germany with his wife in the 1940s to live in the Netherlands and he later moved to the United States, where he resided in New York, Los Angeles and Chicago (Shepherd, 1975). On a personal level, Dr. Perls was said to be influenced by his war experience, trauma, and anti-Semitism.

Professionally, Dr. Perls both studied and practiced psychoanalysis and had extensive experience working with brain injured soldiers (Rosanes-Berrett, 1993). In the 1960s, Dr. Perl's visited a Zen Buddhist monastery and became deeply drawn to mindfulness techniques. Dr. Perls was described as a flamboyant and commanding therapist who created experiments designed to help clients experience a mini-satori or spiritual awakening in session (Shepherd, 1975).

Mindfulness and Dialectical Behavioral Therapy

Mindfulness is a theoretical construct that largely informs the popular and effective psychotherapy of Dialectical Behavioral Therapy, known as DBT. DBT is an evidence based form of psychotherapy that was formulated by Dr. Marsha Linehan and is used primarily to treat clients with borderline personality disorder, although it has been successfully implemented with other client populations (Telch, Argas, & Linehan, 2001). A perusal of literature reveals that DBT is an effective method of reducing self-injurious behavior among clients diagnosed with borderline personality disorder (Kliem, Kroger, and Kossfelder, 2010). Core mindfulness is one of the four skills modules that is featured in the prescriptive group DBT training guide. Dr. Linehan states that she was influenced by Zen Buddhism's concept of mindfulness and she teaches powerful techniques to show clients how to non-judgmentally observe, accept and tolerate powerful feelings and emotions. In DBT, clients are taught how to mindfully pay attention to the present moment through guided meditative exercises. In terms of mindfulness, clients are taught three "what" skills, which include observing one's environment without judgment, describing the observation without judgment and participating fully in a present moment activity. Additionally, clients are taught three powerful "how to??" skills related to

mindfulness that include non-judgmentally describing facts, intentionally focusing on one thing at a time and then effectively acting in a way that is appropriate for the present moment.

Marsha Linehan is the founder of dialectical behavior therapy who is credited for integrating mindfulness based techniques into this evidence based treatment model. Dr. Linehan has extensive clinical experience working with clients who have borderline personality disorder and honed her psychotherapy skills at The Suicide Prevention and Crisis Service in Buffalo, New York, where she worked in the early 1970s (Kleim, Kroger & Kossfelder, 2010). Dr. Linehan has written three books, which include two treatment manuals, and also published numerous empirically based studies of the usage of DBT in clinical practice. For most of her career, Dr. Linehan remained a private person and did not self-disclose extensive details about her personal history and life. However in 2011, both during a speech at The Institute of Living and later to a New York Times reporter, Dr. Linehan revealed her own struggles with borderline personality disorder, which included suicide attempts and hospitalizations. Dr. Linehan disclosed that during a psychiatric crisis she went into a Catholic chapel and prayed. Shortly afterward she had a spiritual experience in which she felt a loving presence and subsequently felt love for herself. Dr. Linehan credits this mindfulness based spiritual experience with helping her recover from her struggles with suicidality and hospitalization (Carey, 2011).

Additional historical, cultural, social and cultural contexts that gave rise to mindfulness and mindfulness based clinical social work.

Mindfulness has become quite popular over the past 20 years as evidenced by the deluge in literature, across disciplines. There has been a sharp increase in mindfulness

related literature which was recorded in approximately 80 mindfulness related reports in 1990 and was estimated at over 600 in 2006 (Brown, Ryan, and Creswell, 2007). There are notable historical social and cultural factors that have made mindfulness a widely accepted and popular concept, specifically, Kabat-Zinn's book, *Full Catastrophic Living*, (Kabat-Zinn, 1990) There was a surge in mindfulness practice in the 1960s, and as discussed previously, Gestalt therapy was a theoretical framework that helped popularize the ancient techniques of mindfulness (Polster & Polster, 1974). Dryden and Still (2006) effectively illustrate how the humanistic movement and its alliance with personal transformation which included the prominent psychotherapists of Rollo May, Abraham Maslow and Carl Rogers, helped prime America for the concept of mindfulness (Dryden & Still, 2006).

Dr. Marsha Linehan, the founder of DBT, has contributed to the credibility and effectiveness of mindfulness as a theoretical construct and her work has been substantiated with empirical evidence. In their compelling article about the historical development of mindfulness, Dryden and Still (2006) trace the inception of mindfulness in the United States to American soldiers who were stationed in Japan and their exposure to Zen Buddhism while stationed overseas (Dryden & Still, 2006). In addition, the modern day neurobiological findings that are associated with mindfulness demonstrate the efficacy of mindfulness based stress management courses and are making mindfulness based programs widely accepted and popularly funded programs (Siegel, 2007). Currently there are over 150 medical centers in the nation with mindfulness based programs, one of them the University of Pennsylvania and another, Harvard University (Holzel, et al, 2011). It is exciting to think about the new directions related to

the intersection of mindfulness and neurobiology and the possibilities for the advancement of the social work profession in conjunction with these new developments.

Assumptions that mindfulness theory makes about the nature of human beings

Research indicates that mindfulness based interventions deeply respect a client's right to self-determination and can be utilized with diverse populations (Preston, 2010). A critical component of mindfulness, as it is implemented in DBT, is accepting the client and their experiences without judgment as they are revealed in the moment (Linehan, 1993). This accepting, non-judgmental stance toward the client system embodies the social work core ethics of inclusiveness and respect for the client (Hick, 2009).

Additionally, mindfulness illustrates in a tangible and scientific way that the human brain is plastic and malleable to change (Siegel, 2007). In the 1990s, scientists discovered that there are actual neurons in the human brain that cause people to act out what they are observing in the environment, even when that action is unspoken. Research regarding mirror neurons postulates that when we watch a person perform an activity, the part of our brain responsible for performing that activity is activated within us, even when we remain a dormant observer (Berger, 2006). Many times, human beings are unaware or dissociated from what is happening in the present environment due to inattention and miss out on opportunities for learning. However, when practiced regularly, mindfulness can be a tool to sharpen mental attention and focus which deepens learning (Siegel, 2007).

In addition, mindfulness assumes and embraces the fact that human beings are wired and driven to be in relationship with one another. Mindfulness techniques have been shown to help enhance relationships by developing attention, regulating emotion

and lessening reactivity (Siegel, 2007). Neuroscience dictates that experiences in early infancy and toddlerhood shape the human brain. If a child experiences a lack of nurturing in early infancy, subsequently these experiences are hard wired into the brain and can have long term consequences in terms of cognitive functioning and the ability to form attachments and healthy relationships. Conversely, if a young child receives warm, empathetic caregiving during infancy, these experiences are essentially imprinted into the neural network of the brain during a period that is believed to be critical to a person's ability to trust and to give and receive love (Berger, 2009). According to Dr. Siegel, mindfulness balances the left and right hemispheres of the brain and can change the previously imprinted neural network to promote bonding and attachment in relationships across the lifespan (Siegel, 2007). Although the exact neurobiological process that is catalyzed by mindfulness meditation is currently unknown and undergoing investigation, research demonstrates that neurotransmitters may play a key role in the neurobiology of mindfulness (Holzer, et al, 2011)

Description of mindfulness methods, techniques, or approaches to intervention associated with the theory

Mindfulness methods, techniques and approaches to intervention are easy to implement, cost effective and can be used in many social work practice settings (Hick, 2009). One of the simplest and most widely used mindfulness techniques is breath awareness. Breath awareness essentially involves witnessing of one's own unique way of inhaling and exhaling (Kabat-Zinn, 1990). A client who is first being taught mindfulness-based breathing exercises is instructed to sit or lie down in a comfortable position with his or her eyes gently closed or open and softly gaze at a fixed point in the

room. Mindfulness based breath awareness is cultivated by placing all of one's attention on the breath and not becoming distracted by thoughts, outside noises, or environment stimuli. If thoughts or distractions occur, as they invariably do, a client is encouraged to simply start over and place his or her attention back on the breath (Kabat-Zinn, 1990). Although this method may seem overly simple or even boring, in my professional and personal practice I have found that this can be a difficult task for many people, as human beings are usually engaged with incessant thinking. When practiced on a regular basis, mindfulness-based breath awareness can cause clients to become more deeply aware of their conditioned responses, habitual negative thoughts, and holding tension in the body during times of stress. Breath awareness can also help clients stop unpleasant, unwanted thoughts or slow down the rate of thoughts (Goldstein, 2012). In addition, this technique can reduce emotional reactivity as it encourages people to be in the present moment, not reliving the past or worrying about the future.

An additional technique that is frequently employed in mindfulness is called the mindful smile (Kleim, Kroger and Krossfelder, 2010). This approach is frequently used in dialectal behavioral therapy groups with clients diagnosed with borderline personality disorder. A vivid, detailed instruction on mindful half smiling can be found in *Skills Training Manual for Borderline* (Linehan,1993). A client is encouraged to pull the corners of their lips up into a half smile as if they were engaging in a pleasant memory. There are approximately thirty different facial muscles and Dr. Linehan postulates that by manipulating these muscles into a half smile, the brain signals the body to relax and release endorphins that promote feelings of well-being (Linehan, 1993). Additionally, clients are encouraged to utilize the mindful smile technique upon arising in the morning

and even instructed to post a sign on the ceiling that reads “smile” to help them remember this vital practice (Kleim, Kroger, & Krossfelder, 2010). Social work scholar Steven Hick concurs that the mindful smile is a useful tool to rapidly generate feelings of inner peace and contentment. Interestingly, Hick reports that he regularly practices the mindful smile techniques and it has helped him let go of resentment and anger of which he has been previously unaware (Hick, 2009).

An additional specific mindfulness technique geared at reducing anxiety was developed by Elisha Goldstein, Ph.D. (Goldstein, 2011). This technique commences with the client sitting quietly and taking a few mindful breaths. After a few moments, the therapist leads the client through some guided imagery in which the client is encouraged to feel their feet planted on the floor and feel where their body is connected to the chair. Once the client is grounded, the therapist asks the client to notice where they feel the anxiety or fear in their body. After this area is identified, the therapist instructs the client to say to himself or herself, either silently or aloud “Fear, fear, fear.” Goldstein reports that when a person mindfully expresses his or her anxiety, the pre-frontal cortex of the brain activates and releases the neurotransmitter gamma-amino butyric acid (GABA), which promotes feelings of calmness and well-being throughout the central nervous system. Goldstein further describes how a consistent mindfulness practice can actually shrink the size of the amygdala over time and allow higher order, pre-cortical brain function to take place. (Goldstein, 2012). Dr. Daniel Siegel describes a similar mindful technique and subsequent neurobiological changes in his book *The Mindful Brain*. Dr. Siegel describes in rich detail how mindfulness “allows the lower- affect generating circuits in our brain to be regulated by the higher modulating ones” (p. 211).

Mindfulness techniques also consist of movement based exercises, including walking, yoga and even eating (Hick, 2009). In a walking meditation, clients are instructed to place their attention on the bottoms of the feet and feel the sensation of their feet making contact with the ground. Walking meditation is reported as a soothing activity that can help increase mental focus and provide the meditator with an enhanced sense of emotional security (Tremmel, 1993). Yoga practitioners encourage yoga students to cultivate awareness by suspending thought and focusing on breath and bodily sensations as they stretch and move their bodies. In yoga, it is believed that flexibility in the body promotes flexibility in thoughts and in mental attitude (Kabat-Zinn, 1990).

Mindfulness and social work: A review of the social work literature

Hick's groundbreaking title *Mindfulness and Social Work*, which was published in 2009, is the first book in publication that is strictly dedicated to social work- based mindfulness practice. As previously stated, his work features essays and empirical research from social workers from diverse theoretical orientations and practice settings. An essay written by social worker, Miriam George, offers a thoughtful framework about how mindfulness based practice can be used with immigrants to reduce stereotyping and enhance communication and connectedness (Hick, 2009). Notably, this book also focuses on social work practice at the macro level and eloquently describes how mindfulness can help build community and drive social policy. Hick carefully explores the relationship between mindfulness and social justice oriented work and offers a detailed approach on working with "severely marginalized people that face severe difficulties" (Hick, 2009, p. 21). Hick suggests that his social work based approaches to

mindfulness can contribute to three levels of social work practice, encompassing micro, mezzo and macro practice (Hick, 2009).

Existing social work literature demonstrates that mindfulness based concepts and techniques are emergent and can assist clients with various issues and diagnoses across the lifespan. Citing mindfulness based techniques, clinical social workers Bowen and Chawla (2006) describe how mindfulness can be implemented to help clients in recovery from substance abuse in both prison and outpatient settings. The authors describe how mindful breathing can assist clients in identifying early triggers to substance abuse, enhance insight and develop coping skills (Bowen & Chawla, 2006). Additionally, the literature reveals how social workers in clinical practice can use mindfulness to help clients that experience bereavement, grief and loss. In a fascinating article, social workers Cacciatore and Flint (2012), offer a bereavement care model that focuses on helping clients be present with the difficult feelings of grief as they arise (Hick, 2009).

Another example of mindfulness in social work literature is an essay by Coholic and LeBreton (2009) that explores mindfulness based practices implemented in group work with children and youth in foster care. Coholic and LeBreton (2009) thoughtfully describe the age appropriate movement and art based techniques used in their twelve-week group work mindfulness based stress reduction group (Hick, 2009). Additionally, Ryan, a United States Senator, and author of the popular mainstream book *Mindful Nation*, (2012) is a huge proponent of mindfulness meditation. Ryan advocates that meditation can be used as a primary prevention tool to prevent stress related-disorders and to enhance resiliency among school age children. In his book, Ryan names social

workers as professionals whose expertise can be utilized to help people cultivate mindfulness (Ryan, 2012).

Evaluation of empirical evidence supporting mindfulness based practice

A perusal of the general psychological literature reveals that mindfulness based interventions have been deemed effective treatment interventions when working with various diversified client populations and diagnoses (Hoffman, Sawyer, Witt & Oh, 2010). A vast portion of the existing quantitative, qualitative and meta-analysis research on mindfulness is academically rigorous and includes randomized controlled trials and extensive meta-analysis of existing data on mindfulness based interventions. Mindfulness has been proven to be effective at improving health measures among populations with psychiatric conditions such as depression and anxiety (Baer, 2003). However, mindfulness based programs have also been implemented to improve the life satisfaction and psychological well-being in healthy participants who do not have a current psychiatric diagnosis (Carmody and Baer, 2008). Empirical evidence supporting mindfulness based social work practice is emerging and thoroughly discussed in the last portion of this chapter.

According to a meta-analysis conducted by Baer (2003), mindfulness meditation training has shown to be beneficial in reducing symptomology of a myriad of conditions including “chronic pain, depressive relapse, anxiety, and disordered eating “(Baer, 2003 p. 125). This same study revealed that many clients reported this reduction in symptomatology for up to one year after their involvement in the initial mindfulness based meditation program (Baer, 2003). In a separate study, meta-analysis research was conducted to determine the effectiveness of mindfulness meditation for the treatment of

anxiety and depression. As a part of this research project, 39 studies were investigated which included 1,140 study participants. This compelling research demonstrated that mindfulness meditation is moderately effective in reducing anxiety (Hoffman, Sawyer, Witt & Oh, 2010).

Mindfulness based meditation programs aimed at treating client's diagnosed with cancer, in addition to psychiatric disorders, have also shown effectiveness in reducing somatic symptoms in addition to positively influencing other health indicators. In a randomized controlled trial, clients that participated in the mindfulness group demonstrated tangible physical outcomes such as lowered blood pressure, improved immune function and decreased cortisol levels (Carlson, Speca, Faris & Pate, 2004). A qualitative study was conducted to measure the impact of mindfulness intervention that was implemented with older adults diagnosed with depression. This study deemed (through a sample size of thirty eight participants) that mindfulness intervention was promising and identified various areas for future research, including modifications necessary to meet the needs of older adults with hearing and sensory impairment issues (Smith, Graham, and Senthinathan, 2007).

The contribution of mindfulness theory to clinical social work practice, and additional empirical data.

As this chapter demonstrates, mindfulness is an adequate theory that has offered many exciting contributions to social work practice. Most notably, mindfulness has been embraced in many social work schools in an effort to promote resiliency, enhance learning and prevent burnout. In an effort to teach social work students about the critical role of self-care, the literature reveals research endeavors that empirically illustrate the

effectiveness of mindfulness theory with social work students (Harr & Moore, 2011). A mindfulness based support group that was implemented to reduce burnout and stress among students working toward a bachelor's degree in social work demonstrated a significant reduction in self-reported stressful thoughts (Humphrey, 2013). Clements and Minnick (2012) vividly illustrate how social work students learned innovative mindfulness-based self-care strategies while simultaneously learning how to facilitate groups. A weekly mindfulness based stress management mutual aid group comprised of master's level social work students met for eight consecutive weeks and utilized group work concepts developed by social work educator Lawrence Shulman. As a result of participating in this intervention, students gained real life experience with group dynamics while concurrently practicing mindfulness-based stress reduction techniques that they could implement in their personal and professional lives (Clements & Minnick, 2012). An additional research article by Napoli and Bonifas (2011) suggests that teaching mindfulness to MSW students can significantly increase empathy and enhance self-care. In this research study, MSW students participated in a 16-week mindfulness course in an effort to enhance self-care and cultivate mindfulness. As evidenced by the Kentucky Mindfulness Inventory, this intervention significantly increased mindfulness, a useful tool in cultivating self-care (Napoli & Bonifas, 2011). Empirical research suggests that mindfulness can be a critical component of self-care that contributes to the individual resiliency of professional social workers (Hick, 2009). In summary, mindfulness is an effective, evidence based theoretical construct that has the power to transform lives and promote growth and resiliency across the lifespan.

Chapter Two: Yoga Philosophy and The Sanctuary Model

The Sanctuary Model is an innovative and effective paradigm that promotes healing and facilitates a higher level of cohesive group consciousness. The Sanctuary Model offers hope as well as concrete yet flexible strategies to organizations and individuals that are mired in organizational dysfunction. This chapter will compare and contrast the Yoga Sutras of Patanjali, which are regarded as ancient values inherent to yoga, with the seven Sanctuary Commitments.

According to Dr. Bloom's Sanctuary theory, psychotherapy should be offered within a progressive framework in which clients receive care according to their assessed grade level. It's important to note, that some of the most intelligent and insightful clients that I have worked with lacked basic self-care skills, which would place them at the preschool level according to Dr. Bloom's proposed psychotherapeutic model. I firmly believe that in order to attain higher order needs a client must have their basic survival and safety needs satisfied first. The hierarchy of needs paradigm was thoroughly explored by Dr. Abraham Maslow and continues to be a relevant teaching tool in healthcare today. Unfortunately, due to the economic downturn and crippling managed care regulations, our systems are inundated with clients who lack basic survival needs and skills. Increasingly, clients struggling with basic physical and emotional issues arrive in emergency rooms and therapy sessions alike with extremely complex and chronic problems. As a therapist, I have often felt overwhelmed working with these clients and

at times, had the intuitive sense that providing them with traditional psychotherapy was ineffective and potentially harmful.

According to Dr. Bloom's proposed model of assigning "grade levels" to clients, yoga philosophy and practice is a viable psycho-educational tool through which clients can learn basic, rudimentary self-care and emotional regulation skills. Yoga offers a culturally competent, whole person approach, which honors each individual and helps enhance development in the biological, psychological, social and spiritual domains of life. Essentially, yoga based therapy would be an appropriate intervention for clients assigned to the preschool or kindergarten level. Yoga based psychotherapy could serve as a useful remedial course for those "Ph. D/graduate school level clients" who endure a therapeutic abreaction or need to brush up on basic self-care skills as a result of a major life crisis or significant loss. Yoga can be readily tailored to meet a client's individual needs and can be utilized in the here and now to show clients the effectiveness that physical postures and breathing techniques have on conditions such as anxiety and depression. While yoga is certainly not something that will appeal to everyone and countless modalities other than yoga can lead to healing, it is important to note that its practice can be modified to meet the needs of any human being, including individuals who are non ambulatory and those with significant cognitive impairments.

Yoga is an effective way to teach people how to tune into their own bodies and minds in an elementary way. For most people, yoga practice rapidly facilitates calmer, more peaceful thinking and emotional affect. A beginner's gentle yoga class can teach "preschool level" clients how to self soothe and regulate primitive, fear based emotions and subsequently eliminate or reduce the damaging effects that chronic stress and

excessive cortisol can have on the neurological and cardiovascular systems.

Additionally, meditation can be taught in a simple, straightforward and secular manner that teaches clients how to infuse their day with a sense of peace or at the very least, self-efficacy. These classes can be offered in a group setting or individually depending on the client's diagnosis, comfort level and of course the payer's /managed care regulations. An introductory yoga class can help clients tune into basic sensations such as thirst, fear, hunger and pain before these emotions are unconsciously acted out through behavior such as anger or rage. By teaching clients how to listen to the wisdom of their own body first, we may help many people avoid the unpleasant side effects that may arise out of consuming multiple psychotropic drugs, which are often ineffective.

Recent neuroscientific research indicates that yoga increases gamma amino butyric acid, a protein that acts as a neurotransmitter in the central nervous system that produces a calming effect (Newberg, 2004). Additional research demonstrates that yoga promotes lateralization of the brain, reduces the production of excessive cortisol, and elevates mood (Newberg, 2009). Yoga offers a unique way to explore and release negative emotion at the level of bodily sensation without the extraneous layers of thought, intellectualization and rationalization. For "graduate level" clients, psychotherapy may be intellectually gratifying with its focus on words and an attachment to the why to behavior and life events. However, even very highly functioning, intellectual clients can have abreactions related to the self-care deficits that yoga expertly addresses. For clients assigned to the "graduate school level" grade, yoga can be used as an adjuvant to help integrate unprocessed emotions with bodily sensations. By using yoga in psychotherapy, a therapist can help a client's body receive a message that the mind

rationally and intellectually understands. For example, a Vietnam combat veteran may intellectually understand that he is relatively safe from gunfire in an upscale restaurant yet he still endures an increased pulse rate, rapid respirations and hypervigilance that manifest as an inability to place his back to the door of the entry way to the establishment. A consistent yoga practice can retrain the brain and body to maintain an internal homeostasis of calmness and serenity, which decreases the likelihood that clients will be triggered back to unpleasant emotions. This simple integration of breath and body can halt a state of chronic hyper arousal and bring about true and radical healing for clients. The exploration and release of negative emotion can be facilitated through breathing techniques and exercises that are over three thousand years old.

The Sanctuary Model offers seven values and commitments that organizations can embrace in order to become cohesive, integral, and functional groups. The seven core values outlined in the Sanctuary Model can readily be compared and contrasted with The Yoga Sutras of Patanjali, which is an ancient sacred yoga text that was authored by an Indian man named Patanjali over three thousand years ago. The sutras are also commonly referred to in the West as The Eightfold Path of Yoga, The Eight Limbs of yoga, or Ashtanga Yoga (Bryant, 2009). The seven Sanctuary Commitments dovetail beautifully with ancient yoga philosophy and both methodologies illustrate a high degree of equafinality, a commitment to social justice, as well as authentic respect for all humankind. Although the paradigms are vastly differently from one another, they share considerable common ground, which I will explore in the next few pages.

Patanjali's Eight Limbs of Yoga is a sacred yoga philosophy, which teaches students of yoga how to live purposeful, meaningful lives of service to others. It is

referred to as the eight-fold path because there are eight main aspects of yoga, which are referred to as ashtangas in the ancient language of Sanskrit. All eight of these principles form a cohesive, mutually dependent paradigm and are intended to be practiced in conjunction with one another. The first limb in yoga is called a yama. Yamas are universal principles, which guide individuals toward leading an ethical life, in which non-violence is strongly emphasized. There are five yamas, which are referred to as ahimsa, aparigraha, asteya, bramachararya, and satya, respectively. Ahimsa is best described as nonviolence in both thought as well as in action. Pure yogis consider negative self-talk as a form of violence against the self which goes against the ethical standard of ahimsa. Aparigraha is best defined as a non-attachment to outcomes, persons and situations. Asteya is a yama that deals with one's self-sufficiency. Brahmacharya, the fourth yama, is a conceptual framework that refers to purity and one's management of sensual and sexual desires. Satya is the fifth and final yama that means truthfulness and involves refraining from dishonesty and all unethical actions (Bryant, 2009).

The second limb of yoga is called a niyama and is correlated to one's sense of self-discipline and adherence to spiritual practices. There are five niyamas which are each connected with a specific type of self-discipline and spiritual practice. The first niyama is saucha, which is best described as cleanliness. The second niyama is Santosha, which is best described as contentment or knowing oneself. The third niyama is called tapas and translates to heat in English. Svadhyaya is the fourth niyama, which refers to the study of sacred scriptures and information passed down from ancestors (Bryant, 2009). The fifth and final niyama is called Ishvara Pranidada and refers to surrendering to God or

when translated in a secular way, simply means accepting life on life's terms (Anderson & Sovik, 2007).

Asana is the third limb of yoga in the Eightfold Fold Path that Patanjali eloquently describes in the yoga sutras. In the western world, asana is the aspect of yoga that is widely embraced and practiced the most frequently. Asana refers to the actual physical postures and exercises associated with yoga. Additionally, for some yoga students, asana also encompasses dietary practices, such as refraining from eating meat and cleansing practices, like using a neti pot to clear the nasal passages (Bryant, 2009). Pranayama is the fourth limb or ashtanga of yoga. It refers to yogic breathing exercises that are designed to regulate or control the body's energy. These include breath retention and breath control as well as mindful breathing and chanting (Anderson & Sovik, 2007). The fifth limb of yoga is called pratyahara and it involves withdrawing the senses from the outside world and focusing attention and energy toward one's internal experiences. Dharana is the sixth limb of yoga, which refers to concentration exercises to still and focus the mind. Dhyana is the seventh limb of yoga, which is simply known as meditation. The eighth and final stepping stone of the eight fold path of yoga according to Patanjali is Samadhi, which is the experience of non-duality so that a person can come into contact with Oneness with the Divine and all forms of life (Bryant, 2009).

The Sanctuary Model offers seven commitments that when implemented, create organizations that thrive and serve humanity, as well manifest healing and change in their own respective communities. Like Yoga Sutras of Patanjali, the Seven Sanctuary commitments form a philosophical framework, which requires that all core values be practiced simultaneously and not embraced as separate entities. The Seven Commitments

are brilliantly designed to be a cohesive and integrative model in which all principles are cherished and implemented simultaneously. The first commitment in Sanctuary is the dedication to nonviolence. By fostering a commitment to nonviolence, organizations help build rapport and trust which are cornerstones to stability (Bloom and Farragher, 2011). Ahimsa is an aspect of the first limb yoga that directly correlates with the Sanctuary core commitment of nonviolence. Ahimsa is a Sanskrit word that literally translates to the English word non-violence. Making a commitment to undertake ahimsa in yoga involves not only refraining from overt forms of violence such as assault and battery, but also abstaining from more subtle forms of violence such as gossip and even pessimistic thinking. Both The Sanctuary Model and The Eight Limbs of yoga are methodologies that promote trust and transparency through the habit of nonviolence.

The second core Sanctuary Commitment involves a commitment to emotional intelligence, which encourages participants to identify, regulate and manage emotions in order to assuage fear and promote healthy systems (Bloom and Farragher, 2011). The limb of yoga that is most aligned with this Sanctuary value is the yoga ashtanga called Svadhyaya, which is derived from the second limb of yoga otherwise known as niyama. In yogic practice, Svadhyaya refers to a person's ability to deeply know her own emotional landscape and how the study of oneself and one's ancestors can lead to a greater compassion and understanding of others. Like the Sanctuary commitment to emotional intelligence, yogis that practice Svadhyaya know that understanding one's own emotions and history can increase problem solving skills and the ability to work with others effectively and compassionately.

The third Sanctuary commitment involves a commitment to social learning to help organizations improve their collective memories, uncover destructive secrets and develop new, healthier learning patterns. The ashanaga of yoga that is similar to this particular commitment is Dharana, which is defined as practices and exercises designed to focus and still the mind. According to ancient yogic philosophy, practices associated with dharana can improve memory and retention of new learning and information.

The fourth ashtanga or limb of yoga, which is called pranayama, is most aligned with the fourth Sanctuary commitment, which reflects a commitment to open communication. The Sanctuary Model postulates that by eliminating barriers to open communication agencies can thrive and enjoy regulated, healthy boundaries (Bloom and Farragher, 2011). Pranayama is a yoga philosophy that is directly correlated with a person's ability to communicate with the environment through breathing, sounding and chanting via the human larynx and its underlying respiratory tract and structures. According to the ancient yogic philosophy, through specialized breathing and chanting practices called pranayama, people can more directly understand and communicate their intentions and desires with others in their community. Many ancient yogic beliefs have recently been proven by advances in neuroscience, which include the discovery of mirror neurons at the University of Parma in Italy in the 1990s. As a result of trial and error in the University of Parma laboratory, two scientists discovered that there are actual neurons in the human brain that cause people to act out what they are observing in the environment, even when that action is unspoken. Research in regard to mirror neurons postulates that when we watch a person perform an activity, the part of our brain

responsible for performing that activity is activated within us , even when we remain a dormant observer (Berger, 2006).

The fifth sanctuary commitment involves a commitment to democracy, which can be described as cultivating self-control in order to embrace authority and withstand the ambiguity that is inherent in life's daily situations. This vital commitment also refers to an organization's ability to respect the opinions of others (Bloom and Farragher, 2011). Tapas, which is an element of the second limb of yoga, refers to a yoga student's ability to discipline herself and is analogous to Sanctuary's fifth commitment. Ancient yogis referred to tapas as a type of fire that drives people to implement sacred values and regulate their drives in order to show respect for the self and others in the family and community at large. Both tapas and the fifth sanctuary commitment are values that help foster a commitment to democracy in which every voice in the organization is respected and honored although every individual is not guaranteed to have his or her own way.

The Sanctuary Model's sixth value is an avowed commitment to social responsibility. Through this commitment, Sanctuary establishes a strong dedication to justice, reconstructing social connections and forming healthy partnerships that are focused on forgiveness rather than revenge (Bloom and Farragher, 2011). Sanctuary's sixth commitment can readily be compared to the eighth limb of yoga, which is called Samadhi. Samadhi is a Sanskrit word that means non-duality and Oneness and refers to the interconnectedness of all human life. Yogis that experience Samadhi realize that although humans have separate bodies, minds and life experiences we are all deeply connected to each other through the web of life. A person who practices Samadhi genuinely realizes that the way in which she treats one human being greatly impacts all of

mankind and therefore concepts such as social justice, peace and social interconnectedness are cherished standards that are implemented daily on a moment to moment basis.

The seventh commitment in the Sanctuary Model is a commitment to growth and change and affirms the fact that although all change involves loss of some kind, human beings have the inherent power to prepare and actively plan a brighter future (Bloom and Farragher, 2011). This commitment is very similar to the third limb of yoga, which is referred to as asana. As stated previously, most yoga aspirants in the United States exclusively practice the aspect of yoga that is called asana and are largely unaware that there are seven other aspects associated with this ancient Vedic tradition. Traditionally, asana refers to a series of over one hundred physical postures or positions that have been scientifically proven to build muscle, increase bone density and improve cardiovascular health. These postures can bring about immense growth and change at the level of the physical body and thus are similar to the Sanctuary Commitment of growth and change. It is clear that the Sanctuary Seven Commitments and the Eight Limbs of yoga are similar philosophies that complement one another and can be used both separately and in conjunction to help organizations to manage negative stress, establish healthy communication and embrace change.

A Closer Look at Self-care and Burnout in Social Work

Burnout among social workers and other helping professionals is an area of practice that has been frequently discussed and researched. The consequences of professional burnout are significant and frequently result in negative consequences for the individual practitioner and the social work profession as whole. Poorly managed stress

can lead to staffing shortages, decreased quality of care for clients and even post-traumatic stress disorder among clinicians (Azar, 2000). Students enrolled in social work and nursing programs are often encouraged to practice self-care and self-nurturing in order to promote resiliency and reduce job-related stress.

In 2009, NASW boldly proclaimed the importance of self-care when they issued a policy statement acknowledging the importance of self-care for professional social workers individually as well as the social work field as whole. NASW's policy statement includes support of the "development of continuing education programs that enhance self-care, in addition to the establishment of organization policies that addresses self-care" (NASW, 2009, p. 2). Additionally, NASW states "Social work programs must recognize their critically important roles in educating social work students about the importance of professional self-care by integrating a self-care component into student standards, policies, foundation and advanced curriculum". In this statement, NASW further affirms the essential need for self-care by the strong statement "Professional self-care is an important first step in preserving the integrity of social workers and in retaining valued professionals" (NASW, 2009, p. 3). Furthermore, recent literature suggests that appropriate self-care and an ongoing commitment to burnout prevention is a part of ethical and responsible social work practice. (Dolan and Ayler, 2015).

However, little or no concrete instruction is provided regarding the precise definition of self-care and concrete ways that social workers can develop personal resiliency. Specific stressors in the work environment vary among work settings and each practitioner possesses a unique capacity to manage stress and develop coping mechanisms, often rooted in the clinician's culture and personal history.

Many social workers lack a daily regimen of self-care that, when combined with stressful work conditions, can lead to burnout. This lack of self-care stimulates a myriad of research questions. How can social workers utilize self-care to promote resilience and prevent burnout? How can we teach self-care to both new and seasoned social workers during supervision or professional continuing education opportunities? What are some of the specific self-care strategies that social workers implement to reduce stress? How do these self-care strategies evolve and change over time? How do we define self-care? Because each is a unique individual with diverse desires and preferences the answers to these questions are as unique as the individual practitioners that are queried. From the qualitative data collected from my study, I plan to create a concrete framework for self-care and the promotion of resilience. Additionally, I hope this data will help me evaluate the effectiveness of a workshop that I have created.

The definition of self-care varies from person to person as each individual has unique needs, desires and strategies for maintaining his/her own health. A thorough review of the literature reveals the critical importance of self-care; however there is lack of literature regarding the precise definition of the concept of self-care from a holistic biological, psychological, social and spiritual framework. I am interested in examining the concept self-care through the biological, psychological, social and spiritual conceptual lenses that have been historically utilized by social workers to assess a person in his or her environment. The University of Buffalo Social Work Department has instituted a “self-care toolbox” describing seven concepts that social work students and seasoned clinicians can implement in order to maintain professional resiliency and prevent burnout. These seven domains, as outlined by the University of Buffalo School

of Social Work, are described as “healthy eating, physical fitness and immunity, reducing stress, time management, relaxation, mindfulness and assertiveness” (Napoli & Bonifas, 2011). I am very interested in using qualitative research through individual interviews to determine how social workers define self-care. Drawing from research, as well as my own knowledge and experience as a social worker, registered nurse and yoga teacher, I would like to develop an additional mindful, yoga based self-care curriculum for social workers. My goal is to develop a unique and innovative chair based program that will address the biological, psychological, social and spiritual self-care needs of social workers from diverse backgrounds.

A lack of self-care can negatively impact individual social workers and have adverse repercussions for the entire profession of social work. A review of the literature reveals that a lack of self-care is correlated with burnout, compassion fatigue, decreased standards of care for clients and low organizational morale (Azar, 2000). Furthermore, the research reveals that a lack of self-care and subsequent burnout can also cause social workers to permanently leave the field to pursue other occupational endeavors (Herrick Takagi, Coleman, & Morgan, 1983). Thus, it is evident that self-care among mental health professionals is a critical issue that demands further perusal, investigation and research for the ongoing development and preservation of the social work profession.

Employment in the field of social work can be deeply rewarding but can also cause excessive stress that is related to factors such as low pay, demanding caseloads, dangerous work environments and vicarious traumatization. (Harr & Moore, 2011). Several authors have noted that the prevalence of burnout and compassion fatigue in the social work profession is directly related to a decline or lack of self-care (Zerach, 2013).

Oser, Biebel, Pullen & Harp (2013) found that compassion fatigue was correlated with lack of self-care, ineffective supervision and poor relationships with coworkers. It is important to note that although social work concepts such as compassion fatigue, burnout and vicarious traumatization have distinctive definitions and varying implications, a lack of self-care is a risk factor and the common denominator in the development of all of the aforementioned phenomena (Newel & MacNeil, 2010).

In an effort to teach social work students about the critical role of self-care, the literature reveals research endeavors that empirically illustrate the effectiveness of self-care strategies with social work students (Harr & Moore, 2011). A student-led support group that was implemented to reduce burnout and stress among BSW students demonstrated a significant reduction in self-reported stressful thoughts (Humphrey, 2013). Clements and Minnick (2012) vividly illustrate how social work students learned innovative self-care strategies while simultaneously learning how to facilitate groups. A weekly stress management mutual aid group comprised of master's level social work students met for eight consecutive weeks, utilizing group work concepts developed by social work pioneer, Lawrence Shulman. As a result of participating in this intervention, students gained real life experience with group dynamics while concurrently practicing mindfulness-based stress reduction techniques that they could implement in their personal and professional lives (Clements & Minnick, 2012). Napoli and Bonifas (2011) found that teaching mindfulness to MSW students could significantly increase empathy and enhance self-care. In this study, MSW students participated in a 16-week mindfulness course in an effort to enhance self-care and cultivate mindfulness. As evidenced by the

Kentucky Mindfulness Inventory, this intervention significantly increased mindfulness, a useful tool in cultivating self-care (Napoli & Bonifas, 2011).

Chapter 3: Comparing and Contrasting Social Work Philosophy with Yoga Philosophy

The definition of yoga

The term *yoga* is loosely defined as *union* and denotes the unification of the mind, body, and spirit (Mata, 2012). Additionally, *yoga* translates into the word *yoke* and refers to the act of “yoking or tethering one’s soul to God.” (Iyengar, 2008). In the US, yoga is currently a booming enterprise and yoga studios can be found in nearly every small town and large city. A 2012 study revealed that 8.7 million American adults reported practicing yoga and a staggering 104 million people indicated an interest in yoga. Although some marketing experts caution that yoga is a fleeting movement, consumer trends demonstrate yoga has been a steadily growing industry in the US since the 1970s—10.4 billion dollars was spent on yoga in the year 2012 alone (Resnikoff, 2012).

According to Yoga Alliance, there are currently approximately 50,000 registered yoga teachers and roughly 2,600 registered yoga schools in the United States (D. Dani, personal communication, June 26, 2015). Yoga Alliance is an international credentialing body that certifies and registers both yoga schools and yoga teachers across the globe. In order to become an accredited yoga school, an institution must demonstrate proficiency in training students and display a curriculum that teaches comprehensive yoga philosophy. In June 2014, the Yoga Alliance credentialed 12 US-based yoga schools to certify “yoga therapists,” —teachers that are trained to assess and treat mental and physical health conditions by using yoga techniques. Yoga therapy, when conducted by an experienced, trained clinician, is an intervention that endeavors to heal various

medical and psychiatric conditions. In the past 20 years, evidence-based research has shown that yoga therapy can be an effective tool in decreasing anxiety (Kratsow, 2010). However, the vast majority of yoga therapists have no previous formal training in the mental health field and yoga therapy programs are not currently regulated by any state boards. Thus, it is critical that social workers and mental health practitioners familiarize themselves with yoga philosophy and techniques in order to be aware of current trends in mental health practice.

The importance of yoga knowledge for modern social workers

Based on modern day nomenclature, yoga is a word that is as broad and all encompassing as the term social worker. Just as a person should not assume that all social workers are employed in child welfare settings, one should not assume that all yoga is a vigorous, fast paced exercise that is practiced in a gym to enhance physical fitness. Graduate social work education prepares social workers to practice in a myriad of diverse settings at both the micro and macro level. Numerous social workers continue their education through postgraduate instruction or employment in highly-specialized practice settings (Shulman, 2012). In the same vein, yoga education varies dramatically based on the pedagogy of the teacher, and there are more than 200 styles of yoga in existence globally (Yoga Alliance, 2015).

Many social workers concur that yoga is a great tool to develop mindfulness, ease stress, and enhance personal development. In a survey of mental health practitioners, nearly 80 percent recommended or supported their client's participation in yoga as an adjunct to psychotherapy (Yoga Alliance, 2012). However, there are many different styles of yoga practiced in the US and they are not all commensurate with

mental health treatment and generalist social work practice. Do social workers truly understand what they are recommending to their clients when they encourage yoga practice? Yoga is an inexact term and it's essential to explore these similarities and differences of yoga classification. In order to be a competent social worker it is vital to be aware of the numerous styles of yoga so that one can be cognizant of what she is recommending to patients or simply have a clear understanding of activities in which her client is engaged. About 15 years ago, I was teaching a client some yoga-based breathing exercises during a psychotherapy session. The client responded well to the breath work and inquired about using yoga as a tool to help alleviate her anxiety. Delighted that the client was curious about this ancient healing art, I encouraged her to attend a "basic" yoga class that was being offered at her local gym. After her first class, my client came to our session verbalizing powerful feelings of shame and disappointment in regard to her yoga experience. Through her tears, my client described her yoga teacher as a merciless drill sergeant who barked orders and expected her to quickly memorize a series of fast paced and complex postures. In that moment, I realized the importance of defining yoga and exploring both the client's and yoga instructor's intention for practice when introducing it as an adjuvant to psychotherapy. Furthermore, I profoundly understood the importance of knowing my referral sources and the precise styles of yoga they offered in the community.

The eight limbs or steps of yoga: Comparing and contrasting the eight limbs of yoga to the NASW six core social work values

In order for social workers to understand the essential nature of yoga, it's important to acquire a fundamental knowledge of Ashtanga yoga, otherwise known as the eight limbs, or stages, of yoga. The Eightfold path is a progressive system in which each limb of yoga is attained one step at time in a linear fashion under the guidance of a seasoned teacher (Friend, 1999). The eight limbs of yoga are as follows; yama, niyama, asana, pranayama, Pratyahara, Dharana, Dhyana, and Samadhi (Satchidananda,2005). In order to attain the yogic goal of spiritual enlightenment, an aspirant must work to achieve each evolving step or stage of yoga. The eight limbs of yoga are similar to Erik Erikson's the Eight Stages of Man in that in order to fulfill the developmental task in each stage of progression, an individual must have mastered the tasks delineated in the previous ashtanga or step (Desai, 2012).

The Eightfold path of yoga can be compared and contrasted to the six core values of social work to illustrate the compatibility of the two philosophies. According to the National Association of Social Workers (2015), "social work is a profession that is rooted in a core set of values which are defined as service, social justice, dignity and worth of the person, importance of human relationships, integrity, and competence." These six core values firmly establish social work as a professional endeavor and differentiate the social work domain from other mental health and social service occupations (NASW, 2009). The NASW code of ethics eloquently outlines these core values in its preamble and illustrates how these values inform social work principles and standards and guide decision-making in every facet of social work practice (NASW,

2015). A review of the literature related to the six core social values reveals the lack of written work that explores these aforementioned values in a manner that connects theory to practice. This gap in the literature highlights an imperative need for further research in this area and the importance of clarifying and explaining these values in the curriculum of social work education. According to Abbott (1999), who conducted a global study on social work values that included 126 social workers from 25 countries, these six social work values are a paradigm that informs social work practice worldwide, regardless of culture.

The four traditional schools of yoga

Traditionally, there are four main schools of yoga and each of these respective schools has a distinct and unique perspective. Generally, individuals who undertake a lifelong discipline of yoga will study and integrate all four schools at some point during their lifetime (Mata, 2012). Various philosophies that underpin the conceptual framework of all four yoga schools are outlined in ancient sacred texts known as the Vedas. Written in ancient Sanskrit, these prehistoric scriptures and songs are the foundation of the Hindu religion (Scott & Jois, 2001). Ancient Vedic wisdom purports that humans have both subtle and gross anatomical systems that include the flesh-covered physical body but also features metaphysical aspects of the human energy field that cannot be seen by the naked eye (Mata, 2012).

These scriptures suggest that the process of embodiment into human form begins at a subtle, subatomic level and concludes as life on earth with a physical body that can be seen, felt, and measured (Vishnu-Devananda, 1995). This subtle anatomy features three structures known as bodies and five structures called sheaths that

encompass the human body as a form of invisible energy and light. The first body is called the casual body and includes two sheaths, the Ananda Maya Kosha, which is known as the blissful sheath and Vijnana Maya Kosha which is known as the intellectual sheath. These sheaths extend approximately five feet from the human body and cannot be seen by most observers (Shumsky, 2003). The second body is termed the subtle body and is comprised of two sheaths. The Manomaya Kosha is the mental sheath and the Pranamaya Kosha is the energy sheath. Lastly, the third subtle anatomical body is entitled the physical body and consists of one sheath known as Anna Maya Kosha, which is called the food sheath (Mata, 2012). This third physical body is the human form that Western medicine and science can measure through X-rays as well as visualize unassisted by diagnostic imaging tools. Ayurveda is an ancient Indian scientific system that promotes health and healing through knowledge gleaned from the Vedas (Mata, 2012). Evidence-based research demonstrates that Ayurvedic practices are successful medical interventions for a variety of medical conditions including diabetes and depression (Permuter & Villoldo, 2012).

Different styles or schools of yoga begin effecting or working on a specific aspect of the human energy field. According to Mata (2012), people are drawn to particular schools and styles of yoga as a result of their personality or developmental life stage. However, it is important to note that in a typical yoga class in the US, these four schools, which are referred to as jnana yoga, bhakti yoga, karma yoga, and raja yoga, respectively, are not mentioned, nor taught or practiced. In India, these four schools are widely embraced and accepted as common knowledge (Bryant, 2009). Jnana yoga refers to knowledge, scholarship, and the serious analysis of yoga philosophy. A yoga aspirant

on the path of Jnana yoga may spend large amounts of time deeply contemplating the yoga sutras or spend years translating Sanskrit textbooks (Desai, 2012).

Bhakti yoga is considered the yoga of love, devotion, and deep dedication of one's life to God or Divinity (Vishnu-Devananda, 1995). A person who is immersed in the practice Bhakti yoga will typically spend his or her entire day immersed in worshipping God through prayer, chanting, or rituals that involve gratitude, thankfulness, or service to the less fortunate. Bhakti yogis genuinely believe that God or Divinity resides in all living things and that Divinity which exists in all of life is deeply revered and appreciated (Mata, 2012). According to ancient tradition, when a Bhakti yogi sings a devotional song, he or she is able to connect to the loving essence of every soul that has vocalized this hymn in the past. Students that practice Bhakti yoga have a special affinity for showing devotion and performing acts of service for impoverished and marginalized persons. In this vein, bhakti yoga is equivalent to the social work core value of social justice. According to the NASW (2015), social workers have an ethical mandate to pursue social change and social justice on behalf of vulnerable and oppressed populations. Unlike other mental health professionals, social workers have a unique responsibility to educate and create awareness about oppression and cultural and ethnic diversity (Barker, 2013). Social work as a profession is inimitably devoted to being advocates for persons who have been discriminated against and oppressed by the larger society.

Karma yoga directly translates into path of action and it refers to selfless service to others. An individual who follows the path of Karma yoga may spend an entire day volunteering his or her time or talents with no expectation of personal payment

or reward (Desai, 2012). According to yoga philosophy, karma yoga is an effective way to make reparations for unkind actions in the past and ensure that one receives honor, as any action that is carried out returns to the doer in turn (Mata, 2012). Karma is a Sanskrit word that translates to the English word service (Anderson & Sovick, 2007). The social work value of service is analogous to the yoga concept of karma. According to the NASW code of ethics (2015), social workers have an ethical responsibility to help people enhance their personal resources to overcome life obstacles through direct service. As outlined by the code of ethics, social workers are strongly encouraged to volunteer personal time or provide pro bono services to organizations or individuals who are unable to pay for services. Ethical practice demands that social workers will work for the common good of others and not merely out of self-interest or motivation (Barker, 2013.)

In the US, most yoga classes focus exclusively on Hatha yoga, which is a branch of Raja yoga. Hatha yoga is a classical style of yoga that originated in India and literally translates into the words *sun* and *moon* (Satchidananda, 2005). Through these ancient sutras or scriptures, an eight-step systematic process for achieving the ultimate goal of yoga is clearly delineated. While physical exercise is a vital part of yoga, it is simply one of the eight aspects of this ancient art and science. Due to cultural trends, yoga pedagogy in the US, and client demand, many yoga teachers in the West focus primarily on the second limb or aspect of yoga, which is referred to as asana (Mensigna, 2011). It's important to note that most research that boasts the effectiveness of yoga in regard to health, features styles of yoga that embody all eight limbs of yoga and not just physical exercise.

As stated previously, the eight limbs of yoga are as follows: yama, niyama, asana, pranayama, Pratyahara, Dharana, Dhyana, and Samadhi (Vishnu-Devananda,1995). In order to attain the yogic goal of spiritual enlightenment, an aspirant must work to attain each evolving step or stage of yoga. The eight limbs of yoga are similar to Erik Erikson's the Eight Stages of Man in that in order to fulfill the developmental task in each stage of progression, an individual must have mastered the tasks delineated in the previous ashtanga, or step (Desai, 2012).

The first limb of yoga is yama, and it refers to self-discipline or self-restraint. According to yoga tradition, all humans have instinctual drives that when unrestrained can drain a person's physical and emotional energy (Taimni,1961). There are five yamas which each offer a unique strategy to curb hedonistic tendencies and preserve one's vital life force. At the most basic level, Yama can be viewed as practices that restrict animalistic human drives. According to the yoga sutras of Patanjali the five yamas are ahimsa, Satya, asteya, Brahmacharya, and Aparigraha (Voelker,2014).

Ahimsa is best described as non-violence and at the fundamental level involves refraining from killing or harming other living beings. As a result of practicing ahimsa, some yoga students will refrain from eating meat or even using pesticide in their gardens. As one progresses in the study of yoga, a profound realization that violence develops on the subtle level of thought emerges. In order to practice ahimsa, one realizes that angry thoughts or wishing harm on another human is detrimental and sadistic behavior. Angry and violent thoughts are often accompanied by an increase in respiration, blood pressure, and heart rate (Desai, 2012). Experienced yogis purport that all of life is interconnected and that merely contemplating inflicting harm on another

person brings about immediate negative consequences in one's nervous system, which are reflected in these changes. Thus, by tuning into their thoughts and bodily sensations, yoga students learn to practice ahimsa, the first step on the path of Ashtanga. The social work value referred to as the dignity and worth of the person directly relates to the yogic philosophy of Ahimsa. This ethical principle of social work practice translates into not harming clients and protecting the vulnerable from maltreatment at the most basic level. A social worker who is protecting the dignity and worth of his client deeply respects a client's right to self-determination in a compassionate and caring way. A vital aspect of Ahimsa involves refraining against violence against oneself. Negative self-talk, excessive guilt, and worry are eventually recognized as a form of violence against the self. (Satchidananda, 2005). Rather than suppressing or denying these negative thought-forms, yoga aspirants are taught to tune into these thoughts and gently allow them to dissolve from their experience. This subtle form of ahimsa is best correlated to NASW's recent mandate that social worker's practice self-care in order to be effective practitioners. In order to ethically practice, social workers must care for their own needs prior to attempting to help others (NASW,2015).

Satya, the second yama, translates directly to the word *truth*. When translated at the rudimentary level, Satya means to abstain from telling lies or withholding the truth (Feuerstein,1996). On a subtle level, Satya means refraining from understated forms of deceit such as gossiping, exaggeration, and hiding emotion. In order to develop an awareness of Satya, beginning yoga practitioners are encouraged to practice periods of silence and deep listening. Before speaking, a person practicing Satya contemplates if their contribution to the conversation is completely true (Desai, 2012).

The social work core value of integrity is highly correlated with Satya. The value of integrity is grounded in the ethical principle that social workers should behave in an honest and trustworthy manner. According to the *NASW Code of Ethics*, social workers have a moral and ethical responsibility to be truthful in both their words and actions when dealing with clients (NASW, 2015). Professional integrity includes not withholding vital information in addition to promoting transparent and ethical protocols at the organizations in which they are affiliated (NASW, 2009).

Asteya is the third yama in the first limb of yoga, which translates to non-stealing (Voelker, 2014). A person practicing the beginning stages asteya refrains from taking items that do not rightfully belong to him or her. As an aspirant travels further down the path of yoga, it becomes evident that the mere thought of coveting or envying another's property is a subtle form of stealing (Desai, 2012). Receiving credit for work one did not perform or laboring half-heartedly on a project are examples of breaching asteya. According to Vedic tradition, most people routinely steal from one another out of habit and do not recognize the behavior as occurring (Mata, 2012). Common examples of these types of stealing include making personal phone calls while at work, flirting with a married co-worker, or surfing the Internet when one is engaged in a project for school. Positively practicing asteya coincides with the belief that the earth belongs to everyone and that resources should be shared and equally distributed among all. A yogi that embodies the practice of asteya is said to have surrendered all personal possessions but paradoxically has all the world's resources available to him or her the moment they are needed. The practice of refraining from stealing begins at the level of thought (Desai, 2012). As the yogi learns to shift his or her awareness to thoughts based in thievery, the

yogi discovers how to direct his or her mental concentration in a positive way. It is said that the practice of asteya has benefits both at the individual micro-level and societal, macro-level (Mata, 2012).

The fourth yama is entitled Brahmacharya and refers to continence and refraining from sexual intercourse (Satchidananda, 2005). In a conventional way, brahmacharya refers to refraining from the preoccupation with sexual fantasies and sexual intercourse. Serious yogis in committed relationships are not required to give up sexual relations but are encouraged to engage in erotic activity in moderation. Excessive thoughts about sensuality are believed to drain one's energy, which could be used for the attainment of higher goals that serve humanity (Shumsky,2003). Vedic scholars hypothesize that when a person refrains from sexual intercourse, sexual energy is redirected from a person's genital area and accumulates in a person's forehead. This converted energy is known as ojas and is responsible for increasing a person's mental concentration and focus (Mata, 2012). In a broader sense, Brahmacharya refers to attaining freedom from sensual pleasures and distractions.

Aparigraha is the fifth yama that means non-greediness or non-possessiveness (Friend, 1999). A person practicing aparigraha recognizes that only a few possessions are needed for survival and does not hoard excessive wealth. Accumulating status symbols to impress others or stockpiling items that may be needed in the future are examples of breaching Aparigraha (Desai,2012). Purchasing a vacation home that remains unoccupied for large portions of time is also considered wasteful, especially during a period in history where homelessness and poverty are prevalent. The acquisition, maintenance, and emotional attachment to luxury items require a large amount a person's

time and mental energy. When aparigraha is practiced, a person has ample time and energy for higher spiritual goals and is not selfishly amassing resources that are desperately needed by others. Aparigraha also means not accepting gifts or favors from others as it is believed that accepting presents can create dependence on other people and situations (Valentino & Mehan, 2004). A yogi believes that accepting gifts produces obligations that can potentially stand in the way of a person acting in the best interest of all. Like the yogic concept of aparigraha, the social work code of ethics discourages social workers from accepting gifts from clients due to the ethical challenges inherent to gift giving (NASW,2015).

Niyama is the second limb of yoga and refers to five positive disciplines that are necessary for a yogi to attain along the path to enlightenment (Satchidananda, 2005). Together, the yamas and niyamas are often referred to as “the ten commandments” of yoga as they offer a concrete set of instructions and behaviors necessary to attain spiritual goals (Desai,2012). While the yamas refer to negative behaviors and drives that must be curtailed, the niyamas are positive disciplines to be cultivated. According to Vedic tradition, the yoga student must learn control negative or lower drives associated with the yamas before they can undertake the positive practices known as niyamas (Mata,2012). The first niyama is known as Saucha, which translates directly to the word *purity*. The yoga sutras of Patanjali state that humans are created in the image and likeness of God and that the body is an instrument for Divine energy. Thus, keeping the body pure, clean, and devoid of toxins are the paramount tasks of Saucha (Anderson & Sovik, 2006).

The second niyama or positive self-discipline is called Santosha and is a Sanskrit word that means contentment (Douglas, 2011). Contentment refers to attaining

physical and emotional homeostasis so that a yogini can sustain his or her own energy to follow the remainder of the yogic path. According to Patanjali, contentment is best defined as accepting whatever life presents at any given moment in time without wanting to change it. Examples of Santosha in action is an amputee who is grateful for the use of his remaining limbs, who no longer mourns his missing leg but rather happily accepts his fate. It's important to note that Santosha is not laziness or giving up on life by embracing a defeatist point of view (Desai, 2012). Santosha involves genuinely cultivating a sense of happiness for the sake of being alive and one's inherent strengths. In a colloquial sense, Santosha is best described as embracing one's life as it is and without emotional attachment in the form of regret for the past or anxieties in regard to the future (Mata, 2012). The social work strengths perspective is analogous to the yogic concept of Santosha. A chief feature of the strengths perspective includes focusing on the positive aspects of a client rather than focusing on pathology (Barker, 2013).

Tapas is the third niyama that translates into the word *austerity* and *heat* (Voelker, 2014). As primarily physical practices, they are designed to generate heat in the body and foster a sense of self-discipline and mastery. These specific practices are undertaken as vows by yogis and involve activities such as fasting or doing rigorous physical exercise (Desai, 2012). These activities are not intended as a form of torture or starvation but are often misinterpreted as such by individuals with a limited understanding of yoga. Rather, the purpose of tapas is to "burn away" any negative aspects of a person's physical body that are released in the form of toxins.

Tapas related to depression or other lower emotional states are released in the form of verbal impressions (Mata, 2012). The purpose of burning away negativity is to

create a clean and healthy space for new life to emerge (Valentino & Mehan, 2004). In order to ensure the safety of the yoga student, these practices should be followed under the guidance of a well-trained and seasoned teacher. Without proper supervision and understanding of the austerities of fasting, it could transform into starvation or other dangerous sequela. When performing tapas, a yogi understands that enduring some pain is required in order to derive the benefit of purity. When teaching about the importance of tapas, many yoga teachers will utter the idiomatic saying, “no pain, and no gain.” (Choudhury, 2007). That said, it’s very important to assess a student for masochistic or self-defeating tendencies prior to their initiating practices related to tapas. An example of verbal tapas includes observing silence for a prescribed period of time. Physical tapas often involves fasting in an effort to remove accumulated toxins from the body. Austerities are intended to foster a sense of confidence and strength that will help the yogi attain subsequent goals of yoga (Bryant, 2009).

The fourth niyama is called Swadhyaya and translates to the words *self study* (Satchidanada,2005). Swadhyaya refers to the yoga student’s ability to study his or her own personal history with deep introspection and understanding (Voelker, 2014). For many modern day yogis, Swadhyaya includes a course of psychotherapy, which can help the yoga aspirant associate their external behavioral with their emotional experiences. *The Social Work Code of Ethics* requires that social workers maintain healthy boundaries, which often requires a period of rigorous self study (NASW, 2009) . Other yoga teachers interpret the meaning of Swadhyaya as study of the yoga scripture, which include the sutras written by Patanjali. Additionally, other sacred writings authored by experienced and esteemed yoga teachers are also considered Swadhyaya. Yoga students are

discouraged from pursuing the study of yoga as purely philosophical or intellectual endeavor and are instructed to live the theories outlined in the yoga sutras (Desai,2012). Another interpretation of Swadhyaya refers to the yoga student's desire to seek the company of yoga students and form a community known as satsang. A satsang refers to a meeting of a group of yoga aspirants in which devotional songs are sung and yoga scripture is disseminated, typically by an expert yoga teacher (Mata, 2012).

The social work core value of competence is readily compared to the yoga philosophy of Swadhyaya. According the NASW Code of Ethics (2009), social workers have an ethical responsibility to continue their professional education through study. For social workers who provide professional mental-health counseling, ethical practice necessitates that a clinician deeply understand himself or herself (Shulman, 2012). A social worker's failure to examine her own personal history can result in negative countertransference that could undermine the therapeutic alliance and potentially harm the client. For many social workers in professional training, psychoanalytic or otherwise, a course of personal psychotherapy is strongly indicated or even required. For social workers working at the macro-level and in grassroots organizations, pursuing ongoing continuing education is necessary in order to maintain competence and skill in the profession (NASW, 2015). Additionally, continuing education is mandated by most state social work boards and is considered a best practice in the field of social work.

Ishwara Pranidhana is the fifth and final niyama that is discussed in the Eightfold path. When translated from Sanskrit to English, Ishwara Pranidhana means "to surrender or resign to the will of God." (Desai, 2012). A yoga student who is practicing Ishwara Pranidhana peacefully accepts all of the life's circumstances as a gift from a

higher power and does not mentally struggle against life's intrinsic challenges (Friend, 1999). Through a continuous state of mental surrender, a yoga aspirant learns the practice of non-attachment (Desai, 2009).

The third limb of yoga is entitled asana and is the most popular and celebrated aspect of yoga in the US. *Asana* is a Sanskrit word that means position (Voelker, 2014). This term refers to the body's ability to hold a position for a period of time in a steady and comfortable manner. In order to maintain a physical posture, it is necessary for a yoga practitioner to first achieve a peaceful and steady state of mind. Restlessness in the mind produces agitation in the body, which can result in an unsteady gait and difficulty attaining balance and stability. In Hatha yoga, there are 84 physical postures that affect the internal mechanisms of the body that include, but are not limited to, the heart, lungs, spinal cord, nerves, and glands. Each asana, or position, has a Sanskrit name, which eloquently describes the quality or intention of the posture (Vishnu-Devananda, 1995). In the US, English names are frequently attributed to asanas and many positions are named after the animals that they resemble. Through the sustained practice of these physical postures, a student vividly experiences the indissoluble connection between mind and body (Nurriestearns & Nurriestearns, 2013). For example, a beginning student may notice that her fears of falling out of a pose often result in quivering muscles and poor hand-eye coordination. Conversely, a relaxed and emotionally unattached attitude of confidence often brings about an ability to hold a posture for an extended period of time. Although it's important to master the physical postures, the eventual purpose of the poses is to transcend the body altogether. By

mastering the physical postures, one is able to gain mastery over the mind, a critical prerequisite for meditation (Mata, 2012).

One of the benefits of asana practice is the release of muscular tension that is related to unmanaged stress. In the human body, there are approximately 640 skeletal muscles that are designed to support bones, maintain postural alignment, and promote ambulation (Nurriestearns & Nuerriestearns, 2013). Muscles are designed to shorten or lengthen in response to the central nervous system. Responding to a feedback loop in the brain, skeletal muscles shorten or contract to perform a desired task. After the task is completed, the skeletal muscles are designed to lengthen and relax to their normal resting state (Hatfield, 2013). Muscle tension results when a muscle does not receive the message to relax. Chronically held muscle tension is a habit that can result in muscular stiffness and pain. Due to emotional stress, many yoga students persistently hold muscle tension in the body, especially in the shoulders, neck, and hips (Nurriestearns & Nurriestearns, 2013). By practicing asana, yoga aspirants learn how to incrementally release and contract muscle tension and develop new brain-based postural habits. As a result of this process, yoga practitioners become aware of tension in everyday situations the moment the muscle begins to contract. These insidious changes can have profound results on a person's quality of life. Through the release of chronically held bodily tension, a yoga student achieves a peaceful state of mind and becomes free of chronic pain and other medical conditions and ailments. This benefit of asana is of particular interest to social workers, who frequently spend long days sitting with clients, often under tense and stressful conditions.

The majority of yoga programs in the US focus strictly on the asana limb of yoga. Although asana is a limited aspect of yoga, great benefit can still be derived from simply practicing these physical postures. Benefits from asana practice include increased cardiovascular function, normalized blood pressure, enhanced lung capacity, and reduced stress. Research indicates that asana practice can improve digestion and elimination, increase cardiovascular endurance, and reduce anxiety and depression (Ross & Sue, 2010). Due to the spiritual nature and origins of yoga, its practice is controversial in some religious and secular communities. Several schools have prohibited the practice of yoga due to its religious origins and roots in the Hindu religion (Resnikoff, 2014). While yoga is essentially and fundamentally a spiritual practice, a seasoned yoga teacher can impart wisdom about asana in a secular way so that its practice does not conflict with any person's religious beliefs or self-determination.

The fourth limb of yoga is called Pranayama, which is a Sanskrit word meaning "controlling the vital energy." (Visnū-Devānanda, 2012). According to Patanjali, the entire universe is comprised of matter and energy that includes air, light, sound, and mental activity (Bryant, 2009). This energy is called *prana* and is believed to be the vital life force that nourishes a person's body. Without sufficient prana, humans cannot function properly or even survive. Ayurvedic science teaches us that prana can be best accessed by practicing breathing techniques that involve the heart, lungs, and central nervous system (Satchidananda, 2005). Pranayama, or breathing techniques, can be as basic as diaphragmatic breathing and as complex as the cessation of breath for a lengthy period. Pranayama is a powerful and potentially dangerous technique that should be taught under the direct observation and instruction of a yoga teacher. Various forms of

pranayama involve blocking nasal passages and using intercostal muscles to expel air forcefully. It is believed that by learning to control the breath, a yoga student can purify his or her consciousness and proceed to the higher goals of yoga.

Pratyahara is the fifth limb of yoga and means sense withdrawal. Patanjali emphasized that the human mind works through the senses and by controlling these senses one can control the mind and attain bliss through a near constant state of meditation (Bryant, 2009). By withdrawing one's attention from the senses of taste, touch, sight, sound, and kinesthetic touch, one can attain mastery over the vacillations of the human mind. An example of mind vacillations is the mind's tendency to wander, make to-do-lists, or create other distractions when a person sits down to meditate and empty oneself of thought. According to yoga master Leela Mata (2012), there is a pratyaharic practice for every sense and through implementations of these practices one can learn to direct their energy inward. When we carelessly succumb to sensual distractions in our environment, we lose energy to the external diversions that exist in the outer world. An example of sound-based Pratyahara involves silently chanting the word *Om*, while concentrating on this sound to the exclusion of all other noises. The yoga sutras of Patanjali purport that being outwardly directed toward sensual pleasures can be dangerous. For example, a moth is strongly attracted to the flame, which eventually destroys its life. Patanjali teaches that by placing attention inward via Pratyahara that yoga aspirants can gain mastery over all five senses which facilitates a deeper meditation experience (Desai, 2012). Pratyahara is akin to the Western belief that perseverance on an intended goal will eventually result in the successful attainment of the desired outcome. An established practice of Pratyahara can also readily be compared to the social

work concept of self-determination. In this vein, a yoga aspirant practicing *pratyahara* focuses internally on her inner wisdom instead of seeking salvation outside of herself in various persons, places, and pursuits. Likewise, the social work concept of self-determination encourages clients to choose autonomy, freedom, and self-directed goal setting. (Barker, 2013).

Dharana is the sixth limb of yoga—it is a Sanskrit word meaning concentration (Satchidananda, 2005). Essentially, Dharana is a practice of holding one's concentration on one object for a prescribed period of time. The most common Dharanic practice is called *Tratak* and involves softly gazing at candle flame for an extended period of time. By concentrating on external objects through the physical senses, a yoga student acquires the gift of intense mental focus. In the yoga sutras, Patanjali describes that one can attain Dharana by internally focusing on specific parts of the physical body. For example, by placing one's attention on the space between the eyes and eyebrows, a yogi aspirant is believed to increase intuition and gain superhuman attention and focus (Mata, 2012).

The seventh limb of yoga is called *Dhyana* and is a Sanskrit word that means meditation (Valentino & Mehan, 2004). According to Patanjali, meditation is an extended period of one-pointed attention and focus in which there is a "single flow of ideas." A yogic state of meditation can be attained by a variety of practices, which include but are not limited to chanting, performing acts of services, and breath work. The most common expression of yogic meditation involves sitting in a quiet space and placing one's attention on the breath, while eliminating all other physical and mental sensations. Although meditation involves inhibiting the five senses, it is not a dull state and does not

involve sleep. Rather, meditation is an active practice in which a yoga aspirant expands her consciousness and discovers her inner strength and vitality (Desai, 2012). Through meditation, a yogi transcends the body and the mind and gains a sense of tranquil wisdom that is difficult to put into words and best achieved through direct experience.

Samadhi is the eighth and final stage of development of the Patanjali's Eightfold path of yoga. Samadhi means to direct one's lower consciousness or drives toward one's higher self (Bryant, 2009). According to Patanjali, the frequent practice of meditation will lead to Samadhi. Samadhi is best described as a state of bliss through which the yoga student perceives the world as a unified organism and experiences all living things as expressions of one force of consciousness and love that is Divine in nature (Friend, 1999). A person experiencing Samadhi recognizes the deep interconnection of all humans and does not recognize a separation between self and others (Voelker, 2014).

The social work value termed "the importance of human relationships" is in alignment with the yogic concept of Samadhi. Professional social workers have a deep commitment to helping people enhance their intrapersonal and interpersonal relationships and recognize that these relationships are a profound conduit for behavioral change (Shulman, 2012). This ethical principle mandates that social workers value all human life as precious, equal, and integrated. Unlike other facets of classist societies, social workers believe that all humans are created equal and our profession seeks to foster relationships that demonstrate that equality and interconnected nature of humanity. Social work systems theory, which encompasses both ecosystems, family systems, and general systems theory, is a useful theoretical framework that demonstrates how systems and

relationships dynamically impact one another (Sieberg, 1983). Furthermore, these systems theories illustrate how various systems interact on numerous levels in an effort to attain homeostasis and maturity (Greif & Lynch, 1983). Samadhi can be easily compared to social work systems theory to understand the interconnection and importance of human relationships. Equafinality is an essential social work concept that is akin to Samadhi. Parenthetically, equafinality refers to the belief that there are a myriad of ways to attain a desired goal or state (Barker, 2013). This term is embraced by the social work profession, which deeply honors diversity and inherently respects that there are various paths that lead to the same destination or outcome. According to Patanjali, the state of unity that defines true Samadhi can be achieved by anyone under various, innumerable conditions regardless of one's creed, gender, socioeconomic status, or age (Mata, 2012). This conceptualization of Samadhi is confluent with social work practice and embodies the notion of all-inclusiveness.

A review of 13 popular yoga styles in the United States

In the US there are more than 30 popular styles of yoga that are practiced in a myriad of settings. In the Western world, yoga is taught primarily in group classes, although some educators prefer to impart yogic wisdom in the traditional sense, in which each student is paired with one teacher for one-on-one instruction. In this vein, traditional yoga instruction is similar to the didactic student and field instructor relationship that is paramount in graduate social work education. Conventionally, yoga is an ancient healing art and practice that was handed down through generations. Typically, students study with their yoga teachers, often referred to as gurus, for 20 or more years. In the US, private yoga instruction is expensive and reserved for affluent students or

individuals undertaking yoga teacher training. In the Western world, private and group yoga instruction can be prohibitive for individuals living on a low or fixed income. The average cost for a single yoga class is \$15, with most yoga studios offering monthly-unlimited classes for an average of \$120 per month. Many community centers such as YMCA, JCC, and Boys and Girls Clubs offer free or low-cost yoga classes on a sliding-scale payment basis. Powerful organizations such as Street Yoga and Prison Yoga Project endeavor to bring the practices of yoga to underserved populations by offering reduced cost training programs for volunteers. Social workers who are also trained as yoga teachers are poised to help marginalized populations by providing yoga classes that integrate both the personal benefits of yoga practice with the larger social justice oriented advantages that yoga philosophy engenders.

Ashtanga yoga is a considered a traditional Indian form of yoga that was founded by Jois Putanbi, who began his yoga studies in India at the age of 12. By pairing breath with body movements, Ashtanga yoga offers a vigorous workout that heats the body and provides cardiovascular benefits. Teachers of Ashtanga yoga typically follow the eightfold path of yoga but place a strong emphasis on executing yoga postures in rapid succession. Although mindful breathing and concentration exercises are taught, students are encouraged to move through postures rapidly, which can be challenging for students who were sedentary prior to initiating a yoga practice. Each Ashtanga class commences with a series of sun salutations. A sun salutation is best defined as a rigorous 12-step series of physical poses. This series requires that aspirants assume challenging postures in a quick, repetitive motion. Often referred to as “power yoga,” Ashtanga yoga

is a style of yoga that is well-suited for a person who is in good physical condition and can easily move from a seated to standing position quickly (Scott & Jois, 2001).

Bikram yoga is a popular and rigorous style of yoga both in the US and worldwide. According to Chodhury (2008), there are more than 330 Bikram studios in the US and more than 600 worldwide. This type of yoga was founded by Bikram Choudray, a controversial yoga teacher who began studying yoga in Calcutta at the age of 4 and has since won numerous yoga competitions. The beginning Bikram yoga series consists of 26 yoga postures, which are performed in a room heated to approximately 100°F. If feelings of exhaustion or discomfort arise during the class, students are encouraged to rest but strongly advised not to leave the room unless experiencing a true emergency. Many students of Bikram yoga report increased flexibility and decreased stress levels as a direct result of this yoga practice. Due to the elevated room temperature, this yoga practice is contraindicated for clients with certain medical conditions such as multiple sclerosis, epilepsy, and cardiac disease (Choudhury, 2008). Students that enjoy a hot and physically challenging workout may greatly benefit from this style of yoga.

Classical yoga is a style of yoga that is frequently referred to simply as hatha yoga. Historically, classical yoga was a discipline reserved for monks, yogis, and those that chose to withdrawal from society for the sole purpose of spiritual enlightenment (Valentino & Mehan, 2004). In modern society, classical yoga is studied by people from all walks of life, predominantly householders, which is a yoga term for everyday working people who undertake family and professional responsibilities (Mata, 2012). Classical yoga typically focuses on all eight branches of yoga, with a robust emphasis on asana or physical postures. These yoga sessions are typically an hour and a half in duration and

include a lengthy period of silent or guided mediation. During classically-oriented yoga classes, a teacher often recites readings from sacred texts such as the yoga sutras, the *Bhagavad Gita*, or the *Upanishads* (Valentino & Mehan, 2004). Chanting or traditional Indian music is played and there is often an extended period for silent contemplation or meditation (Desai, 2012). A great deal of attention is placed on the spiritual aspects of yoga in a classical yoga class. Due to the inclusion of prayers, sacred texts, and chanting, Classical yoga may be contraindicated for prospective yoga students who uphold the traditions and practices of another strict religious code. Anusara is an additional form of hatha yoga that is considered classical yoga by many practitioners. Anusara, which focuses on a heart-centered and loving attitude, postulates that there are three main parts of yoga—action, alignment, and attitude. Anusara yoga has a firm focus on correct alignment of the body postures and taking heart-centered action in one's light (Friend, 1999).

Kundalini yoga is a popular form of yoga that was traditionally a highly clandestine and coveted Ayurvedic science that was reserved for a select group of privileged and auspicious students (Shannahoff-Khalsa, 2004). This style of yoga was brought to the US by Yogi Bhasan, PhD, an Indian academic who aspired to bring this healing art to the masses and founded the Iyengar Yoga Society, a worldwide non-profit foundation that has conducted research on the effectiveness of yoga in mental health practice. Commonly referred to as Laya yoga, Kundalini yoga has its roots in the Hindu philosophies of tantra (Megarisiotos, 2012). According to this tradition, every human has divine and creative energy that is dormant at the base of her spine. Kundalini yoga philosophy purports there are two nerve channels that are interwoven on the central nerve

in the human spinal column, which is called the shushmana. The first nerve channel is called the Ida and it contains lunar, feminine, and negative energy. Its corresponding energy channel is referred to as the Pingala, which contains solar, masculine, and positive energy. Both the Ida and Pingala are the main conductors of kundalini energy, which travels vertically along the spinal cord and brain and is expressed through energy centers called chakras that lie perpendicularly along the spine (Mata, 2012). For this reason, kundalini yoga is frequently referred to as chakra yoga. The philosophy of the chakra system and how it is related to social work practice will be explored later in this dissertation.

Through the practice of Kundalini yoga, this potent energy is awakened and travels vertically along the spine until it reaches the forehead and stimulates the secretion of the pineal gland (Shumsky, 2003). During a biological and metaphysical process, the kundalini energy causes massive change in consciousness, which can occur suddenly or be a gradual process (Shannahoff-Khalsa, 2004). It is important for social workers to be aware that kundalini awakenings can mimic psychosis. During a kundalini experience, clients often report experiencing synesthesia (for example, hearing colors), telepathy, or feeling as if they left their body. Most licensed mental health therapists would aptly diagnose a yoga student experiencing a kundalini awakening as a client in the midst of a psychotic episode. In an effort to minimize sudden and unpleasant kundalini awakenings, yoga aspirants are strongly discouraged from using recreational drugs (or even prescribed psychotropic drugs) and practice advanced kundalini breathing techniques under the close supervision of a seasoned teacher (Desai, 2012). Although kundalini yoga is a vigorous practice that involves assuming repetitive postures and synchronizing breath with poses,

it can be modified to meet the needs of a yoga student who is in good physical condition and can bear weight on his or her legs and arms. Due to the potential risk for adverse psychiatric experiences, kundalini yoga is contraindicated for clients who are actively using controlled or illicit substances and individuals with a history of psychosis. In the event that a client experiences psychosis while practicing kundalini yoga, it is vital to enlist the help of a seasoned mental health practitioner who is well versed in yoga grounding techniques.

Laughter yoga, also known as Hasyayoga, was founded by Madan Katari, MD and is a technique that involves self-induced, simulated laughter in an effort to provide the student with the physiological and emotional benefits that genuine laughter provides. Laughter yoga is accessible for people of all levels of fitness and involves light stretching, clapping, and a series of comical games all designed to initiate laughter and playfulness. Today, there are more than 8,000 laughter clubs in nearly 100 countries that practice this evidence-based practice. A recent study comprised of 100 women concluded that Laughter yoga was effective in alleviating depressive symptoms in 40 percent of the sample (Shahidi, et al, 2011).

Iyengar yoga is a type of yoga (named after its founder BKS Iyengar) that places a strong emphasis on postural alignment and correction. After suffering from typhoid, tuberculosis, and a thyroid condition in childhood, Iyengar was inspired to create a yoga style that was physically available to those with challenges for the purpose of healing. Through the usage of props and assistive devices, such as bolsters, straps, and blocks, Iyengar yogis gently ease the body into challenging yoga poses. According to Guru Iyengar (2008), this type of style of yoga was designed for just about everyone.

Although Iyengar yoga includes physically challenging postures, such as peacock and crow pose, those who desire a relaxing or more restorative experience can safely practice it. Iyengar yoga is geared toward those who wish to pursue yoga from an intellectual and spiritual perspective and embodies all eight limbs of yoga. (Iyengar, 2008).

Restorative yoga is a type of gentle yoga that is typically conducted at a slower pace and facilitated by an instructor who is adept at working with students that have physical challenges or injuries (Lasater, 2011). Inversions, which are yoga poses where the heart is positioned below the head, is the most frequent type of asana assumed in a traditional restorative class (Anderson & Sovik, 2007). Examples of restorative poses include headstands and shoulder stands and in an effort to make poses accessible to students with medical conditions, many restorative teachers utilize assistive devices such as bolsters, blocks, and walls. Many restorative yoga classes feature relaxing music and a long period of yoga nidra, a guided meditation dubbed “yoga sleep” at the end of class. Sivasana, or corpse pose, is the ultimate posture of relaxation, which is central to the yoga conceptual lens of restorative yoga. This style of yoga is conducive for older adults with osteoarthritis, pre- or post-joint replacement, challenges with the hips, knees, or other joints (Lasater, 2011). However, as with any other type of yoga, it’s paramount that a student asks her physician or surgeon if this type of yoga is safe to practice.

Vinyasa yoga is a vigorous and physically challenging style of yoga that involves assuming postures quickly and in rapid succession. Followers of vinyasa yoga, which is often referred to as power yoga, pair their movements to breath and are instructed to maintain deep and sustained breath throughout this cardiovascular workout. Many teachers of vinyasa offer verbal cues during class that are designed to encourage

students to push themselves past their physical limits and focus primarily on the anatomical aspects of the postures. This type of yoga remains popular among current and former athletes and is best suited for students who are in excellent physical condition without a history of injury or illness. Numerous vinyasa classes are held in rooms that are heated to 100°F above and students with heat intolerance are advised to check in with the instructor regarding room temperature. Indeed, vinyasa yoga can be an invigorating practice for people who experience psychomotor retardation or other negative symptoms of depression but the elevation in heart rate can trigger nervousness in people with anxiety disorders. Many vinyasa instructors teach yoga precisely as a physical exercise and do not include the other seven limbs in their vinyasa offerings (Scott & Jois, 2011).

Sampoorna Yoga is an innovative style of yoga that integrates hatha yoga, bhakti yoga, jnana yoga, and karma yoga. This style of nationally-recognized yoga was founded by internationally renowned yoga masters Leela Mata and Yogi Hari and continues to be taught in ashrams in India, Germany, and the Bahamas, as well as in the US. Like Sivananada yoga, Sampoorna yoga endeavors to make yoga accessible to people of all fitness levels and features a strong focus on Ayurveda nutrition, service to humanity, and all eight limbs of yoga philosophy (Mata, 2012). Additionally, Sampoorna yoga includes a series of eye exercises, which are designed to promote neurobiological restoration and potentially improve vision and brain functioning. I had the great privilege of studying directly with Leela Mata during a two-week long intensive advanced teacher training at her Western ashram in Sligo, Pennsylvania. Leela offers satsang around the globe where yoga philosophies are explained and discussed. Sampoorna satsang involves sitting in a guided meditation under the direct supervision of a yoga master and thus is

accessible for people in all levels of physical fitness. Additionally, there is a period of chanting and question and answer sessions that makes this style of yoga accessible to seekers who may have physical challenges.

Yin yoga is a style of yoga that focuses on the limb of asana and the physical body, specifically the connective tissues, bones, joints, and ligaments. The dichotomy of yin yoga is known as yang yoga, which conversely focuses on superficial muscles as well as heating the body through a series of fast paced asana. Certain yin yoga instructors will commence or conclude their classes with a brief performance of yang yoga. A yoga student undertaking a yin yoga practice can expect to remain in yoga postures for as little as one minute or as long as twenty minutes in intense stretches that involve fascia as well as deep muscle tissue. Due to the prolonged duration of physical postures, yin yoga can be mentally and physically challenging to both new and seasoned yogis alike. Many 90-minute long yin yoga classes could potentially include only five or less yoga postures. For this reason, yin and yang yoga aspirants should be in good physical and mental health (Clark & Powers, 2012).

Sivananda yoga is a type of yoga that emphasizes health promotion, vegetarian nutrition, and disease prevention predominantly through the conceptual lens of hatha yoga. Five main principles formulate the foundation of Sivananda yoga. These principles are respectively proper exercise, proper breathing, proper diet, proper relaxation, and proper thinking and meditation. Vegetarianism and healing through nutrition is a central philosophy in this division of yoga. Sivasana, otherwise known as corpse pose, teaches the yoga aspirant how to deeply rest and relax by the application of yoga nidra. Knowledge of pranayama, or restorative breath work, is taught through

observation and return demonstration under the supervision of a skilled practitioner, Furthermore, meditation and thought witnessing is practiced in an effort to reduce *chitta*, a Hindu word that describes negative thinking and mental vacillations commonly referred to as “monkey mind.” (Vishnu-Devananda, 1995).

Chair yoga is an increasingly popular method of yoga that is physically accessible to just about everyone. It is customarily practiced entirely while the participant is comfortably seated in a straight-back chair, although some styles use the chair as a support for standing postures. This type of yoga is available for people of all levels of fitness and physical abilities (Voelker, 2014). Additionally, many chair yoga classes are designed exclusively for students who may be confined to a wheelchair. The vast majority of chair yoga participants are older adults or individuals with physical, developmental, or cognitive disabilities. However, increasingly, chair yoga is being undertaken by advanced yoga practitioners in an effort to deepen the postures and advance the spiritual aspects of the tradition. By relaxing into the support of a sturdy chair, yoga practitioners can attain deeper states of meditation and deeper physical stretches in muscular and fascia tissue. Lakshmi Voelker is a world-renowned yoga master who has been teaching yoga since the 1980s who specializes in teaching yoga instructors how to adapt their style or brand of yoga to a chair. After one of her long time yoga students developed a chronic illness and could no longer sit on the floor, Lakshmi developed a chair yoga curriculum designed to meet the yoga needs of individuals with physical challenges. In May 2014, I had the privilege of studying privately with Lakshmi Voelker and learning her method of chair yoga adaption. Indeed, social work practice and chair yoga practice are methodologies that complement one another. Both social

work practice and chair yoga are typically conducted indoors under conditions where the practitioner and client are seated in chairs. Additionally, both chair yoga and social work practice endeavor to meet the client where she is and embody a deep respect for boundaries as well as personal growth. Chair yoga postures could be readily incorporated into a social workers' day as a concrete form of self-care. Furthermore, chair yoga could also be incorporated into a counseling session or psycho-educational class as a strategy to reduce stress or increase mindfulness.

The yoga chakra system from a social worker's biopsychosocial perspective/lens

Chakras are a vital aspect of yoga that demand perusal, especially by social workers serving clients who embrace yoga philosophy and practice. While I was writing the proposal for this dissertation, I received a call from a social work colleague who provided psychotherapy at a group practice where we both worked. The colleague was requesting information about yoga and inquired about the existence of chakras. He expressed bewilderment in regard to two clients who insisted that their mental health issues were being caused by dysfunctional chakras. When his first client, a combat vet struggling with PTSD and depression, mentioned the subject of chakras, my colleague became concerned that the client's depression was worsening and developing psychotic features. Based on his client's beliefs about chakras, my colleague initially regarded him as delusional and briefly considered hospitalizing his client. When a second client brought up the subject of chakras in relation to mental health, my colleague began researching chakras on the Internet and was flabbergasted at the amount of literature on the topic. Due to the increasing popularity of yoga, and the proliferation of yoga teachers

who integrate information about chakras into introductory classes, it's imperative for social workers to be educated about this ancient system that is rapidly gaining popularity in the mainstream culture.

Chakras are best defined as vortexes of energy that exist perpendicularly along the axis of human spine and are positioned vertically from the base of the spine to the top of the head (Mata, 2012). Although chakras cannot be seen by the naked eye and will not be revealed on current diagnostic imaging, their presence is cited in sacred texts and they are believed to be associated with the function of the endocrine system (Shumsky, 2003). Each chakra corresponds to the physical location of an endocrine gland, which produces hormones, and research indicates that yoga directly impacts hormonal levels, such as cortisol (Perlmutter & Villoldo, 2012). It is hypothesized that chakras are created by electrical activity in the nerve plexuses along the spinal cord. Although chakras may seem like science fiction, Western medical practice has long accepted that electric energy exists in the human body and mainstream physicians diligently monitor this energy to evaluate human cardiac and brain function in the form of EKGS and EEGs (Newberg, 2009). Each chakra originates at a point near the spinal cord and extends from the spine to approximately two inches outside of the skin. Asana is an aspect of yoga that endeavors to twist, lengthen, and extend the human spine in eight different directions to promote the health of the human spine and stimulate healthy chakra activity (Valentino & Mehan, 2004).

According to Aryurvedic philosophy, there are seven major chakras in the human body. As stated, these seven chakras are assembled vertically along the spine starting from the base of pelvis and extending to the crown of the head (Mata, 2012). In

this vein, the human chakras system can be compared to Maslow's hierarchy of needs, as chakras move up the body each vortex is associated with a progressive stage of spiritual development and enlightenment. Each chakra is postulated to correspond with a physical organ system and is also correlated to a particular emotion or feeling state (Nurriestearns & Nurriestearns, 2013). When functioning properly, chakras spin in a clockwise direction and are open to giving and receiving electrical impulses and energy (Perlmutter & Villoldo, 2012). It has long been accepted in clinical social work practice that emotions are deeply intertwined with the physical body and that the mind and body are profoundly interconnected. Both Gestalt therapy trained clinicians and psychoanalytically oriented therapists refer to client's "issues being in their tissues" and imply that emotional experiences are often connected to pain or other feeling states in specific body parts or regions (Polster & Polster, 1974). According to yoga and chakra philosophy, life experiences or negative emotion can get trapped along energetic vortexes in the body (Nurriestearns & Nurriestearns, 2013). This stagnant or blocked electrical energy can cause physical or emotional illness to manifest. The yoga chakra system, like social work, is a holistic practice that views a person in his or her environment from multi-dimensional, strengths based perspective for the purpose of personal growth as well as for the good of all humanity. The biopsychosocial perspective is a paradigm that social workers have utilized for decades in order to assess a person in the various domains of life, which include biological, psychological, social, and cultural. (Barker, 2013). Chakras can also be explored from a biopsychosocial perspective to help social workers gain an understanding of this yogic paradigm that is increasingly becoming a part of mainstream culture.

Each chakra represents a spectrum of vibrating energy through which we process life experiences and emotions (Myss, 1997). In order to gain an understanding of the yogic chakra system, it's helpful for social workers to view each of the seven major chakras from a biopsychosocial perspective. The lower chakras correspond to basic human survival needs. As the chakras move vertically up the spine, they progressively correspond with our higher order human needs for love, belongingness, and self-actualization. (McCabe-Maucher & Maucher, 2008).

Every chakra contains appendages around the perimeter of the energy center that are called nadis, and are frequently cited to look like petals on a lotus flower (Desai, 2012). Every petal-like appendage has an entire Sanskrit alphabet inscribed on it and the arrangement of these petals determines the sound or mantra associated with the chakra (Mata, 2012). Nadis are best described as tubes of energy through which astral and pranic energy flow. These energetic tubes of light are similar to nerves on the physical body, but nadis typically cannot be seen through diagnostic imagining tools (Lad & Durve, 2008). Vedic wisdom declares that chakras can become unbalanced, blocked, or diseased through physical injury, traumatic life experiences, or negative thinking (Bryant, 2009). Furthermore, Leela Mata teaches (2012) that chakras can become dysfunctional by chronically holding tension in the body, which is often correlated to negative thought patterns or psychosocial stress. According to yoga philosophy, more than 72,000 nadis exist on the human body and they are responsible for regulating the life force and maintaining existence.

As stated, each chakra has an associated sound called a Bija mantra, which is derived from the Sanskrit word *Bija* which means "seed." In yoga and other ancient

traditions, sound mediation, through the use of drums, crystal bowls, or other musical instruments is used as a potent tool of healing (Perlmutter & Villodo, 2012). Sound frequency is comprised of vibrations and particles that travel through the air. Vedic wisdom purports that by chanting certain words or phrases we are able to increase our body's vibrational rate and improve our physical and emotional health (Mata, 2012). Specific yoga postures can target precise energy centers with the intention of bringing healing or restoration to the respective chakra (Valentino & Mehan, 2004). These specific chakra-stimulating postures can readily adapted so that the poses can be performed while the participant is seated in a chair. Ideally, all seven energy centers should be functioning optimally and equally in order to maintain optimal health in all biopsychosocial domains (Mata, 2012). In the following chair based yoga guidebook, each chakra will be stimulated through yoga- based exercise. Additionally, during the live chair-based yoga class, the instructor will demonstrate the positions of the chakras along the human spine.

The first energy center is colloquially known as the root chakra and called *Muladhara* in ancient Sanskrit. Physically, this chakra is located near the adrenal glands; approximately two fingers width below the genitals including the pelvis and perineum (Perlmutter & Villodo, 2012). Kundalini energy, which is responsible for providing the energy needed for enlightenment and self-actualization, lies dormant in this first energy center until it is awakened through yoga practice or other precipitating events (Shumsky, 2003). Four nadis originate from the root chakra and govern energy flow in minor chakras that exist in the limbs (Mata, 2012).

From a psychosocial standpoint, the first chakra permits a person to thrive in his or her environment. A person with a healthy and fully functioning first energy center will have all of the resources needed for basic survival such as food, clothing, and shelter. When the first energy center is out of alignment, a person may struggle with survival issues such as homelessness, unemployment, or overwhelming financial debt. The first chakra is the energy center that sits closest to the earth and establishes a person's sense of groundedness and safety. In regard to emotional experience, a healthy root chakra manifests as feelings of safety, security, and groundedness. On a biological level, this chakra is associated with the adrenal gland, which is located in the kidneys and secretes the hormone cortisol in response to perceived or actual physiological stress. The yoga posture called Mountain pose, otherwise known as Tadasana in Sanskrit, stimulates the first chakra by physically and energetically engaging both legs in the ground in a standing position.

Chair-based Tadasana is assumed by sitting upright at a 90° angle in a straight-back chair and firmly planting the soles of both feet on the ground. When assuming chair-based Tadasana, your hands should be directly on your knees, with palms facing upward toward the ceiling, which facilitates openness and the reception of positive energy. According to modern day yoga textbooks, this chakra is associated with the color red. However, according to Mata (2012), ancient yogic wisdom declares that the first energy center is depicted as a golden yellow color. The Bija mantra that corresponds with the root chakra is LAM, which is pronounced as LUM (as in chum) and can be chanted either aloud or silently in an effort to stimulate the first energy center (Mata, 2012).

The second chakra is known as Svadhishtana chakra or the sacral chakra. In regard to the physical body, this chakra is located in the uterus in women and near the spleen in men (Mata, 2012). Commonly referred to as the seat of creation, the second chakra is related to the concepts of sexuality and creativity (McCabe-Maucher & Maucher, 2008). Six yoga nadis emanate from this energy center (Desai, 2012). Once a person secures her survival needs through the first chakra, she seeks pleasure through the sacral chakra. On the biological level, this chakra is associated with both the reproductive organs and kidneys and corresponds to the testes in men and the ovaries in women, both of which secrete sex hormones that are responsible for development and procreation.

From a psychological perspective, the second energy center is a space from which we identify and process emotions (Judith, 2004). Associated with the element of water, the Svadhishtana chakra is related to feelings of connection and intimacy. From a psychosocial standpoint, the second chakra corresponds with our ability to be intimate with others and maintain healthy, permeable boundaries. Individuals with an unbalanced sacral chakra may struggle with intimacy or have issues related to impotency or infertility. Guilt and sexual repression are considered to be sequela of a dysfunctional second chakra. The yoga pose known as Boddha Konasana, or bound angle, can be assumed to stimulate the sacral chakra and targets the anatomical structures of the hips, thighs, and feet. Chair-based Boddha Konasana can be assumed by sitting in a straight-back chair and pressing the soles of the firmly feet together. The Bija mantra for Svadhishtana is VAM, which is pronounced as VUM (as in drum), which can be chanted with the intention of activating the second energy center (Mata, 2012).

The third energy center is called the Manipura chakra in Sanskrit but commonly referred to as the solar plexus. Anatomically, this third center is located near the lower ribs and correlated with the liver, gallbladder, and stomach. From a biological standpoint, Manipura corresponds to the pancreas, an endocrine gland which is responsible for releasing the hormone insulin (Perlmutter & Villoldo, 2012.) Ten yoga nadis arise from Manipura Chakra, which is often depicted as the color yellow or described as “dark clouds” (Mata, 2012). From a psychosocial perspective, the third energy center is associated with the concepts of identity, ego, and self-esteem. According to yoga philosophy, this center controls a person’s motivation, ambition, and personal power. Physical diseases associated with a dysfunctional Manipura chakra include alcoholism, eating disorders, and digestive conditions (Myss, 1997). The yoga pose Navasana, or boat pose, can be assumed with the intention of stimulating the third energy center. Chair-based navasana is best undertaken by bending the knees, lifting the feet off the ground, and leaning back in the chair as you lift the sternum. RAM is the Bija mantra that corresponds to the third energy center. It is pronounced as RUM (as in the alcoholic beverage) and can be chanted silently or in one’s mind to focus the mind on the third energy center (Mata, 2012).

Anahata is the Sanskrit name for the fourth energy center, which is physically located at the heart center. In ancient yogic tradition, it is postulated that the heart chakra is the channel that connects the three lower chakras with the three higher chakras (Judith, 2004). Anatomically, the heart is positioned behind the sternum and it corresponds to the thymus, an endocrine gland that secretes thymosin and regulates immune function (Perlmutter & Villoldo, 2012). From a psychosocial standpoint, the

Anahata chakra is responsible for giving and receiving love as well as a person's ability to have empathy and compassion for self and others (Shumsky, 2003). According to modern day philosophy, a malfunctioning fourth center can manifest as depression, romantic rejection, and jealousy. Fifteen yoga nadis originate from this energy center, which is depicted as green or deep red in color (Mata, 2012). The Bija mantra associated with this chakra is YAM, which is pronounced as Yum and can be chanted with the intention of opening the heart chakra and initiating loving feelings first toward oneself and then for others. (Desai, 2012). Utkata Konasana, the Sanskrit name for Goddess pose, is a yoga posture that strengthens and stimulates Anahata chakra. Chair-based Goddess pose involves bending both of the arms at the elbow while allowing the palms to face forward.

The fifth energy center is known as Vishuddha in ancient Sanskrit and is physically located near the base of the throat (Mata, 2012). Psychosocially, this center is associated with the concepts of communication and self-expression. A healthy and vibrant fifth energy center manifests as an ability to clearly express oneself verbally and in writing (Judith, 2004). Additionally, this chakra governs one's sense of hearing and ability to truly hear what another person is saying. Sixteen yoga nadis radiate from this chakras which is directly associated with one's ability to express one's personal truth. Signs of symptoms of a dysfunctional Vishuddha center include social anxiety, writer's block, dishonesty, and a short attention span. Biologically, this energy center is associated with the thyroid and parathyroid, which are endocrine glands that secrete the hormones thyroxine and triiodothyronine (Perlmutter & Villoldo, 2012). The sound HAM, which is pronounced as HUM, is the Bija mantra that corresponds to this energy

vortex. Sixteen yoga nadis originate from this fifth energy center, which is visualized as deep blue in color (Mata, 2012). Simhasana, or lion's pose, is a yoga posture that stimulates the fifth energy center and can readily be adapted to a chair-based seated asana. This posture is easily formed by resting your hands on the knees with palms facing downward and inhaling through the nose as you rest the tip of the tongue on the roof of your mouth. As you exhale, open your mouth widely and stick out your tongue as you chant the word HAM.

The sixth energy center is known as Ajna in Sanskrit and is commonly referred to as the third eye chakra. This chakra is associated with the color indigo and is physically located at the point on the forehead between the eyes and eyebrows (Mata, 2012). Biologically, this vortex of light is associated with the pineal gland, a vital part of the endocrine system, which is responsible for releasing melatonin, a hormone that assists in the regulation of sleep and the body's Circadian rhythms (Perlmutter & Villoldo, 2012). Four yoga nadis arise from this chakra that is associated with the concept of intuition and inner wisdom (Mata, 2012). From a psychosocial perspective, the Ajna chakra is associated with physical sight, dreams, and visions for the future (Judith, 2004). According to Kundalini philosophy, meditating while placing one's focus on the third eye can bestow the gifts of psychic wisdom and premonitions (Shannahoff-Khalsa, 2004). These advanced meditative techniques should be undertaken under the guidance of a teacher by a student who is grounded, stable and pure in diet as well as in thought. According to yoga philosophy, when the sixth energy center is dysfunctional, memory problems, unexplained phobias, psychosis, or vision problems can arise. The Bija mantra for Ajna is simply the sound of U as in the word uber (Mata, 2012). Pandangusthasana,

or big toe forward bend, is a yoga posture that can be assumed while seated in a chair. To assume this posture, gently bend forward while seated and rest your forehead on your knees as you hold both of your big toes with your index and middle fingers. This yoga posture stimulates ajna chakra by placing gentle pressure on the forehead.

The seventh chakra is commonly known as the crown chakra and is physically located at the top of the skull (Mata, 2012). Saharara is the Sanskrit name for this energy vortex which represents spiritual enlightenment and the union of all living things (McCabe-Maucher & Maucher, 2008). Biologically, the seventh chakra is closely associated with the pituitary gland, which secretes various hormones related to sexual function, adrenal functional, and sleep (Perlmutter & Villoldo, 2012). From a psychosocial standpoint, the sahasrara chakra relates to a person's sense of spirituality and how they relate to other living beings (Judith, 2004). According to Mata (2012), a malfunctioning seventh energy center can result in isolation, a strict adherence to religious dogma, or a profound state disconnection and loneliness.

There are approximately 1,000 yoga nadis that radiate from the seventh energy center, which is represented by the colors white and violet (Mata, 2012). The Bija mantra associated with this center is OM, which is pronounced as AUM (Desai, 2012). Sat Kriya is a Kundalini yoga posture that stimulates the seventh energy center and can be readily assumed while seated in a chair. In order to begin Sat Kriya, raise your arms directly above your head and interlace your fingers, allowing only the index fingers to point upward to the sky. If possible, allow your biceps to touch your ears as you draw your navel close to your spine. Gently close your eyes and focus your attention at the third eye center as you silently chant the word Sat as you inhale and the word Nam as you

exhale. As you chant the word Sat, you pull your navel toward your spine, and as your exhale you relax your belly button. In summary, the chakra system is a vital philosophy that offers a holistic perspective of human functioning.

Chapter Four: Yoga and The Brain

The practice of yoga can have profound healing effects on both the brain and body. Cozolino (2010) demonstrated that stress and trauma can negatively impact brain structures and neural pathways. Additional research has demonstrated that the practice of yoga can restructure the brain, create new neurons and synaptic pathways that promote functional restoration and healthy living (Newberg & Waldman, 2009).

The integration of spiritual practices such as yoga with neuroscience is an emerging field that was pioneered by Andrew Newberg, MD, author of the groundbreaking book *Neurotheology* (2010). The innovative subspecialty of neurotheology explains how spiritual experiences can be explored and measured using diagnostic tests such as a functional MRI scan, SPECT scan and PET scan technology (Newberg & Waldman, 2010). Although brain biology and neuroscience are complex and intricate scientific specialties, they can be investigated in a condensed manner. In order to understand how yoga can positively impact neurochemistry, it's vital for mental health practitioners to grasp the fundamentals of brain biology. For the sake of this discussion, the parts of the brain can be categorized into three main components: the brain stem, the limbic system, and the cortex (Nurriesstearns & Nurriestearns, 2012). In order to understand how yoga can help heal the brain and facilitate more regulated emotions, it's essential to review basic brain biology.

Yoga and the brain stem

The brain stem is the most primitive part of the brain, which is completely developed at birth. Responsible for maintaining life at the basic level, the brain stem controls mechanisms for respiratory and cardiac function. The pons, the medulla

oblongata, and the midbrain are the three structures that comprise the brain stem, which also houses the autonomic nervous system (Hatfield, 2013). The autonomic nervous system regulates our internal and visceral organs and includes involuntary responses such as breathing and heart rate. The autonomic nervous system includes three distinct parts, which are referred to as the sympathetic nervous system, the parasympathetic nervous system, and the enteric system. When we are under intense stress, our sympathetic nervous system is primed for us to take action, either in the form of fleeing from the distress or fighting the source of our terror. Increased heart rate, elevated blood pressure, and rapid respiration rate are all signs that our sympathetic nervous system has been activated and is providing us with ample energy to either fight or flee from danger (Goldstein, 2012). Neurons involved in sympathetic nervous system activity are located in the brainstem as well as in the lumbar and thoracic regions of the spinal cord. Acetylcholine is the main neurotransmitter used to transmit messages from the brain to the spinal cord. Additionally, the sympathetic nervous system also contains neurons and receptor sites in the adrenal glands that utilize epinephrine or nor-epinephrine as primary neurotransmitters (Hatfield, 2013). When the brain senses danger, the nervous system is engaged and sends a signal to increase blood flow to the thoracic cavity to promote optimal cardiac function. Through the synaptic exchanges of neurotransmitters, blood is shunted away from the arms and legs to protect them from excessive blood loss in the event of injury. During times of rest or sleep, our parasympathetic nervous system is dominant and this state is typically characterized by slower breathing and enhanced digestion, as evidenced by peristalsis (Bains, 2011). The enteric portion of the autonomic nervous system is comprised of neurons that exist in the brain stem, stomach, esophagus,

small intestine, and large intestine. These neurons send and receive messages to and from the gut and the brain in response to emotions, brain chemistry, and environmental stimuli. Emerging research explores the importance of the brain and gut connection and how nutrition can enhance cognitive abilities and human behavior. Arydveua, ancient Indian medical science that is closely related to yoga, has postulated on the connection between food and the brain for more than 3,000 years (Lad & Durve, 2007). This is yet another example of ancient wisdom being directly linked with cutting edge, modern day neuroscience.

Controlled breathing exercises, otherwise known as pranayama in yogic terms, is a direct and immediate way to impact the autonomic nervous system (Anderson & Slovik, 2006). Through the regular practice of yogic breathing techniques, a person can reset his or her central nervous system. Traumatic experiences in early childhood or other distressing events that lead a person to develop acute or chronic PTSD can result in permanent brain changes that manifest as an elevated resting heart rate or slowed peristalsis (Nurriesterans & Nurriestearns, 2012). For example, a child who was sexually abused in childhood may have instinctively held her breath as a way to dissociate and decrease bodily sensation during the traumatic event. Chronic pauses between breaths and muscular tension can become a lifelong, subconscious habit for adults who experienced traumatic life events in development years (Goldstein, 2012). The holding of breathe decreases oxygenation to the tissues, including the brain, and can lead to rigidity in major muscle groups as well as chronic pain (Siegel, 2007). Research indicates that yoga can change these measurable parasympathetic and sympathetic responses, such as altered heart rate (Nurriestearns & Nurriestearns, 2012).

An example of a simple yoga pranayama that can have profound and lasting effects on the autonomic nervous system is extended breath (Gerstein, 2008). The goal of this breathing technique is to make your exhalations twice as long as your inhalations. A beginning yoga student is guided through this pranayama by utilizing a two-to-one ratio of inhalations to exhalations. By breathing in this manner, your parasympathetic nervous system is active and becomes dominant. After just two minutes of practicing this breathing technique, a person's respiration rate decreases, blood pressure lowers, and heart rate slows down. As a result of this slower psychology, a person's rate of thought typically slows down and a sense of serenity or calmness is induced.

Anāpānasmṛiti is a Sanskrit term which means awareness of one's breath and bodily sensations (Voelker, 2014). This term is a core foundational practice common to both religious and secular traditions and is practiced in yogic meditation, Buddhist meditation, and mindfulness-based stress reduction. Through Anāpānasmṛiti, a beginning yoga student develops proprioception, an awareness of their body in space, and an innate ability to scan the body and breath for sensation and emotion. This practice precisely impacts the brain stem and autonomic nervous system through developing awareness of involuntary respirations (Mata, 2012). Most people remain largely unaware of their respiratory rate and cardiac rhythms. Due to the involuntary nature of the automatic nervous system, we take for granted our basic need to consume oxygen and discharge carbon dioxide. A person does not need to consciously remember to contract and expand their lungs or voluntarily beat their own heart. These mechanisms of life are occurring for us at all times without our willful control or even awareness. Through the practice of

Anāpānasmṛiti, a yoga student learns to direct one's attention to a specific body part, feeling a sensation or breath for the purpose of becoming aware of the present moment.

One of the most basic and widely practiced forms of Anāpānasmṛiti simply involves a person witnessing her breath, without trying to change or alter any aspect of respiration (Voelker, 2014). These techniques can be readily adapted to social workers that are comfortably seated in a chair. The yoga student will assume a relaxed seated position and gently notice her unique ways of inhalation and exhalation. At times, yoga teachers will offer cues to help students intensely notice their breath. For example, a yoga teacher may ask students to connect where they feel the sensation of breath in their visceral body. Do they feel the breath in their abdomen or is the breath more localized to a region in the lungs? Are the respirations short and shallow or conversely is the breath long and deep? Are the inhalations the same length as they exhalations? Are there any pauses between the breaths or does the breath continuously flow without interruption? Can the student isolate the breath to a single point on the face, such as the nostrils or sinus cavity?

Another form of Anāpānasmṛiti involves a yoga student incrementally scanning his or her own body for sensation. This technique is amenable for social workers in a chair based yoga practice setting. Beginning with the tips of the toes and incrementally working her way up to the top of the head, a yoga student scans her body for any areas that feel tense, constricted, painful, or dull. Conversely, a yoga student is then encouraged to search his or her body for areas that may feel energized, or even ecstatic. Additionally, anāpānasmṛiti can also include a student simply noticing his or her breath without labeling or mentally attributing qualities to the breath (Khalsa, 2012). An

additional method of Anāpānasmṛiti involves measuring ones breath by counting the ratio of inhalations or exhalations or attempting to hold the breath for a specific period of time. Anāpānasmṛiti is a gateway through which an aspiring yoga student can begin to transform his or her autonomic nervous system and, potentially, a brain that was previously functioning at a less than optimal level due to negative stress or trauma.

Yoga and the limbic system

The second part of the brain is called the limbic system and is comprised of three brain structures known as the amygdala, the hypothalamus, and the hippocampus (Hatfield, 2013). Responsible for memory and emotion, the limbic system is also known as the reptilian brain because we share this ancient similar brain structure with reptilian species in the animal kingdom. The amygdala is a small structure (approximately the same size and shape of an almond) that is embedded deep in the human brain. This part of the limbic system is in charge of registering and regulating emotions and managing the body's fight or flight response (Goldstein, 2012). Because it is a primal brain component, the amygdala responds to comfort but is not amenable to logic or rationalization. The hippocampus is an additional brain structure that is adjacent to the amygdala and responsible for central memory processing. The hippocampus responds to the emotions generated by the amygdala by activating memory (Berger, 2006). For example, a child can recall whether a previous trip to the pediatrician was a scary or joyful experience. The memories summoned by the hippocampus are often strongly associated with a person's sense of smell and taste.

The third part of the limbic system is the hypothalamus, which responds to signals from both the amygdala and the hippocampus, by producing hormones and

stimulating other parts of the body and brain. Important functions of the hypothalamus include the regulation of sleep, thirst, hunger, body temperature, and the circadian rhythms (Hatfield, 2013). Cortisol is a primary hormone that is governed by the hypothalamus. When the amygdala and hippocampus sense danger in the environment, they signal the hypothalamus to make cortisol, a glucocorticoid produced in the adrenal gland that is intended to provide a burst of energy and decrease pain sensation, which is often required in an emergency situation (Goldstein, 2012). Unmitigated negative stress can cause an abundance of cortisol production. Research indicates that high levels of cortisol in the blood can lead to a decreased immune system function, high blood sugar, and damage to the hippocampus, which leads to decreased memory and learning (Bains, 2011). The second largest part of the brain is the cerebellum, which is a butterfly-shaped structure responsible for maintaining muscle tone and balance through messages received from the inner ear (Hatfield,2013).

The yoga practice of Kirtan Kriya has been scientifically proven to improve memory and neural chemistry associated with the limbic system, as evidenced by single photon emission computed tomography (SPECT) scan studies that showed enhanced activity in the amygdala and hippocampus. According to Newberg and Waldman (2010), research demonstrates after eight weeks of practicing Kirtan Kriya yoga aspirants acquire at least a 10 percent increase in memory function. Additional research has demonstrated that a similar technique can decrease psychosocial stress and improve attention. (Lazar, et al., 2012) The technique of Kirtan Kriya involves the four yoga methods of mantra, mudra, synchronized movement, and breath work. A mantra is defined as a sound that is repeatedly mentally or silently for the purpose of focusing mental attention or

worshipping the divine. Mantras can include sacred words that are ascribed a particular meaning, such as the word *Sat* which translates into the word *truth*. According to ancient Vedic wisdom, a mantra has a sound or vibrational quality that can help increase human consciousness and promote health and longevity (Khalsa, 2012). A comprehensive guide to the implementation of Kirtan Kriya is included in the accompanying chair-based yoga manual, which is a supplement of this dissertation.

Yoga and the prefrontal cortex

The third part of the brain is known as the cortex and is comprised of the area in the frontal lobe colloquially known as the forehead. The prefrontal cortex is the area of the brain that is directly responsible for abstract reasoning, decision-making, and executive control (Hatfield, 2013). Modern science hypothesizes that this portion of the brain is not fully developed until the age of 25, which explains the proliferation of risk taking behaviors that is characterized by the developmental stage of adolescence (Berger, 2006). Additionally, the neural pathways in the prefrontal cortex are profoundly shaped by early childhood experiences as well as traumatic experiences that occur across the lifespan (Bains, 2011). Early humans survived under harsh and dangerous conditions in which resources were scarce and competition for basic needs was paramount. The brains of our early ancestors were biologically wired to sense danger and promptly fight or flee when they encountered predators such as tigers or bears. According to Newberg and Waldman (2010), early humans likely intuitively developed meditative and spiritual practices such as yoga in an effort to develop the prefrontal cortex, thus fostering cooperation and compassion in communities.

Innovative research demonstrates that yoga directly impacts the prefrontal cortex and these changes can be readily measured by functional magnetic resonance imaging (fMRI), an instrument that shows neurons firing in specific areas of the brain in response to stimuli in real-time. Dr. Newberg's research involving yogic meditation shows that a mere six weeks of yoga-based meditation increases the function of a person's anterior cingulate (Newberg & Waldman, 2010). In terms of brain biology, the anterior cingulate acts as a gate that mitigates the limbic system and the prefrontal cortex (Hatfield, 2013). Through a sustained yoga practice, a person can actually enhance decision-making and emotional regulation by training the brain to use an optimized prefrontal cortex instead of accessing the primitive limbic system when guiding effectual responses.

Yoga and the Corpus Callosum

Yoga has been demonstrated to be an effective tool for positively impacting the corpus callosum. The corpus callosum is a structure in the brain that sits underneath the cortex, connects the left and right hemispheres of the brain, and comprises the largest amount of white matter in the brain (Berger, 2006). The practice of yoga can effectively enhance neural integration, which facilitates communication between the right and left hemispheres of the brain (McCall, 2007). Chair-yoga postures that simultaneously engage opposite sides of the body thus activate both hemispheres of the brain and directly promote neural integration. For example, a chair-yoga sequence that involves raising the right leg, while simultaneously raising the left arm, when routinely practiced, can help promote neural integration. Additionally, the yoga pranayama called Nadi Shodhan, also known as alternate nostril breathing, promotes lateralization of the brain and has been shown to be an effective anxiety-reduction tool. Alternate nostril breathing involves

occluding one nostril as the practitioner focuses on inhaling and exhaling through one nostril at a time. Through functional MRI studies, this breathing technique has been demonstrated to strengthen the corpus callosum and engender a sense of peace and tranquility in the yoga participant (McCall, 2007).

How the yoga concept of Matrika Shakti impacts the brain

According to yoga philosophy there is a term, Matrika Shakti, that translates to “power of the word.” Yoga teachers that undertake the practice of Matrika Shakti are careful when using spoken language, as they firmly believe that how a person uses words has a profound effect on both the collective consciousness as well as the outcome of events (Voelker,2014). For example, many yoga teachers will often refer to the condition of pain as a “challenge” as it is believed that merely saying the word pain can cause discomfort to manifest in the body.

Matrika Shakti is an additional yoga concept that has been proven effective as evidenced by modern day neuroscience. In fact, medical doctor and neuroscientist Dr. Andrew Newberg, along with his associate Mark Waldman, penned an entire book entitled *Words Can Change Your Brain* (2013), which describes how language directly affects the human brain and subsequent emotional states in ways that can be directly measured and observed. Newberg and Waldman outline a detailed and well-researched process they dub “Compassionate Communication.” The strategies outlined in Compassionate Communication include instructions on beginning a constructive dialogue, methods for containing disruptive emotions, techniques for improving communication, and tactics for finding creative solutions (Newberg &Waldman, 2013). In *Words Can Change Your Brain*, Newberg demonstrates how using negative language

causes the brain to release hormones into the bloodstream that can have adverse consequences for the brain. Additionally, Newberg emphasizes the importance of choosing positive words of appreciation when communicating with others, because harsh, judgmental language can cause disorganization in the brain of the listener and the speaker alike (Newberg & Waldman, 2013). This work provides measurable proof as evidenced by functional MRI scans and demonstrate the effectiveness of similar communication techniques pioneered by social work leaders such as Dr. Lawrence Shulman and Virginia Satir.

Yoga and Mirror Neurons

Mirror neurons are brain cells that are located in the inferior parietal cortex region of the human brain. Neuroscientists at the University of Parma, Italy inadvertently discovered their existence in the early 1990s. Essentially, mirror neurons are brain cells that fire in the brain of a person who performs an action as well as the person who simply observes another individual execute an action (Berger, 2006). For example, a child who is watching a woman perform ballet will fire a sequence of neurons in a pattern that matches the dancer's neurons, even though that child is sitting still. Although data in regard to mirror neurons is still an emerging research area, the notion that our brains are designed to imitate the emotional expression of others has been accepted in the social work field for decades (Newberg, 2010)

According to new hypotheses related to mirror neurons, simply being surrounded by negative, troubled people is a potential occupational hazard and health risk experienced by most social workers and other helping professionals. Newberg and Waldman purport that our brains are designed to help us empathize with our fellow

human beings and develop compassion for others. Furthermore, we are also neurobiologically wired for “emotional contagion” which Newberg and Waldman (2013) describe as a neurobiological process in which “negative feelings can be transferred to other people as well as social groups and communities.” Newberg describes a meta-analytic review of video game research that proves witnessing violence can cause biological changes that increases aggression both in children and young adults (Newberg & Waldman, 2013). At this time, we can only imagine the potential neurobiological changes that occur in the brains of social workers that witness human suffering and violence on a daily basis. This is an area of research in which there is a gap in literature that demands perusal. Being surrounded by clients’ whose neurons are firing in a dysfunctional, disorganized way could potentially be damaging to a helping professional’s brain. Thus, practicing yoga or another brain-enhancing type of self-care could be a protective factor designed to reduce occupational hazards that are biological as well as psychosocial in nature.

In this same vein, social workers who practice yoga or another form of self care could potentially positively impact clients simply by their physical presence, as being in the company of an optimally functioning prefrontal cortex could possibly cause clients’ brains to fire in a synchronized, positive way. Shaktipat is a yoga concept that asserts that an individual can instantaneously attain an enlightened state from simply being in the physical presence of a guru or yoga master. Vedic wisdom hypothesizes that divine energy emanates from a seasoned yoga master or guru and is transmitted in the form of prana to a devoted yoga student (Desai ,2012). Perhaps future research on mirror neurons will demonstrate how being in the presence of someone who has achieved enlightenment

(or simply has mastered an overall peaceful attitude toward life) is actually a neurobiologically-based phenomenon. In conclusion, yoga is a holistic practice that has multiple benefits to the brain and neurobiological aspects of life.

Discussion section

In recent years, mindfulness has evolved into an established conceptual framework that is increasingly being researched and implemented in mental health and business settings across North America. For the past ten years, there has been a deluge in scholarly literature related to mindfulness based practices that include meditation and yoga (Holzel et al., 2012). Yoga is an intricate, ancient mindfulness based practice that has been deemed an effective form of stress reduction and self-care. A meta-analytic review of yoga related to mental health issues reveals that yoga is an effective treatment for posttraumatic stress disorder and a myriad of other anxiety disorders (Watson, 2007). Yoga is health-affirming practice that is commensurate with social work and enhances well being in all areas of the biosychosocial domains. Additionally, yoga can potentially be utilized to enhance cultural competence and help combat the effects of race based traumatic stress encountered by social workers of color.

A myriad of measurable factors contribute to a social worker's predisposition toward stress related burnout and subsequent urgent need for self-care. At the outset, social workers are a vulnerable population who are prone to stress related physical and mental conditions based on the nature of their work. Vicarious traumatization and burnout are potential consequences of pursuing a career in the social work field or allied helping professions (Harr & Moore, 2011). Additionally, many social workers receive little monetary compensation for their work as compared to other masters-prepared professionals, which can further contribute to their susceptibility. According to Poulin and Walter (1992), longitudinal research related to social workers and compassionate fatigue reveals that burnout can not only be prevented but can also be reversed.

According to Walsh (2011), over 40% of social workers and other helping professionals report they were drawn to their respective professions as a result of traumatic or negative childhood experiences.

A gap in literature exists in regard to a social worker's traumatic childhood experiences and the impact of this collective trauma history on the social work profession, specifically on service delivery, social work education and intervention outcomes. Due to the proliferation of emerging data related to Adverse Childhood Experience Survey (ACES), this is an area of social work practice that demands perusal and further investigation. These numerous factors illustrate the importance of including a self-care regimen during professional social work training and offering this type of instruction as a continuing education course.

Most professional social workers witness emotional pain and suffering in their respective practice settings on a daily basis. Additionally, many helping professionals are employed by underfunded organizations that serve abused, oppressed and highly marginalized populations. Institutional racism, senseless violence and horrific abuse are merely three social plights that social workers encounter in their day-to-day practice. The vast majority of these social problems are longstanding, omnipresent aspects of social work practice to which there are no immediate solutions (Shulman, 2012). How do we prepare the social workers of tomorrow to manage these multiple stressors and complex emotions, which drive many well-intentioned and talented staff out of the helping profession? Social work educational institutions have a responsibility to teach students how to emotionally and physically prepare themselves for the job-related stressors they

will encounter. Yoga is one self-care strategy that social work students can learn in an effort to enhance resiliency and promote health in all of the biopsychosocial domains.

Mindfulness is a concrete conceptual framework that helps social workers witness emotional pain without becoming negatively reactive to a client's anguish. The yoga-based strategies outlined in the following guidebook can serve as strategies to promote resiliency and self-care. A chair based yoga practice can teach social workers how to systematically observe thoughts, feelings and bodily sensations so that these experiences do not become precursors to burnout and compassion fatigue. These mindfulness skills are essential both in terms of a social workers self-care regimen but also serve as critical, foundational clinical skills that are needed in order to be a competent practitioner. In order to facilitate emotional healing, it's essential that a social worker learn how to sit with a client who is in acute and chronic distress.

Despite receiving excellent training in both my undergraduate and graduate social work programs, I was ill prepared to deal with the volume, frequency and severity of emotional suffering that I witnessed during my early years of social work practice with individuals and families. This sentiment has been echoed by numerous social work students, professors, and colleagues over the years. It's a natural human tendency to disengage from intense, uncomfortable feelings through distraction, suppression or focusing on the positive aspects or inherent strengths in a client system (Shulman, 2012). These defense mechanisms can indeed be appropriate ways to manage feelings and are certainly indispensable survival skills for clients in the initial phases of work. However, social workers recognize that it's vital for clients to experience a spectrum of feelings so that they can be fully integrated, especially in the case of posttraumatic stress disorder

(Bains, 2011). A mindfulness based chair yoga practice offers a tangible and measurable strategy to witness suffering both in oneself and in the client system. Through a mindfulness based process a social worker can model how to effectively withstand and experience feelings without judgement, repression or incessant dialogue. This practice, which is informed by yoga, is mutually beneficial for both the mental health professional and the client system.

Research conducted by the National Association of Social Workers (NASW) indicates that there are over 650,000 people with social work degrees in North America. Approximately thirty percent of these professionally trained social workers identify as persons of color and these professionals may struggle with issues related to race-based traumatic stress (NASW, 2015). A recent report released by New York University's School of Social Work in May 2015 entitled *Facts Matter! Black Lives Matter! The Trauma of Racism* revealed that the prevalence of race based traumatic stress demands recognition as a frequently overlooked and under researched experience among African-Americans and other persons of color. A chair based yoga curriculum could potentially serve as an aspect of a self-care and anxiety reduction program for social workers that face the additional burden of race based traumatic stress in conjunction with job-related stressors.

Self-care is a concept that has received increased attention in the social work profession, since NASW issued a statement proclaiming it's importance in 2009. The University of Buffalo created an innovative self-care toolkit for social workers, which offers concrete strategies for self-nurturance and briefly mentions yoga. Dr. Hilary Weaver, a Native American social work scholar, emphasizes the importance of self-care

for social workers and presents a unique approach that incorporates spirituality, ritual, individuality and community. By offering a groundbreaking and holistic paradigm that incorporates the Native America medicine wheel and social work philosophy, Dr. Weaver establishes the critical need for self-care strategies that address all aspects of the biosychosocial, cultural and spiritual domains (Weaver, 2015). The following pages offer an additional self-care strategy that can be undertaken on its own or in conjunction with other spiritual or health related practices. The subsequent section outlines a gentle and easy to follow chair based yoga practice that is accessible to social workers of all fitness levels, including those who may be seated in a wheelchair. This chair based yoga curriculum endeavors to address the biosychosocial, cultural and spiritual domains of a social worker's life.

Mainstream American yoga classes primarily emphasize the physical fitness aspects and benefits of this ancient Indian practice. These types of classes offer a myriad of positive benefits but are not always appropriate or feasible for individuals with limited ambulation or certain medical conditions (Voelker, 2014). During the course of social work education, social workers are trained to honor the NASW's long-standing adage "to meet clients where they are" (Weaver, 2015). Similar to this inclusive philosophy, chair yoga remains a style of yoga that is compatible with social work philosophy and practice. Most of the chair-based postures taught in the ensuing course are gentle breathing and stretching exercises that can be implemented by nearly all social workers, including those who are in a wheelchair.

Yoga philosophy is clearly commensurate with both social work theory and practice. Social work is a profession that has unique ethical principles with a strong

focus on social justice and volunteer service. Akin to social work practice, yoga philosophy also emphasizes the importance of working for the greater good without expectation of excessive payment or other material reward (Desai, 2012). Yoga philosophy is one paradigm that social workers could undertake to enhance their personal and professional lives. The Sanctuary Model is an additional model that is compatible with both social work practice and yoga philosophy and is an evidence-based paradigm designed to reduce organizational burnout at the macro level.

Advances in modern day neuroscience clearly demonstrate that the ancient practice of yoga is effective at reducing stress and enhancing brain function. Through functional MRI studies, we can now determine the exact yoga breathing techniques and movements that target precise areas of the brain. Through research conducted by Newberg (2009) it has been established that yoga practice can help improve neural communication to and from the limbic system and prefrontal cortex by enhancing the brain structure of the anterior cingulate (Newberg & Waldman, 2012). Emerging research regarding yoga and neuroscience demonstrates exciting possibilities for the years ahead. Perhaps the social work practice of the future will include specific body movements and breathing techniques as prescriptions to treat various mental health conditions and symptomatology.

As stated, mindfulness based practices can reduce stress and promote positive neural functioning and brain biology. Currently, many Americans, including mental health professionals, consume prescription drugs in an effort to alleviate job related stress and other types of anxiety. While psychotropic drugs can be beneficial or even essential for some mental health conditions, taking these medications also potentially involves

substantial risks, side effects and contraindications (Hatfield, 2013). Due to the body's homeostatic and compensatory mechanisms, many individuals taking psychotropic drugs find that these pharmaceuticals become less effective over time. Additionally, some medications used for anxiety, such as benzodiazepines, are highly addictive and potentially dangerous choices for clients with dissociative or suicidal tendencies (Linehan, 2010). Yoga is a possible low-cost alternative that can be used to treat anxiety in place of or in addition to psychotropic medication. Additionally, chair based yoga is an empowering tool that promotes self-determination. Once yoga is mastered, the techniques can be initiated by a person on his or her own accord, in response to environmental stressors or as a prophylactic measure to prevent anxiety.

An ongoing, routine yoga practice is correlated with additional positive changes in both neurochemistry and brain structure. Pranayama, which is otherwise known as a yoga breath work, has long been recognized as a mechanism that stimulates yawning in yoga participants (Gerstein, 2012). Many students report frustration when this involuntary yawning interrupts their efforts to learn a yoga breathing technique. It's important to recognize that yawning offers a multitude benefits to the brain and should not be stifled in an attempt to follow social mores or learn pranayama. In fact, Dr. Newberg asserts that yawning is "the best kept secret" in neuroscience and psychotherapy (Newberg & Waldman, 2012). According to Newberg (2012), several studies illustrate that yawning activates the areas in the brain that are responsible for compassion, social awareness, relaxation and metacognition. Newberg also emphasizes that yawning is an excellent technique for increasing mental alertness as it stimulates the precuneus, a tiny structure that is deeply embedded in the parietal lobe of the brain. Neurochemicals

involved with yawning include gamma-aminobutyric acid (GABA), serotonin and opiate derivate peptides, which are responsible for creating sensations of pleasure and well-being in the brain. New research indicates that yawning is associated with the brain's mirror neuron system, which explains the contagion associated with this mechanism. Yawning may also help promote intuition, a skill that could further enhance rapport-building and other aspects of social work practice. In fact, Newberg advises patients to yawn every day to promote better brain health and reports that assuming a fake yawn approximately four consecutive times produces an authentic yawn (Newberg & Waldman, 2012).

In conclusion, chair based yoga is a gentle practice that is commensurate with social work practice and promotes positive neurobiological changes. Chair based yoga is a low cost stress management solution that can be incorporated into virtually any practice setting, including those that serve individuals in wheelchairs. This accessible style of yoga is an inexpensive endeavor that requires very little in terms of overhead costs and does not involving purchasing or renting special equipment. Rather, chair based yoga allows organizations to use their existing resources to promote a healthier work environment. Chair based yoga is an appropriate addition to a fast paced, busy social work setting and its implementation can help foster an attitude of serenity and cohesiveness. Additionally, the techniques, such as the yawning series outlined above, can positively impact the workplace community and enhance relationships. Furthermore, chair based yoga does not require spending inordinate amounts of time away from work. After a person masters the basics of chair yoga, spending as little as five minutes engaged in this mindfulness-based exercise can offer great benefit. The

following pages outline a straightforward and easy-to-learn chair-based yoga routine that is designed specifically for social workers to promote optimal brain health and emotional functioning.

Chapter 5: Chair Yoga Guidebook

Chair Yoga for Social Workers: A guide to accompany the live session

The following pages are a guidebook to help you remember the chair yoga postures and breathing techniques that are taught during the live workshop. These instructions can be used to establish a chair yoga practice at home in order to enhance your self-care. Once you have studied and mastered these techniques in depth, these methods could potentially serve as tools to enhance your clinical practice. Please note that yoga is best learned in person under the guidance of a seasoned instructor, who can offer modifications and contraindications based on your personal health history. As with any physical exercise, please consult with your physician prior to engaging in yoga.

Chair Based Mountain Pose

According to Voelker (2014), Mountain pose, which is referred to as Tadasana in Sanskrit, is the foundation pose for all chair based yoga postures. The majority of the postures taught in this course will both begin and end in the chair based Tadasana pose. It's best to practice this style of yoga in a sturdy, straight-backed chair that does not have arm rests or wheels. To assume the Mountain posture, begin by sitting up straight and tall on your chair. Sit comfortably toward the edge of your seat and do not allow your spine to come into contact with the back of the chair. Imagine that you are stacking each vertebra one on top of the other, bone by bone. Relax your shoulders and draw your scapulae close to one another as you open your sternum. Allow your palms to face upward toward the sky in a position of reception. Plant the soles of your feet firmly on the floor and ensure that your big toes are directly facing the wall in front of you. Alternatively, you may press your palms into the knees, which is a grounding posture.

Benefits of chair based Tadasana include improved posture, enhanced digestion and increased blood oxygenation circulation (Voelker, 2014).

Three Part Yogic Breath

This basic three part yogic breathing technique is the underpinning of nearly every yoga practice. Most people do not utilize their diaphragm or abdominal muscles when they breathe. As a result of shallow respirations, most of us don't fully oxygenate our bloodstreams or brains, which can prevent us from reaching our full cognitive and physiological potential. Begin by sitting in Mountain pose and allow the tip of your tongue to rest along the roof of your mouth and gently close your eyes. By holding your mouth in this position, nerve receptors in your tongue activate a relaxation response in your brain (Lad, & Durve, 2007). Alternatively, you may softly gaze past the tip of your nose or at a fixed object in the room. Begin by inhaling and exhaling through your nose as you simply observe your breath. If your nose is congested, it is acceptable to breathe through your mouth. Do not attempt to change or alter your breath; just simply witness your unique way of inhaling and exhaling. Make a mental note of your breathing pattern. Is there a pause between breaths? Do you have a tendency to hold your breath or does it flow freely from one moment to the next? Does the breath feel warm or cool? This observation of breath is simply an approach to tune into your own experience, similar to the way Dr. Lawrence Shulman encourages social workers to tune into themselves prior to working with clients (Shulman, 2012). Tuning into your own breath and body is an essential life skill that can enhance relaxation and prevent burnout in addition to clinical issues such as transference and counter-transference.

After observing a few breath cycles, begin drawing the air deeply into your belly and then allow the air to flow into your lower lungs and finally allow the air to emanate to your upper lungs. As you exhale, first release the air from your upper lungs, then from your lower lungs and finally from your belly. Repeat this three part yogic technique for two to five minutes.

Two to One Breath

Two to one breath is a simple pranayama or breathing exercise that engages the parasympathetic nervous system and naturally eases the body into a state of relaxation. By making your exhalations twice as long as your inhalations, you gently encourage the parasympathetic to become dominant through a neurobiological process (Gerstein, 2008). After just a few moments of practice, this breath decreases blood pressure, decelerates the heart rate, reduces the respiration rate and slows down the speed of thoughts in the mind (Desai, 2012).

Begin this breathing technique by sitting in the Mountain pose. Allow the tip of your tongue to gently rest along the roof of your mouth. This breathing technique is most effective if you inhale and exhale through your nose. On your next inhalation, inhale to the count of one, one thousand, two, one thousand. Then, immediately exhale to the count of one, one thousand, two, one thousand, three, one thousand, four, one thousand. Repeat this pattern of breathing for two to five minutes. After a month of daily practice, you can lengthen or extend the counts of inhalations and exhalations, but still maintain the two to one ratio of inhalations to exhalations.

Yoga Nidra: Progressive Muscle Relaxation and a Guided Relaxation Exercise

Yoga Nidra is Sanskrit term that translates into meditative sleep. This state of relaxation can be self-induced as you practice guided imagery such as the following progressive muscle relaxation technique, while seated in a chair. Additionally, this technique can be practiced while lying in bed or on the ground in a supine position called, Shivasana or Corpse Pose (Mata, 2012). It is best to maintain an alert state of awareness during this exercise. If you have a tendency to fall asleep when you attempt to meditate, it is best to practice Yoga Nidra while seated in a chair. If desired, you can record the following script into an audio recording device and play it back. Alternatively, you can memorize this short script and practice this progressive muscle relaxation while seated in a chair.

Allow yourself to settle into a state of complete relaxation. Gently close your eyes and allow a sense of tranquility to engulf your whole body. Let go of worries or negative thoughts as they arise. If you are feeling restless or experiencing thoughts, simply notice them and let them exist, without trying to change or resist them. Welcome anything that comes into your awareness or experience.

As you continue to become more relaxed, focus all of your attention on your feet. Draw your toes toward the soles of your feet and feel the tension. Gently squeeze all of your muscles in your feet. Hold this tension as you mentally count to seven. Now, all at once, relax and let go of the tension. Breathe as if you were breathing from your toes. Become aware of every sensation in your toes. What messages do your feet have for you?

Next, gradually shift your awareness to your lower calves. Stiffen your calf muscles and hold the tension. Silently and slowly count to seven as you continue to apply tension to both your right and left calves. Now, all at once relax and let go. Allow

a sense of deep relaxation to wash over both of your calf muscles. If your calves had a voice, what would they say to you? Send a deep, cleansing breath to your calves.

Now, as you slowly work your way up your body, focus your attention on both of your thighs. Feel your thighs as they make contact with the chair or mat. Now tense your thigh muscles as you slowly count to seven. Now, all once let go and relax. As you notice the sensation in your thighs, sink and settle into the chair, allow yourself to feel supported and at peace.

Next, place your awareness on your abdomen. Gently engage and hold your stomach muscles as you lightly hold the tension in your core center for the count of seven. Draw your navel center closer to your spine and gently hold this position. Now all at once, release the tension. Allow your belly to become soft and completely relaxed and at peace.

Focus your attention on your hands. Squeeze all of the muscles in your hands into tightly held fists. Continue to hold this tension as you slowly count to seven. All at once, release your grip as you open your palms. Allow all of the tension to melt out of your fingers and you simply rest your hands in a comfortable position.

Now, become aware of all of the muscles in your face, paying focused attention to the muscles in your forehead, around your eyes and surrounding your jaw. Make a funny face as you clench and hold the tension in your facial muscles. Hold this tension for seven seconds. Now all at once, relax and let go. Feel your jaw soften as you recognize that the tiny muscles around your eyes begin to soften and relax. Finally, for a few moments simply just rest in the silence and allow yourself to bathe in a sense of relaxation.

Eight Spinal Movements

In yoga, there are eight essential spinal movements that promote the flexibility and strength of the spine (Voelker, 2014). All of these movements can be performed while seated in a sturdy chair. These four movements include, rotation, both clockwise and counterclockwise, torsion, both to the left and to the right, flexing and arching the spine, and laterally stretching the spine from left to right. These spinal movements may be contraindicated if you have a history of spinal stenosis, osteoarthritis, and degenerative disk disease or have had surgery on your back, spine or neck. If you have a history of the aforementioned conditions, please consult with your doctor prior to engaging in these eight spinal movements.

Hip Rotations

Begin by sitting on the chair in Tadasana. Plant the soles of both of your feet firmly on the ground, approximately hip distance apart. On your next inhalation, begin rotating your hips toward the front of the room in a clockwise direction. As you exhale, rotate your torso toward the back of the chair. Allow this fluid and expansive rotation to begin from your hip flexors. If you feel any constriction in your hips as you rotate, simply breathe into the tightness and send the breath to your hip area. Continue this movement for two minutes. Without changing the rhythm of your breath, simply change the direction of the hip circles. Allow the circles to begin as small movements and then gradually become larger as your hip joint naturally becomes lubricated with synovial fluid. Allow your hips to rotate counter clockwise for two minutes and then return to the Tadasana or Mountain pose. According to yoga philosophy, these hip rotations stimulate the sacral chakra and can enhance creativity and sexuality (Anderson & Sovick, 2008).

On a physical level, this asana promotes strength and flexibility in bilateral hip flexors (Desai, 2012).

Seated Spinal Twists/Spinal Torsion

Ardha Metseyndrasana is the Sanskrit word for a seated spinal twist (Desai, 2012). Begin by sitting up tall in Tadasana or Mountain pose and allow your hands to rest on your knees with both of your palms lightly pressing into your knees. As you inhale, raise your right hand at eye level and gaze directly at your right thumbnail. Allow the palm of your right hand to face the left side of the room. Maintain a fixed and concentrated focus on your right thumbnail as you slowly move your right thumb over to the right side of the room. Your right thumb serves as a drishti, which is a Sanskrit word which means gazing point or area of focus (Anderson & Slovik, 2008). Continue moving your right hand behind your shoulder as you gently ease your spine into a gentle twist to the right. Maintain a sustained focus on your thumb as you slowly move it back to the front of the room. According to Vedic philosophy, this position helps increase mental focus and concentration through the implementation of drishti. On a biological level, this twist helps promote spinal flexibility and strength (Desai, 2012).

Spinal Arching

Marjaiasana/Bitiliasana is the Sanskrit word for Cat-Cow pose, a yoga posture which involves flexing and extending the spine while synchronizing the movements with breath. To assume the Marjaiasana pose, begin by sitting in chair Tadasana with your hands resting on your lap with your palms pressing into knees. As you inhale, raise your chin to a sixty degree angle as you draw your shoulder blades together and incrementally curl your spine into a slight backbend. When you exhale, bring your chin toward your

chest and incrementally arch your spine. This posture promotes oxygenation of the blood, increases lung capacity and, according to Vedic philosophy, helps expand a person's ability to give and receive love (Gerstein, 2008).

Lateral Spinal Movement

Inhale as you raise both of your arms over your head with your palms facing one another. As you exhale, press your palms together as you lower your hands to your heart center, directly in front of your sternum. This hand position is known as Anjali Mudra, which is known as an ancient gesture that cultivates love for one's self and for all humankind, as well as the Divine (Voelker, 2014). On your next inhalation press your right palm into the chair directly beside your right hip. As you exhale, reach your left arm up and over to the right. Allow your left bicep to move toward your left ear as you gently stretch your spine laterally to the right. Hold this posture for three full breath cycles. As you inhale gradually return your spine to a vertical position as you lower your left arm and press your left palm into the chair beside your left hip. Reverse this pose for the other side of your body.

Lasso Pose

Lasso Pose, an asana that was formerly a clandestine technique, was popularized by yoga master Yogi Bhanan and taught to his early kundalini yoga students in the United States (Megaristiors, 2012). While seated, raise both of your arms over your head and wrap all four of your fingers around your thumbs in a modified fist. While breathing deeply, begin pulling your fists toward the back of the room in a rapid circular motion. Continue this dynamic and flowing asana for three minutes. According to Yogi Bhanan, Lasso Pose helps a yoga aspirant disconnect from old ideas or former beliefs that no

longer serve a person's higher good or new, healthy lifestyle. On a biological level, Lasso Pose strengthens the biceps and the triceps and helps improve balance. (Khalsa, 2012).

Kundalini Surya Mudra Wrist Circles

While seated, allow your hands to gently rest on your knees with your palms facing upward toward the sky. Lightly press the pads of your ring finger against the base of your thumb and apply pressure to the ring finger with the pad of the thumb. Allow your index finger, your middle finger and your pinky finger to stretch upward toward the ceiling. This hand gesture is known as Surya Mudra and it is believed to generate body heat and decrease anxiety (Desai, 2012). According to Aryurvedic science, this Mudra stimulates the thyroid, helps regulate metabolism and may promote weight loss in overweight individuals (Khalsa, 2012). As you continue to hold both of your hands in Surya Mudra, begin rotating your left wrist in a counter-clockwise circle as you simultaneously rotate your right wrist in a clockwise circle. This dynamic kundalini asana releases anxiety and chronically held fear from the body and promotes healthy adrenal functioning as it normalizes cortisol production (Megarisiotos, 2012).

Circle pose

While seated in chair Tadasana, place your hands directly in front of your sternum with both of your palms facing the wall in front of you. Allow the tip of your tongue to rest along the roof of your mouth as you inhale and exhale through your nose. As you breathe deeply, begin rotating your left hand in a counter-clockwise direction as you simultaneously make a clockwise circle with your right hand. Allow these circles to be large, sweeping movements that originate from the top of your head and flow down to

your abdominal region. My grandmother referred to this asana as “washing the windows around your heart” and Ayurvedic wisdom purports that the body is encased in energy that can impact cardiac rhythms and functioning (Gerstein, 2008). According to Yogi Bhajan, this exercise can help increase mental focus and concentration, as well as enhance one’s compassion for self and others (Bhajan, 2002).

Senobi Breath

Senobi Breath is a two part, ancient Japanese breathing and stretching technique that is not part of the yoga system, but is frequently implemented in many Western yoga classes. According to Sato, Kawamura, and Yamagiwa (2010), Senobi Breath helps promote weight loss in obese women by addressing neuro-androgenic abnormalities that can cause obesity as a result of a dominant parasympathetic nervous system and hormone dysfunction. Research indicated that when this technique was practiced three times a day for one month, a significant weight loss occurred in a sample of forty obese women. As a result of ongoing research, Sato, *et al* (2011) recommend the Senobi technique as a first line treatment for obesity.

To practice the first aspect of Senobi Breath, begin by sitting near the edge of your chair as you stretch your arms up over your head with your palms facing one another and fingertips stretching toward the ceiling. Your arms should be approximately shoulder width apart as you gently arch your lower spine into a slight backbend. Draw your shoulder blades together as you inhale for a count of five and exhale for a count of five. Repeat this breathing and stretching exercise for two minutes. After you complete the exercise, allow your arms to float back down by your sides and spend one minute simply observing your breath and resting.

Harvard professor and social anthropology researcher, Dr. Amy Cuddy, has researched and extensively written about “The Power Pose.” The Power Pose is a physical posture that is similar to the first part of the Senobi technique and has been demonstrated to increase feelings of self esteem and mastery in people involved in jobs, as well as academic interviews (Carney, Cuddy & Yap, 2010). Additionally, social work professor and researcher Brene Brown speaks eloquently on the posture of shame, which is often characterized by slumped shoulders and habitual crouching. Dr. Brown further describes how practicing confident postures such as the Senobi technique can help a person cultivate authentic confidence as well as manifest positive physiological changes (Brown, 2010).

To practice the second part of Senobi breath, assume a comfortable seated position. As you inhale and raise both of your arms over your head toward the ceiling. Interlace your fingers and allow your palms to press upward towards the ceiling as you engage the muscles in your upper back. Allow the tip of your tongue to rest along the roof of your mouth as you inhale for the count of five and immediately exhale for the count of five.

Kundalini Arm Pumps

Kundalini Arm Pumping is an invigorating asana that promotes lymphatic drainage thus stimulating the immune system and energizing the body (Khalsa, 2012). To begin this technique, sit in chair Tadasana and raise both arms above your head. Press the pad of the thumb into the base of the pinky finger and wrap your fingers around your thumb in a modified fist. Inhale deeply to the count of seven as you stretch your hands upward toward the sky. Begin exhaling to the count of seven as you bend your elbows

and you draw your elbows close to your rib cage. Allow your fists to be directly in front of your shoulders with the thumbs facing the shoulders. As you continue exhale, pump your arms as you move your elbows toward the back of the room. This asana is best learned in person under the guidance of an experienced yoga teacher who can help you adjust your muscular skeletal alignment and pumping technique.

Shanmukhi Mudra

Shamukhni Mudra, a Sanskrit term which translates to the “pose of the six gates” is designed to diminish sensory information to the following six organs; the two eyes, two ears, mouth and nose. This is a pratahayaric yoga practice that involves withdrawing the physical senses so that a yoga aspirant can develop an inward focus in preparation for meditation and self-actualization (Mata, 2012). To practice Shanmukhi Mudra, which is also known as Yoni Mudra, place your thumbs over top of your ears, as you lightly press your index finger over your closed eyelids. Then allow your middle fingers to rest against your nostrils while your ring finger rests above your upper lip and your pinky finger rests below your lower lip.

To deepen the meditative effects of the Shanmukhi Mudra, a mantra or silent chant can be included with this gesture. So-hum is a Sanskrit mantra, which means, “I am that” and refers to the Divine aspect that exists in oneself and all of humanity. As you inhale, silently chant the word SO in your mind. As you exhale, silently recite the word HUM. Repeat this mudra, paired with mantra, for three to five minutes.

Yoga Eye Exercises

Yogic eye exercises involve moving the eyes in a methodical way with the purpose and intention of strengthening and promoting blood circulation to eyes (Mata,

2012). Additionally these exercises help to improve vision, peripheral sight, and decrease eyestrain associated with prolonged computer use (Gerstein, 2012). If you have a history or currently are diagnosed with glaucoma, cataracts, or have had any type of eye condition or surgeries, please consult with your eye doctor prior to initiating these exercises. To begin, sit comfortably in chair Tadasana and start the exercises slowly to avoid injury. As you inhale, look all the way up toward the sky and as you exhale look all the way down to the ground. As you inhale, look to the left as you keep your head straight and your chin parallel to the earth. As you exhale, maintain your head position as you look to the right. Next, begin diagonal eye movements. Inhale as you look to your upper right and then look to your lower left. Next, as you inhale look to your upper left and then look to your lower right. Begin by doing this series of eye exercises for two minutes and gradually increase the time to six minutes.

Sa Ta Na Ma Mantra

Sa Ta Na Ma is an ancient Sanskrit manta, or sound meditation that translates into birth, life, death, re-birth and refers to the timeless, boundless nature of consciousness. The Sa Ta Na Ma meditation is paired with mudra and movement with the intention of achieving a meditative state or reducing psychosocial stress. This powerful kriya, or prayer, has been researched by neuroscientists and demonstrated to be an effective tool to increase mental concentration, attention and focus. (Newberg & Waldman, 2009).

To practice this technique, begin in seated pose and take a few deep, cleansing breaths. Allow your palms to rest gently on your knees with your palms facing upward. Gently close your eyes and place your focus at the point in between your eye and eyebrows. Alternatively, you may gaze softly at your hands to help you learn this new

movement. Press the pads of your thumbs and your index fingers together as you silently chant the sound Sa. Next, press the pad of your middle fingers and thumbs as you say the word Ta. Then, mentally say the word Na as you press the pads of your ring finger and thumbs together. Finally say the sound Ma as you gently press the pads of your pinky fingers against the pads of your thumbs. Repeat these sounds paired with the hand movements for three minutes as you relax your shoulders and breathe deeply into the posture. After a month of doing this mantra and mudra, you can increase your practice time to eleven minutes, if you desire. After you complete this kriya, spend a few moments in silence so that your body and mind can integrate this meditative session.

Marma Tapping

Marma is a Sanskrit word that translates into the word dot and refers to a specific area or juncture on the physical body in which prana or energy flows to promote health, healing and optimal functioning (Lad & Durve, 2007). Marma points correlate to the body's energetic system and are closely linked to the chakras and nadis (Mata, 2012). Additionally, the marma points roughly correspond to areas on the body that are used in Traditional Chinese Medicine or Gary Craig's Emotional Freedom Technique or EFT (Hartung & Stein, 2007). According to Vedic wisdom, psychiatric or somatic illness can arise when psychic energy becomes blocked along the Marma points. Techniques that involve manipulating the marmas are an intricate, lifetime study analogous to the formal training associated with allopathic Western medicine. The marmas can be massaged by an educated, experienced practitioner with the intention of treating disease or injury. According to Vedic wisdom, tapping on these specific points in your own body can reduce psychological distress and anxiety (Gerstein, 2012). There are fourteen different

points in the body that can be tapped in succession with the intention of inducing relaxation. These places on the body are similar to the tapping points utilized in the Emotional Freedom Technique or EFT (Eden, 2012). It is best to learn this sequence in person from a knowledgeable teacher. If you have a history of serious illness or injury that involves any of the tapping points, please check with your healthcare provider prior to engaging in the exercise. When tapping these points, its best to use the index finger and middle finger of your dominant hand and use light pressure, with about as much force as you would use to strike a keyboard when typing (Lad & Durve, 2007).

These tapping points are as follows:

1. The distal aspect of a person's non-dominant hand below the pinky. This position is frequently referred to the karate chop point EFT or I Traditional Chinese medicine.
2. The top of one's head, which is colloquially referred to as the crown area.
3. The area above a person's eyebrow
4. The side of the eye
5. Below the eye directly underneath a person's pupil.
6. The area below a person's nose, just above the upper lip.
7. The area below the lower lip and above the cleft of the chin
8. The thymus and the collarbone area
9. The underarm area
10. The inner aspect of both wrists
11. The side of the nail bed of a persons thumb (on the non-dominant hand)
12. The side of the nail bed of a persons index finger (on the non-dominant hand)
13. The side of the nail bed of a person's ring finger (on the non-dominant hand)
14. The side of the nail bed of a person's pinky finger (on the non-dominant hand)

In conclusion, the yoga sequence outlined in these pages is a gentle and relaxing method that fosters self-care in the biological, psychosocial and spiritual domains of life. These techniques offer the most benefit when they are practiced on a regular basis so strive to incorporate this sequence into your schedule at least three times per week. That said, any amount of time spent practicing yoga yields positive results, so

even engaging in yogic breathing for a few moments in between client sessions can be beneficial. When first beginning yoga or any other mind-body practice, it's important to be patient with yourself and resist judging your performance or progress. Like social work, yoga is a lifetime practice that is best learned under the supervision of a nurturing and qualified teacher. Thank you for allowing me to share this practice with you on your journey to a healthier lifestyle.

Conclusion/Future Research Needed

In conclusion, this dissertation illustrates that yoga is a mindfulness – based practice that can enhance self-care and prevent burnout in diverse populations. Further quantitative and qualitative research is warranted in order to determine if this curriculum is an effective program for social workers and other mental professionals. The information contained in this course could best be utilized as a research study involving a mixed method design study to determine if a chair based yoga can be used to help social workers reduce stress, improve mindfulness and enhance self-care.

I would like to develop and implement a randomized controlled trial in which one group of social workers experiencing stress would receive the self-care chair yoga based stress reduction intervention and the other group would be assigned to a waiting list. The randomization would be performed by a contract biostatistician in an effort to remove bias as much as possible. The yoga intervention consists of 2, 2 hour-long weekly group yoga sessions in which social workers will receive specific training on chair yoga from this manual which includes physical exercises, breathing and guided imagery. For treatment fidelity, educators providing the yoga intervention will be trained, certified and receive supervision in yoga. Yoga certification consists of attending 200 hours of live, in person training and as well as experience conducting documented and supervised yoga classes. This training is administered and provided by credentialed and accredited yoga schools across the nation via The Yoga Alliance.

The study will measure the longitudinal effects of the yoga self-care intervention at 30 day, 90 day and 1-year post intervention time points. Specifically, the study will measure perceived stress using the Perceived Stress Scale. Additionally this study will

measure mindfulness by utilizing the Kentucky Inventory of Mindfulness Skills, a standard measure that is used in evidence based research to measure the four components of mindfulness. In order to protect human subjects, participants with a history of serious physical injury or any medical condition that would prevent them from safely participating in chair based exercise would be excluded from the study and referred to other mindfulness based stress reduction programs.

Prior to beginning the yoga intervention, participants will be asked to complete the Perceived Stress Scale, a widely used, sound clinical instrument used to measure perceived stress among subjects and the Kentucky Inventory of Mindfulness Skills, an established instrument that measures mindfulness. This data will be collected by a research assistant in an anonymous and confidential manner. The approach will be effective if there is a statistically significant reduction in participants' perceived stress as evidenced by the Perceived Stress Scale (PSS) and a statistically significant increase in participants' mindfulness as evidenced by the Kentucky Inventory of Mindfulness Skills after. Additionally, the approach will be deemed effective if these respective gains are attained immediately after the yoga intervention and those improvements are maintained at both the 30 and 90 day follow up evaluations. In addition, this study will collect qualitative data within 30 days of completion of the chair yoga program. If this intervention is deemed not effective, social workers will be offered a more promising, evidence-based method, such as mindfulness based meditation stress reduction, as an intervention for stress reduction and increasing mindfulness.

The qualitative portion of the research study will endeavor to answer the following research question: How can social worker's enhance self-care and reduce stress in the

biological/ psychological/social / spiritual person in environment domains using the practice of chair yoga? Below is the full qualitative interview guide.

Face sheet questions:

Gender	
Age	
Education	
Marital Status	
Hobbies	
How long have you been a social worker/ worked in the helping profession?	

In Depth questions:

A. Personal Definition of self-care

1. How do you define self-care?
2. How was self-care practiced in your family of origin?
3. Describe what you do on a daily basis to take care of yourself, both professionally and personally.
4. How does “taking care of yourself” affect your daily life?
5. PROBE Tell me specifically what you do every day to take care of yourself
6. What kinds of self-care strategies would you implement regularly if time, money or resources were not an issue?
7. PROBE Describe your own process for tuning into your needs.
8. What do you do to relax?

B. Biological Self-care

1. How do you take care of your body on a daily basis?

2. Tell me what your exercise regime looks like. (If you don't exercise, do you feel that exercise is important or necessary for you or other social workers?)
3. PROBE Can you tell me more about what feelings or sensations in your body alert you that you need to take better care of yourself?
4. PROBE for issues over health care, nutrition, sleep and water consumption.

C. Psychological Self-care

1. How do you manage difficult or unpleasant emotions, such as anger or sadness, when they arise in work situations?
2. What kinds of feelings do you experience in a typical work day?
3. Tell me how you react to the following statement: There is a very good reason why flight attendants repeat the mantra "Put your own oxygen mask on before helping others"
4. How do you know when a client is infringing upon your boundaries?
5. How does your mind alert you that you are stressed?
6. When you have supervised another clinician, what are the red flags that your supervisee may be headed for burnout or compassion fatigue?
7. What are your time tested strategies for preventing burnout?
8. How does your body alert you that you are getting stressed out?

D. Social Self-care

1. How do your relationships enhance self-care?
2. What kinds of routines, rituals or ceremonies help you take care of yourself or prevent burnout?
3. How have your self-care strategies evolved over time?
4. How do you deal with clients whose behaviors are draining or overwhelming?
5. What kinds of hobbies or activities outside of work enhance your self-care?

E. Spiritual Self-care

1. Tell me about your understanding of spirituality.
2. How would you describe your spiritual life?

3. Do you have any spiritual or spiritual experiences that are meaningful to your self-care? PROBE- Tell me more about what spirituality means to you.

F. Workshop Questions

1. What did you learn about in this workshop?
2. Tell me about your experience with yoga prior to attending this workshop
3. What is something new that you learned about chair yoga in the workshop?
4. What if anything will you implement into your own self-care routine after attending this workshop?
5. How do you think yoga can help social workers in their practice?
6. Tell me about your biggest take away from the workshop.
7. What else would you like to learn about related to yoga and social work?
8. What suggestions do you have that might improve this workshop?

G. Debriefing

1. Is there anything that I did not ask that I should have asked to better understand your experience with self-care and this workshop?
2. What advice do you have for new social workers with regard to self-care?
3. What do you wish you learned in social work school with regards to caring for yourself? What did you learn in school about self-care?
4. Based on your experiences, is there any particular advice you would give to your colleagues about self-care?
5. Is there anything else related to self-care or the workshop that you would like to share?

Thank you for participating in this interview. I deeply appreciate your time and wisdom.

Disseminating results is a crucial step in the research process that helps us educate our colleagues about interventions, strategies and methods have been deemed effective or inefficient in the field. I would carefully collect research data and write a report about the findings, which I would share with my colleagues. I would also develop this data into a presentation that I would offer to agency staff and administration. In addition, I would submit my research report to scholarly social work journals to be considered for publication. In conclusion, this research study endeavors to determine if the chair based yoga curriculum outlined in this dissertation is an effective stress management and self-care tool.

References

- Abbott, A. A. (2004). Measuring social work value: A cross-cultural challenge for global practice. *International Social Work, 42*(4) 455-470.
- Alexander, C. N., Rainforth, M.V., & Gelderloss, P. (1991). Transcendental meditation, self-actualization, and psychological health: A conceptual overview and statistical meta-analysis. *Journal of Social Behavior and Personality, 6*(5) 189-241.
- Anderson, S. & Sovik, R (2007). *Yoga: Mastering the Basics*. New York: Himalayan Institute Press.
- Azar, S. T. (2000). Preventing burnout in professionals and paraprofessionals who work with child abuse and neglect. *Journal of Clinical Psychology, 56*(5), 643-663.
- Baer, R. A. (2003) Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical Psychology: Science and Practice, 10*125-143.
- Bains, A. A. (2011). *EFT Full Basic Recipe: An EFT Training Guide*. Public PowerPoint presentation.
- Barker, R. (2013). *The Social Worker Dictionary*. Washington, DC: NASW Press.
- Berger, K.S. (2009). *The Developing Person Through Childhood*. New York, NY: Worth.
- Bloom, S.L. & Farragher B. (2011). *Destroying Sanctuary: The crisis in the human service delivery systems*. New York, NY: Oxford University Press.
- Bowen, S.& Chawla, N. (2006). Mindfulness meditation and substance abuse in an incarcerated population. *Psychology of Addictive Behaviors, 20*, 343-347.
- Brown, B. (2010). *The gifts of imperfection: Let go of who you think you are supposed to*

be and embrace who you are. Center City, MN: Hazelden.

- Brown, S. (2012). Mindfulness-based relapse prevention for addictive behaviors: A clinician's guide, by Sarah Bowen, Neha Chawla, and G. Alan Marlatt. *Journal of Social Work Practice in the Addictions*, 12(3), 316-317. doi: 10.1080/1533256X.2012.703917
- Brown, K. W., Ryan, M. R., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and its salutary effect. *Psychological inquiry* 18 (4) 211- 237.
- Brooks-Harris, J. E. (2008). *Integrative Multitheoretical Psychotherapy*. Boston: Houghton-Mifflin.
- Bryant, E. (2009). *The Yoga Sutras of Patañjali: A New Edition, Translation, and Commentary*. New York, NY: North Point Press.
- Cacciatore, J., & Flint, M. (2012). Attend: Toward a mindfulness-based bereavement care model. *Death Studies*, 36(1), 61-82. doi: 10.1080/07481187.2011.591275
- Carey, B. (2011, June 23). Expert on mental illness reveals her own fight. *The New York Times*. Retrieved from http://www.nytimes.com/2011/06/23/health/23lives.html?_r=0
- Carlson, L.E., Speca M., Farris, P. and Patel, K. D. (2007). One year pre-post intervention follow up of psychological, immune, endocrine, and blood pressure outcomes of mindfulness based stress reduction. *Brain, Behavior and Immunity*, 21, 1038-1049.

- Carmody J. & Baer, R.A. (2008). Relationships between mindfulness practice and levels of mindfulness, medical and psychological symptoms and well-being in mindfulness-based stress reduction program. *Journal of Behavioral Medicine, 31*, 23-25.
- Carney, D.R., Cuddy, A., & Yap, A.J. (2010). Power posing: Brief nonverbal displays and affective neuroendocrine levels. *Psychological Science, 21*,1363-1386.
- Chen, Kuei-Min; Chen, Ming-Hsien; Lin, Mei-Hui; Fan, Jue-Ting; Lin, Huey-Shyan; Li, Chun-Huw. (2010). Effects of Yoga on Sleep Quality and Depression in Elders in Assisted Living Facilities. *Journal of Nursing Research 18: 53-61*.
- Choudhury, B. (2007). *Bikram Yoga: The guru behind hot yoga shows the way to radiant health and personal fulfillment*. New York, NY: William Morrow.
- Clark, B. & Powers, S. (2012). *The complete guide to Yin yoga: The philosophy and practice of Yin yoga*. New York, NY: White Cloud Press.
- Clements, J.A. & Minnick D.J. (2012). But I'm too stressed to learn about groups! Using stress management groups to teach about group skills. *Social Work with Groups 35* (4) 330-334.
- Cozolino, L. (2010) *The neuroscience of psychotherapy: Healing the social brain*. New York, NY: Norton.
- Desai, Y.S. (2012). *Yoga: Holistic practice manual* Publisher: Author.
- Dryden, W. & Still, A. (2006). Historical Aspects of Mindfulness and Self-Acceptance

in Psychotherapy. *Journal of Rational Emotive and Cognitive Behavioral Therapy* 42 (1), 3-18.

Dolan, A. & Ayler (2015). Vicarious Trauma and Burnout: Ethics of self-care when managing clients in crisis. Public powerpoint presentation

Douglass, L (2011). *Yoga in Higher Education: North American Educators and the Use of Yoga as Pedagogy*. New York, NY: Mifflin.

Eden, D. (2008). *Energy medicine: Balancing your body's energies for optimal health, joy, health and vitality*. New York: NY

Feuerstein, G. (1996). *The Shambhala Guide to Yoga*. Boston & London: Shambhala Press.

Friend, J. (1999) . *Anusrara Yoga: The Teacher Training Manual*. Publisher: Author.

Garland, E. L., & Roberts-Lewis, A. (2013). Differential roles of thought suppression and dispositional mindfulness in posttraumatic stress symptoms and craving. *Addictive Behaviors*, 38(2), 1555-1562. doi: 10.1016/j.addbeh.2012.02.004

Gerstein, N. (2008). *Guiding yoga's light: Lessons for yoga teachers*. Champaign, IL: Human Kinetics Press.

Gina, K., Taylor, A., Innes, K., Kulbok, P., & Selfe, T. (2008). Contextualizing the Effects of Yoga Therapy on Diabetes Management: A Review of the Social Determinants of Physical Activity. *Family Community Health*, 31(3); 228-239. doi: [10.1097/01.FCH.0000324480.40459.20](https://doi.org/10.1097/01.FCH.0000324480.40459.20)

Goldstein, E. (2012). *The now effect: How this moment can change the rest of your life*.

New York: Atria.

Green, M. M. (2002). Six trauma imprints treated with combination Intervention: critical incident stress debriefing and Thought Field Therapy (TFT) or Emotional Freedom Techniques (EFT). *Traumatology*, 8(1), 18-22.

Grossman, P., Niemann, L., Schmidt, S. & Walach (2004). Mindfulness –based stress reduction and health benefit. *Journal of Psychosomatic Research*, 57, 35-39.

Harr, C., & Moore, B. (2011). Compassion fatigue among social work students in field placements. *Journal of Teaching in Social Work*, 31(3), 350-363. doi: 10.1080/08841233.2011.580262

Hartung, J., & Stein, P. K. (2012). Telephone delivery of EFT remediates PTSD symptoms in veterans. *Energy Psychology: Theory, Research, and Treatment*, 4(1), 33-40.

Hatfield R. C. (2013). *The everything guide to the human brain* New York: Adams Media.

Herrick, J., Takagi, C. V., Coleman, R., & Morgan, L. J. (1983). Social workers who left the profession: An exploratory study. *Journal of Sociology & Social Welfare*, 10(1), 78-94.

Hewett, Z.L., Ransell, L.B., Gao, Y., Petlichkoff, L.M., & Lucas, S (2011) An examination of the effectiveness of an 8-week Bikram yoga program on mindfulness, perceived stress, and physical fitness. *Journal of Exercise Fitness* 9(2) 87-92.

Hick, S. F. (2009). *Mindfulness and social work practice*. Chicago: Lyceum.

Haugstvedt, K. T. S., Hallberg, U., Graff-Iversen, S., Sørensen, M., & Haugli, L. (2011).

Increased self-awareness in the process of returning to work. *Scandinavian Journal of Caring Sciences*, 25(4), 762-770. doi: 10.1111/j.1471-6712.2011.00891.x

Hoffman, S.G., Sawyer, A.T., Witt, A.A., & Oh, D. (2010). The effect of mindfulness based therapy on anxiety and depression. A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 78, 169-183.

Holzel, B., Lazar, S.W., Gard, T., Shuman, Z., Vago, D.R. & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science* 6 (6) 537-559.

Humphrey, K. R. (2013). Using a student-led support group to reduce stress and burnout among BSW students. *Social Work with Groups*, 36(1), 73-84. doi: 10.1080/01609513.2012.712905

Iyengar, B.K.S. (2008). *B.K.S. Iyengar Yoga: The path to holistic health*. New York, NY: Dorling.

Judith, O. (2004). *Eastern body, western mind. Psychology and the chakra system as a path to the self*. New York, NY: Celestial Arts.

Kabar-Zinn, J. (1990). *Full catastrophic living*. New York, NY: Delta Publishing.

Kaley-Isley, L. C., Peterson, J., Fischer, C., & Peterson, E. (2010). Yoga as a complementary therapy for children and adolescents: A guide for clinicians. *Psychiatry (Edgmont)*, 7(8), 20-32

- Kauts, A., & Sharma, N. (2009). Effect of yoga on academic performance in relation to stress. *International journal of Yoga*, 2(1); 39–43. doi: [10.4103/0973-6131.53860](https://doi.org/10.4103/0973-6131.53860)
- Khalsa, S. L. (2000). *Kundalini yoga: Unlock your hidden potential through life changing exercise*. New York, NT: DK.
- Kirkwood, G., Rampes, H., Tuffrey, V., Richardson, J., & Pilkington, K. (2005). Yoga for anxiety: a systematic review of the research evidence. *British Journal of Sports Medicine*, 39(12); 884–891.
- Kliem, S., Kroger, K. & Kossfelder, J (2010). Dialectical behavior therapy for borderline personality disorder: A meta-analysis using mixed-effects modeling. *Journal of Consulting and Clinical Psychology*, 78, 936-951.
- Kraftsow, G. (2010). Defining yoga therapy: A call to action. *International Journal of Yoga Therapy*. 20 20-23.
- Lad, V & Durve, M. (2008). *Marma points of Ayurveda: The energy pathways for healing, body, mind and consciousness. With a compassion to traditional Chinese medicine* New York, NY: Ayurvedic Press.
- Lasater, J. (2011). *Relax and renew: Yoga for stressful times*. Berkely, CA: Rodmell.
- Linehan, M. (1993). Skills training manual for treating borderline personality disorder. NY, New York: Guilford Press.
- Lynn, R. (2010). Mindfulness in social work education. *Social Work Education*, 29(3), 289-304. doi: 10.1080/02615470902930351

- Mata, L. (2012). *Advanced yoga teacher training: Teacher Development Manual*
Publisher: Author.
- Mayer, E. L (2008). *Extraordinary knowing: Science, skepticism and the inexplicable powers of the human mind*. New York; Bantam.
- McBride, M. C. (1998). The use of process in supervision: A gestalt approach. *Guidance & Counseling, 13*(4), 41.
- McCabe-Maucher A. M. & Maucher H.M. (2008). *The Inner Peace Diet* New York, NY: Penguin.
- Megarisiotos, A. (2012). *Kundalini yoga: Techniques for developing strength, awareness and character*. New York, NY: Skyhorse.
- Mensinga, J. (2011). The feeling of being a social worker: including yoga as an embodied practice in social work education. *Social Work Education, 30*(6); 650-662.
- Minor, H. G., Carlson, L. E., Mackenzie, M. J., Zernicke, K., & Jones, L. (2006). Evaluation of a mindfulness-based stress reduction (MBSR) program for caregivers of children with chronic conditions. *Social Work in Health Care, 43*(1), 91-109. doi: 10.1300/J010v43n0106
- Myss, C. *Anatomy of the spirit: The seven stages of power and healing*. New York, NY: Harmony.
- Napoli, M., & Bonifas, R. (2011). From theory toward empathic self-care: Creating a mindful classroom for social work students. *Social Work Education, 30*(6), 635-649.

doi: 10.1080/02615479.2011.586560

Newberg, A. & Waldman, M. R. (2010). *How God changes your brain*. New York, NY: Ballantine.

Newberg, A. (2010). *Principles of neurotheology*. New York, NY : Ashgate.

Newberg A. & Waldman, M.R. (2006). *Why we believe what we believe: Uncovering our biological need for meaning spirituality and truth*. New York, NY: Free Press

Newberg A. & Waldman, M.R. (2013). *Words can change your brain: Twelve conversation strategies to build trust, resolve conflict, and increase intimacy*. New York, NY: Plume.

Newell, J. M., & MacNeil, G. A. (2010). Professional burnout, vicarious trauma, secondary traumatic stress, and compassion fatigue: A review of theoretical terms, risk factors, and preventive methods for clinicians and researchers. *Best Practice in Mental Health*, 6(2), 57-68.

Newell, J. M., & MacNeil, G. A. (2011). A comparative analysis of burnout and professional quality of life in clinical mental health providers and health care administrators. *Journal of Workplace Behavioral Health*, 26(1), 25-43. doi: 10.1080/15555240.2011.540978

The National Association of Social Workers (2009). *Professional self-care and social work*. Retrieved from: <http://www.socialworkers.org/nasw/memberlink/2009/supportfiles/Profesional Self-Care.pdf>.

- The National Association of Social Workers (2015). *Professional self-care and social work*. Retrieved from: <http://www.socialworkers.org/nasw/memberlink/2009/supportfiles/Profesional Self-Care.pdf>
- Nurriestearns M. & Nurriestearns R. (2013). *Yoga for emotional trauma*. New York, NY: New Harbinger.
- Oser, C. B., Biebel, E. P., Pullen, E., & Harp, K. L. H. (2013). Causes, consequences, and prevention of burnout among substance abuse treatment counselors: A rural versus urban comparison. *Journal of Psychoactive Drugs*, 45(1), 17-27. doi: 10.1080/02791072.2013.763558
- Paulson, G.L. (1997) *Kundalini and the chakras: A practical manual for evolution in this lifetime*. St Paul, MN :Llewellyn.
- Pelt, J. V. (2011). Yoga and Children's Mental Health. *Social Work Today*, **11(6)**; **8**. Retrieved from <http://www.socialworktoday.com/archive/111511p8.shtml>
- Perlmutter, D. & Villoldo, A. (2012). *Power up your brain: The neuroscience of enlightenment*. Carlsbad, CA: Hay House.
- Polster, E., & Polster, M. (1974). *Gestalt therapy integrated; contours of theory and practice*. New York: Vintage Books.
- Poulin, J. & Walter, C. (1992) Social worker burnout: A longitudinal study. *Social Work Research and Abstracts* 20(4): 5-11.
- Preston, M. M. (2010). Mindfulness and social work. *Best Practice in Mental Health*, 6(2), 132-135.

- Resnikoff, N. (2014, July, 7) Yoga teachers: Overstretched and underpaid. *MSNBC*
Retrieved September 19, 2015 <http://www.msnbc.com/msnbc/yoga-teachers-overstretched-and-underpaid>
- Roland, P., Jakobi, M., & Jones, R. (2011). Does yoga engender fitness in older adults? A critical review. *Journal of Aging and Physical Activity*, *vol. 19*(1); 62–79.
- Ross, A., & Sue T. (2010)..The Health Benefits of Yoga and Exercise: A Review of Comparison Studies. *Journal of alternative and complementary medicine*, *16*(1); 3-12. DOI: 10.1089=acm.2009.0044
- Rosanes-Berrett, M. (1993) Reflections on Fritz Perls: A response to Laura Perls and Ilene Serlin. *Journal of Humanistic Psychology*, *33*(1), 106.
- Ryan, T (2012). *A mindful nation. How a simple practice can help us reduce stress, improve performance and recapture the American Spirit.* New York, NY: Hay House.
- Salmon, J. M. (2010). Mindfulness and social work, *Social Work in Health Care*, *49*(5), 508-511. doi: 10.1080/00981381003635437
- Satchidananda, S. S. (2005). *The yoga sutras of Patanjali* Yogaville, VA : Integral Yoga Publications.
- Schipper, J. (2012). Toward a Buddhist sociology: Theories, methods, and possibilities. *American Sociologist*, *43*(2), 203-222. doi: 10.1007/s12108-012-9155-4
- Scott, J.C. & Jois S.P. (2001). *Ashtanga yoga: The definitive step by step guide to dynamic yoga.* New York, NY: Harmony.

- Shahidi, M. , Mojahead, A., Modabbernia, A., Mojtahed, M. Shafiabady A., Delavar, A., Honari, H. (2011) Laughter Yoga versus group exercise program in elderly depressed women: A randomized controlled trial. *International Journal of Geriatric Psychiatry*: 26 322-327.
- Shannahoff-Khalsa (2004). An introduction to Kundalini yoga meditation techniques that are specific for psychiatric disorders. *The Journal of Alternative and Complementary Medicine* 10 (1), 91-101.
- Shannahoff-Khalsa, D. (2012). *Sacred therapies: The Kundalini yoga meditation handbook for mental health*. New York,NY: Norton.
- Shepherd, Martin (1975). Fritz. An intimate portrait of Fritz Perls and Gestalt Therapy. New York: Saturday Review Press.
- Shulman, L. (2012). *The skills of helping individuals, families, groups and communities*. New York: NY: Brooks-Cole.
- Shumsky, S. G. (2003). *Exploring chakras: Awakening your untapped energy*. New York, New York: Career Press.
- Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being*. New York: Norton.
- Simpson, G. A., Williams, J. C., & Segall, A. B. (2007). Social work education and clinical education. *Clinical Social Work Journal*, 35, 3–14. doi:[10.1007/s10615-006-0046-4](https://doi.org/10.1007/s10615-006-0046-4).

- Smith, A., Graham, L., & Senthinathan, S. (2007). Mindfulness-based cognitive therapy for recurring depression in older people. A qualitative study. *Aging and Mental Health, 11*(3) 356-357.
- Söderfeldt, M., Söderfeldt, B., & Warg, L. (1995). Burnout in social work. *Social Work, 40*(5), 638-646.
- Stein, P. K., & Brooks, A. J. (2011). Efficacy of EFT provided by coaches vs. licensed therapists in veterans with PTSD. *Energy Psychology: Theory, Research, and Treatment, 3*(1), 11-18.
- Stern, D. (2004). *The present moment in psychotherapy and everyday life*. New York: Norton.
- Streeter, C.C., Whitfield, T.H., Owen, L. Rein, T., Karri, S.K., Yakhkind, A., Perlmutter, R., Prescott, A., Renshaw, P.F., Ciraulo, D. A. & Jensen, E. (2011) Effects of Yoga versus walking on mood, anxiety, and brain GABA levels: A randomized controlled MRS study *The Journal of Alternative and Complementary Medicine. 16* (11):1145-1152.
- Swigle, P., Pulos, L., & Swigle, M.K. (2005). Neurophysiological Indicators of EFT treatment of post-traumatic stress. *Journal of Subtle Energies & Energy Medicine, (2005) 15*, 75-86.
- Taimni, I. K. (1961). *The Science of Yoga*. Adyar, India: The Theosophical Publishing House
- Telch, C. F., Agras, W. S., & Linehan, M. M. (2001). Dialectical behavior therapy for binge eating disorder. *Journal of Consulting and Clinical Psychology, 69*, 1061–1065. doi:[10.1037/0022-006X.69.6.1061](https://doi.org/10.1037/0022-006X.69.6.1061).

- Tremmel, R. (1993). Zen and the art of reflective practice in teacher education. *Harvard Educational Review*, 63, 434–458.
- Valentino, L. & Mehan, D. (2004). *The Yoga Lifestyle Center Teacher Training Program Manual*. Publisher: Author.
- Vishnu-Devananda, S. (1995). *The complete illustrated book of yoga*. New York: Three Rivers Press.
- Voelker L. (2014). *Lakshmi Voelker Chair Yoga: Teacher Development Manual*
Publisher: Author.
- Waite, W.I. & Holder M.D. (2003). Assessment of the Emotional Freedom Technique: An Alternative treatment for fear *Sci Rev Mental Health Pract.* 2(1) 20-26.
- Weaver, H.N. (In Press). *Finding Wellness through Balance: Social Work, Indigenous Ways and the Power of Intersection*.
- Wells, S. , Polgase, K., Andrews, H.B., Carrington, P. & Baker, A.H. (2003). Evaluation of a meridian based intervention: Emotional Freedom Technique for reducing specific phobias of small animals. *Journal of Clinical Psychology* 59 (9) 943-966.
- Wilkinson, H. (2003). Review article: The shadow of Freud: Is Daniel Stern still a psychoanalyst? The creative tension between the present and the past in psychoanalytic and existential psychotherapies, in Daniel Stern's the present moment , and his humanistic--existential.. *International Journal of Psychotherapy*, 8(3), 235-254. doi: 10.1080/13569080410001687308
- Williams, M., Teasdale, J., Segal, Z., & Kabat-Zinn, J. (2007). *The mindful way through depression: Freeing yourself from chronic unhappiness*. New York: Guilford.
- Zerach, G. (2013). Compassion fatigue and compassion satisfaction among residential

child care workers: The role of personality resources. *Residential Treatment for Children & Youth*, 30(1), 72-91.