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Kyla Ferguson
Yoga Nidra and Perceived Stress in
Mental Health Clinicians

ABSTRACT

Workplace stress is a prevalent problem among mental health professionals, which has been shown to lead to absenteeism, fatigue, and burnout. This pilot study explored the effects of a *yoga nidra* relaxation practice on stress levels in clinicians working in a community mental health setting. Thirteen clinicians completed the trial, which involved one guided 20-minute yoga nidra practice per week during the workday. Participants were assessed for perceived stress before and after the eight-week trial. Participants reported significantly lowered perceived stress at the end of the study, indicating that yoga nidra may be a useful intervention in managing and preventing workplace stress.

**THE EFFECTS OF A YOGA NIDRA PRACTICE ON MENTAL HEALTH
CLINICIANS' PERCEIVED STRESS**

A project based upon independent investigation,
submitted in partial fulfillment of the requirements
for the degree of Master of Social Work

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2016

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CHAPTER I

Introduction

Workplace stress is a common and well-documented problem (e.g. Maslach & Leiter, 2008; Hanaken & Schaufeli, 2012; McGarrigle & Walsh, 2015). Mental health clinicians, whose work typically entails assisting those struggling with one or more emotional and/or behavioral problems, are particularly vulnerable to the demands of workplace stress due to the nature of this work. Given this, it is not surprising that those working in the mental health field sometimes experience depression, emotional exhaustion and anxiety (Radeke & Mahoney, 2000), as well as decreased job satisfaction (Blegen, 1993), reduced self-esteem (Butler & Constantine, 2005), and loneliness due to workplace stress (Shapiro, Brown, & Biegel, 2007).

Stress in the workplace brought on by these conditions may lead to absenteeism or illness (Maslach & Leiter, 2008). Furthermore, stress may have a negative impact on attention and concentration (Skosnik, Chatterton, & Swisher, 2000) and may impact clinicians' abilities to develop therapeutic relationships with clients (Enochs & Etzbach, 2004; Shapiro et al., 2007).

Ultimately, stress may lead to burnout, a term that denotes emotional exhaustion, depersonalization, and reduced personal accomplishment (Rosenberg & Pace, 2006; Schaufeli, Leiter, & Maslach, 2009). Burnout is currently recognized in the literature and clinical settings as a social problem worthy of attention (Shaufeli et al., 2009). Having emerged in the late 1970s, the concept is now well-documented and accepted as worthy of exploration among scholars and clinicians.

Figley (2002) proposes a concept related to burnout, termed *compassion fatigue*. This term is specific to caregivers, and emphasizes the physical and emotional cost of caring for others. Figley (2002) suggests that compassion fatigue may be related to caregivers' tendencies to disregard their own self-care. Thus, a focus on self-care may be an effective way to mitigate compassion fatigue and burnout.

In recent decades, alternative therapies have received increasing attention in the literature, especially relating to stress reduction (Wolever et al., 2012). Mindfulness and yoga, in particular, have been studied as useful adjunct therapies for both clients and clinicians experiencing stressful states. Mindfulness has roots in the Buddhist tradition dating back 2,500 years. It has historically been viewed as a state of consciousness cultivated through the practice of meditation (Dane, 2011). While the definitions of mindfulness in the academic literature vary, the term can essentially be understood as developing the ability to pay attention to the present moment.

Mindfulness-based Stress Reduction (MBSR) is a secular model of mindfulness practice rooted in Buddhism developed by Jon Kabat-Zinn at the University of Massachusetts. MBSR is designed to teach participants to become more aware of thoughts, feelings, and sensations. Researchers have found that practicing MBSR is connected to a reduction in symptoms of stress, anxiety, and depression (Miller, Fletcher, & Kabat-Zinn, 1995; Shapiro, Schwartz, & Bonner, 1998). There is also evidence that mindfulness practices may be useful in treating psoriasis, chronic pain, and fibromyalgia (Shapiro, Astin, Bishop, & Cordova, 2005).

The practice of yoga is one component of MBSR. Yoga is a system of physical and psychic practice aimed at bringing balance to the physical, mental, emotional, and spiritual dimensions of an individual (Ross & Thomas, 2010). Yoga originated in the Indus Valley

civilization more than 5,000 years ago (Sharma, 2014). As yoga has become increasingly popular in the West, it has been studied in the literature as an effective intervention to manage stress. There is also evidence to support yoga as an effective intervention in treating diabetes, autoimmune disorders, depression, substance abuse, and cardiovascular disease (Hartfiel et al., 2012).

The Present Study: The Effects of a *Yoga Nidra* Practice on Mental Health Clinicians' Perceived Stress

Yoga nidra is a guided meditation-relaxation practice which may have significant effects on stress, and is the focus of the present study. Because yoga nidra has not been widely studied in the academic literature, supporting evidence from other meditation and yoga practices will be used to conceptualize the potential benefits of the practice (Roy, 2000). The practice is simple, systematic, and guided. It can be practiced effectively in as little as ten minutes, or up to an hour. In this study, I hypothesized that a 20-minute yoga nidra intervention, practiced once per week at work for six consecutive weeks, would have a positive effect on workplace stress in mental health clinicians. The aim of this study was to introduce a potential new method of preventing, managing, and treating workplace stress that is accessible, cost-effective, and easily replicable.

CHAPTER II

Literature Review

At age 75, Carl Rogers (1995) wrote, “I have always been better at caring for and looking after others than I have been at caring for myself. But in these later years, I have made progress” (pg. 80). Working in the field of mental health can be tremendously rewarding. However, prolonged exposure to others’ trauma and distress also poses risks (Figley, 1999). Maslach (1986) argues that helping professionals who care for others are at greater risk of stress than other kinds of professions. The emotional involvement necessary in mental health work can be demanding (Hardimann & Simmonds, 2013). Therefore, it is necessary for those in these helping professions to have ways of reducing stress, especially in the workplace. Mind-body interventions have been proposed as one method for managing stress and increasing emotional resilience (Alexander, Rollins, Walker, Wong, & Pennings, 2015; Smith, 2014). Mind-body interventions are generally low-risk, low-cost, and easily adaptable in many settings (Stahl et al., 2015). This chapter will review literature on workplace stress and burnout, focusing on the mental health professions. Mindfulness and yoga will be examined as means of reducing stress. Yoga nidra, the subject of the present study, will be addressed as one method for stress reduction warranting further research.

Stress and Burnout

Stressors are inherent to most jobs (Moore & Cooper, 1996). Prolonged stress can lead to physical, emotional, and organizational costs. The deleterious effects of stress have been well

documented in the literature and are worthy of attention (Sharma, 2014). For example, chronic stress has been shown to have a negative effect on physical health, including links to a weakened immune system and increased disease (Honkonen et al., 2006; Salleh, 2008). Stress has also been correlated with sleep disturbance, neck and back pain (Peterson, Demerouti, Bergström, Samuelsson, Åsberg, & Nygren, 2008), hypertension and cardiovascular disorders (Melamed, Shirom, Toker, Berliner, & Shapira, 2006), and diseases of circulatory and digestive systems (Toppinen-Tanner, Ojajärvi, Väänänen, Kalimo, & Jäppinen, 2005). Stress-related illness is cited as one of the six leading causes of death in the United States (Johnson & Roller, 2008; Stahl et al., 2015).

Stress can also take a toll on mental health (Shapiro, Schwartz, & Bonner, 1998; Selye, 1976; Johnson & Roller, 2008). Stress has been linked to depression and anxiety (Iacovides, Fountoulakis, Kaprinis, & Kaprinis, 2003), drug and alcohol abuse (Barnet et al., 2007; Valient, Sobowale, & McArthur, 1972), and suicide (Felton, 1998; Moore & Cooper, 1998; Shapiro, Schwartz, & Bonner, 1998).

Prolonged exposure to workplace stress can lead to *burnout* (Maslach & Leiter, 2008; Maslach, Schaufeli, & Leiter, 2001; Spickard, Gabbe, & Christensen, 2002; Toker & Biron, 2012). Burnout is defined as a response to chronic or acute stressors within the workplace. This term serves as a metaphor for the draining of energy, needing sources of energy to keep a flame burning over time (Maslach, Schaufeli, & Leiter, 1997).

Freudenberger (1974) was among the first to write about burnout in the context of mental health work. His definition characterized burnout by symptoms of over-commitment, exhaustion, irritation, or rigidity at work. Soon after, Maslach (1976) independently identified a similar phenomenon of feeling emotionally drained due to job stress, which she also referred to as

burnout. Maslach's original definition of burnout applied to human service professionals, but was later expanded to encompass any profession where one's performance is compromised due to stress. Originally considered "pop psychology," the empirical basis for burnout is well documented and substantial in the present literature (Maslach et al., 2001).

Characteristics of burnout include exhaustion, cynicism, and a reduced sense of personal effectiveness or accomplishment (Maslach & Leiter, 2008; Maslach, Jackson, & Leiter, 1997, Maslach *et al.*, 2001). Burnout may also be marked by inefficacy and incompetence at work, perceived clinical ineffectiveness, or a sense of distance from clients or coworkers. It is marked by a sense of feeling "run down" (Felton, 1998; Spickard, Gabbe, & Christensen, 2002).

Compassion fatigue (CF), also referred to as secondary traumatic stress (STS), can be considered a symptom of burnout (Figley, 2002). These terms capture the energetic and emotional cost of caring for other individuals who are suffering. Symptoms of CF sometimes appear similar or identical to those of posttraumatic stress, for example, experiencing the traumatic event in memories or dreams, avoidance or numbing, or hyperarousal (Figley, 1999).

Vicarious traumatization (VT) is similar to CF, and was first introduced by McCann and Pearlman (1990). VT refers to the negative changes that can occur in a mental health worker who is exposed to others' traumatic experiences. This may include changes in one's worldview, frame of reference, ideas, or beliefs, and is the direct result of experiencing another's trauma (Pearlman, 1999). While these concepts are distinct, they each refer to the negative effects a mental health professional can experience when repeatedly exposed to clients' trauma and stress (Bride, Radey, & Figley, 2007). They each describe the stress and exhaustion that can result from experiencing others' traumatic or distressing experiences.

Occupational stress among helping professionals also has social and emotional costs. Stress has been correlated to a decrease in self-esteem (Butler & Constantine, 2005), job satisfaction (Blegen, 1993), and life satisfaction (Hakanen & Schaufeli, 2012). Burnout-related stress has also been linked to depression (Aloha et al., 2005; Radeke & Mahoney, 2000).

It is clear that the negative effects of burnout in the workplace are far-reaching for the individual, organization, and clients served. Stress may reduce the capacity for attention and concentration (Shapiro, Shapiro, & Schwartz, 2000). Burnout is associated with a decrease in motivation to perform well at work and a decrease in work productivity. It may lead workers to take more time off of work. It can cause a decrease in staff morale, increased staff turnover, and ultimately, poorer treatment outcomes (Acker, 1999; Hanaken & Schaufeli, 2012; Lasalvia et al., 2009).

In a profession dependent on forming therapeutic relationships with patients, many have asserted that it is an ethical imperative for mental health professionals to prioritize their own self-care (Barnett, Elman, Baker, & Schoener, 2007; Enochs and Etzbach, 2004). Baker (2003) conceptualizes self-care as encompassing self-awareness, self-regulation, and balancing connections with others. Self-care balances the personal, professional, mental, physical, emotional, and spiritual aspects of a person (McGarrigle & Walsh, 2015). When practiced effectively, self-care practices allow mental health professionals to balance work, rest, and play. Pearlman (1999) suggests that self-care practices should balance the role of the listener, caretaker, or nurturer.

Contemplative practices have been increasingly studied as self-care measures that may prevent stress and burnout (Hardimann & Simmonds, 2013; McGarrigle and Walsh, 2011). Contemplative practices encourage contemplation, awareness, and insight. Awareness has been

found to be one of the most important factors in the well being of psychologists (Coster & Schwebel, 1997). Mindfulness and yoga have been considered in the literature as effective ways to manage stress, and may be especially applicable to mental health clinicians. Evidence base for these practices is reviewed in the remainder of this chapter.

Mindfulness-Based Stress Reduction (MBSR)

Mindfulness is a practice of training awareness. Mindfulness meditation has roots in Buddhism, and is the underpinning of all Buddhist traditions. The cultivation of mindfulness involves “paying attention in a particular way: on purpose, in the present moment, and non-judgmentally” (Kabat-Zinn 1994, p. 4). Meditation practice can be considered a platform for developing mindful awareness, cultivating the intention to focus on the present moment in a nonjudgmental way.

Mindfulness-based interventions (MBIs) are clinical interventions are a rapidly growing field in the medical and psychological literature (Cullen, 2001). MBIs incorporate principles and practices of mindfulness (Kabat-Zinn, 2006). The premise for mindfulness as a stress reduction method is the nonjudgmental attention on the present moment (Hoffman, Sawyer, Witt, & Oh, 2010; Kabat-Zinn, 2003; Shapiro, Carlson, Astin, & Freedman, 2006). Mindfulness has empirically been shown to increase wellbeing and reduce psychological distress (Baer, 2003; Chiesa & Serretti, 2009; Shapiro, Astin, Bishop, & Cordova, 2005, Shapiro, Brown & Biegel, 2007; Virgili, 2015). Researchers have suggested that mindfulness has positive effects on stress and stress-related disorders (e.g. Baer, 2003; Carmody & Baer, 2008; Grossman, Niemann, Schmidt, & Walach, 2004).

Mindfulness-based stress reduction (MBSR) is secular model of mindfulness practice developed by Jon Kabat-Zinn (1992) that focuses on the development of mindful awareness to

reduce stress (Grossman, Niemann, Schmidt, & Walach, 2004). MBSR was developed for medical patients, but is easily adaptable for clinical and non-clinical settings (Shapiro, Brown, and Biegel, 2003). MBSR is a structured 8-10 week program involving meditation, yoga, and interpersonal exercises (Grossman et al., 2004). The program is designed to teach participants to relate to their thoughts, emotions, and body sensations in a non-judgmental way (Shapiro, Astin, Bishop, & Cordova, 2005). MBSR has been widely studied in physically ill patient populations. Research has shown MBSR to have substantial benefits for individuals dealing with chronic pain, fibromyalgia, cancer, anxiety disorders, depression, and stress. MBSR lowers psychological distress associated with disease, and also may reduce somatic symptoms (Bohlmeijer, Prenger, Taal, & Cuijpers, 2010; Grossman, Niemann, Schmidt, & Walach, 2004; Shigaki, Glass, & Schopp, 2006).

Mindfulness-based interventions are receiving increasing attention as a stress reduction method for working professionals. MBSR requires a significant time commitment, however, the program is easily adaptable to workplace settings. In a meta-analysis, Virgili (2015) found that shortened MBI programs were equally as effective as the standard 8-10 MBSR week program. Klatt, Buckworth, & Malarkey (2008) also found that a low-dose, 6-week mindfulness intervention in working adults had significant effects on perceived stress. These results warrant further research and implementation on flexible interventions within the workplace.

Mindfulness-based interventions have been studied widely in helping professionals including teachers (e.g. Gold, Hopper, Herne, Tansey, & Hulland, 2010), nurses (e.g. Cohen-Katz, Wiley, Capauno, Baker, & Shapiro, 2005; Mackenzie, Poulin, & Seidman-Carson, 2006), medical students, and physicians (e.g. Irving, Dobkin, & Park, 2009; Shapiro, Astin, & Bishop,

2010; Shapiro, Schwartz, & Bonner, 1998). These studies have found that mindfulness training is helpful in managing stress and reducing burnout in these helping professions.

MBSR has also been associated with significant declines in stress, negative affect, rumination, and anxiety, and increases in positive affect and self-compassion in psychotherapists in training. It has been suggested that mindfulness is an effective method of preventing compassion fatigue, vicarious traumatization, and burnout in training psychotherapists (Christopher, Christopher, Dunnagan, & Schure, 2006; Christopher & Maris, 2010; Shapiro et al., 2007). One MBSR intervention with female therapists in training found that mindfulness was associated with increased acceptance, increased compassion for self and others, and increased capacity for attention (Dorian & Killebrew, 2014). A study by Grepmaier et al. (2007) found that therapists in training who were practicing meditation had more successful client outcomes measured by symptom reduction than those who were not meditating. In a study on MBSR on healthcare professionals who were presently in practice, an MBSR program resulted in decreased stress and burnout as well as increased self-compassion (Shapiro, Astin, Bishop, and Cordova, 2005).

The literature remains unclear as to how mindfulness compares to relaxation in stress reduction. Chiesa and Serretti (2009) suggest that MBSR has a greater effect than relaxation on stress and decreasing ruminative thinking. However, Virgili (2015) suggests that there is little evidence to support that mindfulness-based interventions are more effective than other interventions, such as yoga or relaxation.

In addition to reducing stress and managing symptoms of burnout, mindfulness may play a significant role in productivity in the workplace. Mindfulness practices may increase work

productivity and task performance. Mindfulness increases intentional capacities and the ability to focus on present-moment phenomena, an occupational value in all fields (Dane, 2011).

Yoga

Yoga has some similarities to mindfulness in that it encourages present-moment, non-judgmental awareness, with a focus on the body and the breath. The practice of yoga is often depicted as a tree with eight “limbs,” or aspects: *yama* (ethics), *niyama* (individual ethics), *pranayama* (breath control), *asana* (posture), *pratyahara* (sense control), *dharana* (concentration), *dhyana* (meditation), and *Samadhi* (bliss) (Iyengar, 1976). Hatha yoga, incorporating primarily asana and pranayama, is most widely studied and practiced in the west. Yoga asana is one component of Mindfulness-Based Stress Reduction, and the most widely studied aspect of yoga in the present literature.

Yoga has been studied as a therapeutic intervention since the early twentieth century. There are numerous schools of Hatha yoga (e.g. Iyengar, Viniyoga, Sivananda, Kundalini, etc.), each of which have a unique emphasis on posture, relaxation, breath, and meditation. The lack of a single systematized approach makes it difficult to compare many studies. This is an important consideration in comparing the research on yoga. Nonetheless, a growing body of research point to the efficacy of yoga as a therapeutic intervention for mental and physical health. Yoga may be effective in treating mental health disorders including depression (Pilkington, Kirkwood, Rampes, & Richardson, 2005; Shapiro, Cook, Davydov, Ottaviani, Leuchter, & Abrams, 2007) as well as anxiety (Kirkwood, Rampes, Tuffrey, Richardson, & Pilkington, 2005; Ross & Thomas, 2010). Yoga has may also be helpful in treating physical ailments including high blood pressure, cancer, menopausal symptoms, chronic pain, and epilepsy (see Bussing, Michalsen, Khalsa, Telles, & Sherman, 2012 for a meta-analysis).

Yoga has been proposed as an effective method for stress management (Eastman-Mueller, Wilson, Jung, Kimura, & Tarrant, 2013; Gard, Brach, Holzel, Noggle, Conboy, & Lazar, 2012; Kiecolt-Glaser, Christian, Preston, Houts, Malarkey, Emery, & Glaser, 2010; Ross & Thomas, 2010; Smith, Hancock, Blake-Mortimer, & Eckert, 2007). In comparison to other forms of exercise, yoga has been found to be of equal or greater significance in reducing stress (Sharma, 2014). In comparison with cognitive behavioral therapy (CBT), yoga has been found equally effective in reducing stress, however CBT decreased mental stress, while yoga decreased physical stress (Granath, Ingvarsson, von Thiele, & Lundberg, 2006). Compared with relaxation, yoga has been found equally effective in reducing stress and anxiety in healthy individuals (Smith, Hancock, Blake-Mortimer, & Eckert, 2007).

Yoga has received increasing attention as an intervention for occupational stress. Yoga may be a useful stress-reduction practice in the workplace as it brings relaxation to the body and mind (Gura, 2002). Wolever et al. (2012) compared mindfulness and yoga as workplace interventions to reduce stress. This study targeted highly stressed employees, and found that both mindfulness and yoga practices were effective in decreasing perceived stress, increasing sleep quality, and increasing balance in the autonomic nervous system measured by heart rate variability (HRV). Another study found increased resiliency, or ability to respond productively to stress or pressure, in working individuals after a six-week yoga intervention (Hartfiel, Havenhand, Khalsa, Clarke, & Krayner, 2011). Yoga has also been suggested as an intervention for stress and back pain at work (Hartfiel, Burton, Rycroft-Malone, Clarke, Havenhand, Khalsa, & Edwards, 2012). Notably, these studies lacked methodological strength. Further, the yoga interventions in each of these studies differed in style, which may preclude effective comparison. Larger, more rigorous studies are needed in this area.

Few studies have looked at yoga as an intervention specifically for workplace stress in mental health professionals, although a link between yoga and decreased stress among mental health professionals has been found in at least one study (Lin, Huang, Shui, and Yeh, 2015). Another study found that yoga may increase self-awareness, balance, and acceptance in practicing psychotherapists (Valente & Marotta, 2005).

Yoga Nidra – Deep Relaxation

Deep relaxation may have substantial benefits on physical and psychological health. The relaxation response, a physiological phenomenon considered to be the opposite of the fight-or-flight stress response, is of increasing interest in the medical field as a preventative and alternative treatment for stress-related disorders. Methods of inducing the relaxation response include some forms of yoga or meditation, progressive muscle relaxation, and stress management training (Rainforth, Schneider, Nidich, Gaylord-King, Salerno, & Anderson, 2008). The Relaxation Response Resiliency Program (3RP) is a standardized, 8-week program incorporating a variety of modalities to increase relaxation and resiliency. In a recent study, Stahl and colleagues (2015) found that a year-long intervention incorporating these various methods to increase the relaxation response, including yoga and meditation, decreased billable medical encounters by 43 percent. In addition to stress, researchers have suggested that relaxation may have positive effects on cardiovascular health (Dusek et al., 2008), chronic pain (Caudill, Schnable, Zuttemzeister, Benson, & Friedman, 1991), and menopausal symptoms (Irvin, Domar, Clark, Zuttemzeister, & Friedman, 1996).

The focus of the literature on the relaxation response is largely medical. However, relaxation has also been suggested as a potential preventative measure for burnout-related stress

(Maslach et al., 2001). Relaxation has been found to be equally effective at reducing stress as MBSR (Chiesa & Serretti, 2009) as well as yoga (Smith et al., 2007).

Yoga nidra is a systematic practice aimed at mental, physical, and emotional relaxation (Singh & Singh, 2010). This practice was developed and standardized by Swami Satyananda Saraswati (1976) (Bhushan & Sinha, 2001). The Sanskrit word *nidra* literally means “sleep”; yoga nidra can be described as a resting or sleeping practice cultivates inner awareness. It is based on the ancient Tantric practice of *nyasa*, in which a mantra is repeated mentally at with concentration at specific parts of the body (Saraswati, 1976). The yogic texts describe a state of consciousness called *turiya*, or the fourth state, which is a state of consciousness beyond waking, sleeping, and dreaming (Saraswati, 1976; Birch & Hargraves, 2015). This state is considered to lead to *Samadhi*, or bliss.

Yoga nidra has received little attention in the academic literature until recently. In the past decade, studies have increased and authors have found significant clinical implications. *Integrative Restoration*, or *iRest*, is a manualized practice based on yoga nidra developed by Richard Miller (2005). This practice has been the most widely studied form of yoga nidra. The present research on yoga nidra suggests that it may have a positive effect on stress, although there have been no studies examining the effect of yoga nidra on stress in mental health clinicians.

iRest was first studied in 2006 in a sample of veterans receiving treatment for PTSD. The results from this pilot study suggested that the practice was effective in increasing sense of calm and decreasing distress, and warranted further research. Since then, a number of studies have looked at the *iRest* practice in veterans experiencing combat stress and PTSD (Pence, Katz, Huffman, & Cojucar, 2014; Stankovic, 2011; Stoller, Greuel, Cimini, Fowler, & Koomar, 2012).

Researchers have reported significant decreased in rage, anxiety, and emotional reactivity (Stankovic, 2011), increased joy and ability to manage stress, and increased sleep (Pence, Katz, Huffman, & Cojucar, 2014).

Yoga nidra may have positive effects in medical patients. Two studies have looked at the effect of yoga nidra on psychological and physiological symptoms associated with menstrual disorders and found significant positive results (Rani, Singh, Singh, & Srivastava, 2012; Singh, Ghildival, Kala, & Srivastava, 2012). A study by Pritchard, Elison, and Birdsall (2009) examined the effects of yoga nidra on perceived stress levels in medical patients with cancer and multiple sclerosis. The authors found the perceived stress was significantly reduced in the 12 participants after the 6-week program.

In a study by Eastman-Mueller, Wilson, Jung, Kimura, and Tarrant (2013), a sample of sixty-six college students participated in an 8-week yoga nidra intervention. Researchers assessed changes in worry and perceived stress. The data suggests that the intervention was helpful in reducing students' worry and stress.

There is evidence to suggest that yoga, meditation, and relaxation have positive effects on stress. The data available suggests that yoga nidra, in particular, is a potentially powerful practice for reducing perceived stress, and particularly trauma-related stress. Research on the subject has included small sample sizes and studies have not been replicated.

CHAPTER III

Methodology

In this study, I examined the effect of a yoga nidra practice on stress levels in mental health clinicians. The research question was: Does the practice of yoga nidra have an effect on perceived stress among mental health clinicians in the workplace? The intervention involved a 20-minute verbally guided yoga nidra relaxation practice. It was offered to clinicians working in a community mental health setting once per week for six consecutive weeks. Participants completed the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), a 10-item measure of stress within the past month, pre- and post-intervention.

Participants

All participants were mental health counselors working in the youth and family branch of a community mental health agency in Seattle, WA, where I was completing my clinical internship. Individuals were recruited within a single agency. This agency serves youth and families struggling with mental health and chemical dependency issues.

Individuals were recruited by word of mouth, posted flyers in the agency, and an email sent to all staff (see Appendix A). The study was also announced in a monthly all-staff meeting. Inclusion criteria for participants included a minimum of a Master's degree in a mental health profession, including social work, psychology, or a related field. Initially, clinical criteria included working at least fifteen hours of direct service with clients per week. However, requirements were changed with approval from the Human Subjects Review committee to

consider individuals who were working at least eight hours of direct service per week, in order to include more participants in the study. Individuals were required to have at least one year of experience of direct service with clients. Finally, individuals were only included if they could commit to attending each of the six consecutive sessions offered. After the study began, I added two additional sessions to accommodate for missing sessions. I included anyone who was able to attend six out of the eight sessions offered.

Individuals responded in person or by email to report their interest in the study. Interested individuals were assessed for eligibility and given details about the requirements of the study, including the six-week time commitment. Individuals were provided with general information about the study and contact information for the researcher.

A total of 13 eligible individuals signed up for the study. One non-clinical staff member chose to participate in the study, but was not included in the analysis. Participants' mental health degrees included Master of Social Work (MSW), Master of Education (MEd), Marriage and Family Therapist (MFT), Master of Arts (MA), and PhD in Psychology.

Table 3.1

Clinical degrees of participants

	<u>Female</u>	<u>Male</u>	<u>Total</u>
MSW	2	3	5
MEd	0	1	1
MFT	2	0	2
MA	4	0	4
PhD	1	0	1

Procedure

The intervention began in February 2016. The study took place in a conference room in the agency. Participants were asked to bring yoga mats, as well as blankets or pillows to increase comfort while lying down. For those that did not bring their own, yoga mats were also provided by the agency.

Participants completed informed consent forms (Appendix B) and a demographics questionnaire. Subjects used the last four digits of their Social Security Number to match demographics, pre-test, and post-test while maintaining anonymity.

Participants were asked to complete a baseline assessment using the Perceived Stress Scale (PSS-10; Cohen et al., 1983). The PSS-10 is a widely used 10-item scale used to measure the degree to which events in one's life have been stressful, overwhelming, and unpredictable in the past month on a 0-4 Likert scale. (See Appendix C for scale.) It measures the perceived experience of stress, rather than objective variables that may contribute to increased stress. Participants were not asked about events in their life which may have contributed to stress, but rather the perceived experience of stress in the last month. The PSS has been measured and tested effectively for reliability and validity (Cohen et al., 1983).

During the yoga nidra practice, participants were encouraged to make themselves as comfortable as possible lying on the floor. Lights were off, although the room was not dark; there was sufficient ambient light to see everyone in the room. Participants were asked to keep eyes closed throughout the practice.

I guided participants through the yoga nidra practice following the same script each week (Appendix D). The script was based on the teachings of Swami Satyananda Saraswati (2003), and my personal training with Patty Townsend from 2006 to 2015 in Amherst, MA

(Embodiyoga). The practice includes six stages: (1) preparation, (2) *sankalpa* or resolve, (3) rotation of awareness, (4) breath awareness, (5) visualization, (6) repetition of *sankalpa*, and ending the practice.

Yoga nidra can last anywhere from 20 to 60 minutes. See Appendix E for an example session. This practice was designed to last 20 minutes in order to fit into the workday. The focus of the practice the detailed body scan. I guided participants through awareness of different body parts and they were asked to mentally follow along. The body scan is intended to move quickly enough that participants are not thinking about other things; they were instructed to listen to the sound of my voice and mentally feel each body part. The body scan is considered the heart of the yoga nidra practice (Saraswati, 2003). Throughout the verbally guided practice, individuals were instructed to relax the body and mind while remaining awake and alert. The yoga nidra practice also included breath awareness at the navel, chest, and throat, and visualization of the room.

In addition to the weekly practice, individuals were provided with a link to a recording of the yoga nidra practice used each week. I recorded the script used and uploaded the audio file to YouTube. There was a picture of a sunset in the visual, but the practice is intended to be strictly auditory. Participants were encouraged to practice at home daily in a quiet environment that was relatively free of distraction.

After the first session, one participant formally withdrew from the study due to a time conflict. One participant did not formally withdraw, however only attended two sessions. Eleven participants completed the study.

All 13 participants provided post-test data, including those who did not complete the study. The post-test measure was identical to the pre-test measure. Paired t-tests were used to

determine whether there was a difference in stress levels before and after the intervention. No narrative data were formally obtained.

CHAPTER IV

Results

In this study, I assessed the effect of a weekly yoga nidra practice on perceived stress levels in mental health clinicians by analyzing measures of perceived stress, pre-and post-trial. Analysis of the pre- and post-test data demonstrated a significant reduction in stress levels.

Thirteen eligible participants signed up for the study. All participants were employed in the youth and family branch of a community mental health agency in Seattle, WA. Nine were female (69.2%) and four were male (30.8%). Three identified as African American or Black (30.8%), one as Asian/Pacific Islander (7.7%), seven as Caucasian or White (53.9%), and one as mixed race (7.7%). All individuals were between the ages of 30 and 64, with a mean age of 43.3 ($SD = 11.7$). Years of clinical experience ranged from 2 to 40, with a mean of 12.1 ($SD = 12.77$) years of experience. Participants' hours of direct service weekly ranged from 8 to 40, with a mean of 19.2 ($SD = 9.91$) hours.

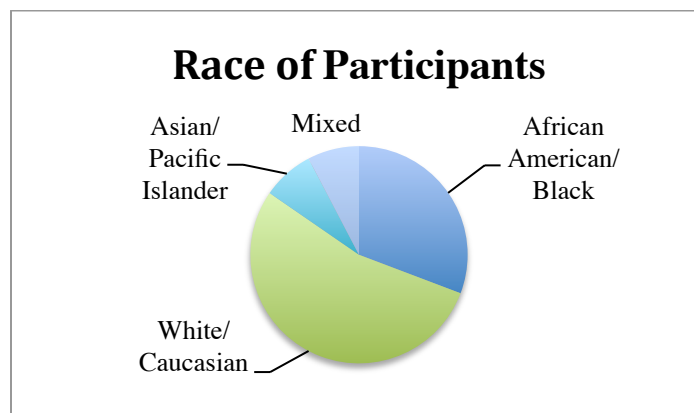


Figure 4.1 Race of participants

Eleven participants completed the study. As seen in Figure 4.3, the mean stress level of the participants was tested with the Perceived Stress Scale (Cohen, Karmarck & Mermelstein, 1983), with a higher score indicating a greater amount of perceived stress. A paired t-test was used to test the difference in perceived stress level before ($M = 19$, $SD = 5.66$) and after ($M = 13$, $SD = 5.23$) the intervention. A significant difference was found between the two groups ($t(10) = 4.34$, $p = .001$). These findings supported the hypothesis that yoga nidra would decrease perceived stress levels among mental health clinicians.

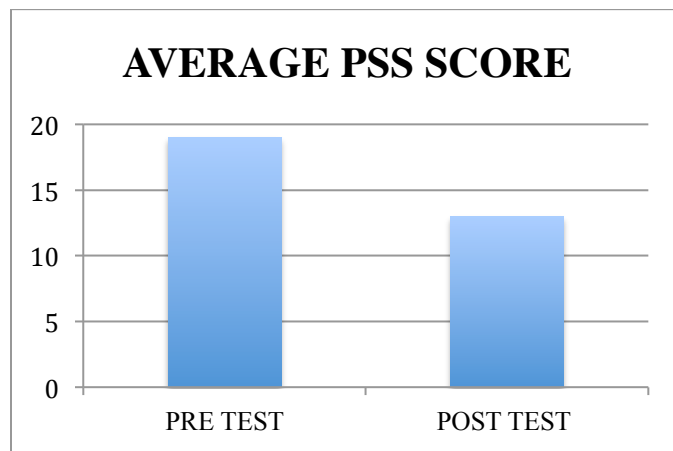


Figure 4.3 Average Perceived Stress Scale Score

While participants were encouraged to practice on their own daily, the post-test reports identified that individuals practiced between 0 and 2 times per week, with a mean of 0.94.

A greater decrease was found among female participants than male participants; of the three male participants, one increased, one decreased, and one stayed the same on the post-test. Gender was the only variable found to have a significant effect on stress scores. Race, years of practice, type of training, or amount of direct service were not found to have a significant effect. The following figure shows mean pre- and post-test scores for men and women participants.

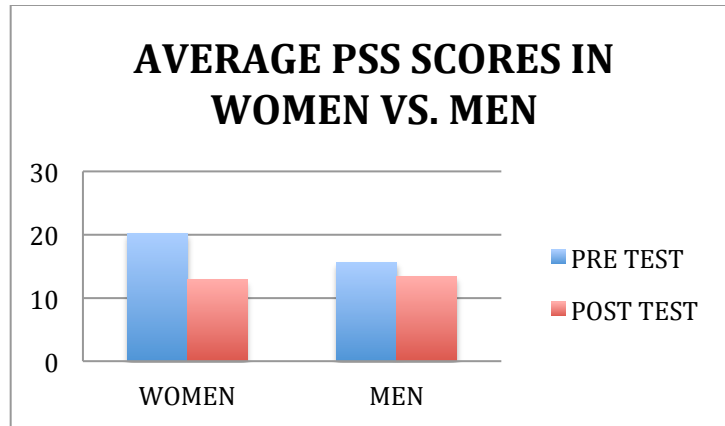


Figure 4.4 Average Perceived Stress Scale score in women vs. men

CHAPTER V

Discussion

The aim of the present study was to explore the effect of a yoga nidra practice on the perceived stress levels of mental health clinicians. Mental health professionals are subject to job-related stress due to the nature of the work (Maslach, 1986). Self-care and relaxation practices have been found by many researchers to be helpful in increasing occupational wellbeing and competency (Gura, 2002; Hartfiel, Havenhand, Khalsa, Clarke, & Krayner, 2011; Virgili, 2015), as well as individual health (Stahl et al., 2015). In this pilot study I found that a weekly yoga nidra practice resulted in lowered self-reported stress levels in mental health clinicians. These findings were consistent with the findings of previous research, suggesting that relaxation and meditation may have a positive impact on stress (Klatt, Buckworth, & Malarkey, 2008; Shapiro, Astin, Bishop, & Cordova, 2005; Hartfiel et al., 2012). While there is robust research supporting the effectiveness of yoga and meditation on stress in general, the practice of yoga nidra with mental health clinicians is a new area of study.

Review of Findings

The results of this pilot study showed that the six-week yoga nidra intervention had a significant impact on perceived stress levels in the participants. Among the 11 participants who completed the study, a significant proportion reported less perceived stress after the intervention. Of the two participants that dropped out of the yoga practice, one reported increased stress, and

one reported decreased stress at the end of the 8-week period. Demographic factors such as age, years of practice, and hours of practice per week showed no conclusive pattern.

The majority of participants in this study were female. This is consistent with samples in most of the literature (see Virgili, 2015 for a meta-analysis). This may be because the mental health profession is predominantly female. According to a 2015 survey by the Bureau of Labor Statistics, 83.8 percent of social workers were female. Additionally, more women than men practice yoga (Cramer, Ward, Steel, Lauche, Dobos-Gustav, & Zhang, 2016). The majority of research on yoga for clinical populations has been in White, middle-aged women (Wren, Wright, Carson, & Keefe, 2011). It is possible that females have more of an interest in yoga, mindfulness, and self-care practices, and have therefore have voluntarily participated in research more than men.

There was a marked difference between male and female participants' scores in this study. Every female participant's score decreased after the intervention. Of the three male participants, one reported increased stress, one reported decreased stress, and one remained the same. Due to the small sample size, it is not possible to generalize these results, and larger-scale research is necessary in order to determine whether this finding would be replicated. However, I suspect that there are three possible reasons for this finding. First, it is possible that the women in the study were more invested in the practice for self-care, and expected it to yield greater results. Previous researchers have found that women tend to engage in more career-sustaining or self-care behaviors than men (Rupert & Kent, 2007; Mahoney, 1997). Women may value self-care practices more than men, which may lead to better outcomes. Women also tend to value self-awareness more than men (Rupert & Kent, 2007). Perhaps a greater investment in self-care practices led women to reap greater benefits from the practice.

A second reason for the difference in results by gender is that the quality of burnout may differ in women and men. Burnout is generally characterized by three components: emotional exhaustion, depersonalization, and inefficacy. Researchers have found that women tend to experience emotional exhaustion as the primary quality of burnout, while men tend to experience depersonalization or cynicism (Matud, 2004; Purvanova & Muros, 2010). As a relaxation practice, it is possible that yoga nidra was more effective at targeting those who were affected by exhaustion, rather than depersonalization.

And finally, as noted, women tend to have more experience with yoga, which may have made the practice more effective. For those who have already had a yoga practice, the benefits of participating in the current study might have been achieved more easily or quickly due to prior experience. It is possible that relaxation is a technique which must be overlearned for efficacy; prior yoga and meditation experience may have supported the efficacy of the practice. Also, given yoga's popularity among women, it is logical that women in the study who had never practiced yoga were more likely than the men to have other women in their social networks who reported benefitting from a yoga practice, and they may have expected it to be more effective. Thus, experience with similar techniques and expectations of benefits may have contributed to the difference among men and women's scores.

The pre-test data collected supported the findings of Cohen (1994), who found that mental health professionals have a higher stress level than the average population. In a sample of 750 adults between the ages of 30 and 44 in an average population, Cohen (1994) found that the mean score for the PSS-10 was 13.0 ($N = 750$; $S.D. = 6.2$). In this study, in which the average age was 43.3, the mean pre-test score was 19. Evidence of the efficacy of the intervention was

that the mean post-test score was 13. Thus, the intervention brought participants' higher-than-average scores down to an average score.

Study Strengths

This intervention was designed to be simple, so that clinicians would realistically be able to fit it into their work schedules. The practice was relatively short, and it was offered in the middle of the workday after a clinical meeting. Individuals were not required to greatly rearrange their schedule in order to participate, nor were they required to come into work early or stay late.

The compliance rate was relatively high for the study (84.6%), with all except two participants completing the intervention. This is consistent with attrition rates in MBSR interventions (Shapiro, Schwartz, & Bonner, 1998; Shapiro, Astin, Bishop, & Cordova, 2005) as well as yoga interventions (Hartfiel et al., 2012).

Study Limitations

Limitations of this study should be considered with regard to the present findings. This was a small-scale pilot study. The small sample size greatly limited the generalizability of this study. Additionally, the study lacked a control group. While the two participants who dropped out of the study provided post-test data to compare with those who completed, this was not control data.

As this was a voluntary study, self-selection bias may have had an impact on findings. Individuals who signed up may have had some interest in reducing stress. Participants were not asked about previous interest in or experience with yoga or meditation; however, this could have affected the efficacy of the practice.

In this study, I was the researcher as well as the instructor. While my relationships with participants were collegial, having a dual relationship to the agency and staff members may have

affected who chose to participate. Alternatively, if I had not been affiliated with the agency, individuals may have been less inclined to participate.

Another limitation of this study is that participants in this study were not asked about external variables that may have affected stress levels. Participants were not asked about their regular self-care practices, nor were they asked whether any significant life events occurred during the study. There are many potentially confounding variables that were not accounted for in this study. For example, a participant may have experienced the death of a loved one or the birth of a child during the course of this study. Such factors could greatly impact one's experience of perceived stress, and was not accounted for in the data collected. Future research should more comprehensively examine these variables.

A final limitation of this study is the nature of self-report. The only data collected was perceived stress, a subjective measure. Because stress is a subjective experience, this measure was appropriate. However, physiological measures of stress such as cortisol levels or blood pressure may have provided more comprehensive objective data.

Future Directions

The results of this study suggest that a regular weekly yoga nidra practice may help to reduce stress. More research is necessary to support this hypothesis. Informally, participants shared anecdotal data regarding the benefits they experienced, including improved sleep and mood. This study did not examine how the practice affected participants' experience. Qualitative analysis would provide more comprehensive data regarding the effects of this practice.

The existing literature and the results of the present study suggest that mindfulness, yoga, and relaxation practices have significant implications for reducing stress levels. However, these practices have ancient roots and practice methods vary greatly. In a review of yoga therapies by

Ross and Thomas (2010), it was found that each of the 12 studies utilized a different combination of breathwork (*pranayama*), vigorous posture (*asana*), restorative posture, and meditation. Because the scope of these practices is variable and vast, it is difficult to effectively compare. Yoga nidra is unique in that it is largely scripted and systematic. Further study in this area could add a useful body of research to the field of stress reduction.

The focus of this study was on perceived stress levels. It is clear from the literature that experiencing high stress over a prolonged period of time may lead to burnout, absenteeism, depression, anxiety, and medical issues (e.g., Maslach & Leiter, 2008). Further research could focus on any number of these factors. Additionally, it would be useful to examine the effects that may be gained from the practice of yoga nidra, such as resilience, self-awareness, or overall wellbeing.

This study was designed to be completed in eight weeks, primarily due to time constraints of the researcher. More longitudinal research would be important to determine whether there are long-term effects of yoga nidra. Furthermore, future research could examine how stress levels change immediately after the practice, and how long the effects of the practice last.

Participants in this study were given access to a recording of the practice to be used at home. However, most of the participants did not report regular home practice. The study may have had more significant effects if participants were more strongly encouraged to practice at home and keep a log of practice. Future research could examine how home practice might augment the effects of the practice, compared with a control. Variations of home self-care practices could also be offered.

While yoga nidra can be learned and practiced from an audio recording, it is necessary to have a qualified and knowledgeable teacher. This may not be accessible in every setting, particularly in community mental health settings. With future research to support the findings of this study, perhaps training programs could focus on yoga nidra practices adapted to workplace settings for mental health professionals.

Considering current research and interest in the field of neurobiology, future research could also examine the neurophysiological effects of yoga nidra. Future research could explore the neurophysiological effects of yoga nidra, which may differ from the effects of yoga asana or meditation.

Implications for Social Work Practice

Yoga nidra is a simple method of stress reduction and may have significant implications. The mental health profession is inherently emotionally demanding. Self-care and stress reduction practices are necessary in the workplace. Yoga nidra and other self-practices have the potential to change the field of mental health dramatically. Offering clinicians regular yoga nidra instruction could have a significant impact on their stress and burnout levels.

Further, implementing stress reduction practices for mental health clinicians has the potential to improve client outcomes. Clinicians who are less stressed and burned out may be able to connect with clients in a more effective way, leading to enhanced therapeutic outcomes.

Yoga nidra and stress reduction practices could also be integrated into training for social work students and other mental health professions. If clinical training prioritizes and integrates such practices, students could bring these skills to future workplaces. This may have a significant impact on burnout, retention rates, absenteeism, and health of clinicians.

Conclusion

This research explored the effects of a yoga nidra practice on mental health clinicians' perceived stress. The results of this study offer data to support the growing body of research on the benefits of meditation and yoga practices. Yoga nidra has not been extensively studied and may have significant implications in this emerging field. The preliminary findings of this study conclusively support the need for further longitudinal and more rigorous research on this simple yet promising intervention for occupational stress and professional burnout.

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Appendix A

Smith College HSR Approval Letter



School for Social Work

Smith College
Northampton, Massachusetts 01063
T (413) 585-7950 F (413) 585-7994

January 8, 2016

Kyla Ferguson

Dear Kyla,

You did a very nice job on your revisions. Your project is now approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Congratulations and our best wishes on your interesting study.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.
Co-Chair, Human Subjects Review Committee
CC: Adam Brown, Research Advisor

Appendix B

HSR Protocol Change Form



2015-2016
RESEARCH PROJECT PROTOCOL CHANGE FORM
Smith College School for Social Work

You are presently the researcher on the following approved research project by the Human Subjects Committee (HSR) of Smith College School for Social Work:

The Effects of a Yoga Nidra Practice on Mental Health Clinicians' Perceived Stress
Kyla Ferguson
Advisor: Adam Brown

I am requesting changes to the study protocols, as they were originally approved by the HSR Committee of Smith College School for Social Work. These changes are as follows:

I am requesting to change the eligibility criteria of participants. In the initial application, I had specified a minimum of 15 hours of direct service hours per week for eligible clinicians. I would like to change this to a minimum of 8 hours.
There are at least two PsyD interns who are interested in the study, but do not meet the minimum of 15 hours on their caseload. Their participation in the study would be very valuable, as it would allow my sample size to be larger and increase validity of the study.

- I understand that these proposed changes in protocol will be reviewed by the Committee.
I also understand that any proposed changes in protocol being requested in this form cannot be implemented until they have been fully approved by the HSR Committee.
I have discussed these changes with my Research Advisor and he/she has approved them.

Your signature below indicates that you have read and understood the information provided above.

Signature of Researcher: Kyla Ferguson

Name of Researcher (PLEASE PRINT): Kyla Ferguson

Date: 1/22/16

PLEASE RETURN THIS SIGNED & COMPLETED FORM TO Laura Wyman at LWyman@smith.edu or to Lilly Hall Room 115.

***Include your Research Advisor/Doctoral Committee Chair in the 'cc'. Once the Advisor/Chair writes acknowledging and approving this change, the Committee review will be initiated.

Appendix C

Informed Consent Document



SMITH COLLEGE

2015-2016

Consent to Participate in a Research Study
Smith College School for Social Work • Northampton, MA

.....

Title of Study: The Effects of a *Yoga Nidra* Practice on Mental Health Clinicians’ Perceived Stress

**Kyla Ferguson □ Smith College School for Social Work □ XXX-XXX-XXXX
XXXXX@smith.edu**

.....

Dear Participant,

My name is Kyla Ferguson. I am a graduate student at Smith College School for Social Work.

Introduction

- You are being asked to be in a research study involving a yoga-relaxation practice and perceived stress.
- You were selected as a possible participant because you are a practicing mental health clinician.
- We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

Purpose of Study

- The purpose of the study is to determine whether yoga nidra has an effect on perceived stress levels.
- This study is being conducted as a research requirement for my master’s in social work degree.
- Ultimately, this research may be published or presented at professional conferences.

Description of the Study Procedures

- If you agree to be in this study, you will be asked to participate in a guided relaxation practice, once per week for six consecutive weeks. The practice will last 20 minutes each week. In addition, you will be given an audio recording and asked to practice at least once

per week at home. You will also be asked to complete a simple survey about perceived stress two times, at the beginning and end of the six weeks.

Risks/Discomforts of Being in this Study

- There are no reasonable foreseeable (or expected) risks.

Benefits of Being in the Study

- The benefits of participation include the potential for decreased stress and increased relaxation. In addition, you will have the tools to continue this practice following the duration on the study.

Confidentiality

- Your participation will be kept confidential. This will be a group study, and others participants and staff members in the agency may know that you are a participant. The group will meet in a private room in the YFS building. The records of this study will be kept strictly confidential
- All research materials including surveys, analyses and consent/assent documents will be stored in a secure location for three years according to federal regulations. In the event that materials are needed beyond this period, they will be kept secured until no longer needed, and then destroyed. All electronically stored data will be password protected during the storage period. We will not include any information in any report we may publish that would make it possible to identify you.

Payments/gift

- You will not receive any financial payment for your participation.

Right to Refuse or Withdraw

- The decision to participate in this study is entirely up to you. You may refuse to take part in the study *at any time* without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely at any time.

Right to Ask Questions and Report Concerns

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Kyla Ferguson at XXXXX@smith.edu or by telephone at XXX-XXX-XXXX. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

Consent

- Your signature below indicates that you have decided to volunteer as a research participant for this study, and that you have read and understood the information provided above. You will be given a signed and dated copy of this form to keep.

.....

Name of Participant (print): _____

Signature of Participant: _____ Date: _____

Signature of Researcher(s): _____ Date: _____

Appendix D

Recruitment Flyer

Smith College School for Social Work--Masters Thesis

“The Effect of Yoga Nidra on Perceived Stress at Work”

Participants Needed for a Research Study

This study is part of a Masters Thesis Project for Smith College School for Social Work.

The study will examine the practice of Yoga Nidra—often translated as “yogic sleep”—on stress levels in mental health clinicians.

The study will involve 20-minute guided relaxation sessions, once per week for six weeks. There will be no movement or yoga poses involved. Audio recordings will also be provided for daily home practice.

Stress evaluations will be taken before and after the 6-week series. All data will be kept confidential.

Should you decide to participate in this study, it is asked that you are available for every session.

Classes will take place in the conference room at YFS.

Sessions will be held Tuesdays, 2:30-3:00 pm. Dates to be determined.

Participants should be mental health clinicians with at least a master’s degree, practicing at least 8 direct service hours per week.

Excluded from this study are clinicians who cannot meet for the yoga class on Tuesdays from 2:30 to 3pm over a consecutive a six-week period.

For more information and to sign up, please contact:

Kyla Ferguson

xxx-xxx-xxxx

THS ext. xxx

This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC)

Appendix E

Perceived Stress Scale

The following questions ask about your feelings and thoughts during THE PAST MONTH. In each question, you will be asked HOW OFTEN you felt or thought a certain way. Although some of the questions are similar, there are small differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the exact number of times you felt a particular way, but tell me the answer that in general seems the best. For each statement, please tell me if you have had these thoughts or feelings: never, almost never, sometimes, fairly often, or very often. (Read all answer choices each time)

0 = Never 1 = Almost Never 2 = Sometimes 3 = Fairly Often 4 = Very Often

1. In the past month, how often have you been upset because of something that happened unexpectedly?
2. In the past month, how often have you felt unable to control the important things in your life?
3. In the past month, how often have you felt nervous or stressed?
4. In the past month, how often have you felt confident in your ability to handle personal problems?
5. In the past month, how often have you felt that things were going your way?
6. In the past month, how often have you found that you could not cope with all the things you had to do?
7. In the past month, how often have you been able to control irritations in your life?
8. In the past month how often have you felt that you were on top of things?
9. In the past month, how often have you been angry because of things that happened that were outside of your control?
10. In the past month, how often have you felt that difficulties were piling up so high that you could not overcome them?

Perceived Stress Scale Scoring: Each item is rated on a 5-point scale ranging from never (0) to almost always (4). Positively worded items are reverse scored, and the ratings are summed, with higher scores indicating more perceived stress. PSS-10 scores are obtained by reversing the scores on the four positive items: For example, 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4, 5, 7, and 8 are the positively stated items.

Appendix F

Yoga Nidra Transcript

Prepare yourself now for the practice of yoga nidra.

Begin by lying down, with your feet slightly apart, palms facing up. Gently close your eyes. Adjust your blanket and clothing so you are completely comfortable. It is important in this practice to be completely comfortable. Once you are comfortable, you will remain still for the entire practice. You may move if you need to adjust to be more comfortable. Otherwise, we will remain still, lying on the floor, for the whole practice.

Take a deep breath in, and as you exhale, allow your entire body to melt down into the floor, completely relaxed. In this practice, all you need to do is listen, and feel. Stay alert and awake, but allow yourself to be completely relaxed.

Breathe in. As you breathe out, sink deeper into the floor, deeper into relaxation. Breathing in again, and as you breathe out, feel relaxation spreading throughout the body. Completely relaxed, but alert and awake.

Scan the body for places of tension or discomfort. Make any adjustments now so you can be completely comfortable.

Now we will begin the practice of yoga nidra.

Become aware of sounds. Hear the sounds as far in the distance as you can hear. Allow your awareness to move from sound to sound. Imagine your awareness like a laser pointer, focused on only one sound at a time. It is not necessary to identify the sound. Simply hear the sounds that enter your awareness.

Now, hear the sounds within this room... Hear the sounds in your part of the room... Hear the sounds in your own body... Hear the sounds, and know that you are able to hear them.

Begin to develop an internal awareness of the room, visualizing 4 walls of this room, ceiling, floor, your own body lying on the floor in this room. Feel the places in which your body is in contact with the floor. Allow the back of the body to yield deeply into the floor. Relaxing deeply, and remaining alert and awake.

Now become aware of your breath, moving naturally through the body, in and out. Feel the belly gently rise and fall with the breath. You don't need to change the breath; simply feel the natural rhythm, observing the breath simply as it is. Breathing in, and as you exhale, allow your body to relax more deeply into the earth.

Now, we will create a *sankalpa*, or resolve. The resolve should be simple, only a few words. A positive phrase or wish, an intention or resolve for your practice or for your life. It should be simple and concise. Repeat your *sankalpa* 3 times to yourself.

Now we'll begin to rotate awareness throughout the body. Listen and feel, nothing more. Allow your awareness to move with my voice. We will move quickly through the body. All you need to do is follow with your awareness. As I name a body part, feel the body part, see it clearly in your mind's eye. Let it be relaxed. We will begin now.

Feel your right hand thumb, first finger, second finger, third finger, fourth finger, four fingers and thumb together, palm, back of hand, right wrist, lower arm, elbow, upper arm, right shoulder, right armpit, right chest, right side waist, right hip, right upper leg, knee, lower leg, ankle, heel, top of foot, sole of foot, right big toe, second toe, third toe, fourth toe, fifth toe, five toes together. Whole right side of body. Whole right side.

Now the left side of the body. Left hand thumb, first finger, second finger, third, fourth, four fingers and thumb together, palm, back of hand, wrist, lower arm, elbow, upper arm, left shoulder, left armpit, left side chest, left side waist, hip, upper leg, knee, lower leg, ankle, heel, top of foot, sole of foot, left big toe, second toe, third toe, fourth toe, fifth toe, five toes together, whole left side of body. Whole left side.

Now bring your awareness to the back of the body. Right lower back, left lower back, right shoulder blade, left shoulder blade, spinal cord, neck, back of head, top of head, whole back, whole back body.

Bring your awareness to the front. The forehead, the forehead, the forehead. Right temple, left temple, right ear, left ear, right eyebrow, left eyebrow, space between the eyebrows, right eye, left eye, bridge of the nose, right nostril, left nostril, tip of the nose, right cheek, left cheek, upper lip, lower lip, chin, throat, right collarbone, left collarbone, right side of chest, left side of chest, center of chest, navel, abdomen, whole front, whole front of body.

Feel your entire body. Complete awareness of the entire body, the entire body, the entire body. Relax the entire body completely.

Now observe the breath. Feel the flow of the breath in the body. Feel the breath in the nostrils. Feel the coolness of the breath within the nostrils. Feel the breath in the back of the mouth, above the throat.

Feel the breath in the chest.

Feel the breath in the belly, just behind the navel belly button.

Feel the breath in the entire body, from the abdomen to the nostrils, body receiving the breath.

Take a deep inhale, and feel the energizing quality of the in breath. Come back to the sounds that you hear.

Now, gradually bring your attention back to the environment. Envision the room around you. The walls, the ceiling, the floor. Visualize your body lying on the floor in this room. Feel the back body, touching the floor. Visualize the heels, calves, the whole back, back of the head.

Come back to your sankalpa, or resolve, that you created at the beginning of the practice. Again, repeat it to yourself three times.

Take another deep and energizing breath in. Feel the tips of the fingers and the toes. Begin to slowly move them, not disturbing the sense of rest and relaxation that we've just cultivated. Bring movement back into your fingers and toes, arms, head, stretching, slowly, taking your time. Keeping eyes closed, gently sit up. This is the end of the practice of yoga nidra. The practice of yoga nidra is over. Take your time transitioning, being careful not to disturb any of this sense of relaxation.