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## The Effect of Jyoti Meditation on Student Counselor Emotional Intelligence, Stress, and Daily Spiritual Experiences

Daniel Gutierrez  
*University of Central Florida*

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THE EFFECT OF JYOTI MEDITATION ON STUDENT COUNSELOR EMOTIONAL  
INTELLIGENCE, STRESS AND DAILY SPIRITUAL EXPERIENCES

by

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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy  
in the College of Education and Human Performance  
at the University of Central Florida  
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## ABSTRACT

Previous research has found meditation to be effective in reducing practitioner stress, improving emotional functioning, and increasing pro-social emotions, such as empathy and compassion. In addition, research examining the effects of meditation on student counselors has shown that it increases counselor self-efficacy, reduces distress, and increases cognitive empathy. Therefore, it behooves counselor educators to discover methods of integrating meditation into counselor training.

The meditation practice investigated in the current study is new to the counseling and psychology literature. The majority of the current research has examined transcendental and mindfulness-based practices. However, recent research has shown that spirituality has the ability to potentiate meditation. Jyoti mediation (JM), the practice used in this study, is a spiritually based practice used for spiritual and personal growth for over 500 years. This study examined whether student counselors, after participating in a JM group, would have a significantly different level of emotional intelligence, stress and daily spiritual experiences than a comparison group who received a psycho-educational curriculum. Moreover, I investigated if the frequency of meditation related to the treatment outcomes.

I conducted a six week randomized controlled trial where participants ( $n = 60$ ) completed self-report assessments on the first, third and sixth week of the intervention. In addition, the participants in the meditation condition were asked to complete a daily journal reporting their experiences with the meditation treatment and their frequency of

practice. Participants were required to meditate once a week in the group, and requested to meditate at least ten additional minutes each day.

In order to analyze the data, I conducted a repeated measures multivariate analysis of variance (RM-MANOVA). The RM-MANOVA revealed no significant difference between the two groups. However, because the range of time spent meditating was so wide, I conducted a second RM-MANOVA using only participants that meditated in group and an additional 60 minutes over the six weeks. The second RM-MANOVA approached significance in the main effects ( $p = .06$ ); and revealed a significant univariate between group effect for stress. Likewise, I conducted two Pearson moment correlations to investigate the relationship between the study outcomes and meditation frequency. The first correlation revealed no significant relationship between meditation frequency and any of the independent. However, the second correlational analysis revealed a significant relationship between stress and meditation frequency. Also, both correlational analyses revealed a significant relationship between stress and emotional intelligence.

In order to gain a better understanding of how the independent variables effected stress over time, I conducted a growth curve analysis (GCA). I used PROC Mixed in SAS and nested the measurement points into each individual. The GCA revealed significant non-trivial variance between individuals at initial status. In addition, the GCA revealed that emotional intelligence accounted for 27% of that variance, and when controlling for emotional intelligence there is a significant interaction between time and group. The implications and limitations of these findings are discussed.

For Delania, Jessica, and the next one...

...because I want you to know *it's* possible

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## **CHAPTER ONE: INTRODUCTION**

Shapiro (1982) defines meditation as a family of practices intended to focus one's attention in a non-analytical way. Meditation's origins rest in spiritual and religious practices; however, social science research on meditation has shown it effective in improving physical and mental health (McGee, 2008; Ospina et al., 2007; Sedlmier et al., 2012). Meditative practices vary, but most include the self-regulation of attention, increasing awareness, mental silence, and a decrease in psychophysiological arousal (Bond et al., 2009). Overall, meditation techniques help practitioners decrease their stress response (Goleman & Schwarz, 1976), cope with distress (Kabat-Zinn, 2003), reduce negative emotion, and produce positive emotions (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). Because of these therapeutic benefits, researchers have developed multiple, empirically supported, treatment protocols that incorporate meditation, which include but are not limited to: Mindfulness-Based Stress Reeducation (Kabat-Zinn, 1990), Acceptance and Commitment Therapy (Hayes et al., 2006), and Dialectical Behavioral Therapy (Linehan, & Dawkins, 1995). In short, counseling clients who meditate experience therapeutic benefits (Sedlmier et al., 2012).

### **Benefits of Meditation for Counselors**

Meditation also has benefits for counselors ( see Geschwind, Peeters, Drukker, Os, & Wichers, 2011; Greason & Cashwell, 2009; Leppma, 2011). Greason and Cashwell (2009) reported that training in mindfulness meditation increased student attention, awareness, and counselor self-efficacy. In addition, Leppma (2012) found

Loving-Kindness Meditation to be effective in increasing student counselors' cognitive empathy (Leppma, 2011). Moreover, meditation can help counselors exhibit more compassionate helping behaviors (Kemeny et al., 2012), as well as increasing student counselors' self-care and psychological wellbeing (Leppma, 2011; Roach & Young, 2007; Shapiro, Brown, & Biegel, 2007). Therefore, counselor educators could use meditation as a potentially effective technique for preparing student counselors.

### **Types of Meditation**

Although there are dozens of meditation techniques, (Goleman, 1988) the majority of the literature focuses on two types: (a) Transcendental Meditation, and (b) Mindfulness Meditation (Ospina et al., 2007; Sedlmier et al., 2012). Other types of meditation, such as those found in Christian Hesychasm, Yoga, and Sufism rarely appear in the literature, and, yet have lengthy and rich spiritual traditions that may prove to have therapeutic benefits (Goleman, 1988). The difficulty in researching these practices may be due to the challenge of standardizing the practices enough for outcome research (Ospina et al., 2007) and extracting them from their religious traditions. Thus, researchers may gravitate to the commonly used practices and leave other forms of meditation untried and untested.

It is also difficult to categorize meditation practices due to their multiple overlapping features. For example, Transcendental Meditation includes a mantra (i.e., a point of concentration) and an emphasis on the awareness of the present moment (i.e., mindfulness). Scholars have used several groupings to classify practices, including

classifying practices by their type of attention (i.e., focused or receptive), their use of cognition (i.e., observing cognition or modifying thoughts), or their intention (e.g., whether their goal is developing compassion or relaxation (Walsh & Shapiro, 2006). Others have classified practices solely by their intent, such as Young, de Armas, and Cunningham (2011) divided all practices into three categories: (a) devotional (e.g., Christian practices); (b) mantra based, which can be focused or unfocused; and (c) mindfulness-based. Ritz (2006) provides the simplest taxonomy by dividing them into two categories: (a) the “be here now” practices (i.e., those focused on attention to the present moment), and (b) the “be there now” practices (i.e., those focused on transcendence and enlightenment).

The majority of the current literature focuses on the “be here now” meditations (Ritz, 2006; Sedlimier et al., 2012), and especially ignores the spiritually oriented concentration practices (i.e., the “be there now” practices). Overall, researchers typically remove the spiritual domain of meditation practices and reconfigure it into a secular technique (Walsh and Shapiro, 2006; Roach & Young, 2011), which is surprising given that meditation’s original and primary intent (e.g., Hinduism, Christianity) has been spiritual growth. Consequently, because of the lack of research on the spiritual domain of meditation, counselors are unable to make well-informed decisions regarding whether to employ meditation with their clients.

## **Spirituality in Meditation**

Benson and Stark (2000) were among the first to examine the health benefits of meditation, and found that despite their intent to research a secular (i.e., devoid of spiritual content) form of meditation, about 80% of subjects preferred to incorporate a spiritual belief into their practice. In addition, after years of researching meditative practices, Benson (1985) concluded that meditators who incorporated a spiritual direction experienced greater physiological and psychological gains. Therefore, he concluded that the combination of meditation and a spiritual or philosophical belief created a positive psychophysiological effect he called the *faith factor* (2009).

Whereas, research on the effectiveness of spiritual interventions in counseling is limited (Worthington, Kuru, McCullough, & Sandage, 1996); preliminary studies are consistent with Benson's "faith factor." For example, Wacholtz and Pargamont (2005) compared meditation's effect on mood, pain, and anxiety with groups practicing a spiritual and secular form of meditation. Like Benson (1985), they found the spiritual meditation group had significantly better results than both the secular form of meditation and the wait-list control group. In addition, Carlson, Bacaseta, & Simanton (1988) compared a Christian devotional meditation (i.e., a free form prayer) to progressive muscle relaxation, and a control group. They found that those in the devotional meditation group reported less anger and anxiety than both comparison groups. Additional research on these spiritually oriented therapeutic practices is still warranted (Worthington, Kuru, McCullough, & Sandage, 1996). However, these findings

suggested that spiritual forms of meditation have increased effectiveness when compared to non-spiritual forms.

In sum, research has indicated that meditation has important clinical utility (Sedlmier et al., 2012; Walsh & Shapiro, 2006), and has significant benefits to counselors (Geschwind, Peeters, Drukker, Os, & Wichers, 2011; Greason & Cashwell, 2009; Leppma, 2011). In addition to helping counselors cope with stress (Shapiro, Brown, & Biegel, 2007), meditation also increases counselor empathy, self-efficacy (Leppma, 2011; Greason & Cashwell, 2009), and may increase their compassion, emotional intelligence, and positive emotions (Chu, 2009; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Perelman et al., 2012; Kemeny et al., 2012). Whereas, the majority of meditation research has focused on only a few types of secular (or secularized) meditation practices, preliminary studies on devotional and spiritually focused meditation practices have found that spirituality serves to potentiate meditation's therapeutic outcomes (Benson, 1985; Wacholtz and Pargamont, 2005). Therefore, the counseling literature is in need of research on spiritually focused meditation practices and examine potential benefits, not just for clients, but the counselors who serve them.

### **Theoretical Framework**

Social science research lacks a definitive theory that accounts for the effectiveness of meditation on psychological and emotional functioning (Sedlmier et al., 2012). However, a review of the research that has emerged from the coping and positive psychology literature provides insight into the underlying curative factors in meditative

and related relaxation practices (Folkman, 2008; Fredrickson, 2009; Lazarus & Folkman, 1984). Furthermore, integration of the Transactional Theory of Stress and Coping (Lazarus & Folkman, 1984) and the Broaden and Build theory (Fredrickson, 2001) provides a theoretical rationale for meditation. These two theories form the theoretical bases for this study and are described below.

### **Transactional Theory of Stress and Coping**

Lazarus and Folkman (1984) investigated the process of how individuals cope with stressors, and concluded that there were two types of coping: (a) problem-focused; and (b) emotion-focused. In short, when an individual perceives a threat as harmful (i.e., primary appraisal) they then select the most effective method of coping (i.e., secondary appraisal). If the method of coping is deemed successful in removing the stress the individual will experience positive emotion. If the stressor cannot be resolved through the coping method selected, the individual remains distressed and is forced to re-appraise the situation and possibly select a new coping strategy.

Problem-focused coping is selected when it is believed that one can reach a solution and control the stressor (Lazarus & Folkman, 1984). When problem-focused coping is utilized the individual initiates practical methods (e.g., brainstorming, analyzing the problem, changing behaviors) for eliminating the stressor. Problem-focused coping typically involves learning new skills, generating and evaluating solutions, and developing a comprehensive understanding of the problem in order to mitigate it. In essence, problem-focused coping is concerned with the control and management of a stressful situation.

Conversely, emotion-focused coping is typically employed when one has little control over the circumstances and entails strategies that lessen emotional distress (Lazarus & Folkman, 1984). When one avoids, distracts, or distances oneself from a problem they are engaging in emotion-focused coping. These coping strategies are aimed at regulating emotional distress so that one can function without being dominated by the stressor. They differ from problem-focused coping strategies because they are not concerned with the amelioration of the stressor. Meditation would be considered a type of emotion-focused coping.

### **Positive Emotions**

Lazarus and Folkman (1984) asserted that successful coping led to positive emotions, and unsuccessful attempts led to distress; however, Folkman (2008) modified the model to include more emphasis on the role of positive emotions. The new model suggests that positive emotions serve to sustain and maintain the process of coping –what Frederickson calls “flourishing.” Therefore, positive emotion serves as a type of feedback loop, which continues to fuel coping, and is the ultimate end of coping. This newer model of coping (see, Folkman, 2008) directly relates to a popular theory found in the positive psychology literature – the broaden-and-build model (Fredrickson, 2001).

The broaden-and-build model posited that positive emotion incites an upward spiral that widens one’s array of thoughts and repertoire of problem solving actions (Fredrickson, 2001). Fredrickson (2009) found that positive emotion stimulated through meditation and other methods made individuals more resilient have increased problem-solving abilities solidify interpersonal bonds, become more creative, and resourceful.

In this study, it is proposed that meditation will serve as a type of emotion-focused coping technique. The population being investigated is student counselors who would benefit from using meditation as a form of self-care (Leppma, 2011; Shapiro, Brown, & Biegel, 2007). Meditation could also assist counselors by broadening their awareness and building up psychological resources, such as emotional intelligence (Fredrickson et al., 2008; Leppma, 2011). In short, training beginning counselors in meditation could have numerous benefits.

### **Statement of the Problem**

Beginning counselors experience overwhelming feelings of anxiety and stress (Stoltenberg & McNeil, 2010). This anxiety often impedes their performance (Bowman, Roberts, & Giesen, 1976; Friedlander, Keller, Peca-Baker, & Olk, 1986; Stoltenberg & McNeil, 2010; Young 2013), and negatively influences their levels of empathy (Bowman & Giesen, 1982). In addition, given the intimate and emotional nature of counseling, counselors are highly susceptible to empathy fatigue, counter transference and burnout (Hayes, & Gelso, 2001; Stebnicki, 2007). Therefore, researchers suggest that counseling programs should offer students the tools to increase wellness and avoid impairment (Roach & Young, 2007).

Research has also shown a relationship between high emotional intelligence (EQ) and lower levels of anxiety (Lizeretti & Extremera, 2011; Yip, & Cote, 2013). Emotionally intelligent counselors are able to self-manage emotions and reduce the influence of anxiety and stress, while utilizing their understanding of these emotions to



inform their behaviors (Salovey & Mayer, 1990). In addition, counselors with a high EQ are better able to identify emotions in others, are more self-aware of their emotional states, and are more able to manage their relationships (Goleman, 1995; Goleman & Cherniss, 2001). These are crucial skills for being an effective counselor. Therefore, student counselors could benefit from employing strategies, early on, that aid them in emotional regulation (e.g., managing anxiety, distress, counter transference, and burn-out) and increasing their emotional intelligence.

One such strategy is meditation. Scholars have promoted meditation as effective in increasing wellness, preventing of burnout, coping and the reducing anxiety (Kabat-Zinn, 1980; Leppma, 2012; Shapiro, Brown, & Biegel, 2007; Venart, Vassos, & Pitcher-Heft, 2007). Moreover meditation influences empathy, compassion, emotional regulation, and overall emotional intelligence (Greason & Cashwell, 2009; Kemeny et al., 2012; Perelman et al., 2012), which are all vital ingredients in successful counseling relationships. Therefore, it is reasonable to hypothesize that counselor educators could incorporate meditation into counselor training with the intent of teaching students an effective method of coping that influences other salient characteristics of counselor training.

### **Gaps in the Literature**

Although meditation research has shown preliminary success in increasing positive emotional states and overall psychological wellbeing, there exist several gaps in the literature (Sedlmier et al., 2012). First, researchers have conducted the majority of counseling research on Transcendental Meditation (TM) and Mindfulness meditation

(Sedlmier, et al., 2012), leaving other forms of meditation (e.g., concentrative forms) untried. This is a significant because other forms of meditation could prove to be more effective. For instance, concentrative practices hold promise because they probably increase concentration and attention more than other forms of meditation (Goleman, 2013). The goal of concentrative practices is the management of attention on a particular object in the present moment, as opposed to receptive approaches (e.g., mindfulness) that solely focus on attaining a fluid awareness of the present moment (Walsh & Shapiro, 2006). Thus, it is reasonable to infer that a practice that has an emphasis on concentration could be more effective in increasing characteristics related that benefit from increased attention.

One of the difficulties in meditation research is the lack of theory and the difficulty in defining such a complex process (Bond et al., 2009; Sedlmier, et al., 2012). By using generic practices and limiting research to only one or two select methods, researchers limit their findings by omitting approaches that are possibly more potent. Second, meditation research typically eschews the spiritual component. Seldom is any measure of spirituality or spiritual experiences included in meditation research, while other forms of treatment including cognitive behavior therapy have been shown to be potentiated by including a spiritual component (Wacholtz & Pargament, 2005).

Meditation practices have a rich spiritual and religious background (Goleman, 1988), and were originally intended to be sacred practices. By amputating the spiritual domain from meditation research, scholars could inadvertently be diluting the potency of the method. Spirituality is a major aspect of human life (Cashwell & Young, 2009).

Including spiritual experiences in meditation research could help inform the literature and could potentiate the practice (Benson, 1985; Benson & Stark, 2009).

Lastly, whereas these preliminary studies on meditation, EQ and stress response (Baer et al., 2006; Chu, 2009; Goleman, 1988; Perelman, et al., 2012; Schutte, & Malouff, 2010) have been successful, no study exists in the counseling literature that evaluates the effectiveness of meditation on student counselor's EQ or stress response. Emotional intelligence is an essential part of counselor training, but counseling researchers have failed to investigate any methods of fostering EQ in student counselors.

### **Constructs of Interest**

The constructs of interest in this study are: (a) stress; (b) emotional intelligence; and (c) spiritual experiences. Previous research has documented that meditation is able to influence each of these constructs (see Benson, 1985; Chu, 2009; Perelman, 2012; Kemmeny et al., 2012; Leppma, 2011; Shapiro, Brown, & Biegel, 2007); however, the spiritually-based meditation under investigation in this study, Jyoti Meditation has yet to be investigated empirically. Although previous research has documented the importance of reduced stress and increased emotional intelligence and spiritual experiences in counselors; yet strategies for influencing these constructs in counselors are seldom investigated. The following section describes each of these constructs in more detail and describes their connection to counselor development.

## **Emotional Intelligence**

The Council for the Accreditation of Counseling and Related Educational Programs (CACREP) is an organization with the charge of promoting professional excellence in counselors through the regulation of counselor training programs. Their accreditation standards (CACREP, 2009) are guidelines that ensure that counselor-training programs produce effective and competent helpers. Among the list of requirements, CACREP asserts that counseling programs must include a course on helping relationships in its core curriculum, teach the fundamental skills of building rapport, and ensure that students demonstrate self-awareness, sensitivity to others, and emotional stability. According to Goleman (2001), these particular skills, relationship management, self-awareness, social awareness, and self-management are the competencies that comprise emotional intelligence.

Young (2013) remarked that there is little doubt that counselors require emotional intelligence (EQ). Consistent with this claim, EQ is related to the fundamental counseling skills taught in most counseling programs (Ivey & Ivey, 2013, Young, 2013). For instance, one major component of EQ is the ability to recognize emotion in self and others; similarly, the majority of counseling courses teach the skills of reflecting feeling, which is the process of detecting the emotions of another and conveying an understanding of it (Young, 2013). The emphasis counseling programs place on self-awareness and student self-care are other examples of EQ in counselor training. The goal of these CACREP standards (2009) is to “ensure that students develop a professional counselor identity and master the knowledge and skills to practice effectively” (p. 2).

Therefore, one could infer from CACREP that including these emotional intelligence competencies into their standards that these qualities are important to the development of counselor effectiveness.

### **What is Emotional Intelligence?**

The concept of emotional intelligence is relatively young (Cherniss, Extein, Goleman, & Weissberg, 2006; Goleman, 2001). Salovey and Mayer (1990) were the first researchers to propose a *formal* definition. However, emotional intelligence had first appeared in the research on social intelligence (c.f., Thorndike, 1920) and in Gardener's (1983) concepts of intrapersonal and interpersonal intelligence (Davey, 2005).

Furthermore, Goleman's (1995), *Emotional Intelligence* book is responsible for the popularizing the concept (Davey, 2005; Mayer, Salovey, & Caruso, 2008) and expands the definition to include personality traits and dispositions (Goleman, 2001). Therefore, the formal definition by Salovey and Mayer (1990) may not be reflective of the construct measured by other researchers and in terms of its popular usage.

The lack of theoretical uniformity has caused debates that have served to further refine the theory or at least highlight the need for consensus (Matthews, Roberts, & Zeidner, 2004; Mayer, Salovey, & Caruso, 2008; Petrides & Furnham, 2001). Whereas, all theorists agree that emotional intelligence entails the ability to identify, regulate, and utilize emotions to understand and relate effectively with others (Davey, 2005), some have disagreed about which factors that comprise EQ. In their original publication, Salovey and Mayer (1990) suggested that EQ involved three components: (a) the appraisal and expression of emotion; (b) emotional regulation; and (c) the utilization of

emotions (Salovey & Mayer, 1990). However, they later proposed a four-branch model of EQ, consisting of: (a) managing emotions, (b) understanding emotions; (c) using emotions to facilitate thinking and; (d) accurately perceiving emotions. They also concluded that EQ met the criteria for a kind of intelligence (Mayer & Salovey, 1997). Others have disagreed (Matthews, Roberts & Zeidner, 2004), and stated that EQ was a broader concept consisting of more than intellectual ability (Cherniss, Extein, Goleman, & Weissberg, 2006; Goleman, 1995; Petrides & Furnham, 2001).

In order to develop an effective measure and bypass the debate on the definition of EQ, Petrides and Furnham (2001) proposed a conceptual distinction between what they called *trait emotional intelligence* and *ability emotional intelligence*. Trait emotional intelligence consists of a constellation of behavioral dispositions and self-perceptions (Petrides & Furnham, 2001), such as empathy, emotional regulation, and adaptability. Ability EQ on the other hand, denotes aptitude and emphasizes the processing of emotional information. Ability EQ is consistent with the theory of Salovey and Mayer (1990); whereas, trait EQ is more similar to the broader theory proposed by Goleman (1995; 2001).

Trait EQ is of more interest to those studying performance, such as in counselor education research, because it not only encompasses cognitive-emotional aptitude, but also personality dispositions. In addition, regardless of how they conceptualize EQ, all researchers agree that cognitive abilities are not sufficient to predict performance (Nelis, Quoidback, Mikolajczak, & Hansenne, 2009). For example, the cognitive/emotional aptitude of counselors (i.e., which are the only constructs measured in an ability model) is

important in counseling (e.g., counselors should be able to identify emotions in their clients), but they are insufficient to account for all the aspects of emotional intelligence counselors need to be effective (e.g., empathy or adaptability). Therefore, in addition to increasing an emotional aptitude, it is important that counselor develop certain affective dispositions (i.e., trait emotional intelligence). Beyond being capable of identifying emotions, counselors need to be able to use emotional content to strengthen a relationship and develop rapport with a client.

### **Emotionally Intelligent Counselors**

As previously mentioned, EQ competencies are present in the CACREP (2009) training standards. Beyond meeting accreditation standards, enhancing EQ has several other benefits for counselors. Researchers concluded that EQ is associated with: counselor empathy, one's ability to establish a counseling relationship, counselor self-efficacy and counselor stress management (Easton, Martin, and Wilson, 2008; Goleman, 1995; Mayer, DiPaolo, & Salovey, 1990).

### **Emotional Intelligence and Counselor Empathy**

The capacity to empathize is a critical facet of emotional intelligence (Goleman, 1995; Petrides & Furnham, 2001; Salovey & Mayer, 1990). In essence, the ability to be sensitive and correctly identify another's feelings (i.e., empathy) is necessary for one to be emotionally intelligent (Goleman, 1995). Thus, scholars include empathy as a part of the constellation of dispositions that make up emotional intelligence (Goleman, 1995; Mayer, DiPaolo, & Salovey, 1990; Mayer & Geher, 1996; Petrides & Furnham, 2001). A

counselor with high EQ would be better able to empathize with their clients (Goleman, 1995). Given that empathy is part of the foundation of the helping skills (Norcross, 2009; Rogers, 1957), and research has indicated that it is a strong predictor of therapy outcomes (Elliot, Bohart, Watson, & Greenberg, 2011; Norcross, 2009, Petrides and Furnham, 2001 Rogers, 1957).

### **Emotional Intelligence and the Counselor Relationship**

The effect of EQ on counselor performance is not limited to increasing empathy. Another major facet of EQ is the ability to develop and manage interpersonal relationships (Cherniss & Goleman, 2001; Goleman, 1995; Petrides & Furnham, 2001). The core of effective counseling is the therapeutic relationship (Norcross, 2009; Norcross & Wampold, 2011; Rogers, 1957). Characterized by empathy, positive regard, the management of counter transference, and genuineness, enhancing and maintaining a therapeutic relationship is a demonstrably effective treatment intervention (Norcross, 2009; Norcross & Wampold, 2011); and a client's perspective of the therapeutic bond is a strong predictor of treatment outcomes (Bedi, Davis & Williams, 2005). Clients, who believe that the counselor validates their feelings, understands them, and that the counselor was actively listening, are more likely to describe the counselor relationship as being strong (Bedi, Davis, & Williams, 2005). In essence, there is agreement that in order for counselors to convey these essential ingredients of a strong relationship, they need emotional intelligence to help them identify their own feelings, empathically recognize the feelings of others, manage their counter transference, and help them manage the emotions in the relationship (Young, 2013).



## **Emotional Intelligence and Counselor Self-Efficacy**

Research has also connected EQ with counseling in other ways. For example, research has shown EQ to be a core characteristic of professional and student counselors (Martin, Easton, Wilson, Takemoto, & Sullivan, 2004) and researchers have suggested that it might be a method of assessing someone's fitness for the counseling profession. In addition, professional and student counselors who have higher EQ have higher counselor self-efficacy (Easton, Martin, and Wilson, 2008). Larson and colleagues (1992) defined counselor self-efficacy as one's estimation regarding their ability to counsel a client, effectively. Counselors with high EQ are confident in their counseling performance, and their overall competence (Larson et al., 1992).

Unfortunately, research on the predictive ability of EQ and counselor performance is limited. However, researchers in other disciplines (e.g., organizational research) have had success in examining EQ in other measures of effectiveness (Cherniss, Extein, Goleman, & Weissberg, 2006). For example, a meta-analysis conducted by Van Rooy and Viswesvaran (2004) found EQ to be a statistically significant predictor of workplace performance in 69 independent studies. A similar connection between better performance and EQ was found in educational settings (Stone, Parker, & Wood, 2005), military settings (Bar-on, Handley, & Fund, 2005), and for those serving in religious ministry (Palser, 2004). Van Rooy and Viswesvaran's (2005) findings illustrate the benefit of EQ for professions that emphasize interpersonal relationships; therefore, one could logically infer that EQ would also be predictive of counselor performance.

## **Counselor Self-Management**

Another facet of emotional intelligence that relates to counselor effectiveness is what Cherniss and Goleman called self-management (2001). Among other things, self-management consists of self-control, emotional regulation, and adaptability. In essence, it is the ability to regulate distress, anxiety, anger, and control impulsivity (Cherniss & Goleman, 2001). By nature of the profession, counselors are made vulnerable to many types of emotional distress, which can cause emotional exhaustion (Roach & Young, 2007; Stebnicki, 2007; Young & Lambie, 2007). The ability to manage these emotions can aid in reducing counselor stress and preventing burnout. Indeed, studies have shown that higher EQ is associated with less occupational burnout (Gorgens-ekermans & Brand, 2012; Pishghadam & Sahebjam, 2012; Wen et al., 2011;). Salovey, Bedell, Detweiler, and Mayer (1999) argue that the coping process is always involves managing emotions. Given that EQ includes the ability to manage emotions in self and others (Salovey & Mayer, 1990), it is logical to infer that increased EQ would yield an increase in the ability to manage distressing emotions. In addition, scholars propose that EQ not only helps to regulate negative emotions but also facilitates coping through the management of positive emotions (Goleman, 1995; 2001; Salovey, Bedell, Detweiler, and Mayer, 1999). Therefore, increased emotional intelligence could speed the coping process.

In summary, EQ benefits counselors in numerous ways. First, it is an essential ingredient in counselor training as noted by CACREP and the content of counseling skills courses (Young, 2013). Moreover, higher EQ results in a better ability to exhibit empathy, higher counselor self-efficacy, and increased counselor self-management.

Therefore, given the benefits of EQ, incorporating strategies for increasing EQ into the counselor curriculum could be advantageous.

### **Stress: The importance of Counselor Self-care**

As previously mentioned, emotional self-management and regulation is necessary for counselors to avoid burnout and maintain wellness (Venart, Vassos, and Pitcher-Heft, 2009). Due to the nature of the work, Counselors are often exposed to stressful scenarios that create a type of occupational exhaustion, sometimes known as empathy fatigue or compassion fatigue (Stebnicki, 2007), and is a core factor in counselor burnout (Maslach, 1982).

In a qualitative study of 28 rural and urban substance abuse counselors, Oser, Biebel, Pullen, and Harp (2013) explored their experiences of burnout. Whereas, there were several differences in subthemes between these two populations, several general themes emerged, one of them being that burnout resulted in poor quality clinical care, and another being that self-care was essential in preventing burnout. The literature supports these themes, and several scholars have argued the importance of incorporating self-care and wellness into the counseling curriculum (Roach & Young, 2007; Young & Lambie, 2007).

Self-care can be challenging, especially when one considers the way the perpetual cycle of caring, and empathic attachments that counselors make quickly depletes their internal resources (Skovholt, Grier, & Hanson, 2001). However, if counselors fail to practice self-care and incorporate wellness, they risk becoming impaired practitioners

(Witmer & Young, 1996; Young & Lambie, 2007). Thus, counselors must find strategies for managing the high levels of stress and emotions prevalent in counseling. This study aims to investigate if meditation could aid counselors in reducing stress and, by implication, prevent burn-out.

### **Spirituality**

The final construct of interest in this study is spirituality. In recent years, spirituality has become a major topic of interest in counselor education (Cashwell & Young, 2011). Researchers have promoted the importance of integrating spirituality into counseling and the counselor education curriculum (Cashwell & Young, 2011; Dobmeier & Reiner, 2009; Hagedorn & Gutierrez, 2009; Van Asselt & Senstock, 2009). However, the majority of the literature focuses on the integration of spirituality from the perspective of the client and neglects the influence of the counselor's spiritual growth on the counseling process (Cashwell, Bentley, & Bigbee, 2007; Van Asselt & Senstock, 2009). However, the Association for Spiritual, Ethical, and Religious Values in Counseling (2005) states that spirituality "moves the individual toward knowledge, love, meaning, peace, hope, transcendence, connectedness, compassion, wellness, and wholeness (p.1)." Hence, by definition spirituality produces prosocial and positive emotional states that would improve counselor wellness and promote helping behaviors. Therefore, one can logically infer that increased counselor spirituality would have an increase in counselor wellness and effectiveness (Cashwell, Bentley, and Bigbee, 2007).

Cashwell, Bentley and Bigbee (2007) stated that counselor spirituality would benefit counselors in practice through increasing their mindfulness, heartfulness, and soulfulness. Mindfulness is the act of being a curious observer with an open, non-judgmental awareness of the present moment (Kabat-Zinn, 1990) and is found in the majority of spiritual traditions, especially Buddhism (Cashwell, Bentley, & Bigbee, 2007). In essence, someone who is being mindful exhibits the qualities of a curious learner who values the simplicity and complexity of the present moment, and opens themselves to be emotionally receptive to all private experiences (e.g., thoughts, feelings, memories). Cashwell, Bentley and Bigbee (2007) stated that mindfulness helps counselors by teaching them to: be attentive to the present moment, accepting, self-aware, to process the here-and-now experience, and to self-regulate (This is covered in more detail in chapter two); traits characteristic of expert counselors (Jennings & Skovholt, 1999). Rothaut and Morgan (2007) also reported that *mindful* counselors are more patient, grateful, and feel connectedness to both a higher power and to others; strengthening a counselor's ability to create a non-judgmental therapeutic relationship.

One could also argue that the increased self-reflection from mindfulness (and other spiritual practices) allows counselors to work on any limitations or filters that will influence their clinical decisions, helps them to avoid impulsive reactions to client behaviors, and allows them to effectively cope with the emotions that arise in their clinical practice. Therefore, by becoming more present-minded and less emotionally reactive, mindfulness helps individuals avoid common counselor ailments, such as compassion fatigue, countertransference and burnout.

In addition to becoming more aware of the present moment (mindfulness), spirituality also entails an awareness of a spiritual reality, an abiding meaning, and a view of human nature that transcends the physically finite (ASERVIC, 2005). This orientation, that human life is sacred and instilled with dignity, could also have an influence on counselors. For example, Viktor Frankl (1986) believed that the goal of psychotherapy should be to help client's create meaning in their lives. In order for counselors to effectively do this for themselves and their clients, they must believe that all of life is meaningful, even pain. Frankl (1986) compares it to a gorilla enduring medical testing. Due to the gorilla's limited capacity to understand, they may never understand that the pain they endure will contribute to the saving of millions of lives through the cultivation of medicine. Likewise, clients may believe that their pain and suffering is useless, yet from a spiritual perspective, a counselor would recognize that clients can find meaning in their suffering.

Acknowledging all of life as sacred also prevents counselors from becoming egocentric experts who depersonalize their clients as a diagnostic disorder (a classic symptom of burnout; see Maslach, 1982). Spiritual counselors would cloak their achievements in humility and recognize the role of a counselor as one who walks alongside a client, teaching them the principles of wellness. As psychologist and theologian, Henri Nouwen (1983) stated, "without listening, speaking no longer heals." Likewise, a spiritual counselor recognizes the power of listening and closely engaging with the client. One of the mistakes counselors often make is attempting to assert their expertise too heavily in a session, which creates a roadblock in communication (Miller &

Rollnick, 2012; Young, 2013). Conversely, spiritual counselors adopt an allocentric life, focused on the other, which promotes the working alliance.

In short, one can conclude that there is tentative support in the literature that the spiritual growth of counselors could have a positive effect on counselor development. Because spiritual growth is often neglected in the counseling literature, researchers have little empirically based knowledge regarding how spirituality influences counselor development. More research on meditation and other spiritual practices could serve to bridge this gap in the literature.

### **Summary of Constructs**

In sum, the three constructs being measured, emotional intelligence, stress, and spiritual experiences, each have an important role in counselor development. Moreover, a review of the literature demonstrates that each of these constructs can be influenced by meditation and meditative practices (see Benson and Klipper, 1975; Fredrickson et al., 2009; Perelman et al., 2012). What has yet to be investigated is if a spiritually-oriented meditation practice would have the same effect on these constructs. However, preliminary research revealed that when spirituality is incorporated into meditation the effects are more pronounced (Benson, 1985; Wacholtz and Pargamont, 2005). In addition, meditation's influence on these constructs has never been investigated with student counselors. Thus, this study intends to bridge these gaps in the literature by investigating the effectiveness of a spiritually-oriented meditation practice on student counselors, EQ, stress, and spiritual experiences.

### **The Purpose of this Study**

The purpose of the study is to investigate a spiritually-oriented form of meditation's effect on emotional intelligence, stress, and spirituality. The type of meditation being examined, Jyoti meditation (JM), is new to the psychological literature, and has yet to be empirically validated (Singh, 2012). However, practitioners of JM have employed it for the purpose of spiritual and personal growth for more than 500 years. JM is a non-denominational, beginner's meditation that emphasizes concentration and a spiritual connection (as opposed to a specific religious or atheistic practice). It is proposed that a six week JM intervention will result in a significant increase in student counselors' levels of EQ, empathy, and daily spiritual experiences (e.g., experience more gratitude, awe, compassion), and a reduction in their stress reactivity when compared to non-meditators.

### **Significance of the Study**

This study will hopefully provide several contributions to the counseling literature. First, it will test an intervention's ability to increase EQ in student counselors, and decrease stress reactivity. There is a scarcity of research with counselors in this area, and this study helps to further our understanding of these concepts. Second, this study employs a concentrative form of meditation, as oppose to the often-tested mindfulness approaches. Third, most meditation studies ignore the spiritual domain which has the potential to increase the effectiveness of other interventions (Benson, 1985). In addition, there is a significant gap in the literature with regard to the effectiveness of spiritually-oriented counseling interventions such as meditation and prayer (Worthington, Kurusu,



McCullough, & Sandage, 1996). This study will investigate the spiritual experiences of participants, offering data that can help researchers to better conceptualize the role of spirituality in future counseling research.

### **Research Questions**

Is there a difference between emotional intelligence (as measured by the Trait Emotional Intelligence Questionnaire [Petrides & Furnham, 2006]), self-reported stress (as measured by the Perceived Stress Scale [Cohen, Kamarck, & Mermelstein, 1983]), and daily spiritual experiences (as measured by the Daily Spiritual Experiences Scale [Underwood, 2008]) between the student counselors who undergo a six-week meditation treatment and those in a psycho-educational communication skills comparison group? Is there a statistically significant relationship between the amount of time reported meditating and EQ, perceived stress, and daily spiritual experiences?

### **Research Hypothesis One**

There will be a significant difference between groups of student counselors who receive a six-week Jyoti meditation curriculum and a group receiving no treatment on their level of emotional intelligence as measured by the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006); their level of stress as measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983); and their spiritual experiences as measured by the daily spiritual experiences scale (DSES; Underwood, 2006).

## **Research Hypothesis Two**

There will be a positive correlation between the amount of time spent meditating and their scores on the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006), their level of perceived stress as measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), and their spiritual experiences as measured by the daily spiritual experiences scale (DSES; Underwood, 2006).

## **Rationale for the Approach**

This study investigated the effectiveness of Jyoti meditation on several constructs: (a) emotional intelligence; (b) stress; and (c) spiritual experiences. A randomized experiment was conducted utilizing students ( $n = 61$ ) from an Introduction to Counseling Course. Randomized experiments are considered the gold standard for treatment outcome research (Shadish, Cook, & Campbell, 2002). By randomly assigning groups, researchers create comparison groups that are probabilistically similar to each other (Shadish, Cook, & Campbell, 2002). Therefore, through randomization, researchers mitigate threats to validity (e.g., selection-bias, researcher bias, etc.).

For this study, students from the counseling class were randomly assigned to two groups. One group attended a course on Jyoti meditation for six weeks, while another group attended a psycho-educational group on basic communication techniques. At the onset of the study, the primary researcher administered the informed consent, the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2001), the Perceived Stress Scale (Cohen et al., 1988), and the Daily Spiritual Experiences Scale (Underwood, 2008) to all participants. The assessments were again administered midway through, and after

the treatment process. The data collected was used to answer Research Question One. To detect if there is a statistically significant relationship between the amount of time reported meditating and EQ, perceived stress, and daily spiritual experiences (i.e., Research Question Two), the participants kept a diary of their practice frequency. The primary researcher provided the students with a paper diary (found in Appendix E).

### **Conclusion**

Previous research supports that meditation has significant effects on physical and psychological health. Furthermore, studies have shown that spirituality potentiates that effect. This study proposes to examine if a spiritually focused meditation treatment will have a positive effect on student counselors' trait emotional intelligence, stress, and daily spiritual experiences. These findings will significantly contribute to the counseling literature in several ways. First, it will provide evidence for the effectiveness of Jyoti Meditation as a beneficial tool for the increase of emotional intelligence and counselor self-care. Second, it will help inform future research on Jyoti Meditation, and add to the, currently scarce, literature on spiritually focused meditation practices. Lastly, it will provide information regarding the role of spiritual experiences in meditation practice.

## **CHAPTER TWO: REVIEW OF THE LITERATURE**

Chapter two consists of a review of the literature pertaining to meditation and the constructs of interest for this study viz., emotional intelligence (EQ), stress, and spiritual experiences. This includes: (a) discussion on the origins of meditation; (b) the various types of meditation; (c) treatment approaches that include meditation; (d) the various theories conceptualizing the effectiveness of meditation and its effect on stress; and (e) the possible curative factors underlying meditation as a therapeutic tool. This chapter will also include a review of EQ including its definition and how EQ relates to counselor development and effectiveness. In addition, I will review current studies researching pedagogical interventions for fostering EQ. The chapter concludes with a discussion on the role of spirituality in psychological wellbeing. Given that meditation is primarily a spiritual practice (Goleman, 1988; Singh, 2012), spiritual experiences may play a role in its effectiveness. Therefore, this chapter entails a brief discussion of the relevant literature pertaining to spirituality and its influence on health and psychological health. The next section begins with a review of the history of meditation and psychological healing.

### **Meditation**

Meditation first appeared in Western psychological literature in the early 1930's (Coster, 1934; Alexander, 1931). However, with regard to the potential therapeutic benefits of meditation, these early writings presented more questions than answers. For instance, Alexander (1931) saw the value in researching the mind body connection using meditation, but regarded it as inducing an un-useful, artificial catatonia rather than a

therapeutically beneficial mindset. Meditation research reappeared in the 1970's, but it lacked the empirical rigor to make any substantial claims on its effectiveness as a therapeutic tool (c.f., Smith, 1975). Fortunately, this resurgence in research led to several landmark studies, including one by Wallace, Benson, and Wilson (1971), which documented the production of a wakeful hypometabolic state in 36 practitioners of Transcendental Meditation that showed meditation as a distinct physiological state.

Wallace, Benson, and Wilson (1971) asked participants sit quietly for 10 to 30 minutes, begin meditating for 20 to 30 minutes, and then sit quietly for an additional 10 to 20 minutes. They measured oxygen consumption, blood pressure, heart rate, and took blood samples before and after the meditation period. The results showed a 17% decrease in oxygen consumption, a 31.9 ml/min decrease in carbon dioxide elimination, respiratory rate decreased three breaths per minute, and blood lactate decreased from 11.4 to 8.0 mg/100ml. In addition, participants showed increases in skin resistance from 90.9 kilohms to 234.6 kilohms.

Meditation creates a hypometabolic state that differs from those of sleep, hypnosis, autosuggestion and typical wakeful patterns (Wallace et al., 1971). These authors noted that some of these conditions (i.e., heart rate and blood pressure) are also capable of being changed using operant conditioning techniques; however, the changes witnessed in this study occurred simultaneously and without the use of any specified technique. Although this study has several limitations (e.g., no description of participant recruitment and no comparison group), these findings are notable because they are the

first to demonstrate that meditation can create an altered psycho-physiological state that is inverse to the response produced when one experiences stress.

Benson (1975) continued research on the physiological and psychological impact of Transcendental meditation (TM), popularizing TM with the general public. Benson and Klipper's (1975) bestselling book, *The Relaxation Response* described TM as being therapeutic for western culture which they described as being plagued with unhappiness, in spite of being more affluent than most of the world. They believed that this dysthymic state was predominantly the product of the stress that emanated from an insatiable drive for success and achievement. Therefore, they concluded that by inducing *the relaxation response* (i.e., the hypometabolic state resultant from meditation) one could overcome the stress and anxiety of life.

In a study intended to examine Benson's premise (i.e., that the effect of meditation could positively influence stress-related disorders), Goleman and Schwartz (1976) compared the skin conductance, heart rate, and rectal temperature of a group of 30 experienced meditators with a control group of non-meditators ( $n = 30$ ). Both groups watched a stressful film of industrial accidents, and the results revealed that meditators had a faster rate of stress recovery than the non-meditators,  $F(11,594) = 3.97, p < .001$ . The researchers concluded that meditation was a viable strategy for speeding stress recovery. However, it should be noted that Goleman and Schwartz did not use random assignment in their study because it was necessary to contrast experienced meditators with non-meditators. Thus, an alternate hypothesis for the findings could be that the groups significantly differed in a manner not related to meditation that reduced their

stress reactivity. Nonetheless, because Goleman and Schwartz' findings indicated that meditation has a strong physiological effect on stress; there study has made a considerable impact on the current understanding of meditation and promoted additional research.

In general, researchers have concluded that meditation is effective in reducing the physical effects of stress on skin conductance, heart rate, increasing cardiovascular health, and, as previously noted, creating a relaxation response that counteracts not just the typical flight or fight response, but also the primitive startle response (Bensen & Kilper, 1975; Goleman, & Schwartz, 1976; Levenson, Elkman, & Ricard, 2012; Ospina et al., 2007; Sedlmeier et al, 2012). Given the research supporting the positive influence of meditation on the physiological effects of stress, one can infer that student counselors would benefit from employing meditation to reduce the stress and strain of counseling (Schure, Christopher, & Christopher, 2008; Shapiro, Brown, & Biegel, 2007).

In addition to physical relaxation and wellness, current reviews of the literature conclude that meditation has psychological benefits (D'Souza, 2007; Shapiro & Walsh, 2006). In a summary of the existing research, McGee (2008) concluded that meditation showed favorable outcomes in the treatment of anxiety, aggression, addiction, insomnia, and suicidal ideation. A meta-analysis conducted by Sedlmeier and colleagues (2012) reported that meditation had a large effect on anxiety ( $\bar{r}=.37$ ), negative emotions ( $\bar{r}=.34$ ), and relationship improvement ( $\bar{r} =.37$ ), a medium effect size on attention ( $\bar{r}=.28$ ), and awareness ( $\bar{r}=.28$ ), and low effects for learning and memory ( $\bar{r}=.21$ ). To examine if these benefits extend to children, Fernando (2012) is conducting a large-scale randomized

control trial at three Oakland public schools. These students ( $n = 937$ ) are participating in a six-week mindfulness meditation curriculum. The preliminary results reveal significant differences in student behavior, including increases in paying attention ( $z = -2.89, p < .01$ ), self-care ( $z = -2.26, p < .05$ ), and after 18 weeks, caring for others,  $z = .165, p < .01$  (Fernando, 2012). Burns, Lee, and Brown (2011) had similar results with a group of college students ( $n = 43$ ) who showed a significant decline in perfectionism, anxiety, stress, and depression after a two-semester Transcendental Meditation intervention.

In addition to decreasing unhealthy psychological and physiological states, meditation also induces positive emotional states (Geschwind, Peeters, Drukker, Os, & Wichers, 2011; Frederickson, 2009), and increases self-actualization (Brown & Robinson, 1983). When researchers added meditation to a happiness-enhancement program they found meditation improved the program's ability to increase happiness and reduce negative mood (Smith, Compton, & West, 1995). Kemeny and colleagues (2012) had similar findings when they had female schoolteachers ( $N = 82$ ) engage in a 42 hour, 8-week meditation training program. These researchers randomly assigned participants to treatment or wait-list control groups. The treatment group participated in a concentration meditation, mindfulness meditation, yoga, and several didactic presentations on meditation practices and emotional awareness. Before and after the treatment participants were given a battery of measures, which included measures of positive and negative affect (PANAS; Watson, Clark, & Tellegen, 1988), anxiety (Trait Anxiety Inventory, Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1977), a depression inventory (Beck Depression Inventory; Beck, Ward, Mendelson, Mock & Erbaugh, 1961), mindful



awareness scale (Mindful attention Awareness Scale; Brown & Ryan, 2003), rumination and reflection scale (Rumination subscale from the Rumination and Reflection Questionnaire; Trapnell & Campbell, 1999), and a social desirability scale (Marlowe Crowne; Reynolds, 1982). Participants also took in a lab experience where they completed a computerized assessment of micro-expression recognition (Micro-expression training tool; Ekman, 2004), a tier social stress test (Kirschbaum, Pirke, & Hellhammer, 1993), where they prepared and performed a speech in a limited amount of time, a lexical decision procedure that measured the implicit presence of compassion, and a marital interaction task (Gottman, 1995) that measured hostile interpersonal behavior. The researchers concluded that meditation not only decreased negative affect  $F(2,72.6)= 8.10$ ,  $p<.001$ , rumination,  $F(2,72.1)= 5.20$ ,  $p<.05$ , depression  $F(2,72.4)= 17.91$ ,  $p<.001$  (effect size of  $d=.81$  at post assessment and  $.91$  at 5-month follow-up), and anxiety,  $F(2,72.6)= 11.14$ ,  $p<.001$ ; it also increases compassion,  $F(1,68)= 4.40$ ,  $p<.04$ , positive affect  $F(1,71.3)= 5.09$ ,  $p<.05$ , and the pro-social behavior,  $F(1,76)= 7.30$ ,  $p<.01$ , of participants (Kemeny et al., 2012). In any study utilizing a wait-list control group there is the possibility that the outcomes are the results of alternate effects, such as the interpersonal relationships of group members; however, as noted by the authors, the large effects size weaken the likelihood of such alternate explanations. Nevertheless, researchers are encouraged to interpret these findings with caution. Overall, Kemmeny and colleagues (2012) and the previously mentioned studies suggested that the effects of meditation are not solely effective at bringing individuals to a level of normal functioning and

decreasing negative mood, but can also help individuals flourish making it consistent with the finding and aims of the Positive Psychology movement (Lopez & Snyder, 2011).

Whereas the studies mentioned above offer empirical support for meditation's effect on psychological health, meditation research has also received criticism. Several scholars have lamented over the lack of sufficient rigor in the methodology of most meditation studies (Ospina et al., 2007). In addition, Sedlmeier and colleagues (2012) have noted that a large majority of meditation studies have compromised internal validity by lacking proper controls (e.g., no control groups), and without being able to control for potential confounds, such as time or participant maturation. Thus, the within-subjects effect sizes have most likely been over-estimated. Furthermore, according to Sedlmeier and colleagues (2012), without a theoretical framework concerning how meditation works, researchers will fail to test appropriate dependent variables and will make inefficient predictions.

It is difficult to surmise much about the differences between the various meditative practices, given that researchers have focused the large majority of research on either Mindfulness Meditation (MM) or Transcendental Meditation (TM), and there is a scarcity of research on other types of meditation (e.g., Concentrative, Yoga, Tai Chi, Centering Prayer, walking meditations). As noted by Walsh and Shapiro (2006) hundreds of meditation practices still await research. Thus, we cannot say at this point what the most effective approaches are likely to be. To use an analogy, we cannot say that cognitive behavioral therapy is the best for a particular problem if other approaches have not been tested. We can only say that CBT is effective in this instance. In general,

meditation research has not put various techniques head to head or compared differences in client symptoms and client demographics.

### **Types of Meditation**

Part of the difficulty in expanding meditation research to include other types of meditation practice (e.g., concentrative, Tai Chi ) stems from the struggle to categorize the various methods. Ospina and colleagues (2007) commented that due to meditation's complexity, and many permutations, researchers might struggle with the standardization needed for outcome research. In other words, it is tempting for a researcher to continue using a particular method of meditation because it has been used before. At the same time, it seems logical to expand the scope of methods in research to search for the most effective means. There is also a need to understand the various categories of meditation.

Noting this, Ospina and colleagues focused their comprehensive literature review on five general categories: (a) mantra meditation; (b) mindfulness meditation; (c) Yoga; (d) Tai Chi; and, (e) Qi Gong. A simpler taxonomy was presented by Walsh and Shapiro (2006) who categorized meditation by the type of attention (i.e., whether the practice is awareness-based or concentrative), the practice's relationship with cognition (e.g., observing cognition or modifying them), and the goal of the practice (e.g., developing attributes like compassion or developing awareness). Following this further, Young, de Armas, and Cunningham (2011) divided all practices into three categories: (a) devotional (e.g., Christian practices); (b) mantra based, which can be focused or unfocused; and (c) mindfulness-based. In order to further clarify and highlight the largest distinction between practices, Ritz (2006) categorized the variant practices as the "be here now"

meditations (e.g., those focused on creating bare attention), and the “be there now” meditations (e.g., those focused on transcendence and enlightenment).

Whereas, dichotomies and categories are helpful (and arguably needed) for research, Sedlmeier and colleagues (2012) noted that they are often irrelevant in practice, due to the overlapping nature of the practices. For instance, as noted by Ritz (2006) both types of meditation begin in the “now” or with a sense of present-focused attention. Cardoso, Souza, Camano, and Leite (2004) proposed that for something to be classified as meditation it must have: (a) a specified procedure (e.g., focusing on breath); (b) involve physiological relaxation; (c) increase mental relaxation; (d) be self-induced; and (e) use a self-focusing skill. Similarly, in Goleman’s (1988) comprehensive survey of meditation practices he concluded that, although there is a vast variety of meditative practices, they all effect two particular components: (a) they increase mindfulness (known as *restful alertness* in Transcendental Meditation); and (b) they increase attention. Therefore, meditative practices have many over-lapping features that make categorization near impossible.

### **Meditation Theories and Treatment Approaches**

The most researched type of meditation is a non-spiritual, mantra-based approach known as Transcendental Meditation (TM; Sedlmeier, 2012; Walsh & Shapiro, 2006). Forem (2012) describes TM as a simple and natural method by which one can experience the deepest levels of the mind. Tanner and colleagues (2009) add that TM takes one to a state of restful alertness and transcendental consciousness devoid of unhelpful customary mental activity. This is consistent with the original spiritual-based theories, which

recognize meditation as transcending ordinary waking consciousness (e.g., the Hindu account) or replacing unwholesome states of mind (e.g., Abhidhamma Psychology in Tibetan Buddhism). Transcendental meditation is effective in reducing stress, hypertension, blood pressure, obesity, and increasing happiness, brain functioning, and cognitive development (Barnes, Treiber, & Johnson 2004; Benn, 2003; Haaga, In Press; Merz, 2006), and TM trainers attribute these helpful effects to its ability to help one effortlessly transcend thoughts and emotions (see <http://www.tm.org/> ).

The second most researched form of meditation is mindfulness meditation. There is some debate on whether the clinical definition of mindfulness truly encompasses the original religious tradition (see Grossman, 2011). However, in essence, mindfulness represents a state of open, non-judgemental, present-minded, moment-to-moment awareness. Kabat-Zinn (1990) described it as “paying attention in a particular way, on purpose, and non-judgementally, as if your life depended upon it.” In various forms, this concept of mindfulness has found its way into several treatment approaches in counseling and psychotherapy. These mindfulness based approaches are part of the third wave of behavioral therapy (Hayes, 2004) which posit that meditation’s effectiveness is rooted in its ability to increase psychological flexibility (Hayes et al., 2006; Walsh & Shapiro, 2006). These researchers see meditation as benefiting individuals through the process of decentering or expanding one’s awareness to better include the context of an experience (see Hayes et al., 2006). Specifically, in Hayes’ account, meditation increases psychological flexibility by creating cognitive defusion or the reperceiving of cognitions as being passive influences and not an active enemy or a characteristic of the self. Hayes

and colleagues (2006) suggests that when individuals attempt to dispute cognitions they only strengthen the response. Consequently, mindfulness meditation has benefits in that it increases one's ability to tolerate distressing private experiences (thoughts, memories, and emotions). Therefore, by inducing mindfulness individuals are more able to separate from their thoughts and emotions, and make conscious decisions, as oppose to reacting impulsively.

The mindfulness approach differs significantly from the first wave behavioral therapies, which recognized human behavior as being the product of stimulus and response, and the second wave of behavioral therapies, that identified cognitions as being the cause of behavior and emotions (Hayes, 2004). Much like, the second wave of behavioral therapy emerged to remedy the perceived insufficiencies of the first wave (i.e., the failure to account for cognitions), the third wave was established to address an anomaly in the second wave (Hayes, 2004 ). Namely, second wave behavioral therapies state that direct cognitive change is necessary for behavioral change, and third wave approaches counter that by promoting the use of acceptance rather than disputation (Hayes, 2004). For instance, whereas, cognitive behavioral therapy promotes the use of thought stopping or disputing when unhelpful thoughts arise, the mindfulness therapies endorse the use of passive awareness and acceptance. Rather than attempting to push away thoughts and increase one's tendency for avoidance and inflexibility, the mindfulness approach aims to allow thoughts to naturally extinguish and increase an individual's ability to tolerate distress instead of reacting impulsively to conceal it (Hayes, 2006). Consequently, many researchers and clinicians have integrated

mindfulness into treatment approaches (Hayes, 2006; Kabat-Zinn, 1990; Linehan & Dawkins, 1995)

Beginning with the work of Jon Kabat-Zinn (1990), who promoted that his Mindfulness Based Stress Reduction (MBSR) decreased chronic pain and stress; mindfulness meditation has become an accepted trend in psychotherapy. In MBSR participants are asked to meditate, keep a non-judgmental attitude, and practice several yoga poses (i.e., asanas) that help them to become more self-aware and focused on the here-and-now. MBSR has shown effectiveness in four randomized controlled trials (see Cohelo et al., 2011).

From MBSR, Segal, Teasdale, and Wilson (2004) created a different therapy; mindfulness based cognitive therapy (MBCT), which focused on using mindfulness to reframe cognitions. A meta-analysis ( $n=4$ ) concluded that MBCT has found effectiveness with patients who have more than three depressive episodes (Coelho, Canter, Ernst, 2007). Likewise, Mindfulness-based Relapse Prevention (MBRP), is developed to help individuals struggling with addiction manage cravings and improve self-care skills through de-centering from cognitions and feelings (Witkiewitz & Bowen, 2010). Dialectical Behavior Therapy (DBT; Linehan, & Dawkins, 1995) is a similar approach which focused on helping individuals (mainly patients with Borderline Personality Disorder) become more mindful of their emotional states and more conscious of their decisions. DBT has been found to be effective in reducing suicidal ideation with Borderline Personality Disorder, and is considered an evidence based practice by the

Substance Abuse and Mental Health Administrations National Registry (SAMSHA; Neccsai, Ward-Ciesielski, & Linehan, 2012).

Another evidence-based practice which includes meditation is Acceptance and Commitment Therapy (ACT). ACT has over 65 randomized controlled trials, is endorsed by the SAMSHA registry and Division 36 of the APA (Hayes, 2008). Hayes and colleagues (2006) described ACT as part of the third wave of behavioral therapies (which includes MBSR, DBT, and MBCT). ACT helps individuals by reducing experiential avoidance (avoidance of thoughts, memories and feelings associated with distress) and cognitive diffusion (differentiating one's behaviors from one's sense of self; Hayes et al., 2006). ACT includes mindfulness techniques, but ACT clinicians attempt to remove the spiritual associations with mindfulness by avoiding an emphasis on traditional meditation.

Other forms of meditation are noteworthy, but have limited research support. For instance, Metta-informed meditation or Loving-Kindness meditation (LKM) has been slowly increasing in the counseling literature (Fredrickson, 2001; Lepma, 2012). The research that exists on LKM suggests it is helpful in increasing empathy and aids in producing positive emotions, which in turn increases awareness and creativity (Fredrickson, 2001; Lepma, 2012). In addition, Centering Prayer, a Christian form of meditation has been effective in reducing stress in Cancer Patient and increasing a sense of the divine (Knabb, 2012; Ferguson, Willemsen, & Cataneto, 2010). However, these studies had various limitations (e.g., lack of a control group, small sample). Therefore, further research is needed to make any consistent claims about their effectiveness.



## **Jyoti Meditation**

Jyoti meditation (JM) is the type of meditation practice investigated in this study. Jyoti is a non-religious beginner's meditation developed by the Science of Spirituality, an organization dedicated to expanding the use of meditation for personal transformation ([www.sos.org](http://www.sos.org)). Although, jyoti has been used for over 500 years for spiritual and personal growth (Singh, 2012), it has yet to be empirically validated. However, the procedure for jyoti is similar to the widely researched transcendental meditation and the Christian devotional meditation, centering prayer. For example, similar to TM, jyoti employs the use of a mantra; however, unlike TM, jyoti meditators select a mantra that has a spiritual significance (some name of God with which they feel comfortable). Furthermore, unlike mindfulness meditation, which focuses attention to an external object (e.g., breath or bodily sensations), jyoti focuses attention to one's internal experiences.

The instructions in jyoti meditation are as follows (Singh, 2012):

1. Sit in a convenient and comfortable pose.
2. Close your eyes gently.
3. Focus your attention in front of you.
4. Keep gazing horizontally, focusing about eight to ten inches in front of you.
5. Concentrate your focus on what appears in front of you (e.g., lights, darkness, etc.)
6. As we stare, our minds will begin to wander. We focus our mind by repeating any sacred word (e.g., name of God, Peace, Shalom) internally.

By repeating the sacred word and maintaining concentration on a spiritual connection, practitioners do not focus on unhealthy thoughts and emotions that would otherwise distress them. In addition, the steps outlined in JM are similar to other more researched methods including those identified by Benson and Klipper (1976) to elicit a healthy and wakeful hypometabolic state. As previously noted, the psychophysiological state, known as the Relaxation Response (Benson & Klipper, 1976) has several psychological and physiological benefits, including reduced anxiety, aggression, pain, and increase psychological well-being. Thus, JM should have positive influences on physical and psychological wellness.

Singh (2013) reported that the benefits of JM are numerous, including improvements to physical and psychological wellness. However, what distinguishes JM from other meditation practices is its emphasis on the spiritual; and Singh (2013) commented that the greatest benefit of JM is the comfort it brings to the soul. Thus, Singh (2013) attributed the largest benefits of meditation to the spiritual connection it fosters. Unfortunately, research on meditation often ignores the spiritual dimension. One of the benefits of investigating JM is that it allows the researcher to examine the spiritual benefits of meditation without imposing a religious system.

I selected jyoti meditation for this study for three reasons. First, Singh designed JM to be an introductory practice without the need for difficult poses or breathing techniques (Singh, 2012). Therefore, JM should be an easy practice for those who have no previous experience with meditation. In addition, JM is spiritual without being religious, which should make it more acceptable to those who may otherwise have

religious objections. Lastly, the primary researcher selected JM because it is a spiritually based meditation practice. Spiritually based practices have limited research; however, preliminary studies have shown that spirituality can enhance positive psychological outcomes (Benson, 1984; Wacholtz and Pargamont, 2005). Therefore, JM was selected because it is a method that is easy for student counselors to learn and may significantly improve psychological functioning beyond the effect of a non-spiritual meditation practice.

## **Theoretical Framework**

### **Transactional Model of Stress and Coping**

One theoretical framework that is helpful in understanding the relationship between meditation and psychological functioning comes from the theories of coping developed in Lazarus and Folkman (1984) and Folkman (2008). Lazarus and Folkman (1984) suggested that coping stems from an individual's appraisal of an event. According to Lazarus and Folkman (1984) individuals judge an event or situation and first evaluate it for level of threat, challenge, and harm, and then judge their ability to cope with said event. These appraisals make way for two forms of coping -- problem-focused coping and emotion-focused coping. *Problem-focused* coping involves doing something positive to the problem to alleviate distress, and *emotion-focused* coping entails doing something to regulate the emotional distress of the problem, such as reappraising the meaning of the problem, self-soothing, or distancing oneself from the problem (Folkman & Lazarus, 1985; Lazarus & Folkman, 1984). Therefore, individuals typically use problem-focused

coping when the threat is changeable and emotion-focused coping when the stressor is out of the individual's control.

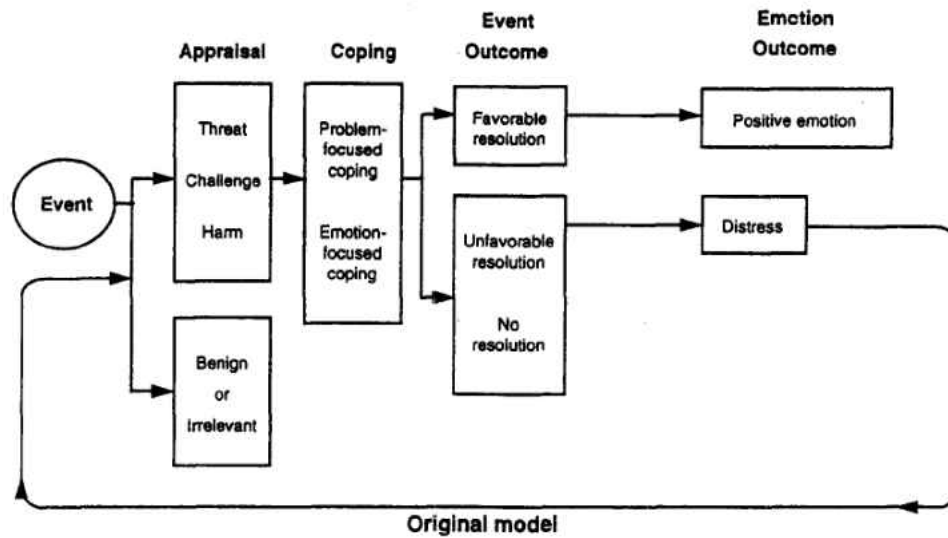


Figure 1: Model of Stress and Coping Model (Lazarus & Folkman, 1984)

During meditation, practitioners intentionally focus their attention, and allow distressing thoughts and emotions to pass by without letting them interfere with one's intentions. Through this process of distraction or selective attention, the emotional distress of the stressful event is lessened (Lazarus & Folkman, 1984). Therefore, meditation is a form of emotion-focused coping. At times, emotion focused coping could lead one to re-constitute the problem through what Lazarus and Folkman called cognitive reappraisal. Put briefly, reappraisal involves one conceptualizing an event in a way that

alters its meaning, such as stating, “this is not worth worrying about” or considering that things could be worse (Lazarus & Folkman, 1984). Not all forms of emotion-focused coping lend themselves to reappraisal; however, meditation does. As meditators concentrate their attention to a sacred figure or object (e.g., God, mantra, loving kindness) or focus their attention on the present moment (i.e., mindfulness) they reconstruct their problem without objectively altering the circumstances. For example, Buddhist Monk Thich Nhat Hahn (2008) recalled that, when he was 19, an elder monk asked him to meditate on the image of a decaying corpse. He commented: “Then I thought that such a meditation should be reserved for older monks.... now I see that if one doesn't know how to die, one can hardly know how to live-because death is a part of life” (p.50). The anxiety surrounding death is common (see Yalom, 1980), hence, Nhat Hahn’s discomfort with reflecting on it. However, through meditation he was able to reappraise his stress of death, and recognize it as a natural part of life. In the same way, someone meditating on their breath comes to realize that the stressors of yesterday do not need to influence the present moment or how someone practicing loving kindness meditation could come to realize that the hate they have for another is only the product of an inability to self-forgive. Thus, as a method of emotion-focused coping, meditation lends itself to reappraisal as well (Lazarus & Folkman, 1984).

Not all forms of coping are equally advantageous (Lazarus & Folkman, 1984). Some forms of distraction may interfere with problem solving behaviors, or, someone may become so intent on problem solving that their compulsive search for information may exacerbate emotional distress. On the other hand, by appropriately balancing the two

forms of coping they could facilitate each other. For instance, a counselor worried about a case presentation could calm himself or herself by taking deep breaths, which would alleviate stress enough to allow a review of the details of the case before presenting (Lazarus & Folkman, 1984).

### **Positive Emotions and Coping**

Folkman (1997; 2008) suggested that positive emotions play a sustaining, maintaining, and restorative role in the coping process. Through her longitudinal research on the caregiving partners of men with HIV, Folkman (1997) modified the original coping model to include a meaning-focused coping approach (see Figure 1). In essence, during meaning-focused coping an individual draws upon their beliefs and values to motivate and sustain them through the coping process (Folkman, 2008). Folkman (2008) argued that counselors should pay attention to positive emotions in their clients and make efforts to help them sustain these emotions because of their ability to facilitate the coping process.

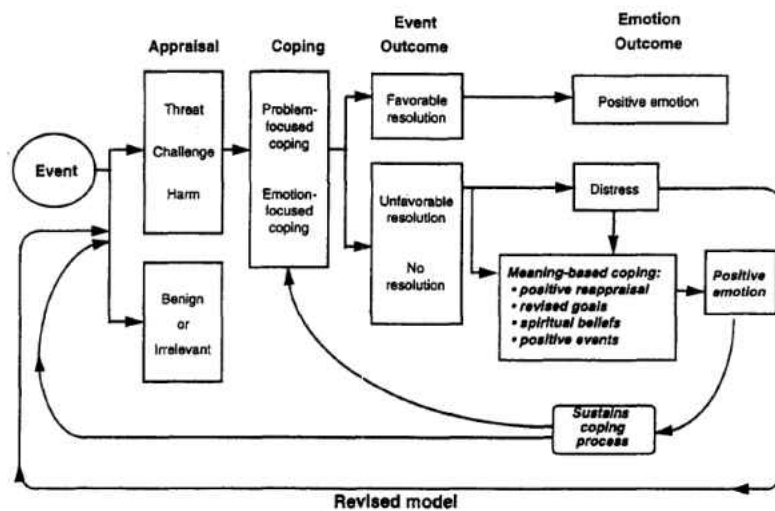


Figure 2: Model for meaning-based coping (Folkman, 1997)

### Meditation and Meaning-based Coping

Meaning-based coping occurs when one infuses a life event with positive meaning (Folkman & Maskowitz, 2000). Folkman (1997) stated the three most reported sources of positive meaning are: (a) feeling connected and cared about; (b) feeling achievement and self-esteem; and (c) being distracted from every day worries. One could consider meditation a strategy for facilitating meaning-based coping because it focuses one's attention away from everyday worries. However, meditation also facilitates meaning in other ways. For example, Goleman (1988) stated that the goal of all meditative practices is to enhance one's level of consciousness and change their view of themselves and the world around them. Accordingly, Brown and Robinson (1993) found that meditation practices increased self-actualization, inner-directedness, present-mindedness, and are improved one's ability to listen to their inner-selves. Any of these

benefits of meditation could help individual's develop meaning and cause meaning-based coping.

### **Broaden and Build Model**

This newer model of coping (e.g., Folkman, 2008) directly relates to a popular theory found in the positive psychology literature – the broaden-and-build model (Fredrickson, 1998; 2001). The broaden-and-build model posits that positive emotion incites an upward spiral that widens one's array of thoughts and repertoire of problem solving actions (Fredrickson, 2001). Fredrickson (2001) hypothesized that by inducing positive emotions, such as love, joy, contentment, and interest, individuals would be more likely to make creative cognitive associations, increase intellectual resources, become more psychologically resilient, experience improved wellbeing, and decrease negative emotional states.

Fredrickson (1998; 2009) believes that the increase in the thought repertoire and in intellectual resources produced by positive emotion would have benefited early ancestors providing them with the resources and creative thinking needed to survive, which then, through the process of natural selection, coded this broaden-and-build phenomenon into the universal human experience. Therefore, positive emotion is a crucial part of human functioning, and of benefit to those in need of problem solving, creativity, and psychological resilience.

### **Meditation and Positive Emotion**

Research has shown meditation to be effective in increasing positive emotions (Fredrickson, 2009; 2001; 1998; Geschwind, Peeters, Drukker, Os, & Wichers, 2011;



Kemeny et al., 2012). In an experimental design intended to test the *build hypothesis* from the broaden-and-build theory, Fredrickson, Cohn, Coffey, Pek, and Finkel (2008) conducted a seven-week loving kindness meditation (LKM) workshop with software workers ( $n = 139$ ). Researchers divided participants into a treatment and a wait-list control group. They were administered a battery of tests measuring cognitive, psychological, social and physical resources before and after the treatment. After conducting a hierarchical linear model that nested time within individuals, the researchers found that the LKM significantly predicted positive emotions when compared to those in the control group ( $b = 0.03$ ,  $SE = 0.008$ ,  $p = .0001$ ). Although, these findings should be interpreted with caution due to the limitations inherent with the use of self-report measures instead of objective observations, and the difficulty in generalizing these findings to other populations other than software workers, these results do indicate that meditation increases positive emotions and by inference, intellectual resources via the broaden and build model.

Geschwind, Peeters, Drukker, Os, and Wichers (2011) conducted a similar experiment; however, they used mindfulness based cognitive therapy (MBCT) instead of LKM. In this study, adults ( $n = 64$ ) with a life-long history of depression were randomly assigned to a wait-list control or an MBCT treatment group. Researchers measured positive emotions via an experience sampling method (ESM) where participants wore a wristwatch, and over the period of six days, the wristwatch would beep at an unpredictable moment and participants would then fill out a self-assessment form. Researchers ran a hierarchical linear model on the data and found that the treatment group

was associated with a significant increase in positive affect ( $b = .40$ , 95% CI [.33, .46],  $X^2(1) = 163.02$ ,  $p < .001$ ) and pleasantness ( $b = .22$ , 95% CI [.15, .29],  $X^2(1) = 39.09$ ,  $p = .001$ ). These findings had multiple limitations, including: (a) an all Caucasian treatment sample; (b) the absence of any information regarding the monitoring of treatment competence; (c) the use of self-report measures; and (d) participants were not blind to the proposed treatment. However, these findings are consistent with Fredrickson, Cohn, Coffey, Pek, and Finkel (2008), and in light of the limitations, they still provide evidence that a mindfulness-based treatment has a significant effect on momentary positive emotions.

### **Summary of Research on the Effect of Meditation on Emotional Functioning**

In sum, one of the curative factors of meditation is its ability to generate positive emotion, which sustains and restores the coping process (Folkman, 1997; 2008). Meditation is also a form of emotion-focused coping that lends itself to reappraisal, which further strengthens an individual's ability to cope with negative emotional states. In addition, according to the broaden-and-build model (Fredrickson, 2001) positive emotion further promotes human functioning by increasing the individual's cognitive repertoire and widening their array of alternative coping ideas. Therefore, one who experiences more positive emotion will contrive more creative methods for coping than one experiencing neutral or negative emotions (Folkman, 2008). Accordingly, because meditation serves as an emotion-focused coping strategy that lends itself to reappraisal,

and generates positive emotion, meditation should be considered a robust intervention for the facilitating of the coping process.

Emerging research indicates that several types of meditation have beneficial effects on psychological and physiological wellbeing (Sedlmier et al., 2012). Moreover, unlike interventions that focus primarily on the reduction of negative states, meditation has the added benefit of inducing positive states, such as increasing positive emotion, compassion, pro-social behavior, and self-actualization. Many treatment approaches (e.g., MBSR, MBCT, MBRP) consider meditation as a new wave behavioral approach for creating psychological flexibility (Hayes, 2004). Thus, meditation's influence on positive affect, pro-social behavior, compassion, and empathy, indicate that meditation might also have a significant influence on the emotional domain, as well as the cognitive sphere (Kemeny et al., 2012). In any case, this existing research seems to indicate that emotions play a significant role in the effectiveness of meditation.

### **Emotional Intelligence**

If meditation effectively facilitates the coping process through its influence on emotions as indicated by Folkman (1997) and others noted in this review, it is likely that by doing so it also increases emotional intelligence in the process. Before examining meditation's influence on emotional intelligence, it is necessary to review the literature defining emotional intelligence. Salovey and Mayer (1990) developed the term Emotional Intelligence (EQ) to describe "the ability to monitor one's own and others' feelings and emotions to discriminate among them and use this information to guide one's

thinking and actions (p. 189)." They suggested that EQ involved three components: (a) the appraisal and expression of emotion; (b) emotional regulation; and (c) the utilization of emotions (Salovey & Mayer, 1990). In an evaluation of their emotional intelligence scale (VIZ., The Multifactor Emotional Intelligence Scale), they later proposed a four-branch model of EQ, consisting of: (a) managing emotions, (b) understanding emotions; (c) using emotions to facilitate thinking; and (d) accurately perceiving emotions (Mayer & Salovey, 1997). This four-branch model suggested that EQ met the criteria for intelligence. However, not all future researchers would conceptualize EQ as a type of intelligence.

### **Operational Definition of Emotional Intelligence**

Since this original conceptualization, the definition of EQ has received some expansion and redefining. At first, theorists considered EQ a subset of general intelligence (Salovey & Mayer, 1990), and defined it as the ability to understand and manage emotions and use emotional knowledge to facilitate thinking. This conceptualization describes EQ as chiefly a cognitive aptitude, and emphasizes one's innate ability to manage emotional information rather than any learned capacity like theories of intellectual intelligence or IQ. Researchers have argued that this original definition is too narrow (Cherniss, Extein, Goleman, & Weissberg, 2006), and a meta-analysis ( $N = 58$ ) conducted by Van Rooy and Viswesvaran (2004) found that ability measures of EQ did not correlate highly with personality or other intelligence scores, meaning that there are some overlapping features but that EQ is distinct from intelligence and personality. Consequently, researchers argued that a more comprehensive definition

or theory of EQ was needed (Cherniss, Extein, Goleman, & Weissberg, 2006; Petrides & Furnhman, 2001).

Consequently, several theories of EQ have emerged in the research. Cherniss and Goleman (2001) presented a so-called EQ theory of performance (also described as a mixed model) (see Mayer, Salovey, & Caruso, 2008), which expands EQ to include cognitive aptitude and emotional competencies that are learned and are said to predict leadership and workplace performance (Cherniss & Goleman, 2001). Mayer, Salovey, and Caruso (2000; 2008) argued that the theory of performance strayed too much from the traditional definition of an intelligence by adding an array of non-cognitive positive attributes, such as hope or optimism. This lack of a unified definition of EQ has attracted criticism from researchers (see Locke, 2005; Matthews, Roberts, and Zeidner, 2004; Waterhouse, 2008). Cherniss, Extein, Goleman and Weissberg, (2006) suggested that the multiple variations of EQ are not a weakness in the literature, but rather a testament to the topic's vitality, and an inevitable product of the theory's infant status.

### **Measuring Emotional Intelligence**

Petrides and Furnham (2001) agreed that EQ is still in its infancy; however, they added that this early research has failed to recognize the crucial role of measurement. In short, without consensus on a definition, EQ becomes difficult to measure. They differentiate the two conceptions of EQ as being *ability EQ*, which refers to the original cognitive approach suggested by Salovey and Mayer (1990), and *trait EQ* that refers to the self-perception of behavior approach described by Cherniss and Goleman (2001) and Goleman (1995). These two definitions are only partially exclusive because intelligence

is both ability and a personal trait (Petrides & Furnham, 2001). However, for methods of measurement to be accurate this distinction is necessary. For example, if one operationalizes EQ as a construct related to *ability*, then measurement methods should emphasize emotional and cognitive aptitude. In that case, performance tests with specific correct and incorrect answers would be utilized. Whereas, if a researcher is seeking to investigate *trait* EQ than an approach more akin to personality testing (emphasizing self-report measures) should be used (Petrides & Furnham, 2001). In this sense, the word *trait* is synonymous with dispositions and *trait emotional intelligence* is the same as emotional self-efficacy (Petrides & Furnham, 2001).

Researchers developed Trait EQ with the intent of creating a comprehensive construct that included facets from all the existing models (Petrides & Furnham, 2001). The operationalizing of the term began with a comprehensive review of the literature that concluded with a selection of the most salient characteristics of EQ. Accordingly, EQ consists of adaptability, assertiveness, emotional appraisal, emotion expression, emotion management, emotion regulation, low impulsivity, relationship skills, self-esteem, self-motivation, social competence, stress management, trait empathy, trait happiness, and trait optimism (Petrides & Furnham, 2001).

Trait EQ is the most complete definition of EQ, because it not only encompasses cognitive-emotional aptitude, but also personality dispositions (Cherniss & Goleman, 2001; Petrides & Furnham, 2001; 2006). This model adequately takes into account the factors delineated in the ability models, and includes dispositions (e.g., empathy, relationship management skills) that are consistent with the emotional competence and

performance. In addition, regardless of how they conceptualize EQ, cognitive abilities are not enough to predict performance (Nelis, Quoidback, Mikolajczak, & Hansenne, 2009). Therefore, Trait EQ is adopted as the definition of EQ for this study due to its comprehensiveness. For example, the cognitive/emotional aptitude of counselors (i.e., which are the only constructs measured in an ability model) is important in counseling (e.g., counselors should be able to identify emotions in their clients; Young, 2013), but they are insufficient to account for all the aspects of emotional intelligence counselors need to be effective (e.g., empathy or adaptability; Norcross, 2009). Therefore, in addition to increasing an emotional aptitude, it is important that counselor develop certain affective dispositions (i.e., trait emotional intelligence). Thus, the construct of interest in this study is not reflected in the ability models of EQ; rather Trait EQ is most important.

### **Emotional Intelligence and Meditation**

Because meditation aids one's ability to regulate and manage emotions (i.e., emotion-focused coping; Lazarus & Folkman, 1984) and involves concentration strategies aimed at increasing self and other awareness it is logical to infer that meditation would have an effect on emotional intelligence. The relationships between emotional intelligence, coping and positive emotion have been discussed by several scholars (see Fredrickson, Tugade, Waugh, & Larkin, 2003; Salovey, Bedell, Detweiler, & Mayer, 1999; Tugade & Fredrickson, & Feldman, 2004) and multiple research studies have demonstrated that meditation does increase emotional intelligence (see Chu, 2009; Lomas, Diginton, Cartwright, & Ridge, 2013; Perelman et al., 2012; Schutte, & Malouff,

2010). Therefore, there is consensus among researchers and the supporting literature that meditation is an effective intervention for increasing emotional intelligence. However, researchers still do not know what aspects of meditation influence the development emotional intelligence (and other outcomes) in practitioners (Sedlmier et al., 2012). In addition, most meditation studies have been conducted using mindfulness meditation and have ignored spiritually based meditation practices; and there is reason to believe that spiritually-based meditation practices are more potent than non-spiritual practices (Benson, 1984; Wacholtz and Pargamont, 2005). In this study, we examine Jyoti meditation, a spiritually-based meditation practice that could potentially increase EQ.

### **Emotional Intelligence and Counselors**

The use of meditation to increase EQ would be of great importance to counselor educators who often seek to increase EQ amongst their students. Young (2013) remarked that there is little doubt that counselors require emotional intelligence (EQ). EQ is discretely related to the fundamental counseling skills taught in most counseling programs (Ivey & Ivey, 2013; Young, 2013). For instance, one major component of EQ is the ability to recognize emotion in self and others; similarly, the majority of counseling techniques courses teach the skills of reflecting feeling, which is the process of detecting the emotion of another and conveying an understanding of it (Young, 2013).

The emphasis counseling programs place on self-awareness and student self-care are other examples of EQ in counselor training. The Council for the Accreditation of Counseling and Related Educational Programs (CACREP) includes these factors (e.g.,



self-awareness, helping skills, and self-management) for their ability to reduce counselor impairment, and with the intent of developing counselors who exhibit the skills and professional dispositions needed to demonstrate counselor excellence (CACREP, 2009). Accordingly, using a Mann-Whitney test, Martin, Easton, Wilson, Takemoto, and Sullivan (2004) compared a normative sample ( $N=1,283$ ), to student counselors ( $n=66$ ) and professional counselors ( $n=70$ ), and found significantly ( $p<.01$ ) higher scores on the Emotional Judgment Inventory (EJI; Bedwell, 2002) and the Counselor Self Estimate Inventory (COSE; Larson et al., 1992). Furthermore, the effect size for this Mann-Whitney comparison revealed practical significance ( $d=.665$ ), suggesting that being a counselor accounts for 66% of the variance in scores. In addition, when these researchers examined the correlations between the EJI and a measure of counselor self-efficacy, they found several factors had high positive correlations. For instance, 70% of the scores on subscales for the EJI positively correlated with the self-efficacy subscales for counselors. Therefore, taken into account the correlations between emotional intelligence and counselor self-efficacy, and the significantly higher scores on EQ in counselors, one could conclude that EQ is a core characteristic counselors.

Martin, Easton, Wilson, Takemoto, & Sullivan (2004), also employed a multiple regression analysis to detect if EQ would predict counselor self-efficacy. Larson (1998) defined counselor self-efficacy as a counselor's beliefs and judgments regarding their ability to counsel a client effectively. The results of the stepwise multiple regression revealed three significant predictor variables: (a) Identifying Own Emotions,  $t(138) = 4.154, p < .001$ ; (b) Expressing Emotions Adaptively,  $t(138) = 3.052, p = .003$ ; and (c)

Using Emotions in Problem Solving,  $t(138) = 2.822, p = .005$ . These findings suggest that if one has high levels of emotional self-awareness, self-management, and relationship management they will most likely feel efficacious as a counselor.

Easton, Martin, and Wilson (2008) later conducted a 9-month follow-up study that investigated the relationship between counselor self-efficacy and EQ. In this study, the researchers administered the same measures: the COSE and EJI, when the student counselors were farther along in their programs (i.e., 92% of them had reached practicum or internship). As expected, the findings were similar to phase one of the study, and suggested that the EJI subscales were again significantly correlated with a large majority of the COSE subscales. The authors highlighted that, in addition to scores similar to the first phase of the study, four out of the five subscales on the COSE significantly correlated with the *Identifying one's emotions* subscale on the EJI, and all of the subscales on the COSE significantly correlated with *identifying other's emotions*. Therefore, the authors concluded that the foundational skills of reflecting feeling, and understanding and interpreting the emotions of a client, are factors of EQ (e.g., social awareness), and further support the relationship between EQ and counselor development.

### **Emotional Intelligence Factors: Benefits to Counselors**

As previously noted, Cherniss and Goleman (2001) reported that EQ consists of four major factors: (a) self-awareness; (b) self-management; (c) social awareness; and (d) relationship management, and each of these factors relate to the counselor education curriculum. For example, self-awareness is considered a mainstay of the humanistic

counseling tradition (Witmer, 1985), managing one's emotions and practicing self-care (i.e., self-management) is a part of establishing wellness and managing transference (Roach & Young, 2007). In addition, social awareness is needed for basic counseling skills like reflecting feeling (Young, 2013), and managing the therapeutic relationship is an important predictor of treatment outcomes (Norcross, 2009). Therefore, counselors need emotional intelligence because it aids in effectively caring for themselves and for their clients. The following section discusses each of EQ's factors and their relationship with counselor development

### **Counselor self-awareness**

Scholars consider emotional self-awareness a major part of becoming a master therapist. For example, Jennings and Skovholt (1999) interviewed ten "master therapists" and discovered that being self-aware, receptive, and open to emotions was a hallmark of an expert counselor. A later study conducted by Jennings, Sovereign, Bottorff, Mussell, and Vye, (2005) deemed self-awareness one of the nine ethical values of master therapists. Specifically, they suggested those master therapists have learned to attune to their physical, psychological, and emotional needs. Following this further, the Council for the Accreditation of Counseling and Related Educational Professions (CACREP) asserts in their standards (2009) the importance of self-awareness, associating it with fitness in the profession (see *CACREP Standards Section II, G. 2. E.*; *CACREP School Counseling Standards, D. 1*; *CACREP Doctoral Standards Section I, D. 3.*) Therefore, self-awareness, a factor in EQ, has been related to becoming a master therapist, an ethical therapist, and is considered central to our fitness in the profession

## **Counselor Self-management**

In addition to being self-aware, Jennings and Skovholt (1999) also reported, that an expert therapist learns to manage and attend to their own emotional well-being. Self-management, the second factor in EQ, involves the proper regulation and management of emotions (Cherniss & Goleman, 2001; Mayer, Salovey, & Caruso, 2008; Salovey & Mayer, 1990). Emotional self-management and regulation is necessary for counselors to avoid burnout and maintain wellness (Venart, Vassos, and Pitcher-Heft, 2009). Due to the nature of the work, Counselors are often exposed to traumatic stories and stressful scenarios that create a type of occupational exhaustion, sometimes known as empathy fatigue or compassion fatigue (Stebnicki, 2007), and is a core factor in counselor burnout (Maslach, 1982).

In a qualitative study of 28 rural and urban substance abuse counselors, Oser, Biebel, Pullen, and Harp (2013) explored their experiences with burnout. Although there were several differences in subthemes between these two populations, several general themes emerged, one of them being that burnout resulted in poor quality clinical care, and another being that self-care was essential in preventing burnout. The literature supports these themes, and several scholars have argued the importance of incorporating self-care and wellness into the counseling literature (Roach & Young, 2007; Young & Lambie, 2007).

Self-care can be challenging, especially when one considers the way the perpetual cycle of caring, and empathic attachments that counselors make, quickly depletes their internal resources (Skovholt, Grier, & Hanson, 2001). Moreover, when counselors fail to

practice self-care and incorporate wellness, they risk becoming impaired practitioners (Young & Lambie, 2007). Thus, counselors must find strategies for managing the high levels of stress and emotions prevalent in counseling. Salovey, Bedell, Detweiler, and Mayer (1999) suggested that emotional intelligence was beneficial to coping due to the fact that emotionally intelligent people are better able to manage distressing emotions. Likewise, Goleman and Cherniss (2001) describes this factor of self-management as being able to regulate emotions such as anxiety, and distress. Thus, strong self-management skills is a key method for counselors to deal with the stresses of the profession.

Another benefit of self-management rests in the ability to manage transference and countertransference. In essence, researchers define countertransference as occurring when the counselors have unresolved conflicts (e.g., fears, anxiety, past trauma, biases, physical stress) that influence their reactions to their clients' presenting concerns (Hayes, & Gelso, 2001). Given the relational nature of counseling, transference issues are inevitable (Hayes, & Gelso, 2001 ). In order for counselors to be effective, they must be able to work through issues related to transference, else the counselor may exhibit unhelpful avoidance behaviors (Hayes, & Gelso,2001; Rosenberger, & Hays, 2002). One emotion that counselors and counselor trainees need to manage is anxiety (Birk & Mahalik, 1996; Bowman, Roberts, & Giesen, 1976; Friedlander, Keller, Peca-Baker, & Olk, 1986; Stoltenberg & McNeil, 2010). Research has shown that unmanaged anxiety, which characterizes many student counselors (Bowman & Giesen, 1982; Stoltenberg, & McNeil, 2010), can hinder the counselor's empathetic responses (Negd, Mallan, & Lipp,

2011). Thus, self-management aids counselors by equipping them with strategies for self-care and the management of destructive emotions.

### **Counselor Social-Awareness**

Social awareness is defined as an interpersonal skill that involves understanding and relating to others (Cherniss & Goleman, 2001). The inability to recognize the emotions of another, places individuals at a social disadvantage, and may be related to mental illness (Mayer & Gher, 1996). At its extreme, the individual suffering from an autistic spectrum disorder is unable to read or infer the feelings and intentions of other. Conversely, the ability to identify another's emotion is a central characteristic of emotional intelligence and emotional health. Mayer, DiPaolo, and Salovey (1990) investigated this ability by examining the consensual responses of 139 participants' emotional assessment of images. Researchers recruited participants from an undergraduate psychology and art class, a law school, and an engineering firm. They then ran a correlational analysis between these consensus scores and the participant scores on measures of empathy, and alexithymia (i.e., the inability to describe or define emotions). Notably, the researchers discovered a significant relationship between the ability to appraise emotional stimuli and empathy  $r(128) = .33, p < .01$ . The authors concluded that in order for one to be empathic he or she must accurately appraise the emotional content of the other (Mayer, DiPaolo, & Salovey, 1990). In a similar study conducted by Mayer and Gehr (1996) 321 undergraduates (204 women, 114 men, 3 gender unreported) were asked to rate and select which emotion best fit a transcript of an individual's thoughts. Similar to previous findings (Mayer, DiPaolo, & Salovey, 1990), the researchers found a

significant correlation between empathy and the accuracy of the emotional recognition. Furthermore, a regression analysis using intelligence, empathy and scores of defensiveness on a social desirability scale significantly predicted the consensus scores  $f(6, 151) = 2.77, p < .05$  and accounted for 31% of the variance. In sum, one may infer from these findings a significant relationship between empathy and emotional recognition.

### **Empathy**

Empathy is a defining construct for counselors (Bike, Norcross, & Schatz, 2009). Rogers (1957) likened empathy to entering into the client's phenomenological experience of the world, and stated that empathy was a necessary condition for psychological change. Rogers declared "to sense the client's private world as if it were your own, but without ever losing the "as if" quality—this is empathy, and this seems essential to therapy (p. 99)." According to Rogers, empathy aided the counselor in understanding the client, and aided the client in untangling their situation; thus, empathy is an essential tool for counselors.

Counselors exhibit empathy in a variety of ways. Elliott, Bohart, Watson, and Greenberg (2011) suggested that there were three main modes of expressing empathy in a therapeutic environment: (a) empathic rapport, which describes the process of expressing a compassionate attitude towards a client; (b) communicative attunement, which describes an effort to remain connected with the client's unfolding experience; and (c) person empathy, which consists of an effort by the therapist to understand the client's experiences both presently and historically. In sum, therapeutic empathy may present in

multiple ways, but the essential component is the therapist's ability to exhibit a social awareness that accurately presents an understanding of the client's experiences.

Empathy has been a key concept in understanding the why and how counseling works (Duane & Hill, 1996). Of the common curative factors that exist in all counseling theories the therapeutic alliance remains the strongest predictor of counseling success (Lambert & Cattani-Thompson, 1996), and empathy is central to the relationship (Feller & Cottone, 2003). The results of a meta-analysis concluded that empathy was a strong predictor of outcomes (Elliott, Bohart, Watson, & Greenberg, 2011; Norcross, 2009). Moreover, investigations into the top factors associated with effective psychotherapy, rank empathy as one of the most essential counselor skills (Bike, Norcross, & Schatz, 2009; Norcross & Wampold, 2011). These studies show the impact of empathy on client outcomes, and further testify to the importance of emphasizing empathy in the counselor curriculum.

### **Relationship Management**

As previously noted, Cherniss and Goleman categorized emotional intelligence into four factors: (a) self-awareness; (b) self-management; (c) social awareness; and (d) relationship management. The last factor in Cherniss and Goleman's (2001) model, relationship management, refers to the ability to utilize emotional intelligence to cultivate and manage relationships with others. This factor is the most obviously related to counseling. The therapeutic relationship determines client outcomes more than any other technique presented (Lambert, 1986), and is considered the most established evidence-based practice (Young, 2013). Not surprisingly, CACREP (2009) requires students to



develop an understanding of the helping relationship, including theories, research, and techniques related to the development and maintenance of the relationship. Therefore, counselor educators teach relationship management skills throughout the course of a student's program.

In conclusion, Emotional Intelligence (EQ) consists of a set of skills that help individuals understand and manage their own emotions and the emotions of others (Salovey & Mayer, 1990). Several studies have found a relationship between EQ and Counselor self-efficacy, and upon further examination, the four-factor model detailed by Cherniss and Goleman (2001) appears to illustrate a direct relationship with counselor development. These practices of self-awareness, self-management, social awareness, and relationship management are crucial to counselor development. In many ways counselor education already strives to instill or develop the qualities of EQ in students. However, conceptualizing EQ as a cluster may provide another avenue of research that could aid in assessing the effectiveness of counselors in a more complete fashion.

Unfortunately, the research on EQ and counseling is scarce. The previously mentioned studies (Easton, Martin, and Wilson, 2008; Martin, Easton, Wilson, Takemoto, & Sullivan, 2004) on counselor self-efficacy and EQ are useful in illuminating the importance of EQ, but they do not provide any information regarding strategies for the fostering of EQ in counselors. Nelis, Quoidback, Mikolajczak, & Hansenne (2009) investigated if it was possible to increase EQ with an intervention. They implemented a two and a half hour educational curriculum with two training groups (i.e., a control and a treatment group) over the course of four weeks with young adults ( $n=37$ ). The study

showed that EQ as measured by the Trait Emotional Intelligence Questionnaire significantly increased ( $t(18) = 2.29, p = .033$ ) and that the improvement remained at a six-month follow-up. Research on schools and workplaces have yielded similar results using psychoeducational curricula with students and employees (Salovey, Mayer, Caruso, & Yoo, 2009). However, these curricula have yet to be systemically evaluated (Salovey, Mayer, Caruso, & Yoo, 2009), and incorporating a psychoeducational program into an already full counselor education curriculum may be more cumbersome than helpful and may be met with resistance from faculty who already have an array of standards they are trying to meet (c.f., CACREP, 2009).

### **Meditation for Increasing EQ**

Meditation may prove to be an effective strategy for increasing the EQ of student counselors. Researchers have found that mindfulness, a trait common in all meditative practices (see Goleman, 1988), is associated with emotional intelligence (Baer et al., 2006; Schutte, & Malouff, 2010). Schutte and Malouff, (2010) administered a mindfulness scale, a positive affect scale, a life satisfaction scale, and a measure of emotional intelligence to 125 university students from different regions of Australia. The results revealed that greater mindfulness was associated with higher emotional intelligence ( $r = .66, p < .001$ ). Moreover the analysis revealed that mindfulness mediated the effects of the positive and negative affect scale, and life satisfaction as well. Therefore, these findings suggest a relationship between meditation and emotional intelligence.

Perelman and colleagues (2012) also found meditation to be effective in increasing the EQ of prisoners in the Alabama state prison. Perelman and colleagues (2012) hypothesized that, given the positive effects of meditation on other areas of coping, meditation would be effective in not only reducing negative states (e.g., anger and negative mood), but also in increasing the emotional intelligence of prisoners. They conducted a longitudinal investigation on the effect of a mindfulness meditation with these prisoners ( $N = 127$ ). The treatment group ( $n = 60$ ) was asked to complete measures of anger, mindfulness, emotional intelligence, and profile of mood states, and then contrasted with a comparison group ( $n = 67$ ) before and after the mindfulness treatment. In terms of mood states, linear mixed modeling determined that the mindfulness group had significantly lower scores than the comparison group, ( $F(1,220.05) = 9.19, p=.003$ ), indicating that the mindfulness intervention was significant in reducing negative emotional states. They conducted a comparable analysis using emotional intelligence scores, and found that EQ in the treatment group increased significantly between pre-test and follow-up ( $p=.025$ ). These findings are consistent with previous research (Baer et al., 2006; Chu, 2009; Schutte, & Malouff, 2010) and support the hypothesis that meditation could be an avenue to increase emotional intelligence.

Chu (2009) conducted a correlational analysis ( $n=351$ ) that examined the relationship between EQ and meditation experience. The researcher concluded that EQ was significantly positively associated with meditation experience ( $\beta = 0.17, p < 0.01$ ). Subsequently, Chu (2009) found 20 beginning meditators and randomly assigned them to two groups one mindfulness meditation group ( $n = 10$ ) and a control group ( $n = 10$ ).

Participants were awarded \$800 for completing the 8-week experiment. The researcher concluded that the meditation group exhibited, at the post-test, higher scores on aspects of EQ, such as: (a) optimism/mood regulation [ $t(17) = 3.84, p < 0.01$ ]; (b) the appraisal of emotions [ $t(17) = 3.44, p < 0.01$ ]; and (c) social skills [ $t(17) = 3.74, p < 0.01$ ] than the control group. These findings are not without limitations, the sample size for the experimental treatment was small, and the use of self-report measures may have been influenced by social desirability or participant bias. However, these findings do provide evidence for the effectiveness of meditation as an intervention to increase emotional intelligence.

The influence of meditation on EQ is consistent with the original design and intent of meditation practices. From their inception, meditative practices were intended for the development of spirituality and the cultivation of spiritual experiences. For example, religious figures taught these practices as methods of raising consciousness or reaching enlightenment (e.g., Hinduism, Buddhism). Unfortunately, research on meditation has chiefly decontextualized the practice from its original intents (e.g., spiritual growth) and the result is a re-contextualizing of meditation from a western psychological framework (Walsh and Shapiro, 2006; Roach & Young, 2011). While its origins are religious and spiritual, surprisingly, there is a dearth in the literature regarding the spiritual dimensions and outcomes of meditation practices.

## **Spirituality**

The Association for Spiritual, Ethical, and Religious Values in Counseling (ASERVIC) describes spirituality as an innate human tendency that leads individuals towards knowledge, love, meaning, peace, hope, transcendence, connectedness, compassion, wellness, and wholeness (ASERVIC, 2005). Cashwell and Young (2011) define it as a “the universal human capacity to experience self-transcendence and awareness of sacred immanence with resulting increases in greater self-other compassion and love” (p. 7). In essence, counselor education scholars agree that spirituality is both a central facet of human existence and that it produces beneficial character traits in counselors (e.g., compassion, peace, connectedness). Consequently, researchers have promoted the importance of integrating spirituality into counseling and the counselor education curriculum (Cashwell & Young, 2011; Dobmeier & Reiner, 2009; Hagedorn & Gutierrez, 2009; Van Asselt & Senstock, 2009).

Van Asselt and Senstock (2009) surveyed members of the American Mental Health Counselors Association (AMHCA), ASERVIC, and a CACREP-accredited university counseling graduate program to determine if spirituality influenced treatment focus and self-perceived competence in counseling clients’ with spiritual concerns. The participants ( $n=572$ ; 20% response rate) completed a demographic questionnaire, a measure of spiritual experiences (i.e., the Index of Core Spiritual Experiences; Kass, Friedman, Leserman, Zuttermeister & Benson, 1991), and a measure of spiritual health (i.e., the Spiritual Health Inventory, Veach & Chappel, 1992). In addition, participants were asked to rate a case scenario vignette on the degree they believed that the treatment

focus could be clinical, spiritual, religious, or other, and the degree to which they felt competent in counseling said client. A logistic regression of the data revealed that personal spiritual experience, spiritual well-being, and spirituality training could significantly predict the choice of treatment approach ( $\chi^2 = 18.64, p = .001$ ). In addition, the index of core spiritual experiences accounted for the differences in treatment choice ( $\chi^2 = 13.59, p = .001$ ), as did the personal spiritual experiences subscale of the Spirituality Health Index independently contributed ( $\chi^2 = 15.37, p = .001$ ). The authors reported that spiritual experiences (i.e., core spiritual experiences as measured by the INSPIRIT and personal spiritual experiences as measured by the SHI) accounted for over 55% ( $\chi^2 = .74$ ) of the variance in treatment themes. Moreover, a hierarchical regression revealed that the four independent variables (i.e., spiritual experiences personal spiritual experience, spiritual well-being, and spirituality training) significantly contributed to self-perceived competence beyond the effect of the influence of age, years of counseling, and education,  $F(9,515) = 16.62, p < .0001$ . Age, years of counseling and education accounted for 11.6% of the total variance, whereas the independent variables accounted for 22.8% of the total variance in self-perceived competence. In sum, counselors' spiritual experiences (both personal and core spiritual experiences) and their spiritual training significantly influences their choice of treatment approach and their confidence in counseling a client with a spiritual concern.

These findings highlight the importance of spiritual training and spiritual experiences for counselors in training. Van Asselt and Senstock (2009) reported that 48.5% of those surveyed reported having spirituality integrated into their counselor-

training curriculum, 42% of which had taken a class entirely focused on spirituality. Van Asselt and Senstock's (2009) study has limited generalizability due to the sample selection process, yet the study provides support that a counselor's personal spiritual experiences plays an important role in counseling treatment decisions. In addition, it points to the fact that spirituality and religion is being incorporated into the curriculum and that there is more concern for the spiritual needs of clients (Cashwell & Young, 2011; Myers & Willard, 2003). Although these curriculum changes and trends are important, research regarding the influence of a counselor's spiritual beliefs on treatment is absent from the literature.

### **The Benefits of Counselor Spirituality**

While noting the limited empirical support, Cashwell, Bentley, and Bigbee (2007) presented a conceptual argument for how a counselor's spiritual life influences their effectiveness. First, they argued that counseling is a spiritual process involving understanding and incorporating a client's belief system into the process. Hence, the more a counselor knows about various religious and spiritual practices, the more effective they will be in working with diverse clients. Furthermore, a counselor is tasked with providing a sacred space similar to those in religious traditions. For instance, a client's self-disclosure and the subsequent non-judgmental response of a counselor are like a parishioner going to a priest for confession. Frankl stated that what individual's used to seek from a priest or a rabbi they now seek from a psychotherapist (Frankl, 1986). In essence, clients may identify counseling as a spiritual space wherein they can present spiritual concerns. Thus, counselors should adopt a similar attitude, and honor the

sanctity inherent in the client's concerns by treating the client's time and space as sacred. Lastly, they present that spirituality is a part of counselor wellness and helps to prevent burnout. This claim is consistent with the work of other scholars (Roach & Young, 2007; Robert, Young, & Kelly, 2006). Therefore, they suggest that by adopting the spiritual attitudes of mindfulness, heartfulness and soulfulness counselors can increase their wellness (Cashwell, Bentley, & Bigbee, 2007).

**Mindfulness.** Mindfulness is a term that is rooted in Buddhist tradition and is a part of meditative practices (Kabat-Zinn, 1990). Cashwell, Bentley, and Bigbee (2007) present five aspects of mindfulness that related to counselor spiritual wellness. First, mindfulness involves an enhanced attention and concentration on the present moment (Kabat-Zinn, 1990). In mindfulness, increased attention and concentration is cultivated through a disciplined practice of quieting the mind and noting present external sensations. A focus on the present allows counselors to notice the smallest details of a counseling session, such as the shift in a client's vocal intonation, or the nervous fidgeting of fingers or a leg. Mindful counselors can pay close attention to a client even in demanding circumstances. Second, this mindful counselors have a heightened focus on acceptance of the present moment even when strong emotions are present. Therefore, mindful counselors do not eschew or attempt to superficially assuage strong emotions, and can better assist clients in navigating them by letting them go.

Mindful counselors are also exceptionally able to accept strong emotions in themselves, such as feelings of inadequacy or self-doubt. Therefore, mindfulness also helps counselors to become more self-aware and capable of doing personal growth work.



Mindful counselors also generalize this self-acceptance to other-acceptance by becoming more compassionate. Further, as they become more aware of the present moment, compassionate, and able to endure strong emotions, they also are able to use here-and-now processing (Yalom, 2009) in session. This is because they are in tune with the present moment and do not let important issues slip by. Lastly, through increased self-awareness, mindfulness helps counselors to regulate strong emotions by noting them and accepting them or using them as cues for self-care.

**Heartfulness.** Cashwell, Bentley, and Bigbee (2007) define heartfulness as an aspect of the spiritual journey that pertains to having a heart open to feeling the full range of emotional experiences in life. Heartfulness requires individuals to allow themselves to engage in both positive and negative emotions. The authors recommend that counselors engage in meditation and other contemplative practices to open one's heart while quieting the mind. Heartful counselors are more able to be open to the full range of a client's emotional experience. Cashwell, Bentley, and Bigbee (2007) warn counselors that too much heartfulness could lead to emotional exhaustion, but that no heartfulness would make a counselor exhibit the attributes of burnout (e.g., depersonalization). Therefore, they recommend balancing heartfulness and mindfulness.

**Soulfulness.** Soulfulness is an awareness of the purpose and meaning of all life (Cashwell, Bentley, & Bigbee, 2007). Soulfulness is achieved after much spiritual growth. First, a soulful counselor is aware of the inherent meaning and value of each life. Frankl (1984) describes meaning as the chief motivator of humanity, and the lack of meaning as the cause of neurosis. Further, Frankl (1986; 1988) describes the counselor's

duty as being rooted in helping clients finding meaning for their lives and their suffering. A soulful counselor is effective at recognizing that all lives are meaningful.

The second aspect of soulfulness is a recognition that all of life is sacred. Cashwell, Bentley, & Bigbee (2007) state that, by approaching counseling sessions with the mindset that the client is sacred, counselors increase their ability to be in the present, as opposed to being distracted by worldly affairs. Moreover, the counselor recognizes the innate beauty and importance of their clients, which they suggest is healing for clients, who benefit from the unconditional positive regard, and for counselors, who will experience more positive emotion as a result.

Lastly, according to Cashwell, Bentley, & Bigbee (2007) soulful counselors recognize that everything in the universe is interconnected. This heightened awareness reduces the power differential between a client and counselor because the counselor recognizes his or her own humanity, and that they can learn from their client's experiences as much as the client can learn from theirs. In addition, Soulful counselors are able to look past counselor-client differences through the recognition that the client and they are more similar than they are different. Thus, Soulfulness helps counselors become more empathic and accepting of their clients.

In sum, the counseling literature often emphasizes the importance of integrating spirituality into counseling (c.f., Cashwell & Young, 2011); however, the spiritual experiences of counselors also influence how they conceptualize their clients and whether they feel competent in helping a client with a spiritual concern. Also, it can be logically inferred from the literature that spirituality would also play a role in counselor wellness

and effectiveness. As Cashwell, Bentley, & Bigbee (2007) suggested, spirituality can make counselors more mindful, heartfelt, and soulful. Thus, a pedagogical intervention in counselor education that targets spiritual growth could be beneficial for counselors.

### **Spirituality and Meditation**

Although researchers have largely neglected the spiritual realm in meditation research, Benson (2000) found that, regardless of his intent to provide a strictly secular meditation practice, 80% of the participants in his relaxation response studies preferred to use a religious or spiritual practice in their meditation (e.g., prayer). Moreover, 25% of participants who experience the relaxation response (i.e., the hypometabolic state produced by meditation) felt more spiritual afterwards (Benson, 2009). Furthermore, Benson discovered that these participants reported less medical symptoms than those who did not experience the heightened spirituality afterwards (Benson, 2009). Continued research in this area, led Benson to conclude that a combination of a spiritual belief or philosophy and meditation (what he called the *faith factor*) potentiated a more potent relaxation response (Benson, 1984). In particular, he found the faith factor to be effective in relieving headaches, reducing angina pectoris pains, blood pressure, enhancing creativity, overcoming insomnia, preventing hyperventilation, helping to alleviate backaches, enhancing cancer treatment, eliminating anxiety and panic attacks, and reducing overall stress (Benson, 1984). This incorporation of a spiritual philosophy or belief empowered meditation by (a) increasing the motivation and enjoyment of participants to adhere to the practice; (b) through the unlocking of the physical and psychological restorative powers of belief (i.e., what Benson called *remembered*

*wellness*); and (c) because a belief in an eternal, life-transcending force disconnected one from unhealthy logic and worry (Benson, 2009).

Wacholtz and Pargament (2005) further investigated the faith factor by conducting an experimental study that investigated the differences between spiritual ( $n = 25$ ), secular ( $n = 21$ ), and relaxation ( $n = 22$ ) meditation groups. The participants were college age students recruited from the university via fliers and online postings. Researchers randomly assigned students to one of the three groups, trained students in the specific techniques, and asked students to practice the technique for 20 minutes a day for two weeks. Prior to the treatment, participants were administered a measure of spiritual experiences (Daily Spiritual Experiences Scale; Underwood, 2008), a measure of anxiety (the State Trait Anxiety Inventory; Spielberger, Gorsuch, Lushene, Vagg, & Jacobs, 1977), and a measure of spirituality and religiousness (Brief Multidimensional Measure of Religiousness and Spirituality; Fetzer, 1999). During the post-test session two weeks later, participants were asked to practice their technique while researchers measured heart rate and asked them to place their hand in a 2° C cold-water bath for as long as they can (a measure of ability to withstand pain). Afterwards, participants filled out assessments of anxiety, positive and negative affect, spiritual wellbeing, and daily spiritual experiences. Researchers discovered that those in the spiritual meditation group showed significantly less anxiety ( $F(2,65) = 4.62, p < .01$ ) than the relaxation group ( $p < .01$ ) and the secular meditation group ( $p < .05$ ), and significantly more positive affect ( $F(2,65) = 4.32, p < .01$ ) than the relaxation group ( $p < .01$ ) and the secular meditation group ( $p < .05$ ). Additionally, the spiritual meditation group was able to withstand pain for longer periods

of time ( $F(2,65)=3.63, p < .05$ ). Although these findings were noteworthy, the study had several limitations. For example, the authors noted that in the secular meditation treatment, researchers asked participants to use self-centered phrases, such as “I am loved” or “I am good” while the spiritual meditation group focused God. The researchers pose the question, is it possible that the positive outcomes were related to the differences between focusing on one’s self versus focusing attention on an external object; in essence, could the spiritual group had just as notable outcomes if they focused their attention on a non-spiritual external objects, such as breath or sand. In addition, the researchers did not pre-test participants with all instruments to avoid sensitizing participants to the study hypothesis; however, by not pre-testing, it is possible that the two groups were not equal prior to engaging in the treatment. Nonetheless, the study does provide strong evidence that individuals can enhance meditation by incorporating a spiritual direction.

Researchers’ attempts to understand the mediating variables of Mindfulness-Based Stress Reduction have also revealed some connection to spirituality. Shapiro, Carlson, Astin, and Freedman (2006) developed a conceptual model for meditation that included three factors: (a) attention; (b) awareness; and (c) intention. They claim that this third factor, intention, was an essential feature for the success of mindfulness, and consists of the intended goal of the practitioner. For instance, some may practice mindfulness with the intention of increasing self-regulation, whereas, others may do so for spiritual gains. Shapiro, Carlson, Astin, and Freedman assert that this belief, whatever it may be, influences the effectiveness of the practice. Greeson (2011), conducted an

empirical evaluation of these assumptions by testing a structural equation model of an MBSR program. Researchers administered a battery of tests to 279 participants engaged in an 8-week MBSR program at the Duke University Medical Center. The battery of assessments included the Cognitive and Affective Mindfulness Scale - Revised (CAMS-R; Feldman, Hayes, Kumar, Greson, & Laurenceau, 2007), the Daily Spiritual Experiences Scale (DSES; Underwood, 2008), and the 12-item Short-Form Health Survey (12SF; Ware, Kosinski, & Keller, 1996); thus, they proposed that mindfulness, daily spiritual experiences, and health (e.g., mental and physical health) interacted to produce MBSR outcomes. Ultimately, they discovered a model wherein daily spiritual experiences as measured by the DSES increased mindfulness, and in-turn produced an increased mental health quality of life (Greeson et al., 2011). These findings are consistent with previous studies that reported daily spiritual experiences as a predictor of the psychological wellbeing of adults (Ellison & Fan, 2008), and they illustrate that spirituality plays a mediating role in the effectiveness of some meditation-based treatment programs.

Although in the spiritual dimensions of meditation, there is a paucity of research, some studies have explored the influence of spiritual experiences on psychological health. For instance, an investigation of the coping strategies and wellness of low-income women found spirituality and religion to account for 34% of the variance in wellness. Daily spiritual experiences were highly correlated with all subscales of the 5F-Wel, a wellness measure (Hattie, Myers, & Sweeney, 2004; Gill, Minton, & Myers, 2010). Moreover, researchers report that daily spiritual experiences played a role in post-

traumatic growth, and were inversely related to psychological distress, depression, and positively associated with substance abuse treatment outcomes (Currier, Mallot, Martinez, Sandy, & Neimeyer, 2010; Lynch, Hernandez-Tehada, Storm, & Egede, 2012; Parhami, Davtian, Collard, Lopez, & Fong, 2012; Park, & Roh, 2012). In sum, recent research suggests that daily spiritual experiences may positively influence psychological well-being.

These findings are consistent with the original aims of meditation. Although, researchers and clinicians have extracted spirituality from meditation in their research protocols, there is reason to believe that spirituality plays a mediating role in the benefits of meditation. Moreover, research has shown that spirituality enhances meditation practices (Benson & Stark, 2009), and spiritual experiences have been associated with multiple factors associated with psychological health (e.g., wellness, reduced depression, and anxiety). Therefore, a comprehensive study of meditation should include its influence on daily spiritual experiences, and one can infer that by including spirituality into a meditation practice, one could enhance the outcomes.

### **Conclusion**

In this chapter, a review of literature was conducted regarding: (a) meditation; (b) emotional intelligence; and (c) spirituality. Specifically, this literature review defined meditation, described the types of meditation, and the treatment approaches associated with meditation. In addition, the literature review also describes emotional intelligence

and its relationship to counselors and counselor education. Lastly, spirituality, its role in meditation, and the research on daily spiritual experiences were discussed.

This synthesis of the literature revealed several gaps in the literature. For instance, meditation research has shown considerable benefits to mental health. However, the majority of that research ignores spiritual experiences. This is especially unfortunate given that the research has revealed that spirituality potentiates meditation's positive outcomes (Benson, 2009; Wacholtz and Pargamont, 2005). Therefore, a meditation practice that is focused on the practitioner's spiritual beliefs may produce greater outcomes and prove to be more beneficial to the practitioner.

Student counselors who practice meditation may also reap significant benefits. Researchers have shown meditation to be effective in increasing emotional intelligence (Chu, 2009), compassion (Kemeny et al., 2012), and empathy (Leppma, 2012). Given that these traits are considered central to counselor effectiveness and counselor training (Norcross, 2009; Rogers, 1957; Martin, Easton, Wilson, Takemoto, & Sullivan, 2004), successful strategies in developing these traits would be beneficial to the counselor's training. In addition, it is essential that student counselors learn strategies for self-care and wellness (Roach & Young, 2007), and meditation is an effective method of emotion-focused coping (Lazarus & Folkman, 1984) that lends itself to reappraisal and generates positive emotions (Folkman, 1997; Fredrickson, 2009). Thus, meditation could aid counselors in managing the unwanted emotions (i.e., counter transference), stress, secondary trauma and anxiety of counseling.



Unfortunately, existing studies have not looked at counselor trainees. This is particularly important, because incorporating any one of the many meditation practices (see Goleman, 1988) could have significant benefits for counselors (e.g., reducing stress, increasing empathy, increasing emotional intelligence). However, given the research on the enhancing effect of spirituality on mediation, one could infer that a meditative practice focused on spirituality would offer the greatest benefit. Awareness-based practices, such as Mindfulness practices have had considerable research; but they have been separated from their spiritual origins in an attempt to “sanitize” them for research (Walsh and Shapiro, 2006). Thus, research on spiritually focused meditation practices is scarce.

Benson and Stark (2009) noted that most of their research participants preferred a meditation practice where one could repeat a sacred word most in sync with their personal spiritual philosophy, and that this practice elicited greater benefits than those who did not choose a spiritual word. Accordingly, the student counselors in this study were asked to meditate using a spiritual phrase of their choosing. By repeating a spiritual phrase, participants kept their minds focused on a spiritual belief, and the researchers examined if this spiritually oriented meditation produced psychological benefits, specifically, a reduction in stress and an increase in emotional intelligence.

In sum, meditation research has a long and rich history in psychological research (Goleman, 1988; Sedlmier et al., 2012; Singh, 2012). However, there is limited research on the spiritually based meditation practices. Furthermore, researchers have yet to investigate the effectiveness of jyoti meditation, and research on the effect of meditation

on student counselors is limited. There is reason to believe that student counselors would likely benefit from meditation because of its usefulness as a coping and self-care strategy; and its ability to increase emotional intelligence and stimulate spiritual growth.

Additionally, a review of the literature confirms that meditation could indeed enhance these constructs in student counselors. Therefore, this study set out to investigate the influence of jyoti meditation on student counselor's emotional intelligence, stress, and spiritual experiences.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

This chapter presents the research methodology for the study. Specifically, this chapter I will give some of the essential background of the study, the research questions, the research hypothesis, study design, and instrumentation. The chapter concludes with a brief description of the possible implications of the study's findings.

The aim of this study was to determine if a short-term spiritually-oriented meditation training will benefit the master-level student counselors. Specifically, this study will investigate the effect of meditation on a student counselors' emotional intelligence, stress, and the incidence of spiritual experiences. The study proposes to examine Jyoti meditation (JM), which is new to the psychological literature. However, practitioners of JM have employed it as a method of spiritual and personal growth for over 500 years (Singh, 2012).

### **Jyoti Meditation Intervention**

JM is a non-denominational, beginner's meditation that emphasizes concentration and a spiritual connection (as opposed to a religious or atheistic practice). JM was selected for this study because it is a spiritually based meditation practice that is easily learned and not religious. The instructions in JM are as follows (Singh, 2012):

1. Sit in a convenient and comfortable pose.
2. Close your eyes gently.
3. Focus your attention in front of you.

4. Keep gazing horizontally, focusing about eight to ten inches in front of you.
5. Concentrate your focus on what appears in front of you (e.g., lights, darkness, etc.)
6. As we stare, our minds will begin to wander. We focus our mind by repeating any sacred word (e.g., name of God, Peace, Shalom) internally.

By repeating the sacred word and maintaining concentration on a spiritual connection, practitioners do not focus on unhealthy thoughts and emotions that would otherwise distress them. In addition, the steps outlined in JM are similar to other more researched methods including those identified by Benson and Klipper (1976) to elicit a healthy and wakeful hypometabolic state. The psychophysiological state, known as the Relaxation Response (Benson & Klipper, 1976) has several psychological and physiological benefits, including reduced anxiety, aggression, pain, and increase psychological well-being. Thus, JM should have positive influences on physical and psychological wellness.

The Jytoi Meditation curriculum used in this study is designed to help practitioners learn to meditate, and overcome barriers to meditation. It was originally designed by the Science of Spirituality for their course entitled “Meditation 001.” The method is lecture/discussion with each week devoted to a particular topic related such as, how to find a comfortable pose, how to avoid distracting thoughts etc. Following instruction, the group facilitators asked students to practice meditation for 15 minutes. Each week the in-group meditation practice was increased until participants were meditating for 30 minutes in the classroom setting. A group discussion followed in

which participants described any problems and asked questions about their personal practice. At the end of each session, the group facilitator reminded participants to practice meditation at home, and to keep a record of their practice. Participants were asked to practice meditation daily for a minimum of 10 minutes daily.

It was proposed that a six week JM intervention would increase student counselor's level of EQ, decrease their stress reactivity, and increase their daily experiences with the transcendent in everyday life (e.g., experience more gratitude, awe, compassion). Furthermore, the primary researcher proposed that the amount of practice would significantly correlate with the proposed treatment outcomes. Thus, the more an individual meditated, the more they would demonstrate Trait EQ, the lower their stress levels would be, and the more spiritual experiences they would have.

### **Research Question**

1. Is there a difference between trait emotional intelligence (as measured by the Trait Emotional Intelligence Questionnaire [Petrides & Furnham, 2006]), self-reported stress (as measured by the Perceived Stress Scale [Cohen, Kamarck, & Mermelstein, 1983]), and daily spiritual experiences (as measured by the Daily Spiritual Experiences Scale [Underwood, 2008]) between student counselors' who undergo a six-week Jyoti Meditation treatment and those in a wait-list comparison group?

2. Is there a statistically significant relationship between the amount of time reported meditating and EQ, perceived stress, and daily spiritual experiences?

### **Research Hypothesis One**

There will be a significant difference between groups of student counselors who receive a six-week Jyoti meditation curriculum and a group receiving no treatment on their level of emotional intelligence as measured by the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006); their level of stress as measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983); and their spiritual experiences as measured by the daily spiritual experiences scale (DSES; Underwood, 2006).

### **Research Hypothesis Two**

There will be a positive correlation between the amount of time spent meditating and their scores on the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006), their level of perceived stress as measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983), and their spiritual experiences as measured by the daily spiritual experiences scale (DSES; Underwood, 2006).

## **Elements of Experimental Research Design**

The researcher will employ a (2x3) randomized experimental research design (Shadish, Cook & Campbell, 2002). Experimental research designs are intended to test the validity of a causal hypothesis. Researchers use randomization to strengthen

experimental research designs (Shadish, Cook, & Campbell, 2002). According to Kirk (1994) randomization serves three purposes: (a) it helps distribute the unique characteristics of participants across treatment groups reducing selectivity bias; (b) allows for an unbiased statistical estimation of error effects; and (c) it increases the likelihood that error effects and observations are statistically independent. Thus, randomization is considered the foundation of good research design (Kirk, 1994) and randomized experimental designs are considered the gold standard of research (Shadish, Cook, & Campbell, 2002).

### **Threats to Validity**

Campbell and Stanley (1963) described two types of validity that warrant attention to avoid confounding experimental research. First, there is internal validity, which is violated when an unintended factor influences the outcome of a study, such as a participant's history or the natural maturation of a participant unrelated to the treatment effects. Second, experimental researchers are concerned with external validity or the ability to generalize a study's findings to the greater population being tested. The threats to internal and external validity are summarized in Table 1.

In order to mitigate the threats to validity, the primary researcher utilized several approaches, including random assignment, a careful selection of testing instruments, and statistical controls. The use of random assignment increases the likelihood of variation among the groups minimizing the probability of selection bias. Furthermore, because participants were randomly assigned, potential threats to validity were distributed

throughout both groups and potential threats to validity, such as participant history and maturation were lessened.

Because participants were measured on multiple occasions, the researcher was concerned that the study's findings may be negatively influenced by the participant's familiarity with the instrumentation (e.g., practice effects). Therefore, the assessments were carefully chosen so that they were short and less likely to cause participant fatigue. The brevity of the assessments and the content of their items (i.e., self-perception rather than performance based) decreased the likelihood that repeated testing would have an undesirable influence on the study's findings.

The use of randomization and the selection of testing instruments are considered experimental controls; however, another approach to mitigating the threats to validity includes the use of *statistical* controls. Researchers who identify potential nuisance variables can include them into the statistical analysis and measure or control their influence on the research findings. For example, it is common for an analysis of covariance to be used to account for a potential confounding factor. In this study we selected a number of potential moderating or mediating factors and included them within our analysis to detect the influence they may have had on our study findings.

### **External Validity**

By administering the treatment in only one university there is also a risk to external validity. For instance, the findings could be the product of the unique characteristics of the sample. However, Campbell (1986) argued that external validity (as



well as internal validity) is often confused as just a sampling problem. However, to sample from the universe of possibilities in order to generalize is impractical and impossible. Therefore, he recommended, “formal abandonment of the goal of nationally representative sample selection” (Campbell, 1986, p. 73), and instead researchers should base external validity on *theory of proximal similarity*, a theoretical comparison of the similarities between the sample and the population. Therefore, regardless of how many settings the study is conducted in, the results may still be externally valid if they are conducted with a group theoretically similar to the larger sample. According to the June 2013 American Counseling Association membership report, 26% of counselors identified as male, 8% African American, 2% Asian American, 82% Caucasian, 4% Hispanic, and 1% multiracial.

### **Participant Demand Characteristics**

Demand characteristics of participants also serve as a threat to inference making in an experimental study. Kirk (1994) defines demand characteristics as any characteristic or attribute of an experimental condition that causes participants to act towards or against the purpose of the experiment. Some examples of demand characteristics include, the cooperative –subject effect, the “screw you” effect, and evaluation apprehension. In the cooperative-subject effect participants are hoping to be ideal subjects and present the researcher with what they believe are the desired outcomes. Conversely, in the screw you effect, participants are uncooperative and hope to sabotage the experiment. Lastly, evaluation apprehension refers to subjects being concerned with receiving a positive

evaluation from the researcher and providing answers that display their intelligence and most desirable characteristics. In each of these cases, participants are either consciously or unconsciously skewing the findings of the study.

In order to lessen the participant demand characteristics, the primary researcher employed a single-blind procedure. In a single-blind procedure information regarding the purpose and nature of the experiment are kept from participants. In this study, participants were only informed that they would take part of two groups that were developed to increase their wellness and teach them about counselor communication skills. All documentation (e.g., informed consent, and assessments) were modified as much as possible to conceal the constructs being measured and the researcher's goals. By withholding the details of the experiment, researchers lessened the influence of participant demand characteristics. A debriefing statement explaining these withheld details was given to participants after the study was complete. At the time of debriefing participants were administered a brief survey regarding their perception of the experiment in order to determine if any demand characteristics were present.

In sum, Goodwin (2010) remarked that learning to detect potential confounds and controlling for them is one of the most difficult skills for a researcher to learn. In this study several strategies were implemented to reduce the effects of nuisance variable. Whereas, no study should be considered confound-free, a reasonable and thorough approach was taken to reduce impact of nuisance variable. In the following section we continue to describe the study's procedure and describe the validity and reliability of the measurement tools.

## **Procedure**

### **Participants**

Prior to recruiting participants, the study was submitted to and approved by the University of Central Florida Institutional Review Board (IRB). The researcher recruited Mental Health, Marriage and Family, and School Counselors from an Introduction to Counseling Course from a CACREP accredited Counselor Education program. This was the first course these students took in their masters-level counseling program. Students were informed that as a part of the Introduction to Counseling course they would need to participate in lab groups and that one of these lab groups would feature a meditation technique. Furthermore, they were informed that this semester the lab groups were part of a research experiment being conducted as a part of a doctoral student's dissertation. The students were given the opportunity to withdraw from the study and were informed that an alternative group would be provided for them. However, all 61 students in attendance (one student was not present for the informed consent process and was not included in the data collection process) agreed to participate in the study. As the study proceeded, it became clear to the primary researcher that one of the study participants was not attending the lab groups (leaving during the break before the lab groups) and was struggling in the course. This participant was removed from the study but allowed to attend the groups as they could. Therefore, the study concluded with an  $N = 60$  with 30 participants in each group.

## **Random Assignment**

Participants were randomly assigned to either the meditation or the communication skills group. First, each participant was assigned a randomly generated alpha-numeric code using an online string generator (<http://www.sweepjudge.com/string-generator.htm>). The alphanumeric code was given to each participant and participants were instructed to write their code on all study documents (e.g., assessments, meditation journals, etc.) to increase participant confidentiality and privacy. Then using the randomization tools found on randomizer.org, each alphanumeric code was randomly assigned to either the treatment or the comparison group. Students were informed which group they would participate in during the first week of the study. The comparison group was told that they would be receiving the meditation treatment at a later time in the semester.

## **Measurement Procedure**

At the onset of the study, the primary researcher administered the informed consent, the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2001), the Perceived Stress Scale (Cohen et al., 1988), and the Daily Spiritual Experiences Scale (Underwood, 2008) to all participants. On the third and final weeks of the study, the assessments were re-administered, providing the researcher with three measurement points (see figure 3). Additionally, the students were asked to complete a weekly meditation journal (Appendix E) that reported their frequency of meditation, their experiences meditating, and their motivation for the meditation practice. The meditation journals were picked up weekly by the primary researcher. Several students reported

difficulty in remembering to complete the meditation journal. Therefore, they were given a blank journal to fill out at the end of each week before they engaged in the meditation group (see Appendix E).

Week One:	Week Two	Week Three	Week Four	Week Five	Week Six
<ul style="list-style-type: none"> <li>• Participants are randomly assigned to groups</li> <li>• Participants are administered the informed consent</li> <li>• Participants complete assessments</li> <li>• Participants learn meditation technique</li> </ul>	<ul style="list-style-type: none"> <li>• Participants attend group session</li> <li>• Participants meditate throughout the week and record meditation frequency</li> <li>• Participants turned in meditation logs</li> </ul>	<ul style="list-style-type: none"> <li>• Participants complete assessments</li> <li>• Participants attend group and meditate throughout week</li> <li>• Participants turned in meditation logs</li> </ul>	<ul style="list-style-type: none"> <li>• Participants attend group session</li> <li>• Participants meditate throughout the week and record meditation frequency</li> <li>• Participants turned in meditation logs</li> </ul>	<ul style="list-style-type: none"> <li>• Participants attend group session</li> <li>• Participants meditate throughout the week and record meditation frequency</li> <li>• Participants turned in meditation logs</li> </ul>	<ul style="list-style-type: none"> <li>• Participants attend group session</li> <li>• Participants meditate throughout the week and record meditation frequency</li> <li>• Participants turned in meditation logs</li> <li>• Participants complete exit surveys the following week.</li> </ul>

Figure 3: Treatment sequence

## **Curricula**

The meditation group utilized a curriculum developed by the Science of Spirituality, a non-profit, non-denominational organization dedicated to helping individuals develop deeper and more fulfilling lives through meditation. The Science of Spirituality has existed for over 500 years and is currently under the direction by Sant Rajinder Singh Ji Maharaj, who developed the meditation practice being used in this study. In order to use the curriculum, the primary researcher wrote a prospectus that the study's faculty advisor presented to members of the board of the Science of Spirituality. The Science of Spirituality approved the study and provided the curriculum.

The meditation curriculum consisted of six lectures and an experiential component where they practiced the technique in class. Each week the meditation practice would increase in duration and the lectures would become shorter. In the first week, the facilitator introduced himself to the group, described the course curriculum, and reviewed the meditation technique with participants. The following week focused on reviewing the physical, mental, emotional, spiritual, and social benefits of meditation. In the third group, session participants discussed how to develop the meditation technique. In the fourth and fifth sessions, the facilitator discussed various methods of keeping the body and mind still. In the last session, the group reviewed what they had learned and discussed how they could continue to put the technique into practice.

As a comparison group, the study utilized the already existing psycho-education communication skills curriculum developed by the course instructor. Like the meditation group, each group session consisted of a lecture and an experiential activity. The

instructor created the activities in the curriculum from a review of the relevant literature and professional expertise. The group discussed the following topics: (a) Interpersonal style; (b) two-way communication; (c) nonverbal communication; (d) feedback; (e) self-disclosure; and (f) listening and responding. In the first group, facilitators reviewed the interpersonal styles diagram created by Koortzen and Mauer (2005) and facilitated an experiential exercise where participants reflected on each other's interpersonal behaviors. In the second group session, participants discussed the differences between two-way and one-way communication and compared the amount of time it took to draw shapes using the two different approaches to communication. The third group session consisted of activities related to personal space and nonverbal communication. In the fourth group session, participants reflected on the principles of effective feedback and then compared the different approaches in an experiential activity. In the fifth group, members discussed self-disclosure and practiced the different types of self-disclosure, and in the sixth group, participants practiced listening and responding skills. The complete curriculum can be found in Appendix D.

The groups were similar in structure, being comprised chiefly of lecture and discussion. However, the comparison group was divided into four sections of eight or nine students and run by two facilitators; whereas, the meditation group was one large group of 30 students and run by one facilitator. The meditation curriculum was delivered solely by PowerPoint slides, which can be found in Appendix C.



## **Facilitators and Research Setting**

### **Meditation group**

The meditation instructor was a 50 year-old old white male, certified by Science of Spirituality in Jyoti meditation. The meditation instructor has more than 20 years of experience teaching and 30 years practicing the meditation technique used in the group. He was given no information about what outcomes the researchers were expecting.

The groups were held in the Introduction to Counseling course classroom. The students were permitted to move around the room and get comfortable before the meditation class began. However, due to the large group size, most students did not move, and instead, sat at behind the tables laid out throughout the room. Overall, the group setting was private and clear of distractions. On one occasion, a maintenance crew member entered the room talking on her cell phone and slamming the door which participants found to be disruptive.

### **Comparison group**

The psychoeducational communication skills groups were held in the university Community Counseling and Research Center in smaller treatment rooms. The counselor education program's first-year doctoral students facilitated these groups. This large group was divided into four smaller groups and two doctoral students facilitated each group. The rooms were smaller than the meditation group's and was more like a counseling room with couches and comfortable chairs.

## **Instrumentation**

Participants completed three paper-and-pencil assessments, a demographic questionnaire, and a weekly meditation journal. The assessments employed were: (a) the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006); (b) The perceived stress scale (Cohen, Kamarck, & Mermelstein, 1983), and (c) the Daily Spiritual Experiences Scale (Underwood, 2008). In addition, participants completed a demographic form and a weekly meditation log that were developed by the primary researcher.

### **Demographics Questionnaire**

The researcher created a brief demographic questionnaire to provide information regarding the participant's background and familiarity with meditation. The demographic information was later used to determine if cultural variables such as age, gender, and race were equally distributed between groups. In addition to age, gender and race, the primary researcher also asked participants to identify their religious affiliation, their history and frequency of meditation, and if they considered themselves as a spiritual or religious person. During data analysis, the primary researcher investigated if demographic variables were significant predictors of treatment outcomes.

### **Meditation Journal**

Each week, participants completed a meditation journal. The primary researcher developed the meditation journal after consultation from the weekly meditation log used by Leppma (2011). The journal had two major aims. First, it provided the research team with an account of the frequency by which participants meditated each week. Second, the

meditation journal provided qualitative information regarding the participant's meditation experience. In addition to a chart where participants reported daily meditation practice, the journals asked participants to describe their experience meditating that week, note what was beneficial to them, what was difficult, and how interested they were in participating in the meditation course. The data obtained from this journal (see appendix e) will be used to answer research question two and provide some insight into the potential moderating effect of meditation frequency.

### **Trait Emotional Intelligence Questionnaire**

For the purposes of this study we will define emotional intelligence as the constellations of behavioral dispositions and self-perceived abilities that relate to the management of emotions in self and in others (Petrides and Furnham, 2001). This ability is most often measured using the Trait Emotional Intelligence Questionnaire (TEIQue) developed by Petrides and Furnham (2001; 2006). For this study, the short form version of the TEIQue was employed. The long form TEIQue contains 153 items with 15 subscales (Petrides & Furnham, 2001).

Table 1 Adult sampling domain of TEIQue

Facets	Self-Perceptions
Adaptability	...flexible and willing to adapt to new conditions.
Assertiveness	...forthright, frank, and willing to stand up for their rights.
Emotion perception	...clear about their own and other people's feelings.
Emotion expression	...capable of communicating their feelings to others.
Emotion management	...capable of influencing other people's feelings.
Emotion regulation	...capable of controlling their emotions.
Impulsiveness (low)	...reflective and less likely to give in to their urges.
Relationships	...capable of having fulfilling personal relationships.
Self-esteem	...successful and self-confident.
Self-motivation	...driven and unlikely to give up in the face of adversity.
Social awareness	...accomplished networkers with excellent social skills.
Stress management	...capable of withstanding pressure and regulating stress.
Trait empathy	...capable of taking someone else's perspective.
Trait happiness	...cheerful and satisfied with their lives.
Trait optimism	...confident and likely to "look on the bright side" of life.

Note: Table 1 is adapted from Petrides & Furnham, 2001

Petrides (2009) reported that these facets of Trait EQ shown in Table 3 were the product of a content analysis of early EQ theories and other constructs (e.g., alexithymia, affective communication, empathy). The facets of the TEIQue were intended to be narrower than the factors of the scale, and the factors to be narrower than the global trait EQ score (Petrides, 2009). A factor analysis of the TEIQue resulted in four factors: (a) emotionality, (b) sociability, (c) well-being, and (d) self-control. Moreover, Petrides

reported that self-motivation and adaptability did not load to any factor but instead loaded into the global trait EQ score.

**Emotionality.** In the TEIQue, the factor emotionality consists of trait empathy, emotion perception, emotion expression, and relationships. Emotionality is a combination of Goleman's (2001) self-awareness and self-management. Specifically, this factor represents the degree to which individuals see themselves as being in touch with their emotions and the emotions of others. Individuals who are high in emotionality can utilize their understanding of emotion to express their feelings effectively and use this emotional information to create and sustain close relationships (Petrides, 2009).

**Sociability.** Sociability in the TEIQue consists of emotion management, assertiveness and social awareness. Similar to Goleman's (2001) The social awareness factor, sociability, represents an individual's ability to be a good listener, and communicate clearly. It differs from emotionality, in that sociability is specifically related to the social dimension of emotional intelligence (Petrides, 2009).

**Well-being.** Well-being study consists of trait happiness, trait optimism, and self-esteem. Well-being relates to one's self-perception of wellness as based on their past achievements and future expectations (Petrides, 2009). Individuals who score highly on well-being have a high self-regard and are content in the present moment.

**Self-control.** On the TEIQue, self-control consists of emotion regulation, impulsiveness, and stress management. This factor is similar to Goleman's (2001) self-management and stress management. High scorers in self-control are able to manage their distress, external pressures, and control their impulses. Inversely, low scorers on this

scale are less likely to engage in social relationships, have difficulty affecting the emotions of others, and are generally shy (Petrides, 2009).

All of the internal consistencies of the TEIQue variables, the 15 facets, four factors, and one global trait score were found satisfactory for both males and females, as seen in Table 4. In an earlier study, Mikolajczak, Luminet, Leroy, and Roy (2007) found that ten of the TEIQue subscales had average to excellent internal consistency (i.e., ranging from .79 to .91) between genders. However, two of the subscales, empathy and self-motivation had acceptable reliability with men but low reliability with women. In addition, both men and women scored Cronbach alphas (internal consistency) below .70 on the scales for impulsiveness, relationship skills, and adaptability. On the other hand, internal consistency of the global scores was excellent for both men and women. Furthermore, researchers found the TEIQue demonstrated strong convergent and criterion validity (Mikolajczak, Luminet, Leroy, and Roy, 2007). Specifically, researchers found the test to be positively related to optimism, agreeableness, openness, and conscientiousness, and inversely related to alexithymia and neuroticism.

The short form of the assessment contains 30 items (Petrides & Furnham, 2006). Petrides and Furnham (2006) devised this shorter version by selecting two items from each of the original TEIQue subscales. They selected items based that correlated most highly with the total subscale scores. The TEIQue-SF consists of 7-point likert-type scales, ranging from completely disagree (1) to completely agree (7). Examples of items include: “I often find it difficult to see things from another person’s viewpoint” and “I often pause and think about my feelings” (Petrides & Furnham, 2006).

Cooper and Petrides (2010) examined the psychometrics of the TEIQue-SF using item-response theory. They conducted two studies, which employed the graded response model (GRM; Samejima, 1969) to produce a category response curve for each item. Researchers then graphed the category response curves in order to examine the properties of each item. In the first study, researchers examined the responses of 1,119 men ( $n = 455$ ) and women ( $n = 653$ ; 11 did not report gender). To justify the use of a unidimensional IRT model, researchers conducted an EFA and found a dominant global trait factor. The EFA also suggested a good model fit with the majority of residuals either a .01 or .00, and no residuals over .04. Thus, the EFA suggested that GRM was appropriate. In addition, Cooper and Petrides reported that the majority TEIQue-SF responses had moderate discrimination values and high discrimination parameters indicating that the items behaved consistently across the assessment.

The second study conducted by Cooper and Petrides (2010) had similar results. This time, Cooper and Petrides utilized an updated version (1.50; Petrides, 2010) of the TEIQue-SF. In the new version of the TEIQue-SF, four of the questions were re-worded to coincide with the long form version of the test. Cooper and Petrides administered the assessment to 866 participants. The results of the GRM were similar to those in study one. The findings suggested a good model fit, with no residuals larger than .02. Additionally, the discrimination values were again moderate with the exception of question 23, which exhibited a low value (.50). In sum, this study served to replicate and confirm the findings in the first study (Cooper & Petrides, 2010)

According to Cooper and Petrides (2010) these two studies represent the most advanced and thorough examination of any EQ instrument. The results of these studies indicate that the TEIQue-SF has overall good psychometric properties. Specifically, they suggest that the TEIQue-SF is effective in discriminating between individuals and that the instrument has good measurement precision.

### **The Perceived Stress Scale**

The Perceived Stress Scale (PSS) is a widely used measure of the self-perception of distress (Cohen et al., 1988). Cohen, Kamarck, and Mermelstein (1983) based the PSS on Lazarus' theories of stress and coping (see Lazarus & Folkman, 1984). Their intent was to develop a scale that would provide researchers information regarding the stress appraisal process, the events that provoke stress, and a measurement of how individuals experience stress. Consequently, Cohen, Kamarck, and Mermelstein (1983) developed PSS, a six, ten, and fourteen item assessment that uses likert scales to measure a respondent's level of stress during the last month. High scores on the PSS have been associated with failure to quit smoking, failure to control diabetes, and greater vulnerability to life-event elicited depressive episodes (Cohen et al., 1988). Moreover, the scale is available in English, Arabic, Chinese, Greek, Korean, Spanish, and Vietnamese.

Cohen, Kamarck, and Mermelstein (1983) tested the validity of the scale with three samples, two from college students and a heterogeneous sample of individuals from a smoking cessation program. The coefficient alphas were .84, .85, and .86, respectively. Additionally, test-retest correlation was  $r=.85$  for the two samples of college students retested after two days, and .55 for the group of smokers retested after six weeks. In order



to assess criterion and concurrent validity, Cohen, Kamarck, and Mermelstien (1983) compared the PSS to the College Student Life-event scale, the Center for Epidemiologic Studies Depression Scale, the Cohen-Hoberman Inventory of Physical Symptoms, and the Social Avoidance and Distress Scale. All correlations were significant. Thus, these findings suggest that the PSS can serve as an adequate measure of stress. The acceptable psychometric properties were the reasons for using it as a measure of stress in this study.

### **Daily Spiritual Experiences Scale (DSES)**

Underwood (2008) developed the daily spiritual experiences scale (DSES) to investigate ordinary spiritual experiences, such as awe, gratitude, a sense of connection with the transcendent, deep inner peace, and the giving and receiving of compassionate love. Underwood (2006) stated that while working on the development of a largely used multi-dimensional measure of religion and spirituality, she noticed a need to include a measure of ordinary spiritual experiences because they were an important aspect of religious coping. Underwood (2006) then set out to create such a measure.

The development of the DSES began with a series of qualitative interviews and a review of theological constructs from various religions (Underwood, 2006). From this, Underwood drafted an initial list of items and presented them to several focus groups and conducted interviews. The first focus group was comprised of medical students from Chicago, the second was a group of Trappist monks, and then interviews were conducted with college students, students age 9 -15, and members of a World Health Organization spirituality project team. During the interviews and focus groups, researchers asked participants to reflect on the items and remark on; (a) how much they reflect their

personal spiritual experiences; (b) if they found the item readable; and, (c) what events or experiences they used to determine their answer. Underwood used the results to finalize the scale.

The final form of the test is a 16 item, self-report measure for the use in health studies. The authors of the scale specify that the scale is intended to measure ordinary rather than mystical spiritual experiences (e.g., visions or hearing voices). In particular, the scale measures 9 key dimensions: (a) connection with the transcendent, (b) sense of support from the transcendent, (c) awe, (d) gratitude, (e) compassion, (f) mercy, (g) loving for the transcendent, (h) awareness of inspiration, and (i) deep sense of inner peace. Underwood (2011) reported that the scale has been used in 70 published studies.

The scale has high internal consistency ranging from .89 to .95 across multiple samples (see Bally & Roussiau, 2010; Mayoral, Underwood, Laca, & Mejia, 2011; Ng et al., 2009; Underwood, 2002; Underwood, 2011). Ellison and Fan (2008) reported internal consistencies above .94 from a national sample. Likewise, Underwood (2002) reported that the DSES had good test-retest reliability over two days ( $r = .85$ ). Thus, it was determined that, overall, the DSES has acceptable psychometrics as a measure of spirituality for this study.

### **Summary of Scales**

In sum, the primary researcher found that the three main scales being utilized in this study all demonstrated favorable psychometrics. However, a few limitations regarding the measurement tools are worth discussing. First, all of the scales are self-

report and generally self-report is a less reliable measure than observed measures due to a number of factors including social desirability. In addition, there is no way of knowing if participants are engaging in the treatment practices as reported on their meditation journals or if there.. However, because the study investigated constructs that are private experiences (e.g., perceived stress and trait EQ) using self-report for these constructs was selected.

### **Conclusion**

In conclusion, this study determined if a six-week meditation curriculum will have a significant influence on the trait emotional intelligence, the perceived stress, and daily spiritual experiences when compared with a communications skills group. In addition, we propose that participants who practice meditation more will reap more benefits from the practice. Therefore, by employing the experimental design described here, we hope to uncover significant information about the effectiveness of a meditation intervention with counselors.

To date, meditation research has refrained from examining the spiritual domain. However, spirituality and spiritual experiences are a crucial part of human development, functioning, and overall wellness and have become more prevalent in counseling and psychotherapy (Cashwell & Young, 2009). This study adds to the current literature on meditation and counseling by employing a type of meditation with a spiritual direction. Studies have shown that meditation alone can be effective for reducing stress and

regulating emotions (Sedlmier et al., 2012), and that when one incorporates spirituality into meditation the results are stronger (Benson, 1984).

In addition to providing information regarding the effectiveness of Jyoti meditation when compared to a communication skills group, this study also provided information regarding the moderating and mediating factors at work in mediation outcomes. Sedlmier and colleagues (2012) stated that a major limitation in all meditation research is the lack of understanding the underlying mechanisms responsible for meditation's effectiveness. This study was designed in such a way as to test what factors might influence meditation's effectiveness and help bridge this gap in the literature.

## CHAPTER FOUR: DATA ANALYSIS

Chapter 4 presents the results of a six-week Jyoti meditation group intervention on student counselors' level of emotional intelligence, stress, and spiritual experiences. This chapter also describes the relationship between EQ, stress, spiritual experiences and meditation frequency. Prior to presenting the findings, the chapter begins with a description of participant demographics and a brief description of the statistical analysis used for the study. This chapter is intended to cover the results of the statistical analyses, for a detailed interpretation of these findings, please see chapter five.

The research questions are as follows:

1. Is there a difference in emotional intelligence (as measured by the Trait Emotional Intelligence Questionnaire [Petrides & Furnham, 2006]), self-reported stress (as measured by the Perceived Stress Scale [Cohen, Kamarck, & Mermelstein, 1983]), and daily spiritual experiences (as measured by the Daily Spiritual Experiences Scale [Underwood, 2008]) between the student counselors who undergo a six-week meditation treatment and those in a psycho-educational communication skills comparison group?
2. Is there a statistically significant relationship between the amount of time reported meditating and EQ, perceived stress, and daily spiritual experiences?

To answer research question one, I conducted a repeated measures multivariate analysis of variance (RM-MANOVA) on two samples. The first sample examined all the

students ( $n = 60$ ) in the meditation group ( $n = 30$ ) and the comparison group ( $n = 30$ ). 62 students agreed to participate in the study but two students were not able to attend the majority of the groups. In addition to participating in the weekly meditation group, the experimenter requested that participants meditate outside of class for a recommended dosage of 10 minutes a day. Because not all participants meditated at the same frequency over the six weeks, I conducted a second analysis using a sample from the comparison group ( $n = 20$ ) and just students who meditated a minimum of 172 minutes (i.e., participated in the group and meditated at least an additional 10 minutes for each week) over the six weeks ( $n = 20$ ).

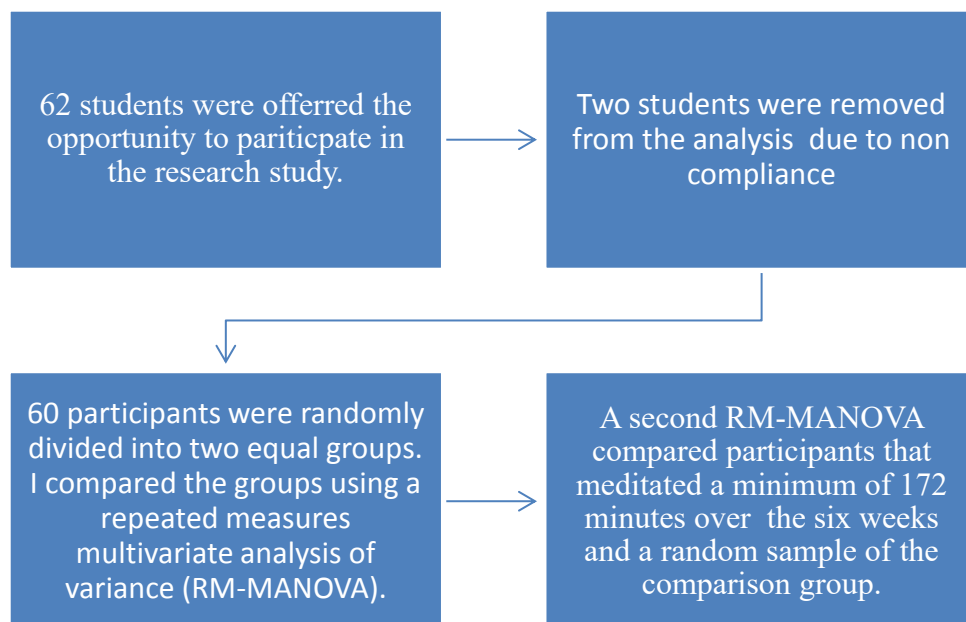


Figure 4 Process of analysis for research question one

To answer research question two, I conducted a Pearson product-moment correlation. Researchers use the Pearson product-moment correlation to test the relationship between two variables. Similar to the RM-MANOVAs, I conducted the analyses first on the full sample of participants and then again on the subsample.

Finally, I conducted an additional analysis to gain a better understanding of how the independent variables changed over time. Specifically, I conducted a growth curve analysis using stress scores as the dependent variable ( $n = 60$ ) and nesting measurement points within each participant. Although the growth curve analysis is beyond the scope of the dissertation, it is included because it allows the reader to consider another view of the findings.

### **Demographic Characteristics**

Sixty counseling students participated in this study in order to fulfill a requirement of their introduction to counseling course. The course consisted of 62 students; however, two students were not able to participate due to not being able to attend the majority of the group sessions and not being present during the informed consent process. Eighty-eight percent ( $n = 53$ ) of the participants were female and 12% ( $n = 7$ ) male. The mean age of participants was 24 ( $SD = 4.350$ ) with ages ranging from 20 to 47. The modal age of participants was 22. In terms of race, 63% of participants identified as white, 11.7% Latino, 15% Black, 8.3% Asian, and 1 declined to report. The course was open to non-degree seeking students ( $n = 3$ ), school counseling students ( $n$

=19), marriage and family therapy students ( $n = 14$ ), and mental health counseling students ( $n = 24$ ).

The treatment required participation in a spiritually based form of meditation; therefore, information regarding participant religious backgrounds and their history of meditation was collected in the demographic questionnaire. The majority of participants identified themselves as Christian (51.7%;  $n = 31$ ), 20% ( $n = 12$ ) reported they had no religious affiliation, 5% ( $n = 3$ ) were Muslim, 1.7% ( $n = 1$ ) Hindu, and 13.3% ( $n = 8$ ) identified as atheist. When asked if they would describe themselves as “spiritual” 73.3% of participants reported yes. However, only 56.7% of participants described themselves as religious. Therefore, about 17% of participants would describe themselves as spiritual but not religious compared to the national statistic of about 37% who describe themselves this way. (Lugo, 2012). Fifty-three percent of participants had meditation experience and 21.7% currently meditated. Of those that currently meditated, some practiced mindfulness meditation (8.3% ;  $n = 5$ ), spiritual devotional meditation (8.3% ;  $n = 5$ ), or yoga (3.3% ;  $n = 2$ ) and most (62%) practiced less than 90 minutes per week.

### **Comparison of Groups on Demographics**

I conducted an independent t-test to determine if the groups were statistically different in terms of demographic variables. The results are displayed in table 2. The two groups showed no significant difference in age  $t(58) = .859, p = .394$ , gender  $t(58) = 1.201, p = .235$ , religious affiliation  $t(58) = .295, p = .77$ , self-reported spirituality  $t(58) = -.576, p = .567$ , self-reported religiosity  $t(58) = .513, p = .610$ , race  $t(58) = .699, p = .487$



or those that reported currently meditate  $t(58) = -.815, p = .418$ . However, groups did statistically differ in the amount of past meditation experience  $t(58) = -2.112, p = .04$ . Members in the comparison group had significantly higher average of meditation experience ( $p < .05$ ). A second independent t-test examined the statistical difference between groups and the independent variables (see table 3). The findings revealed that at the onset of the study there were no statistically significant differences between the two groups in relation to daily spiritual experiences ( $t(58) = .949, p = .346$ ), perceived stress ( $t(58) = -.335, p = .739$ ), nor in emotional intelligence ( $t(58) = -.350, p = .728$ ).

Table 2. Pre-test means and standard deviations between

Source	Group Status	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE</i>
DSE	Meditation	30	64.30	18.404	3.360
	Comparison	30	59.57	20.183	3.685
PSS	Meditation	30	15.73	5.533	1.010
	Comparison	30	16.23	6.027	1.100
TEI	Meditation	30	163.57	14.876	2.716
	Comparison	30	164.90	14.622	2.670

Note: DSE = Daily spiritual experiences, PSS=Perceived stress scale, TEI=Trait emotional intelligence

Table 3. Comparison of pre-test scores between groups

	<u>Levene's Test</u>		<u>t-test for Equality of Means</u>		
	<i>F</i>	<i>p.</i>	<i>t</i>	<i>df</i>	<i>p</i>
DSE	1.207	.276	.949	58	.346
PSS	.750	.390	-.335	58	.739
TEI	.103	.749	-.350	58	.728

### Second Sample Analysis Demographics

Further, because the study asked that students meditate in class and at least 10 minutes a day outside of class, an analysis was also conducted with participants who meditated within the group and at least one additional day outside of the group (i.e., a total of 172 minutes for the six weeks;  $n = 20$ ). This second analysis was conducted because the meditators provided a more accurate representation of the treatment. In order to maintain equal group sizes for this second analysis only 20 participants were randomly selected from the comparison group. Of the students used for this second analysis, ninety-five percent ( $n = 38$ ) of the participants were female and 5% ( $n = 2$ ) male. The mean age of participants in this second sample was 24 ( $SD = 4.350$ ) with ages ranging from 20 to 40. The mode age of participants was 22. In terms of race, 72% of participants identified as white, 10% Latino, 7% Black, 7% Asian, and 1 did not report. The course was open to non-degree seeking students ( $n = 1$ ), school counseling students ( $n = 12$ ), marriage and family therapy students ( $n = 9$ ), and mental health counseling students ( $n = 18$ ).

The majority of participants identified themselves as Christian (60%;  $n = 24$ ), 15% ( $n = 6$ ) reported they had no religious affiliation, 2.5% ( $n = 1$ ) were Muslim, 2.5% ( $n = 1$ ) were Hindu, and 10% ( $n = 4$ ) identified as either atheist or agnostic. When asked if they would describe themselves as “spiritual” 75% of participants reported yes. However, only 62% of participants described themselves as religious. 62% of participants had meditation experience and 27% currently meditated. Of those that currently meditated, some practiced mindfulness meditation (10% ;  $n = 4$ ), spiritual devotional meditation (10% ;  $n = 4$ ), or yoga 5% ;  $n = 2$ ) and most (90%) practiced less than 90 minutes per week. The two groups in this subsample had no statistically significant differences in age  $t(20.233) = 1.949, p = .065$ , gender  $t(19) = 1.453, p = .163$ , religious affiliation  $t(38) = .139, p = .890$ , self-reported spirituality  $t(38) = -.717, p = .478$ , self-reported religiosity  $t(38) = .319, p = .752$ , race  $t(38) = 1.022, p = .313$  or those that reported currently meditate  $t(38) = -.900, p = .374$ . However, groups did statistically differ in the amount of past meditation experience  $t(36) = -2.390, p = .02$ .

Lastly, at the onset of the study there were no statistically significant differences between the two groups in relation to daily spiritual experiences ( $t(38) = 1.231, p = .226$ ), perceived stress ( $t(38) = .504, p = .617$ ), and emotional intelligence ( $t(38) = -.180, p = .858$ ). Thus, overall, there was no significant difference between the subsample used for the second analysis ( $n = 40$ ) and the larger sample ( $n = 60$ ).

### **Reliability of Scales**

Cronbach Alphas were attained to rate the reliability of each scale used in this study. The Daily Spiritual Experiences Scale (DSES) had a high level of internal consistency with a Cronbach Alpha of .97. Likewise, the Trait Emotional Intelligence Questionnaire (TEIQue) also had a high level of internal consistency with a Cronbach Alpha of .86 as did the perceived stress scale (PSS) at an alpha of .90. Thus, each scale provided a reliable measurement of its construct.

### **Results of the Research Questions**

#### **Results of Research Question One**

This study examined the effect of a six week Jyoti meditation group on factors related to counselor development. First, the study tested whether there would be a significant difference between groups of student counselors who receive a six-week Jyoti meditation curriculum and a group receiving no treatment on their level of emotional intelligence as measured by the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2006); their level of stress as measured by the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983); and their spiritual experiences as measured by the daily spiritual experiences scale (DSES; Underwood, 2006). The statistical analysis used to investigate the mean differences in trends between and within the groups was a repeated measures multivariate analysis of variance (RM-MANOVA). The RM-MANOVA consisted of one dependent variable (i.e., group status) and three independent variables (i.e., levels of spiritual experiences, stress, and emotional intelligence).

## **Statistical Assumptions**

Tabachnick and Fidell (2007) identified three practical issues in RM-MANOVA that are relevant to our study: (a) multivariate normality; (b) homogeneity of variance-covariance matrices; and (c) sample size in each group. Test of normality (i.e., Shapiro-Wilk) indicated that the data were normal with the exception of the DSES pretest scores for the comparison group ( $p = .03$ ). Visual inspection of the DSES comparison group confirmed that the group data were slightly non-normal. However, RM-MANOVA is robust to violations of normality (Tabachnick & Fidell, 2007), and it is common in the social sciences for data to be non-normal with samples larger than 30 (Pallant, 2007). Thus, it is reasonable to conclude that the violation of normality for DSES had only a small effect on the findings. To ensure that the non-normality had no significant effect, I transformed the DSES scores using the reflect and square root transformation (Tabachnick & Fidell, 2007; Pallant, 2007); and reran the repeated measures analysis. As expected, the results of the repeated measures MANOVA were no different for the transformed scores. Box's M test of equality of covariance was not significant ( $p = .261$ ); therefore, the assumption of homogeneity among covariance matrices was not violated. Box's M test of equality of covariance was not significant ( $p = .261$ ); therefore, the assumption of homogeneity among covariance matrices was not violated. Lastly, sample sizes were equal for both groups.

## **Multivariate Results**

Results from the multivariate test revealed no significant interaction between time and group, Wilks'  $\lambda = .907$ ,  $F(3,56) = .906$ ,  $p = .498$  (see table 4). Whereas, the within

subject main effects were significant, Wilks'  $\lambda = .771$ ,  $F(6,53) = 2.625$ ,  $p < .05$ , there was no significant between subject effects, Wilks'  $\lambda = .912$ ,  $F(3,56) = 1.801$ ,  $p = .16$ . Consultation of the univariate tests (see table 5) revealed that DSES (i.e., spiritual experiences) and PSS (i.e., stress) increased over time with  $F(2,116) = 5.426$ ,  $p < .01$  and  $F(2,116) = 4.348$ ,  $p < .05$ , respectively. Greenhouse-Geisser was consulted for TEI or trait emotional intelligence because it violated the assumption of sphericity ( $p < .01$ ). Results demonstrated that TEI did not have a significant within groups effect,  $F(2,116) = .661$ ,  $p = .518$ . A plot of the mean trend of PSS and DSE over time can be found in Figure 5 and figure 6, respectively.

Table 4 Main effects of RM-MANOVA

Effect	$\lambda$	$F$	$df1$	$df2$	$p$	Partial $\eta^2$
Group	.912	1.801	3	56	.157	.088
Time	.771	2.625	6	53	.027	.229
Time * Group	.907	.906	6	53	.498	.093

Table 5 Univariate tests

Source	Measure	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>Partial η<sup>2</sup></i>
Time	DSE	2	294.08	147.04	5.43	.006	.086
	PSS	2	136.94	68.47	4.35	.015	.070
	TEI	1.710	108.81	63.65	.661	.496	.011
Error	DSE	116	3143.711	27.101			
	PSS	116	1826.800	15.748			
	TEI	99.154	9549.889	96.314			

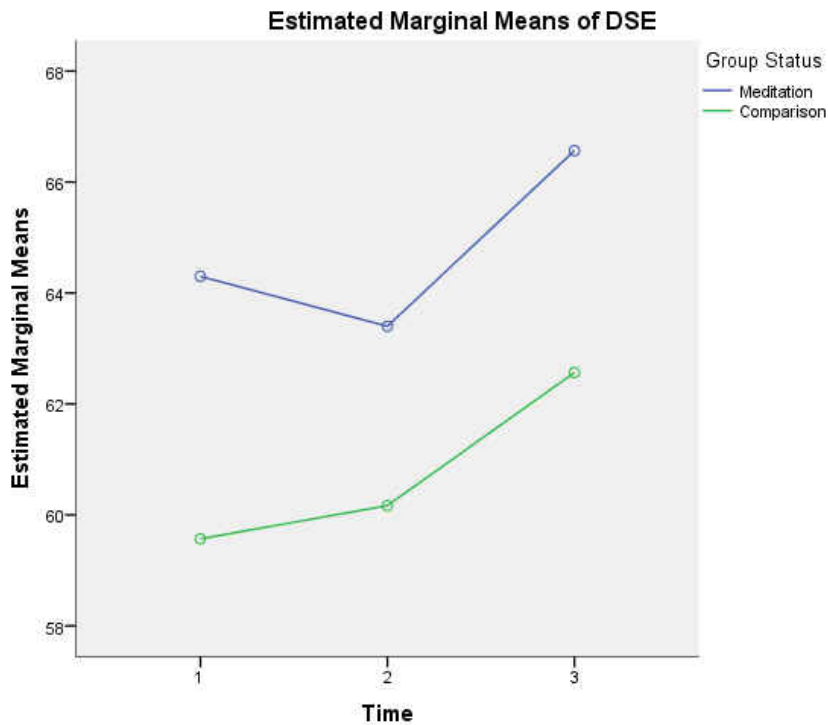


Figure 5. Plot of DSE means over time

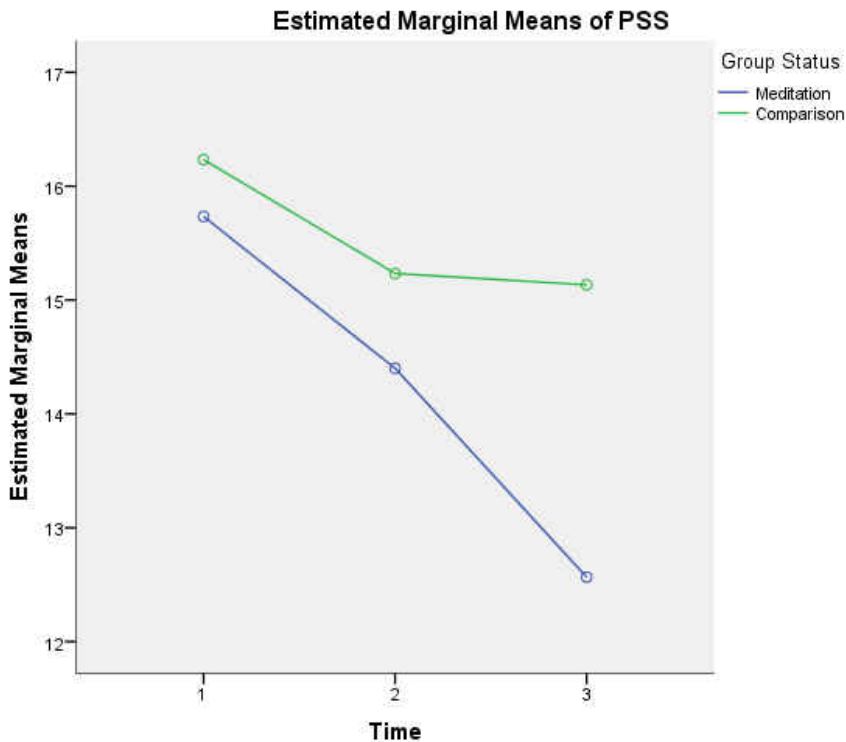


Figure 6 Plot of PSS over time

### Analysis with Subsample

After the initial test, the analysis was repeated using the meditators that practiced a minimum of 172 minutes over the six weeks and the random sample of the comparison group. Because this was a new analysis, the statistical assumptions were again examined. Test of normality (i.e., Shapiro-Wilk) indicated that the data were normal. Visual inspection of histograms of the independent variables confirmed the normality of the data. Box's M test of equality of covariance was not significant ( $p = .415$ ); therefore, the assumption of homogeneity among covariance matrices was also not violated. Lastly, the sample sizes were equal for both groups.



## Multivariate Results

Results from the multivariate test revealed no significant interaction between time and group, Wilks'  $\lambda = .711$ ,  $F(6,33) = 2.237$ ,  $p = .064$  (see table 7). Whereas, the within subject main effects for time were significant, Wilks'  $\lambda = .687$ ,  $F(6, 33) = 2.505$ ,  $p < .05$ , there was no significant between subject group effects, Wilks'  $\lambda = .922$ ,  $F(6,33) = 1.018$ ,  $p = .396$ . The interaction between time and group was also non-significant, Wilks'  $\lambda = .907$ ,  $F(6,33) = 2.237$ ,  $p = .06$ . With regard to the univariate tests, the results indicated a significant effect of time on stress  $F(2,76) = 5.156$ ,  $p < .01$  (see table 8), and a significant interaction between time and group for stress,  $F(2,76) = 5.075$ ,  $p < .01$ . Furthermore, the effect of time and group on stress demonstrated a medium effect size ( $\eta^2 = .12$ ), illustrating practical significance. Tabachnick and Fidell (2007) noted that discrepancies between multivariate and univariate results often occur as the outcome of reduced power. Furthermore, Type 1 Error is more likely with simpler tests, such as univariate versus multivariate tests. Therefore, although these findings suggest some influence between Jyoti meditation and stress, they should be interpreted with caution. Plots of the mean trend of PSS and DSE over time can be found in Figure 7 and figure 8, respectively.

Table 6 Main effect of RM-MANOVA with subsample

Effect	$\lambda$	$F$	$df1$	$df2$	$p$	Partial $\eta^2$
Group	.922	1.018	3	36	.396	.078
Time	.771	2.505	6	33	.041	.313
Time * Group	.907	2.237	6	33	.06	.289

Table 7 Univariate tests with subsample

Source	Measure	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>	<i>Partial</i> $\eta^2$
Time	DSE	2	110.60	55.30	1.78	.175	.045
	PSS	2	139.32	69.66	5.16	.008	.119
	TEI	2	91.27	45.63	.51	.605	.013
Time * Group	DSE	2	31.67	15.83	.511	.602	.013
	PSS	2	137.15	68.58	5.07	.009	.118
	TEI	2	156.87	78.43	.871	.423	.022
Error	DSE	76	2355.73	30.966			
	PSS	76	1026.87	13.511			
	TEI	76	6847.20	90.095			

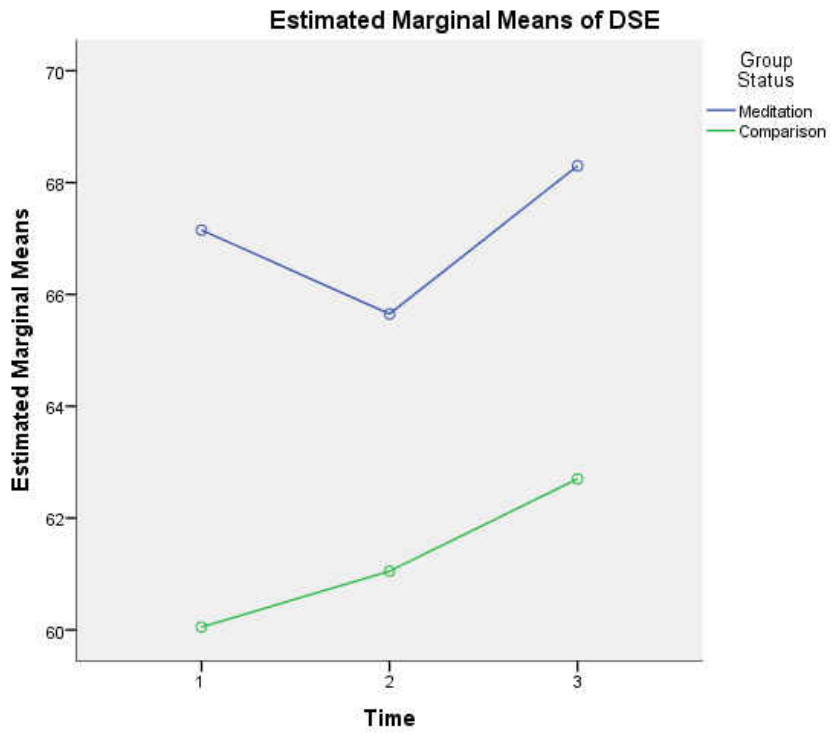


Figure 7 Plot of DSE means with subsample

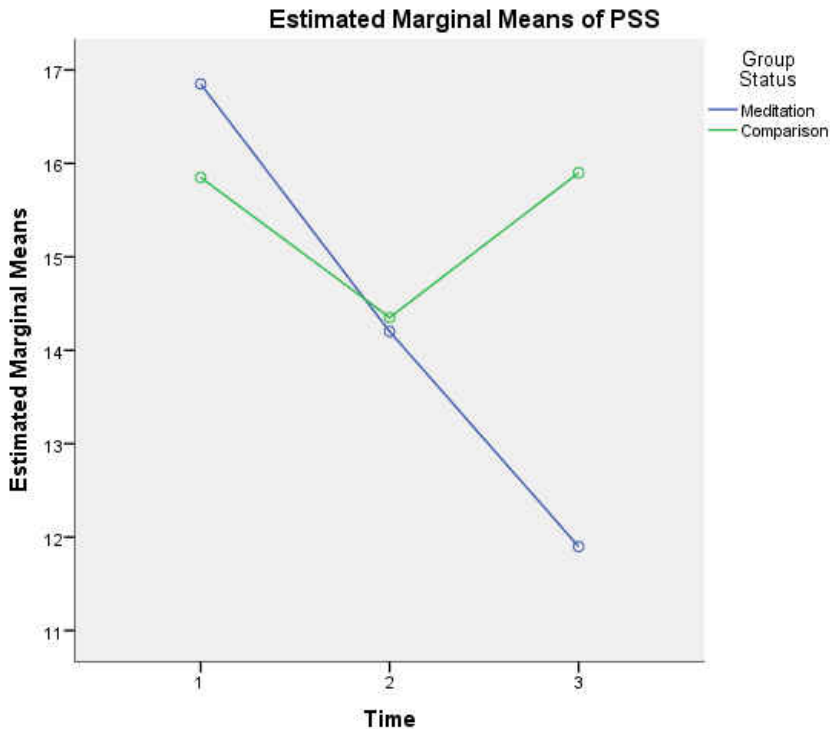


Figure 8 Plot of PSS means over time and interaction effect with subsample

### Exit Survey Results

At the end of the treatment, participants were asked to complete an exit survey that asked participants to state what they thought about the intervention as a whole. Participants rated their enjoyment on a scale of one to seven, where one indicated no enjoyment and seven indicated extreme enjoyment. About 33.4% of participants enjoyed or somewhat enjoyed the meditation group, 11% neither liked nor disliked the group, and 55% somewhat did not enjoy or did not enjoy the group. When asked to describe their like or dislike of the group, participants stated that the practice “became too difficult,” was offered too late at night, that the environment was “too distracting” or that their motivation waned as the practice meditation sessions became longer. In addition, about

28% of the group reported not liking the specific technique and a desire to explore different types of meditation.

### **Results from Research Question Two**

The second research question under investigation examined the relationship between the frequency of meditation and the independent variables. Participants recorded their weekly meditation practice in a log that they submitted to the primary researcher each week. The mean time spent meditating during the six weeks was 258 minutes, with a minimum of 46 and a maximum of 535 minutes total for the six weeks. Only 20 participants meditated 172 minutes.

I used a Pearson-product correlation to assess if there was a significant relationship between total time spent meditating and the independent variables at the post-test. When all participants ( $n = 60$ ) were used in the analysis there was no significant correlation between meditation frequency and any outcome. However, when the subsample including those who meditated a minimum of 172 minutes was used in the study there was a medium negative correlation between time spent meditating and stress levels,  $r = -.35$ ,  $n = 40$ ,  $p < .05$  (see table 8). In any case, no significant relationships were found between total meditation frequency and either emotional intelligence or spiritual experiences. However, a significant negative correlation was found between stress and emotional intelligence,  $r = -.56$ ,  $n = 40$ ,  $p < .01$ .

Table 8: Correlation between meditation frequency and outcomes

Total Meditation Frequency		
	<u>Correlation</u>	<u>Significance</u>
Stress	-.24	.19
Emotional Intelligence	.14	.45
Daily Spiritual Experiences	.10	.60

Table 9 Correlation between Total Meditation Frequency of subsample and Outcomes

Total Meditation Frequency		
	<u>Correlation</u>	<u>Significance</u>
Stress	-.35*	.03
Emotional Intelligence	.06	.73
Daily Spiritual Experiences	.17	.31

\*Correlation is significant at the .05 level (2-tailed)

## Growth Curve Analysis

The initial analyses provided evidence that Jyoti Meditation has a significant effect on stress. Specifically, the medium effect size and a review of the plot of means over time demonstrate a significant trend. However, the data provided by the RM-MANOVA is limited and only reveals the differences between groups. The significant correlation between EQ and Stress could indicate that EQ has a significant effect on the effectiveness of the treatment. In order to gain a better understanding of the relationships between the independent variables, and how these relationships influence stress over time, I conducted a growth curve analysis using the full group ( $n = 60$ ) of participants. Like other forms of multi-level analysis (e.g., hierarchal linear modeling, dyadic data analysis), growth curve modeling is an approach designed to take into account the complex patterns of variability in longitudinal data (Snijders & Bosker, 2012). Similar to the approach used in a standard hierarchal linear model (HLM), I treated the slopes and intercepts as both fixed and random effects. However, in approaches like Hierarchal Linear Modeling (HLM) participants are nested within groups and oftentimes groups are nested within larger groups to determine how much of the variability is accounted for by the highest group level. In growth curve analysis participant measurement points (i.e., pre-test, mid-test, and post-test) are nested within participants. Thus, researchers benefit from applying a growth curve analysis because it allows one to estimate “inter-individual variability in intra-individual patterns of change over time” (Curran, 2010, p. 122). In other words, through growth curve modeling a researcher can determine the differences between groups and the sources of variability within the persons in each group. The aim

of this analysis was to investigate further the effects of the experiment on stress and the relationship between stress and emotional intelligence.

In the first step of the analysis, the data was imported into SAS (SAS Institute, 2013) and converted it into a person-period data set (see Singer, 1998). Using PROC mixed (SAS institute, 2013), I created a two level model where level-1 consisted of the participant's individual growth and level-2 expressed the variation parameters between participants. In other words, the three observation points were nested into participants for the analysis. Time was coded as 0, 1, and 2 where 0 represented the pre-test scores, 1 the mid-test, and 2 the post-test scores. Additionally, I specified time as both a random and fixed effect to capture an estimate of the intra-individual variance (Singer, 1998). I developed three models: (a) an unconditional linear growth model; (b) a model with time and the interaction between time and group; and (c) the inclusion of a covariate that I propose to explain some of the variance between individuals.

### **Unconditional Model**

Creating an unconditional growth model is the first step in any multilevel model building (Snijders & Bosker, 2011). The unconditional growth model allows the researcher to estimate the intra-class correlation coefficient and begin the model building process with a baseline to measure the influence of the predictor variables. The unconditional growth model examined the influence of time, as both a fixed and random effect, on stress.

SAS converged in only two iterations, indicating a perfectly balanced data set. The solution for the fixed effects (see table 10) of the unconditional individual growth



model indicated that the average individual began the treatment with a score of 15.95 and decreased by -1.07 points at each measurement ( $p < .01$ ). Examination of the covariance parameter estimates revealed that there is a significant variation in the intercepts ( $\tau_{00} = 20.0668, p < .001$ ) that could be explained by a person-level covariate (see table 11). In other words, there is still variation in the intercept that has yet to be explained by the current model. Furthermore, the within-person variance ( $\sigma^2 = 13.0444, p < .01$ ) is significant indicating that other time-varying predictors could be added to the model to try to explain the variation. Lastly, the unconditional growth model has an intra-class correlation of .606, which indicates that 61% of the variance between persons can be accounted for by a level-2 (i.e., person-centered) variable.

Table 10 Fixed effects for unconditional growth model

Fixed Effect	Estimate	<i>SE</i>	<i>p</i>
Intercept	. 15.9500	0.7181	<.0001
Time	-1.0667	0.3908	0.0073

Table 11 Random effects for unconditional growth model

Random Effects	Estimate	<i>SE</i>	<i>p</i>
Intercept variance $\tau_{00}$	20.0668	6.0319	0.0004
Time Slope Variance $\tau_{10}$	0.8154	2.6030	0.7541
Intercept – Time Slope Covariance, $\tau_{11}$	2.6427	2.0653	0.1003
Residual $\sigma^2$	13.0444	2.3816	<.0001

### Conditional Models

Building upon the unconditional growth model, an interaction between time and group was included into the fixed effects (see table 12). Similar to the findings of the RM-MANOVA conducted earlier, there was no significant interaction effect ( $p = .14$ ). As expected, the inclusion of the time-group interaction did nothing to explain any of the variance parameter estimates (see table 13). According to the covariance parameter estimate, the estimate for the intercepts remained significant ( $\tau_{00} = 20.0668, p < .001$ ), as did the within-person variance ( $\sigma^2 = 13.0444, p < .01$ ).

Table 12 Fixed effects for model with time group interaction

Fixed Effect	Estimate	<i>SE</i>	<i>p</i>
Intercept	.15.9500	0.7181	<.0001
Time	-2.6914	1.1588	.0219
Time * Group	1.0832	0.7280	.139

Table 13 Random effects for model with time group interaction

Random Effects	Estimate	<i>SE</i>	<i>p</i>
Intercept variance $\tau_{00}$	20.0668	6.0319	0.0004
Time Slope Variance $\tau_{10}$	0.7420	2.5925	0.7747
Intercept – Time Slope Covariance, $\tau_{11}$	2.5066	2.0539	0.1112
Residual $\sigma^2$	13.0445	2.3816	<.0001

A third model was created to explore the effects of emotional intelligence (EQ) on stress, time, and the interaction between time and group. All of the tests for significance of the fixed effects were significant (see table 14). More specifically, the estimate for the intercept is now 47.9613 from 15.9500 in the unconditional model,  $p < .01$ . The effects of time are also significant  $\beta = -2.7740$ ,  $p < .01$ , as is EQ  $\beta = -0.1948$ ,  $p < .01$ . Furthermore, when EQ is added to the model (i.e., compared to the fixed effects in the second conditional model), we now find the interaction between time and group  $\beta = 1.2583$ ,  $p < .05$  is significant. Thus, the interaction between time and group is significant when controlling for EQ.

As for the random effects (see table 15), the residuals remained significant ( $p < .01$ ), but the estimate decreased to 12.3280 from the 13.0444 found in the unconditional growth model, indicating that the inclusion of the covariates did explain some of the variation within-subjects. Likewise, the variance component for the intercepts decreased revealing that the covariates helped explain some of the variation in the intercepts. The inclusion of EQ accounts for 27%  $[(20.0668 - 14.7057) / 20.0668]$  of the variation in

intercepts, and when controlling for EQ, the interaction between time and group is significant ( $p < .05$ ). A visual representation of the differences between groups can be found in figure 9.

Table 14 Fixed effects for growth model with EQ covariate

Fixed Effect	Estimate	<i>SE</i>	<i>p</i>
Intercept	47.9613	4.4535	<.0001
Time	-2.7740	0.9616	0.0047
EQ	-0.1948	0.02681	<.0001
Time * Group	1.2583	0.5951	0.0366

Table 15 Random effect for growth model with EQ covariate

Random Effects	Estimate	<i>SE</i>	<i>p</i>
Intercept variance $\tau_{00}$	14.7057	4.9709	0.0015
Time Slope Variance $\tau_{10}$	-1.6111	2.3888	0.5000
Intercept – Time Slope Covariance, $\tau_{11}$	1.5621	1.8207	0.1955
Residual $\sigma^2$	12.3280	2.2573	<.0001

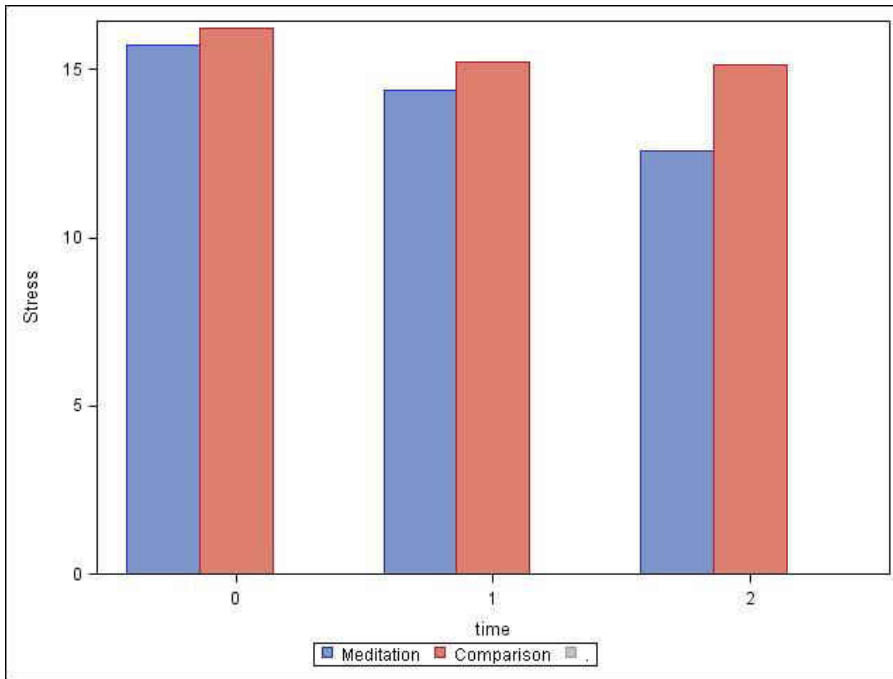


Figure 9 Comparison of group means for stress

### Conclusion

Chapter four presented the results of several statistical analyses, including two MANOVA's, a Pearson correlation, and a growth curve analysis. The first MANOVA, which was conducted on the full sample of 60 students, failed to reject the null hypothesis that there would be significant difference between groups over time. The second MANOVA, conducted on a subsample of students who were more compliant with the treatment, also failed to reject the null hypothesis, but indicated a significant univariate effect of the treatment on stress.

Similarly, the Pearson correlation found no significant relationship between any of the independent variables and meditation frequency. However, when the Pearson

correlation was conducted on the subsample used for the second MANOVA, the findings reveal a medium effect of meditation frequency on the stress outcomes. Whereas meditation frequency appears to only have an effect on the outcomes related to stress, there was a notable relationship between emotional intelligence and reported stress.

Lastly, I conducted a multilevel growth curve analysis to examine the relationships between the variables. Each participant was treated as a Level Two variable with his or her measurement scores nested at Level One. Three models were constructed. The findings revealed that 27% of the variance in stress between participants at initial status was accounted for by emotional intelligence. Furthermore, when controlling for emotional intelligence as a Level 2 variable, I discovered a significant interaction between time and group.

Each of the statistical analyses in this chapter provide insight into the effects of Jyoti Meditation on student counselors. In the following chapter, I will discuss and consider various interpretations of these findings. Furthermore, chapter five will include limitations, recommendations for future research and the implications for counselor education.

## CHAPTER FIVE: DISCUSSION

The counseling and psychological literature is replete with research regarding the influence of meditation on physiological and psychological functioning (Benson & Klipper, 1976; Benson & Stark, 2009; Fredrickson et al., 2008; Goleman, 1988; Ospina et al., 2007; Sedlmier et al., 2012). Researchers reported that meditation is effective in reducing stress, improving emotional functioning, and increasing positive emotions (Fredrickson, 2009; Sedlmier et al., 2012). Although the current literature provides strong evidence for the use of meditation, the majority of research has only investigated two types of meditation (i.e., transcendental meditation and mindfulness meditation). In addition, only a limited number of studies investigated the effects of meditation with student counselors. Moreover, spiritually based meditation techniques are often re-contextualized into secular meditation practices prior to research which may limit their effectiveness (Wachholtz & Pargament, 2005; Walsh & Shapiro, 2006). With these three issues in mind, I designed the study to examine the efficacy of Jyoti Meditation, a mantra based meditation practice with a spiritual component, on counseling students.

To gauge the effect of Jyoti Meditation on student counselors, I examined three outcome variables: emotional intelligence, stress and daily spiritual experiences. I hypothesized that there would be a significant difference between student counselors who took part of a six week Jyoti Meditation group and those who took part in a six week psychoeducation communication skills course (research question one). In addition, I hypothesized a significant relationship between the amount of time-spent meditation and the independent variables (research question two).

### **Analysis of Research Question One**

In order to test Research Question One, I conducted a repeated measures multivariate analysis of variance (RM-MANOVA or profile analysis; Tabachnick & Fidell, 2013). The RM-MANOVA revealed no significant difference between the two groups. Because there was a considerable range in the amount of time participants spent meditating, with some participants only meditating 46 minutes over the six weeks and others meditating as much as 535 minutes over the six weeks, I conducted a second RM-MANOVA with only participants who meditated a minimum of 172 minutes over the six weeks. In this second RM-MANOVA, the multivariate main effect was still non-significant but at a .06 level and with a large effect size ( $\eta^2 = .29$ ). Further, an analysis of the univariate statistics revealed that there was a significant interaction between time and group for stress and not for emotional intelligence (EQ) or daily spiritual experiences (DSE). These findings indicated that over the course of the six weeks there is a significant difference in how the groups decreased in stress but not in EQ or DSE. In terms of stress, participants in the meditation group decreased over the six weeks more than those in the comparison group. The effect of meditation on stress demonstrated a practical significance with a medium effect size,  $\eta^2 = .12$  and the plot comparing the differences between groups over time demonstrate a significant difference between groups (see figure 8). These findings should be interpreted with caution because the study lacked sufficient power for a univariate analysis (see Tabachnick & Fidell, 2013). Overall, it is reasonable to suggest that Jyoti meditation has an effect on student



counselors' stress level; however, further research with larger samples (e.g., more measurement points; increased power) is needed to make any confident claims.

Previous research suggested that meditation has a significant effect on stress (Chu, 2009; Goleman & Schwartz, 1976; Kabat-Zinn, 1990; Sedlmier et al., 2012; Shapiro, Brown, & Biegel, 2007; Singh, 2012) and a visual examination of the plot of time and means (see figure 4) does show a decrease of stress in the mediation group over time. However, there were differences in the present study and past meditation research that could have contributed to the outcomes. In many cases, these differences may have weakened the effect of the treatment. The following section describes how intensity of treatment, the group facilitators and structure, and how the level of participant EQ and DSE at pre-test may have influenced the outcomes.

### **Treatment Intensity**

Through a review of the relevant literature, Davidson and Begley (2012) remarked that the intensity of the treatment is an important consideration in being able to achieve measurable significant change in meditation. Accordingly, meditation treatments are typically rigorous. For example, Kabat-Zinn's (1990) mindfulness-based stress reduction occurs over a period of eight weeks, but within those eight weeks participants are often heavily engaged, doing health related exercises such as yoga, reading poetry, and participating in day long meditation retreats. In one study of MBSR, participants ( $n = 25$ ) met for 2.5 – 3 hours each week, met privately with Kabat-Zinn (the facilitator of the course), participated in a seven hour retreat in the sixth week, and practiced informal and

formal meditation for 1 hour per day, six days per week (Davidson et al., 2003). Due to the nature of participants recruited for this study (i.e., masters students with limited time), a similarly intense program would not have been possible. Therefore, it is possible that a replication of this study over a longer period with a more intense curriculum would have a stronger effect.

Intensity of treatment could also explain why this study found no effect on emotional intelligence or daily spiritual experiences. Previous studies have shown meditation to have a significant influence on emotional intelligence (Chu, 2009; Perelman et al., 2012). However, like previous stress research, these studies also had more intense curriculums. For example, Chu (2009) used a small sample of meditators meditating over eight-weeks. Perelman and colleagues (2012) examined the effects of meditation on prisoners over a 10-day meditation retreat. In the Perelman and colleagues study (2012), the researchers tested the prisoners at the beginning of treatment, after 10 days and at a one-year follow-up. Similar to the findings in this study, at post-test the findings were non-significant but approaching significance ( $p = .06$ ). However, Perelman and colleagues found that the effect of meditation *was* significant at the one-year follow-up. In both these studies (Chu, 2009; Perelman et al., 2012) the time between the collection of baseline scores and the significant outcome scores was longer than in the current study. Thus, it may take longer than six weeks or more intense meditation training to make a significant difference in EQ.

The research on meditation and spiritual experiences gives a similar picture. Wacholtz and Pargament (2005) examined the effects of a spiritual form of meditation on

daily spiritual experience. They asked participants to meditate 20 minutes a day for two weeks (a total of 280 minutes). Whereas, the duration of the treatment was shorter (2 weeks versus 6 weeks) than the current study, the frequency of meditation was more intense (daily) than the current study. In the current study, participants were asked to meditate daily; however, only three participants meditated every day and the amount of time spent meditating ranged from 46 minutes to 535 minutes over the six weeks.

Kemeny and colleagues (2012) examined the effects of meditation on numerous variables including the ability to recognize emotion, experience positive emotion, and demonstrate compassion. Compassion and positive emotion are constructs also measured in daily spiritual experiences. Unlike the current study, Kemeny and colleagues had significant findings. However, in their study, participants meditated for 42 hours over 12 weeks. Thus, the frequency and duration of meditation could be the determining factor in the outcome of a study.

In sum, previous research has indicated that frequency of meditation makes a significant difference in meditation outcomes. In the current study, group facilitators asked participants to meditate in class and as much as they could (recommended at least ten minutes a day) outside of class. The findings revealed that not all participants meditated daily and that some did not meditate at all outside of class. Moreover, the quality of the meditation frequency varied from week to week. Therefore, it is possible that the incongruence between previous research findings and the findings of this study are due to the amount of time and quality of time participants spent meditating.

## Participant Motivation

Participant motivation and level of interest could also have a significant effect on study findings. Participants who are significantly demotivated could exhibit what Kirk (1994) called the *screw-you effect*. In the screw-you effect, participants act out their resentment towards the study by not putting forth their full effort in the study and, at times, by sabotaging the study results.

In the current study, I recruited students from a counseling course. I offered all students an opportunity to withdraw from the study at any time and they were offered an alternative “wellness group”; however, some participants, expressed little interest in the group, but not enough dissatisfaction to elect to withdraw. Specifically, five participants stated that they were interested in meditation but did not like this “type of meditation,” and four participants stated that they “hated” or had no interest in the meditation practice. When asked about what they disliked about the practice participants stated “they did not like sitting still,” and that “it was too difficult to focus.” In addition, two other participants noted that they did not “dislike meditation” but found this type of meditation too “physically and mentally stressful.” Additionally, multiple participants ( $n = 10$ ) noted their chief struggle with the practice was keeping focused, especially at the hour the group was conducted (8:00pm).

Two participants also noted that they did not like focusing on a spiritual connection. One participant stated that they “hated” focusing on “the third eye” and another did not like focusing on their “center.” Additionally, two students approached me after class regarding the content of the Daily Spiritual Experiences Scale because it uses

the word God in some of the items. These students asked if they could leave questions blanked. I responded to them by reminding them that the instructions to the assessment allow them to replace the word God with another word that conjures for them thoughts of the divine or holy.

The exit surveys also revealed that participants expressed that they became demotivated in the practice because it increased in difficulty over time. Four participants reported feeling more motivated at the beginning of the six weeks than at the end of the six weeks. One participant reported that the practice went “too long, too quickly” and that they were not “ready to meditate that long that soon.” One participant described it as becoming “a chore” they felt they had to do. Several other participants ( $n = 11$ ) remarked that it was “too difficult to keep focusing” for the amount asked of them at the end of the six weeks.

For some participants their motivation level differed depending on their ability to “meditate successfully.” Twelve participants reported that they benefited from the meditation practice reporting, “feeling relaxed,” “intense calm,” experiencing a “better mood,” and “feeling more light-hearted.” These participants described that experiencing the benefits motivated them to stay engaged. Thus, participants who perceived that they benefited from the meditation practice stayed motivated.

Previous research studies have only used volunteers, which may have ensured that the majority of participants were remained motivated. In Chu’s (2009) experiment on meditation and EQ, each participant was paid \$800 for participating. In Perelman and colleagues (2012) meditation study, participants who were literally a captive audience

(i.e., residents in an Alabama prison) volunteered because they wanted to decrease their stress levels and improve their psychological wellbeing. In Wacholtz and Pargament's (2005) spiritual meditation study, participants volunteered for the potential benefits, and all participants reported having positive experiences with the practice.

By contrast, participants in the present study had no awareness of the constructs being measured or the potential benefits of the practice. Moreover, the participants received no incentive for participating in the treatment. Lastly, the students registered for a counseling class and wanted to learn counseling related skills. Thus, they were significantly more motivated to learn the content taught in the comparison group (communication skills) than the meditation practice.

In sum, a review of the exit surveys revealed that a number of factors influenced participant motivation, including interest in the type of meditation, the difficulty of the practice, and the whether participants believed they would benefit from the practice. Participants reported a differing levels of motivation ranging from hating the practice to find it beneficial and feeling engaged. Previous research has had less of a range in participant motivation, possibly because they have only used volunteers. Previous researchers have criticized meditation research stating that by only using volunteers researchers introduce bias into their study (see Sedlmier et al., 2012); however, as demonstrated in the current study, non-volunteers are un-motivated and the lack of motivation also poses a problem for researchers. Given that the outcomes of this study may have been influenced by participant motivation, future researchers should consider replicating this study with volunteers.

### **Group Structure and Facilitators**

Eight doctoral students taught the comparison group and one experienced meditator taught the meditation group. The comparison group consisted of four smaller groups with two facilitators in each group. This was done to meet some of the requirements of the doctoral student's training in their counselor education program. These smaller groups had the added benefit of being smaller and in a more intimate setting than the meditation group. Moreover, because of the size of the group, the comparison group was better able to process and practice the techniques learned from the curriculum.

The meditation group was significantly less intimate than the comparison group. The 30 students in the meditation group were together in one large classroom. The smaller comparison groups gathered in small counseling rooms with couches and wood tables, whereas, the meditation group participants gathered in a classroom (which they had been seated in for two hours prior to the meditation training) behind long tables. If a student made a negative comment in the meditation group, it was heard by all the other participants in the treatment, as opposed to the comparison groups where each small group contained a maximum of eight participants.

The group facilitator for the meditation group, although certified in the meditation treatment, had no previous training in conducting psychoeducation groups. He taught the curriculum using PowerPoint much like traditional classroom instruction. The doctoral students teaching the comparison groups each had a master's degree in counseling, training, and were undergoing supervision for group facilitation. These groups were

facilitated more like counseling groups (e.g., students sitting in half circle, handouts, and long periods of discussion). Lastly, some of the facilitators in the comparison group (without the knowledge of the researcher) brought in snacks and meals for the group members (e.g., candy, pizza, soda) at the end of the final group. The meditation group did not have such snacks.

Whereas there is no quantifiable evidence that the differences in group structure influenced the outcome of the study, it is reasonable to assume that the comparison groups experienced more cohesion than the meditation group. Cohesion is associated with psychological gains in group counseling (Corey, 2011). The comparison groups were smaller, held in a more intimate way, provided refreshments on one occasion, and involved more interpersonal processes than the meditation group. The meditation group had a higher risk of being influenced by student's negative attitudes and was facilitated by someone with less formal pedagogical training than the facilitators of the comparison groups were. If there was increased cohesion in the comparison group, that could have had an influence on the outcomes.

Additionally, participants in the comparison group were asked to take part in a six week communication skills curriculum. In this comparison group, participants learned methods for increasing interpersonal communication and building a relationship. Given that, a factor of EQ is the ability to use emotional competence to manage a relationship (Goleman & Cherniss, 2001), it is possible that this psychoeducational curriculum influenced the comparison groups EQ. Therefore, the content of the comparison group



may have influenced the outcomes of this study on the dimension of emotional intelligence.

Lastly, participants in the study all attended the same counseling course before the groups. Therefore, it is possible that participants knew members of the other group. Furthermore, these participants may have discussed their group experience with members of the opposite group. These discussions may have biased participant experiences by influencing participant expectations.

### **Emotional Intelligence and Daily Spiritual Experiences**

Participant characteristics may have influenced two of the constructs in this study: (a) emotional intelligence, and (b) daily spiritual experiences. For example, Martin, Easton, Wilson, Takemoto, and Sullivan (2004) found that emotional intelligence is a core characteristic for counselors. Therefore, it is possible that the students in this study (being student counselors) already had a significantly higher level of emotional intelligence than the public and the populations (e.g., prisoners, college students) used in previous research (e.g., Chu, 2009; Perelman et al., 2012). This could indicate that the students in the current study experienced a *ceiling effect* in the research. The ceiling effect is present when the average scores are so high at the beginning of the study that there is no room left to measure change (Goodwin, 2010). Cooper and Petrides (2010) found that for a sample of 1,119 individuals recruited from university campuses the average mean scores on the TEIQue-SF ranged from 2.47 to 6.8 with a mean score of 5.02 for men and 5.18 for women. In the current sample, participant mean TEIQue-SF

scores ranged from 4 to 7 with a mean score of 5.47. It is possible that the reason previous research was able to detect a significant change was because the populations being measures started at a lower level of emotional intelligence and the population in the current study had too much emotional intelligence at the start of the study.

Another participant characteristic that might have affected outcomes was their levels of faith development. According to Fowler (1981) stages of faith development, the students in this study are in the latter part of the synthetic-conventional faith stage. Fowler describes this stage as consisting of conformity and a reliance on external authority. Individuals in the synthetic-conventional faith stage tend not to examine or challenge their spiritual beliefs and ignore spiritual-religious conflict (Conley, 2012; Fowler, 1981). In the current study, the participants were asked to complete assessments that required them to reflect on their spiritual and religious beliefs (e.g., the daily spiritual experiences scale). It is possible that participant discomfort with reflecting on their religious and spiritual beliefs influenced their scores on these assessments. Lastly, it would be unlikely that students still in this stage of faith development would change enough over such a short period of time (i.e., six weeks).

### **Summary of Findings of Research Question One**

The results indicate that meditation has a significant effect on stress but not on emotional intelligence or daily spiritual experiences. However, the intensity of the treatment, participant motivation, group structure, and certain participant characteristics (e.g., emotional intelligence level, spiritual maturity) could have influenced the outcomes

of the experiment when compared with similar research studies. In addition, the findings related to stress response were found with a small sample. Therefore, before any consistent claims can be made about the effects of Jyoti meditation on student counselors, this study should be replicated with a larger sample, better controls over the treatment environment, with more intense practice and with volunteers.

### **Interpretation of Research Question Two**

For the second research question, I conducted a Pearson Moment correlation. The aim of the analysis was to determine if there was a significant relationship between the amount of time spent meditating and the outcomes of the independent variables. Previous research has yielded mixed results with regard to this question (Carson et al., 2005; Leppma, 2011; Shapiro et al., 2006). For example, Carson and colleagues (2005) found that the more individuals meditated using loving-kindness meditation the less physical pain they experienced. On average, Carson and colleagues' participants meditated for 20.8 minutes a day. Likewise, Perich, Manicavasagar, Mitchell, & Ball (2013) reported that those who meditated more often (3 or more days a week) in a mindfulness-based cognitive therapy study experienced lower depression after 12 months. However, Shapiro, Brown, and Biegel (2006) found no relationship between the time therapists spent meditating in an MBSR program (on average 55.92 minutes a week for eight weeks) and the outcomes. Finally, Leppma (2011) found that the amount of time student counselors spent meditating positively correlated with their cognitive empathy but not

with problem-solving appraisal, perceived social support, empathic concern, perspective taking, fantasy, or personal distress.

Similar to the procedure used in research question one, two statistical analyses were carried out to answer this question. First, I conducted Pearson moment correlation with all the meditators in the study. This analysis revealed no significant relationship between any of the independent variables. Afterwards, I conducted a second correlation using only participants who meditated a minimum of 172 minutes over the course of the six weeks. This sample represented meditators who meditated each week in the group and the minimum recommended amount (ten minutes) outside the group each week. In this case, there was a significant negative correlation between meditation frequency and stress ( $r = -.35$ ), which indicates that as an individual increases in meditation time they decrease in stress level. Further, this finding indicates that a minimum threshold must be met (172 minutes over six weeks) before meditation becomes effective. However, I conducted the correlations with a small sample with low power. Therefore, I recommend researchers use caution when interpreting these findings. Future studies should attempt to replicate these findings.

### **Summary of Findings of Research Question Two**

Previous research regarding meditation frequency has had mixed results. Some studies (e.g., Shapiro, Brown, & Biegel, 2006) have found no relationship between frequency and outcomes, while others (e.g., Carson et al., 2005) have found significant relationships. In the current study, the data revealed that a significant relationship existed

only if meditators practiced a minimum of 172 minutes over the six weeks. Previous researchers have not examined if there is a minimum amount of practice time needed for meditation to become effective. However, if a minimum amount of practice time exists it could inform counselor practice. For example, if a client is struggling with a stress-related concern, letting them know that they need to meditate for a minimum of 172 minutes over six weeks in order to experience the benefits could increase their commitment to the practice. I recommend that future studies attempt to replicate these findings with larger samples and using time series analysis to better understand the effect of meditation frequency.

### **Growth Curve Analysis**

While conducting the analysis on research question two, I found a significant relationship between emotional intelligence and stress ( $r = -.56$ ). In order to gain a better understanding of how the relationship between stress and emotional intelligence changed over time I conducted a growth curve analysis using the full group ( $n = 60$ ) of participants. The aim of this analysis was to investigate further the effects of the experiment on stress and determine if emotional intelligence had a moderating effect on stress response.

Historically, the most common method of analyzing data from pre-test post-test experimental designs would be to use a comparison of means, such as a repeated measures analysis of variance. However, repeated measures analyses produce limited results (e.g., only the differences in means), and do not offer comprehensive explanations

regarding the cause, course, or consequences of participant behaviors (Curran, Obeidat, & Losardo, 2010). In addition, traditional approaches to repeated measures are limited by stringent assumptions. Therefore, researchers favor applying a growth curve analysis in place of a repeated measures design because growth curve modeling allows one to estimate “inter-individual variability in intra-individual patterns of change over time” and continue an analysis even when there is missing data or statistical assumptions are unmet (Curran, Obeidat, & Losardo, 2010, p. 122). In other words, through growth curve modeling a researcher can determine the differences between groups and the changes that occur over time with each person.

In the current study, I conducted three growth curve models using stress as the dependent variable. The first was an unconditional model that allowed me to determine the intra-class correlation or how much significant variance there is between persons. In the current study, 61% of the variance between individuals was unexplained. Therefore, I conducted a second model that included an interaction between time and group and a third model that included EQ as a covariate.

The inclusion of the time and group interaction made no difference in the model. There was still non-trivial unexplained variance between participants at initial status. However, when I added emotional intelligence to the model it was able to explain 27% of the variance between participants at initial status. In addition, when I controlled for EQ it revealed a significant difference between time and group. Preacher, Wichman, MacCallum, & Briggs (2008) interpret these types of occurrences as a traditional moderation effect. Thus, EQ had a moderating effect on the effects of meditation on

stress at initial status. Whereas, the model indicated that there was still significant unexplained variance between participants, I chose to stop at this point with the understanding that a full model examining mediating variables, latent variables, and other moderating variables would be outside the scope of the current study.

### **Discussion of the Growth Curve Analysis**

The growth curve analysis provided significant understanding into the effects of the Jyoti meditation group. First, in this study, the significant stress response intercept variance demonstrates to what degree individuals vary about the population mean at initial status (Preacher et al., 2008). A large portion of the variance is explained by participant emotional intelligence. Emotional intelligence is the competence or disposition an individual has to understand, manage, and utilize emotions (Petrides & Furnham, 2001; Salovey & Mayer, 1990). Thus, these findings coupled with the negative correlation between stress and EQ found in research question two indicated that individuals with higher levels of emotional intelligence may be more capable of managing their level of stress. This is consistent with recent studies showing that emotional intelligence can predict stress levels (Satija & Khan, 2013; Singh & Sharma, 2012).

In addition, the growth curve analysis indicated that a participant's level of emotional intelligence contributes to the strength of the meditation treatment. When emotional intelligence is equal for all participants, those who are in the meditation group emerge as having less stress at post-test than those in the comparison group. It is

unknown, whether a certain level of emotional intelligence directly translates to a participant knowing how to use meditation more effectively, being more motivated to use meditation, or if EQ increases the quality of the meditation. Salovey, Bedell, Detweiler, and Mayer (1999) suggested that emotional intelligence was beneficial to coping due to the fact that emotionally intelligent people are better able to manage distressing emotions. Thus, the relationship between emotional intelligence and stress at initial status could be the result of participants having a better understanding of how to implement meditation as an effective stress reduction tool. Future research is needed to better understand what specific influence emotional intelligence has on meditation.

### **Summary of Analyses**

In summary, I conducted three statistical analyses in this study. First, I used a set of repeated measures MANOVAs to determine if there was a difference on emotional intelligence, stress, and daily spiritual experiences between student counselors randomly assigned to two groups. Findings revealed a significant effect of meditation on stress. However, I found no significant differences between groups on emotional intelligence or daily spiritual experiences. Whereas numerous attempts were made to control for confounding variables (e.g., blinding, randomization), it is possible that the differences between these findings and previous research are due to treatment intensity, participant motivation, group structure, and participant level of emotional intelligence and faith development.



Second, I conducted two Pearson moment correlations to determine if there was a relationship between meditation frequency and the independent variables. The previous research on the effects of meditation and practice frequency have had mixed findings. In the current study, the findings demonstrated a significant relationship between stress and meditation when meditators practiced a minimum of 172 minutes over the six weeks. Thus, these findings indicate that there exists a minimum amount of practice time before meditation has an effect on stress. This finding is new to the literature, as previous research has not investigated the presence of a minimum meditation threshold. Therefore, I recommend that future research attempt to replicate these findings and utilize time series analysis to examine further the minimum meditation threshold.

Lastly, I used growth curve analysis to gain a better understanding of how the emotional intelligence and the group-time interaction influenced the stress level of participants. The growth curve model revealed that emotional intelligence serves as a moderator of the meditation treatment and accounted for a 27% of the variance between participants at initial status. Researchers have theorized that emotional intelligence helps individuals understand how to manage distress (Salovey, Bedell, Detweiler, & Mayer, 1999; Satija & Khan, 2013; Singh & Sharma, 2012). Therefore, I propose that emotional intelligence helped participants know how to use the meditation technique to reduce their stress resulting in a moderating effect.

## **Limitations**

This study is a randomized controlled trial. Each participant was randomly assigned to two either a meditation or a communication skills group. Despite random assignment, a number of limitations were discovered including issues related to research design, treatment similarities, power, instrumentation, and sampling. I discuss these limitations in the following section.

### **Research Design**

As previously noted, the participants in this study were allowed to withdraw at any point, but chose not to despite being dissatisfied with the meditation treatment. This captive audience effect may have influenced the study outcomes. Another limitation in the research design has to do with the content of the comparison group. One of the constructs being compared was emotional intelligence, which involves the development of social-emotional competence (Goleman & Cherniss, 2001). The comparison group included some content (e.g., reflecting feelings, self-disclosure, listening, giving feedback) that could be categorized as lessons in emotional intelligence. Therefore, in terms of emotional intelligence, the comparison did not represent a true control group. Rather it represented a comparison group receiving a competing treatment.

### **Treatment Fidelity**

Another limitation was treatment fidelity. The term, "treatment fidelity" encompasses the strategies used to monitor and enhance the consistency of the interventions. In the current study, a meditator with over 20 years of experience facilitated the meditation group and eight doctoral students facilitated the comparison

psychoeducational groups. These doctoral students had more training in conducting group with students than did the meditation instructor. Each week, a faculty advisor reviewed the group curriculum to ensure the fidelity of the treatment for both groups to ensure that the facilitators were delivering the material correctly. However, the groups were not observed live and two facilitators in the comparison group provided snacks as a closing activity for the last group session. It is possible therefore that there were other deviations from protocol.

### **Power**

Power is the long-term probability of rejecting the null hypothesis (Balkin & Sheperis, 2011). Power is calculated using the effect size, the sample size, the number of groups and the number of measurements in a study. Researchers conduct a priori power analysis in order to make intentional decisions about sampling. In this study, I used the G\* Power software (Faul et al., 2007) to calculate the power of the proposed study.

For the overall research design utilizing a between-group repeated measures multivariate analysis of variance (RM-MANOVA) at significance level .05, effect size .30, (Cohen, 1992) statistical power at .80, three groups and three measurements a minimum of 39 participants in the study are needed (Faul et al., 2007). Thus, in terms of the RM-MANOVA I met the power requirements. However, for a univariate analysis, like the one conducted on stress, a G\* Power *a priori* calculation reveals the need for 62 participants. Using the participants I had ( $n = 40$ ) a post-hoc power analysis revealed I achieved .62 and not the .80 which is the standard in the literature. Low power

undermines the reliability of the analysis. I recommend that the study be replicated with a larger sample.

### **Instrumentation**

The instrumentation in this study was self-report. Although, self-report measures are arguably the only way to gain an accurate assessment of *perceived* stress, trait emotional intelligence, which is only measureable via self-perception (see Petrides & Furnham, 2001), and daily spiritual experiences, it is susceptible to social desirability. In other words, participants could be completing assessments in a way that makes them look most desirable rather than answering truthfully. Likewise, the meditation logs are also self-report and participants could be over or under reporting their meditation frequency. This seems unlikely because both groups received treatment and the gains caused by social desirability would probably be equal. At the same time, future studies should consider using observational or physiological measures in addition to self-report because physiological and observational methods provide more objectivity and accountability in assessment.

### **Sample**

The majority of the sample consisted of white females in their mid-twenties and that is consistent with the makeup of counseling programs in the U.S. (American Counseling Association, 2013). Although this sample is reflective of the population of counselors, it is not similar to the U.S. population at large. Further, I only recruited participants from one counselor education program in the Southeast U.S. Although there is no reason to suggest that cultural or geographical differences would have an influence,

it must be noted here. In terms of race, 63% of participants identified as white, 11.7% Latino, 15% Black, 8.3% Asian, and 1 declined to report. This sample was more diverse than the American Counseling Association membership report where 8% African American, 2% Asian American, 82% Caucasian, 4% Hispanic, and 1% multiracial. It must also be remembered that this sample by virtue of being counseling graduate students already possess a significant degree of emotional intelligence and the ability to cope with stress. Thus differences caused by the ceiling effect may have influence the inability to achieve significant differences by these treatments.

### **Implications for Counselor Education**

Despite the limitations, the most significant finding in this study is the support for the use of Jyoti meditation as an intervention with student counselors. There is evidence to support the use of Jyoti meditation as a tool to reduce student counselor stress, especially with groups of individuals with higher levels of emotional intelligence. Given the stress and emotional exhaustion associated with counseling, it is important that student counselors learn efficient and effective methods for reducing their stress in order to prevent burnout (Roach & Young, 2007). Jyoti meditation is a simple method that student counselors could employ before, between or after sessions to help manage some of the stress of counseling. The findings in this study indicate that the positive effects of Jyoti emerged when participants dedicated 172 minutes over the six weeks, which is about half an hour a week. Thus, Jyoti is not an overly time consuming treatment. Incorporating Jyoti into counselor education could help students or clients reduce stress

without taking too much time from their schedule. Furthermore, none of the participants in the study reported experiencing a negative reaction to Jyoti meditation, indicating that unlike other treatments (e.g., medication), Jyoti is safer. Whereas, the findings of this study should be replicated with a larger sample and stronger controls, it is important to note that the data *does* indicate that Jyoti could be a beneficial tool for reducing counselor stress and that the majority of the written comments from students state that the practice helped them to relax.

This study also supports the need for further research into Jyoti meditation. Currently, the majority of meditation research only focuses on two forms (VIZ., transcendental meditation and mindfulness meditation) of meditative practice. Jyoti meditation has been in existence for over 500 years and this is the first study to examine its potential for psychological benefits. This study demonstrates that Jyoti could provide benefits to student counselors and potentially stressed clients. Therefore, it behooves counselor educators to conduct further research on Jyoti meditation and other spiritually based meditation practices such as centering prayer (Keating & Pennington, 1997).

Lastly, the results of the growth curve analysis provided support for a moderating effect of emotional intelligence on student counselors' stress levels, indicating that emotional intelligence has a significant effect on stress and meditation outcomes. Furthermore, the large negative correlation between student counselor stress and emotional intelligence ( $r = -.56$ ) indicates a significant relationship between stress and emotional intelligence. There is a paucity of research on emotional intelligence and student counselor stress. However, these findings indicate that emotional intelligence

does play a role in how student counselors manage their stress and whether or not they benefit from the Jyoti meditation intervention.

Given these findings, it is important that counselor educators consider student counselor's emotional intelligence levels. Increased emotional intelligence can help student counselors manage the stress and the emotional exhaustion of counseling. Moreover, counselor educators should consider expanding the research on student counselors' emotional intelligence and seeking methods for developing emotional intelligence in their students.

### **Recommendation for Future Studies**

In this chapter, I have noted several recommendations for future research. These recommendations include: (a) replications of the current study with different populations and larger sample sizes; (b) research investigating the effects of a more intense Jyoti meditation treatment (more meditation frequency); and (c) further research on the relationship between emotional intelligence and stress. In addition, I recommend that future research investigate the effects of Jyoti meditation on constructs related to stress, such as anxiety, chronic illness, and physiological fatigue. Furthermore, I recommend that future researchers take into account the qualitative data presented in this study before conducting further research into Jyoti Meditation. For example, future researchers should note that participant motivation plays a significant role, and that some participants may be de-motivated if they find the practice too challenging, may have objections on religious grounds, and may disengage if the meditation treatment intensifies too quickly.

Jyoti meditation research is in its infancy. Before Jyoti meditation can be endorsed for use in any clinical, supervisory, or pedagogical settings researchers will need substantially more research on its effectiveness at reducing stress.

Given the findings that emotional intelligence plays a role in managing stress, future studies should also consider examining how emotional intelligence develops in a counselor over time. The current study failed to provide support that Jyoti meditation could increase emotional intelligence. However, future research could examine how emotional intelligence develops over the course of a counselor education program. In addition, it is possible that because emotional intelligence is a core characteristic for counselors (Martin et al., 2004), study participants experienced a ceiling effect. Thus, future researchers should investigate the effects of Jyoti meditation on emotional intelligence in other populations.

Lastly, it is also important to note that the growth curve model in this study remains incomplete. The conditional model with the EQ covariate still has significant disturbance and intercept variance. This indicates that one could include additional level two variables into the model to explain the variance (Singer, 1998). Future studies should examine what other variables might explain the variance between participants. Thus, future research should investigate the potential presence of mediating variables and latent constructs in the model. For example, future researchers should examine if spirituality could play a mediating role in meditation treatment outcomes.



## **Conclusion**

The purpose of this study was to investigate if Jyoti meditation had any effect on student counselors' levels of stress, emotional intelligence, and daily spiritual experiences. In addition, I sought to explore if frequency of meditation practice had a relationship with the outcome variables. The findings were mixed. First, I found no significant difference between the two groups and their level of stress, emotional intelligence, and daily spiritual experiences. However, when I only examined participants that attended the weekly meditation group and meditated at least an additional 60 minutes over the six weeks (an extra ten minutes a week), I did begin to see a significant effect on stress. However, because I had to reduce the sample size for this second analysis, the reduced power poses a limitation to this finding.

In order to understand how the independent variables changed over time, I conducted a growth curve analysis. The growth curve analysis revealed that emotional intelligence played a significant role in the stress of student counselors at initial status. When I controlled for EQ I found a significant interaction between time and group, indicating that meditation and comparison groups did differ in their stress levels over time.

These findings have numerous limitations, which I have outlined in this chapter. These limitations warrant future exploration. However, the current findings provide preliminary evidence that Jyoti meditation, in some cases, does have a significant effect on stress levels. Future studies on Jyoti should take into account the population, sample size, and the level of participant motivation. Moreover, future studies should examine

potential mediating and moderating variables to help gain a better understanding of how meditation works. Jyoti meditation research is still in its infancy and in need of further research. However, the findings from this initial study demonstrate that a regular practice of Jyoti meditation could be of benefit to student counselors.

## **APPENDIX A: IRB APPROVAL**



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Approval of Human Research

From: **UCF Institutional Review Board #1  
FWA00000351, IRB00001138**

To: **Daniel Gutierrez**

Date: **August 06, 2013**

Dear Researcher:

On 8/6/2013, the IRB approved the following human participant research until 8/5/2014 inclusive:

Type of Review: UCF Initial Review Submission Form  
Project Title: The effect of Meditation on student counselors' emotional intelligence, stress, and spiritual experiences  
Investigator: Daniel Gutierrez  
IRB Number: SBE-13-09520  
Funding Agency:  
Grant Title:  
Research ID: N/a

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 8/5/2014, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/06/2013 08:17:35 AM EDT

IRB Coordinator

## **APPENDIX B: INFORMED CONSENT**



## The Effect of Meditation on Student Counselors

### Informed Consent

Principal Investigator(s): Daniel Gutierrez, M.A., LMHC, NCC

Faculty Supervisor: Mark Young, Ph.D.

Investigational Site(s): University of Central Florida  
College of Education and Human Performance  
Counselor Education Program

**Introduction:** Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being invited to take part in a research study which will include about 111 people from the UCF Counselor Education program. You have been asked to take part in this research study because you are a student in our counseling program. You must be 18 years of age or older to be included in the research study.

The person doing this research is Daniel Gutierrez a Ph.D. Candidate from the UCF Counselor Education Program. Because the researcher is a graduate student, he is being guided by Dr. Mark Young, a UCF faculty supervisor in Counselor Education.

#### What you should know about a research study:

- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

**Purpose of the research study:** The purpose of this study is to examine the effect of meditation on student counselors. Research has shown meditation has considerable promise as an intervention that

improves psychological wellbeing and counselor effectiveness. Individuals who meditate report psychological, emotional, and physiological benefits. As a researcher, I believe that meditation could also help increase several key characteristics related to effective counseling. Therefore, the aim of this study is to investigate if by incorporating meditation into counselor training there are significant benefits to the student counselors.

**What you will be asked to do:** This study will take place over the course of the next six weeks. Participants will be asked to complete three short questionnaires prior to beginning the study, after three weeks, and again at the end of the six weeks. The time needed to complete questionnaires will be less than 15 minutes.

You will also be asked to participate in a weekly meditation group that will teach a basic non-religious, beginner's meditation practice. This group will be led by a certified meditation instructor with over 20 years of experience in teaching meditation. The instructor will help the group assess and overcome obstacles to meditation. You will be asked to meditate regularly throughout the course of the week (e.g., preferably daily for 15 min), and provide the facilitator with a meditation log.

If at any time you would like to withdraw from the study you are free to do so. Your participation in this research project is entirely **voluntary**. There will be no penalty for withdrawing from the study. In addition, your test scores will be kept confidential.

**Location:** Group facilitators will conduct the group on UCF campus. Specifically, groups will be held in class rooms in either the college of education building, the Morgridge International Reading Center, and the teaching academy.

**Time required:** We expect that you will be in this research study for a maximum of 12 weeks. Group sessions will last about one hour a week.

**Risks:** There are no reasonably foreseeable risks or discomforts involved in taking part in the study.

**Alternatives:** If you are participating in this study as a part of the Introduction to Counseling Course, you still have the option of withdrawing from the study. Instead of being in this research study, your choices may participate in a wellness psychoeducational groups conducted by a first year Ph.D. student.

**Confidentiality:** We will limit your personal data collected in this study to people who have a need to review this information. We cannot promise complete secrecy.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints, please contact: Daniel Gutierrez, Ph.D. Candidate in Counselor Education,

College of Education and Human Performance, Email: [Daniel.gutierrez@knights.ucf.edu](mailto:Daniel.gutierrez@knights.ucf.edu), or via phone: 321-895-4769.

Dr. Mark Young, Faculty Advisor, Counselor Education, College of Educaiton and Human Performance, 407-421-7800 or via email at [Mark.Young@ucf.edu](mailto:Mark.Young@ucf.edu)

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901. You may also talk to them for any of the following:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You want to get information or provide input about this research.



## **APPENDIX C: JYOTI CURRICULUM**

## Jyoti Meditation

Session 1



Course Outline and Introduction

1

## Overview of Topics

- **Session 1: Introduction to Course – Getting to know each other**
- Session 2: Meditation Benefits
- Session 3: Developing the Meditation Technique
- Session 4: Sitting Still and Focusing
- Session 5: Stilling the Mind
- Session 6: Putting it into (daily) practice

2

## A little about me...



## ...a little about you

- Prior experiences with meditation?
- What type(s)?
- Yoga?

## Let's Define some Terms

- Meditation
- Jyoti
- Spiritual(ity)
- Religion

## Exercise One

- Pair Up
  - Why do we meditate?
  - Goals/Objectives?
  - Prior Experiences?
  - Preconceptions?
  - Fears?

## Why Do We Meditate?

- Physical Benefits
- Mental Benefits
- Emotional Benefits
- Spiritual Benefits
- Benefits for the World



Experience is the key.



## Learning how to meditate



## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Mantra
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

## Patience...and Perseverance

- Rome wasn't built in a day...
- How many years have you been working on your degree?

11

## Homework

- 10 minutes per day
- Journal – for Daniel (and yourself)

12

## Keys to Success



- Choose a good time...
- Choose a good place.
- Sit Still
- Concentrate at the eye focus in a calm and loving manner.
- Still our thoughts (use Chosen Words)
- Regularity
- Be Nice 😊

13

## Have a great week!

Next week, our topic is:

***"Benefits to Meditation"***



*Don't wait - Meditate!*

14



## Jyoti Meditation

Session 2



Benefits of Meditation

## Overview of Topics

- Session 1: Introduction to Course – Getting to know each other
- **Session 2: Meditation Benefits**
- Session 3: Developing the Meditation Technique
- Session 4: Sitting Still and Focusing
- Session 5: Stilling the Mind
- Session 6: Putting it into (daily) practice

## Homework Review

- Did you put in your 10 minutes daily?
- Observations?
- What worked/didn't work?
- Notice any difference in your day?

## Exercise – *Sitting Still*

- Pair up
- 4 Minutes of Meditation
- One person meditates – One Observes

## Today's Topics

- Physical Benefits
- Mental Benefits
- Emotional Benefits
- Spiritual Benefits
- Benefits for the World



## Physical Benefits

- Illnesses linked to mental/emotional conditions
- Physical resistance to disease drops; immune system affected
- But, for those who meditate:
  - 49% decrease in mortality rates for cancer
  - Breast cancer patients lived 18 months longer
  - Fibromyalgia: improvements in quality of life, pain, depression, anxiety, fatigue, etc...
- Recommended before/after Surgery
  - Cortisol levels drop; faster recovery

## Physical Problems Reduced...

- Heart Related Problems
- Blood Pressure
  - 23% decrease in death rate of elderly with high blood pressure
- Chronic Diseases
  - Asthma, Arthritis, Fibromyalgia
  - Cancer, Alzheimer's
- Digestive Problems
- Breathing problems
- Circulation Issues

## Dean Ornish MD

Author of *Reversing Heart Disease*, Dr. Ornish found that lifestyle changes and ***meditation can reverse even severe coronary artery disease without drugs.***



## Intellectual and Mental Benefits

- Increases concentration and productivity
- Enhances calmness, well-being, and flexibility

Journal of Psychiatry: “ – “controlled studies have found consistent reductions in anxiety in meditators....Several stress related conditions have demonstrated improvement during clinical trials...including hypertension, insomnia, asthma, chronic pain, cardiac tachyarrhythmias, phobic anxiety.”

## Mental Benefits

- Better Focus/Concentration
  - Improvements in School and Work Performance
  - Greater clarity
- Stress Relief
  - Normal brain waves during stressful situations – 13-20 Hz
  - For meditators: 5-8 Hz (deep state of relaxation)
  - People with “high stress” are 2.4x more likely to develop Alzheimer’s

## Better Focus/Concentration

- Phil Jackson – Legendary Basketball Coach -- “the “Zen Master”
- 11 Championships
- Dealt with legendary egos
  - Michael Jordan, Kobe Bryant, Shaq
- Players meditated before games
  - Game *slowed down*
  - Greater mental clarity
  - Less errors
  - Better decisions



11

## Emotional Benefits

- More patient and loving; Less anxious and angry
- Spiritual outlook provides perspective
  - Controlling “reaction” = Clearer/Calmer Reflection (Buddha/Mustard Seed)
  - Alleviate fears of the unknown
  - We must change ourselves – not others
  - Spiritual people are happier, calmer, better marriages, less crimes, drugs/alcohol abuse, etc.
- Study 1– Film of industrial accident
- Study 2: Meditators = reduced negative mood/perceived stress

12

## Spiritual benefits

- Interdependence with Physical/Emotional/Mental Benefits
- Lasting Peace, Love, Joy and Bliss
- Inner Peace & perspective/meaning
- Body, Mind and Spirit in Harmony
- Live in the Present Moment



## Benefits for the World

- Peace begins with us
- We become an instrument in healing of the planet.
- We become a remedy for conflict.
- We become an agent of peace, love and goodwill

## Summary of benefits

- Physical- Reduces Stress and related Illnesses
- Mental- Increases Concentration
- Emotional- Balances Feelings
- Spiritual- Brings Inner Peace, Harmony and Meaning to Life
- For the World- Healing and Peace



16

## Activity: Meditation



16



## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Mantra
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

17

## Keys to Success

- Choose a good time...
- Choose a good place.
- Sit Still
- Concentrate at the eye focus in a calm and loving manner.
- Still our thoughts (use Chosen Words)
- Regularity
- Be Nice 😊



18

Have a great week!

Next week, our topic is:

***"Developing the Meditation  
Technique"***



*Don't wait - Meditate!*

## Jyoti Meditation

Session 3



Developing the Meditation

## Overview of Topics

- Session 1: Introduction to Course – Getting to know each other
- Session 2: Meditation Benefits
- **Session 3: Developing the Meditation Technique**
- Session 4: Sitting Still and Focusing
- Session 5: Stilling the Mind
- Session 6: Putting it into (daily) practice

## Homework Review

- Did you put in your 10 minutes daily?
- Observations?
- What worked/didn't work?
- Notice any difference in your day?
- **Fill out Activity Log**

## How do we begin meditating?

Choose a time and place which is quiet.



Meditate at the Same Time  
Everyday.



Find a comfortable place.



Choose a comfortable pose.



Develop the habit of meditating.

Commit to meditating every day.



## Let the motor currents go on as usual.

- Breathing
- Heart
- Digestive System



9

## Still the body.

Withdraw our attention from the senses:

- Sight
- Hearing
- Smell
- Taste
- Touch



10

## Still the Mind.



Bring our attention to the eye focus.

11

## Keep the mind occupied.



12



## Repeat the Chosen Words.

- Repetition keeps attention focused.
- Practice Chosen Words during the day.



13

## Activity: Meditation



14

## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Word(s)
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

16

## Keys to Success

- Choose a good time...
- Choose a good place.
- Sit Still
- Concentrate at the eye focus in a calm and loving manner.
- Still our thoughts (use Chosen Words)
- Regularity
- **Be Nice** 😊



16

## Personal journaling assignment

During the upcoming weeks  
keep notes....

- How long you meditate?
- Record your meditation experiences
- Difficulties?
- What's Working/not working?



17

## Have a great week!

Next week, our topic is:

***"Sitting Still and Focusing"***



*Don't wait - Meditate!*

18

## Jyoti Meditation

Session 4



Developing the Meditation Technique

## Overview of Topics

- Session 1: Introduction to Course – Getting to know each other
- Session 2: Meditation Benefits
- Session 3: Developing the Meditation Technique
- **Session 4: Stilling the Mind**
- Session 5: Sitting Still and Focusing
- Session 6: Putting it into (daily) practice

## Homework Review

- Did you put in your 10 minutes daily?
- Observations?
- What worked/didn't work?
- Notice any difference in your day?
- **Fill out Activity Log**

The mind can be...



Restless, never still . . .



Angry when something stands in its way . . .



A control freak . . .



A lover of pleasure . . .

## Activity

How long can we focus?



## Some “thoughts” about the Mind

- The Mind is **very** fast...
- Average person has 12K thoughts/day
- Mind’s activity “speeds up” during meditation



## ...but

- The mind likes habits and routines
- 21-49 days (3-7 weeks) to develop a habit



October 2013						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## Things to do...*before* you sit

- Eliminate Potential Distractions
  - Stretch first
  - Make a list of "issues" that are stressing you
- Take a Walk
- Read/Listen to something inspiring
- Repeat chosen words throughout day
- "Live in the Living Present"
- Kindness & Forgiveness
  - Eliminate poison of anger, jealousy, etc.

## Things to do...*while* sitting

- NOTHING! 😊
- Focus on what you're seeing...
- Let chosen words keep your mind occupied
- "open a new drawer" for thoughts that arise
- Don't "clutch" – eliminate expectations
- Befriend the mind; don't battle...

9

## Activity: Meditation (20 Minutes)



10



## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Word(s)
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

11

## Keys to Success

- Choose a good time...
- Choose a good place.
- Sit Still
- Concentrate at the eye focus in a calm and loving manner.
- Still our thoughts (use Chosen Words)
- Regularity
- **Be Nice** 😊



12

## Personal journaling assignment

During the upcoming weeks  
keep notes....

- How long you meditate?
- Record your meditation experiences
- Difficulties?
- What's Working/not working?



13

## Have a great week!

Next week, our topic is:

***"Sitting Still and Focusing"***



*Don't wait - Meditate!*

14

## Closing Thought of the Day

"Whatever we think, say, and do in our daily lives will have a great impact upon our state of mind when we meditate. We can just compare our own state of mind after we spent a wonderful and peaceful day with our loved ones as opposed to having a day filled with arguments with our boss at work.

When our day is peaceful, it is much easier to still the mind for concentration. But when we are agitated by problems, it takes Herculean efforts to forget about them and sit with tranquility and calmness. The key to attaining spiritual consciousness lies in living life in such a way that we maintain calmness and balance of mind at all times.

**-Rajinder Singh**

## Jyoti Meditation

Session 5



Sitting Still and Focusing

## Overview of Topics

- Session 1: Introduction to Course – Getting to know each other
- Session 2: Meditation Benefits
- Session 3: Developing the Meditation Technique
- Session 4: Stilling the Mind
- **Session 5: Sitting Still and Focusing**
- Session 6: Putting it into (daily) practice

## Homework Review

- Did you put in your 10 minutes daily?
- Observations?
- What worked/didn't work?
- Notice any difference in your day?
- **Fill out Activity Log**

## Activity

How long can we sit still?



## Stilling the body

- Why we still the body
  - ✧ Improve concentration
  - ✧ Reduce distractions

### Tip #1: Sleep first.

Be wide awake – It's difficult to meditate when we are tired.



## Tip #2: Look to our stomach

- Eat light
- Easily digested meal
- Vegetarian diet helpful



## Tip #3: Exercise/Stretch

- Take a walk
- Loosen up
- Get the blood circulating

### Tip #4: Withdraw the Sensory Currents

- Withdraw the 5 senses
- Don't focus on "motor" currents

### Focus...

- Imagine a Bulls Eye
  - Focus in middle as if "waiting for movie to start"
- Extend your thumb 10" in front of you - focus



**Scratching**  
*and other physical distractions*



11

**Activity: Meditation (25 Minutes)**



12

## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Word(s)
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

13

## Keys to Success

- Choose a good time...
- Choose a good place.
- Sit Still
- Concentrate at the eye focus in a calm and loving manner.
- Still our thoughts (use Chosen Words)
- Regularity
- **Be Nice** 😊



14

## Personal journaling assignment

During the upcoming weeks  
keep notes....

- How long you meditate?
- Record your meditation experiences
- Difficulties?
- What's Working/not working?



16

## Have a great week!

Next week, our topic is:

***"Putting it into (daily)  
Practice"***

*Don't wait - Meditate!*



16

## Closing Thought of the Day

*Through meditation each person can attain inner peace. That is the greatest tool we have to bring about outer peace. If you are at peace, you will bring peace to your immediate family, your neighborhood, your community, your country, and the world.*

*If you are not at peace, the negativity will also radiate and spread to others. If each person attains inner peace it will not be long before we have outer peace. Imagine six billion people attaining peace within themselves. Who will be left to start and to fight wars? No one...*

**-Rajinder Singh**

## Jyoti Meditation

Session 6



Putting it into (Daily) Practice

## Overview of Topics

- Session 1: Introduction to Course – Getting to know each other
- Session 2: Meditation Benefits
- Session 3: Developing the Meditation Technique
- Session 4: Stilling the Mind
- Session 5: Sitting Still and Focusing
- **Session 6: Putting it into (daily) practice**

## Weekly Review

- Did you meditate daily?
- Observations?
- What worked/didn't work?
- Notice any difference in your day?

## Instructions – 5 Easy Steps

- Sit in any comfortable position
- Focus between/behind the two eyebrows
- **Don't** Focus on the body, breathing, etc.
- Still the Mind – Choose a Word(s)
- Look straight ahead – into the center of the darkness
  - You may see darkness, light, etc...

## Activity: Meditation (30 Minutes)



### Review - Benefits

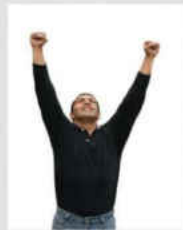


- Physical
  - Reduces Stress and related Illnesses
- Mental
  - Focus/Concentration; Productivity
- Emotional
  - Balance Feelings; Control Anger; Gain Perspective
- Spiritual
  - Brings Inner Peace, Harmony and Meaning to Life
- For the World
  - Healing and Peace; Unity

## Putting it into (Daily) Practice

- Regularity, Regularity, Regularity
- Patience...and Perseverance
- Make it a Habit
  - Time and Place
- Notice "Improvements"
- **Be Nice**

*Have a Good Life!*



*Don't wait - Meditate!*



## Closing Thought of the Day

"The world was meant to be a Garden of Eden and a haven of bliss. To attain such a paradise on earth, each of us has to make a contribution. Peace and unity begins within each one of us. We cannot expect others to radiate harmony and oneness if we ourselves are not prepared to see its fruition in our own lives.

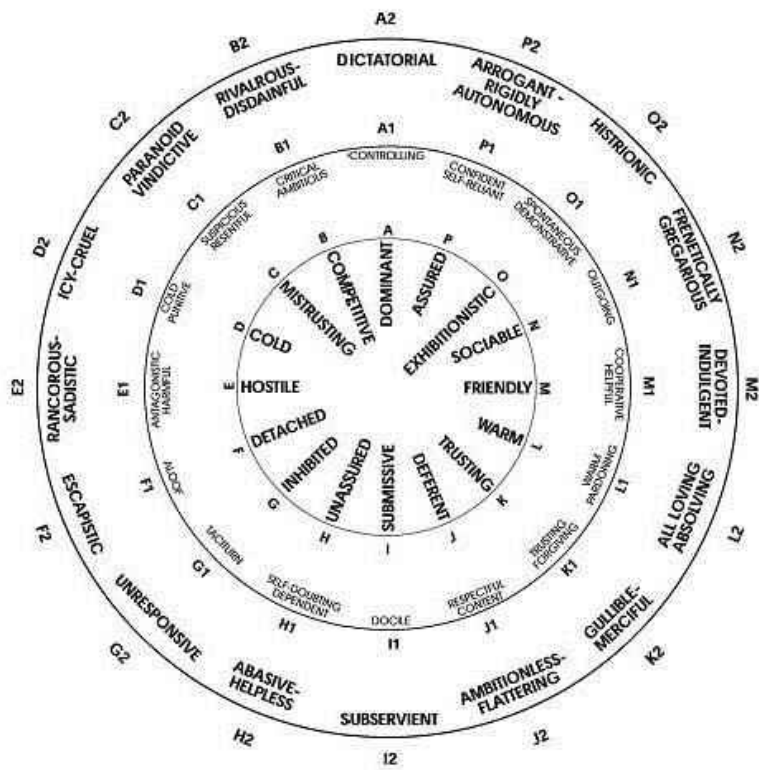
Each of us must do our own small part to the fulfillment of this noble dream. We can attain this condition by the process of meditation...

***Rajinder Singh***

## **APPENDIX D: COMPARISON GROUP CURRICULUM**

### Interpersonal Style Exercise

1. Divide the group into two parts. Three or 4 people occupy the inner circle sitting down and a similar number stand behind them.
2. Assign each person in the outer circle to observe one person in the inner circle. If numbers are uneven, one group leader can participate or one outer circle person can observe two people.
3. The inner circle holds a discussion for about 5 minutes on the topic, "Where do I see myself in 5 years?" The outer circle participants observe and makes notes on the diagram based on observed interpersonal style characteristics.
4. After the discussion, the outer circle participants meet individually with their inner circle person whom they observed and gives them feedback on his or her interpersonal style.
5. The entire process is repeated with each group changing places.
6. Finally, the group leader facilitates a class discussion about the exercise:
  - A. Did you learn anything new about yourself or did this confirm your evaluation of how you generally interact with others.
  - B. Did anything surprise you or just seem dead wrong?
  - C. Are people always aware of their interpersonal style?
  - D. Is there anything about your interpersonal style that you would like to change?
  - E. Do you receive feedback like this well? Were you defensive?



One-way versus two-way communication----Shapes

PART ONE

Everyone has a partner. One faces board. Other faces away and doesn't look.

Instruct those facing away that they are to draw the diagram, that their partner describes

Students may not ask questions, make any sounds or give any feedback to their partner as he/she describes the diagram

Instructor record time it takes for everyone to describe the diagram

Once all have finished ---

Instructor:

Write amount of time it took for everyone to describe the diagram.

Students share their drawings with partner and can view the correct diagram.

Ask class how many of the five shapes they got right, in terms of size and placement (WRITE TOTALS ON BOARD)?

PART TWO

Draw for a second time with a similar but different figure.

Yet, this time class members may ask questions, ask for clarification, and give describe what they have drawn. Still no peeking.

When finished instructor will write time it took to complete diagram description using two-way communication

Now share drawings with partner and look at board.

How accurate were they this time?

MAKE THE FOLLOWING COMPARISONS:

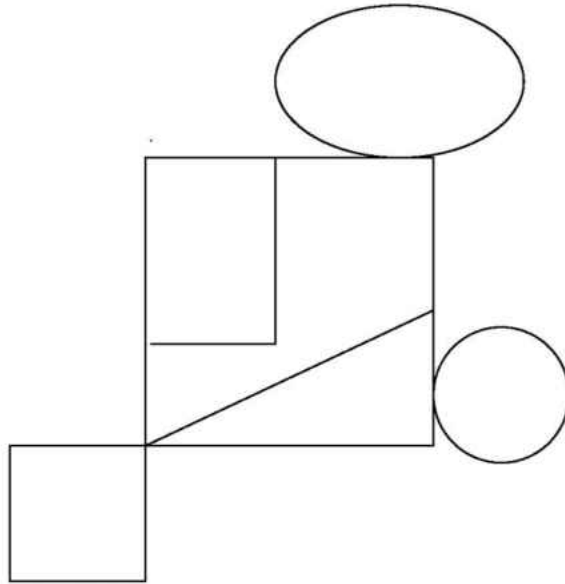
1. HOW DID THEY FEEL TOWARD THE VOLUNTEER IN PART ONE VS. PART TWO?
2. HOW DID THE VOLUNTEER FEEL TOWARD THE AUDIENCE IN PART ONE VS. PART TWO?

3. WHAT ARE SOME EXAMPLES WHEN ONE-WAY COMMUNICATION MAY TAKE PLACE?
4. WHAT ARE SOME PROBLEMS THAT MAY TAKE PLACE IN ONE-WAY COMMUNICATION?
5. WHAT ARE SOME EXAMPLES OF TWO-WAY COMMUNICATION TAKING PLACE?
6. WHAT ARE PROBLEMS OF TWO-WAY COMMUNICATION?

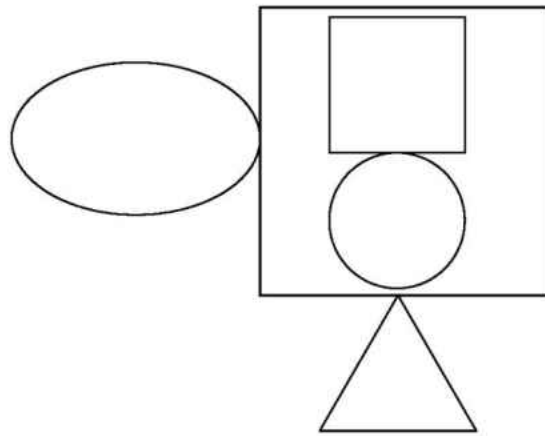
**IMPORTANT POINTS TO REMEMBER:**

1. One-way communication (comm. without feedback) has the following characteristics:
  - a. It is fast
  - b. It is generally satisfying to the sender
  - c. It is generally frustrating to the receiver
  - d. It is not very accurate
2. Two-way communication tends to be:
  - a. Time consuming
  - b. Frustrating to the sender
  - c. Satisfying to the receiver
  - d. More accurate than communication without feedback
3. When accuracy of communication is the goal, two-way communication, although time consuming, is preferable
4. Two-way communication requires active listening

Shapes #1



Shapes #2





## Nonverbal Communication

Purpose of the Lesson: To instill the importance of non-verbals in communication.

### Voice

In pairs, try to figure out how many meanings are available in this statement based on how you say it.

"I didn't say you stole the wallet."

Process:

### Personal Space Exercise

Instructions:

1. Everyone in the room stands up and finds a partner (someone you don't know is best).
2. You will do this exercise facing your partner and will need to have 4-6 feet of space behind either of you. Find a spot in the room where you can work with enough space and not bump into the other pairs of people.
3. Once you've found a space to work, stand facing your partner.
4. Freeze your feet to the floor - don't move an inch.
  1. Notice the natural distance that you and your partner have chosen.
  2. Notice the natural distance that the other pairs in the room have chosen.
  3. Note that you were not told how far to stand from your partner and yet you all are approximately the same distance apart.
5. Take 2 steps forward - you should now be within a foot of your partner. (**Intimate distance**)
  1. How does it feel to be at this distance? (Icky? Awkward?)
  2. Imagine trying to talk to someone you don't know beginning at this distance.
  3. Lesson: don't ever start with a new client or relationship at this distance. This is too close to communicate comfortably with someone you aren't emotionally close to.
6. Each person take 1 step back so you are 2 feet away from your partner. (**Personal distance**)
  1. Feels a little better?
  2. Still not totally comfortable?
7. Each person take 1 more step backwards so you are approximately 4-5 feet away from each other. (**Social distance**)
  1. Does this feel better?
  2. Much more comfortable?
  3. Lesson: this is a good place to begin communicating with a new client or relationship.

Process: Types of Nonverbals Touch, Eye contact, voice, facial expressions, gestures, body posture, movement and space.

**Purpose of the Exercise:** To learn to give good feedback.

**Part I Discussion**

What do they think are some of the principles of good feedback?

Here are some: (If they don't come up with it)

**Understandable** — Keep it clear and simple.

**Focused** — Address only 1 or 2 issues, not a "laundry list" of problems.

**Specific** — Provide details and examples. Personalize it and be precise.

**Substantive** — Comments are meaningful and important, addressing the "heart" of the issue. Not a minor stylistic issue about how it was done

**Behavior Oriented** — Directed toward the behavior to be corrected, not the person. Not the personality.

What about bad feedback?

**Part II Find the Object**

**3 participants leave the room. 1 is given encouragement to find it. 2 is given discouragement, 3 is given no data.**

**Process: Have you been subjected to these three feedback types at school or work?**

**Part III Role Play: Good feedback vs. Bad feedback.**

Self Disclosure: Instructions for Mutual Funds:

1. In turn students go around and respond to the following three questions:
  - a. What is your biggest fear
  - b. What is something about you that you usually don't talk about
  - c. A dream that you have about your future.
2. Students are instructed to listen closely to their fellow students and remember what they said. Can you relate to their answer?
3. Students may pass if they wish.
4. When everyone has talked about their three questions, another go-around takes place. This time, students take their play money and disburse it one at a time to the other members of the group based on what that person said. For example, you said your greatest fear was "being stuck in a dead end job. I can relate to that and I give you \$10.00."
5. Students do not disburse money they have received. Only the original 1, 5, 10 dollar denominations.
6. When all money has been disbursed, the exercise is processed?
  - a. Who received the most cash? Why?
  - b. Did depth of disclosure play a role?
  - c. What family messages are you aware of about disclosure?
  - d. Do you believe that disclosing something will be dangerous to you? What is the possible risk?
  - e. What is the risk associated with non-disclosure?
  - f. What is the role of disclosure in friendship?
  - g. What about counseling? How much should a counselor disclose?

### Listening and Responding Exercise

1. Listen to what talker is saying and take notes.
2. When the talker is done speaking (5 minute limit), tell the talker what they said in your own words, without adding your point of view, without responding to, without judgment criticism, or body language.
3. Ask the talker if you "got it"
4. If the talker says "yes" proceed to next step by asking the talker is there more?  
Continue steps 1 through 4 until the talker says that "there is no more".
5. If the talker says that you "didn't quite get it", or that "you missed a part or all of it", ask the talker to tell you what you missed. Then repeat steps 1 through 3.
6. After steps 1 through 5 are completed and the talker has nothing more to add, the next step is to validate the talker's feelings. Validating feelings is a way to tell the talker how their feelings make sense to you, or in other words how you are able to understand them, by putting yourself in their shoes. This step takes practice, but is probably the most important of all the listening steps.
7. Switch roles and repeat steps 1 through 6.

## **APPENDIX E: MEDITATION LOG**

**Weekly Meditation Log**

Day	For how long?
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

**Total amount of time meditating this week \_\_\_\_\_**

**What was difficult about this week's meditation?**

**What was beneficial?**

**What was the experience like?**

**How interested are you in meditation (please circle one)?**

**Very Not Interested      Not Interested      Interested      Very Interested**

**APPENDIX F: EXIT SURVEY**

Participant Code: \_\_\_\_\_

### Participant Exit Survey

**Instructions:** Please answer each statement below by putting a circle around the number that best reflects your experience in the meditation group

Not at all    1.....2.....3.....4.....5.....6.....7    Extremely so

How much did you enjoy the meditation treatment? <i>Please note what you hated or loved:</i>	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

How motivated were you to take part in the meditation practice?. <i>Please note what did or didn't motivate you?:</i>	1	2	3	4	5	6	7
--	---	---	---	---	---	---	---

How engaged were you in the meditation treatment?. <i>comments?:</i>	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---



---

What did you love the most about the meditation practice? .

What did you hate the most about the meditation practice?

Please share any general comments about the meditation treatment: (including instructors, curriculum, etc.)

---

**During the study did you receive any additional services that may have influenced your stress level/social/emotional development? (Counseling, medication, etc.)**

YES NO If yes, please describe: \_\_\_\_\_

**Did anything occur, outside of the ordinary, during the study that you think may have influenced your scores? If so, please describe:**

**THANK YOU FOR YOUR PARTICIPATION!**

## **APPENDIX G: IRB ADDENDUM**



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Approval of Human Research

From: **UCF Institutional Review Board #1  
FWA00000351, IRB00001138**

To: **Daniel Gutierrez**

Date: **August 20, 2013**

Dear Researcher:

On 8/20/2016, the IRB approved the following minor modifications to human participant research until 08/05/2014 inclusive:

Type of Review: IRB Addendum and Modification Request Form  
Modification Type: In order to prevent the results of the study from bias, the Informed Consent has been revised, as follows: the study title has been truncated to "The effect of meditation on student counselors," the study purpose has been edited, and the assessment names are not listed. This revised Informed Consent has been approved for use. In addition, a debriefing statement has been uploaded and approved for use with study participants when research activities have been completed so that participants can be fully informed as to the true purpose of the study. The mediation log has been revised so that it is easier to understand and the "rate your interest in meditation" has been changed from a scale of one to ten to a Likert scale.

Project Title: The effect of Meditation on student counselors' emotional intelligence, stress, and spiritual experiences  
Investigator: Daniel Gutierrez  
IRB Number: SBE-13-09520  
Funding Agency:  
Grant Title:  
Research ID: N/a

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 08/05/2014, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/20/2013 01:48:55 PM EDT

A handwritten signature in black ink that reads "Joanne Muratori". The signature is written in a cursive style with a large initial "J" and "M".

IRB Coordinator

## **APPENDIX H: DEBRIEFING STATEMENT**



Debriefing Statement

For the study entitled:

"The Effect of Meditation on Student Counselors"

Dear Participant,

During this study, you were asked to participate in a weekly meditation group and complete several assessments. You were told that the purpose of the study was to examine the effect of meditation on several key characteristics of effective counselors. The actual purpose of the study was to examine the effect of meditation on emotional intelligence, stress, and daily spiritual experiences.

We did not tell you everything about the purpose of the study because there was a concern that by telling you the specific constructs being measures, we would bias the study.

You are reminded that your original consent document included the following information:

"If at any time you would like to withdraw from the study you are free to do so. Your participation in this research project is entirely voluntary. There will be no penalty for withdrawing from the study. In addition, your test scores will be kept confidential."

If you have any concerns about your participation or the data you provided in light of this disclosure, please discuss this with us. We will be happy to provide any information we can to help answer questions you have about this study.

Now that you know the true nature of the study, you have the option of having your data removed from the study. Please contact the PI if you do not want your data to be used in this research and it will be withdrawn.

**Study contact for questions about the study or to report a problem:** If you have questions, concerns, or complaints or think the research has hurt you, please contact: Daniel Gutierrez, Ph.D. Candidate in Counselor Education, College of Education and Human Performance, Email: [Daniel.gutierrez@knights.ucf.edu](mailto:Daniel.gutierrez@knights.ucf.edu), or via phone: 321-895-4769.

Dr. Mark Young, Faculty Advisor, Counselor Education, College of Education and Human Performance, 407-421-7800 or via email at [Mark.Young@ucf.edu](mailto:Mark.Young@ucf.edu)

**IRB contact about your rights in the study or to report a complaint:** Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

If you have experienced distress as a result of your participation in this study, a referral list of mental health providers is attached to this document for your use.<sup>6</sup> (Please remember that any cost in seeking medical assistance is at your own expense.)

Please again accept our appreciation for your participation in this study.



University of Central Florida IRB  
IRB NUMBER: SBE-13-09520  
IRB APPROVAL DATE: 8/20/2013  
IRB EXPIRATION DATE: 8/5/2014

## REFERENCES

- Alexander, F. (1931). Buddhistic training as an artificial catatonia. *The Psychoanalytic Review*, 18, 129 -145.
- American Counseling Association (June, 2013) *Membership report*. [www.counseling.org](http://www.counseling.org)
- ASERVIC (2005). A white paper of the association for spiritual ethical and religious values in counseling. Retrieved February 2, 2014 from <http://www.aservic.org/wp-content/uploads/2013/06/ASERVIC-WHITE-PAPER.pdf>
- Baer, R.A., Smith, G.T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13, 27–45.
- Balkin, R. S., & Sheperis, C. J. (2011). Evaluating and reporting statistical power in counseling research. *Journal of Counseling and Development*, 89, 268-272.
- Bar-On, R., Handley, R., & Fund, S. (2006). The impact of Emotional Intelligence on performance. In V. Druskat, F. Sala, G. Mount (Eds.) , *Linking emotional intelligence and performance at work: Current research evidence with individuals and groups* (pp. 3-19). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.
- Barnes, V. A., Treiber, F. A., & Johnson, M. H. (2004). Impact of transcendental meditation on ambulatory blood pressure in African-American adolescents. *American Journal of Hypertension*, 17(4), 366-369.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of general psychiatry*, 4(6), 561-571.

- Bedi, R. P., Davis, M. D., & Williams, M. (2005). Critical incidents in the formation of the therapeutic alliance from the client's perspective. *Psychotherapy: Theory, Research, Practice, Training*, 42(3), 311-323.
- Benn, R. (2003). Transcendental Meditation (TM) and emotional functioning in fifth grade students. *Focus on Alternative and Complementary Therapies*, 8(4), 480-481.
- Benson, H. (1985) *Beyond the relaxation response*. New York, NY: Berkley Publishing Group.
- Benson, H., & Klipper, (1976). *The relaxation response*. New York, NY: Harper Collins Press.
- Benson, H. & Stark, M. (2009) *Timeless healing: The power and biology of belief*. New York, NY: Simon and Schuster Publishing.
- Beutler, L. E., Forrester, B., Gallagher-Thompson, D., Thompson, L., & Tomlins, J. B. (2012). Common, specific, and treatment fit variables in psychotherapy outcome. *Journal Of Psychotherapy Integration*, 22(3), 255-281.  
doi:10.1037/a0029695
- Bike, D. H., Norcross, J. C., & Schatz, D. M. (2009). Processes and outcomes of psychotherapists' personal therapy: Replication and extension 20 years later. *Psychotherapy: Theory, Research, Practice, Training*, 46(1), 19-31.
- Birk, J. M., & Mahalik, J. R. (1996). The influence of trainee conceptual level, trainee anxiety, and supervision evaluation on counselor developmental level. *The Clinical Supervisor*, 14(1), 123-137.



- Bond, K., Ospina, M. B., Hooton, N., Bialy, L., Dryden, D. M., Buscemi, N., & ...  
Carlson, L. E. (2009). Defining a complex intervention: The development of demarcation criteria for “meditation”. *Psychology Of Religion And Spirituality, 1*, 129-137.
- Bowman, J. T. & Giesen, J. M. (1982). Predicting ratings of counselor trainee empathy with self-report anxiety measures and skin conductance. *Counselor Education and Supervision, 22*, 154-161.
- Bowman, J. T., & Roberts, G. T. (1982). Counselor trainee anxiety during counseling. *Journal of Counseling Psychology, 26*, 85-88.
- Bowman, J.T., Roberts, G. T., & Giesen, J. M. (1978). Counselor trainee anxiety during the initial counseling interview. *Journal of Counseling Psychology, 25*, 137-143.
- Brown, L. L., & Robinson, S. E. (1993). The relationship between meditation and/or exercise and three measures of self-actualization. *Journal of Mental Health Counseling, 15*, 85–93.
- Burns, J. L., Lee, R. M., & Brown, L. J. (2011). The effect of meditation on self-reported measures of stress, anxiety, depression, and perfectionism in a college population. *Journal of College Student Psychotherapy, 25*(2), 132-144.
- Campbell, D. T. (1986). Relabeling Internal and External Validity for Applied Social Scientists. *New Directions For Program Evaluation, (31)*, 67-77.

- Campbell, D. & Stanley, J. (1963). *Experimental and quasi-experimental designs for research*. Chicago, IL: Rand-McNally.
- Cardoso, R., de Souza, E., Camano, L., & Leite, R. J. (2004). Meditation in health: An operational definition. *Brain Research Protocols*, 14(1), 58-60.
- Carson, J. W., Keefe, F. J., Lynch, T. R., Carson, K. M., Goli, V., Fras, A. M., & Thorp, S. R. (2005). Loving-kindness meditation for chronic low back pain: Results from a pilot trial. *Journal of Holistic Nursing*, 23(3), 287-304.
- Cashwell, C. S., Bentley, D. P., & Bigbee, A. (2007). Spirituality and counselor wellness. *The Journal of Humanistic Counseling, Education and Development*, 46(1), 66-81.
- Cashwell, C. S., & Young, J. (2009). *Integrating spirituality and religion into counseling: A guide to competent practice* (2<sup>nd</sup> Ed.). American Counseling Association
- Council for Accreditation of Counseling and Related Educational Programs (CACREP). (2009). *2009 standards*. Retrieved from <http://www.cacrep.org/doc/2009%20Standards%20with%20cover.pdf>
- Coster, G. (1934). *Yoga and Western psychology*. London, England: Oxford University Press.
- Cherniss, C., & Goleman, D. (2001). *The Emotionally Intelligent Workplace*. San Francisco, CA: Jossey-Bass
- Cherniss, C., Extein, M. Goleman, D. & Weissberg, R. P. (2006) Emotional Intelligence: What does the research really indicate? *Educational Psychologist*, 41, 239-245.

- Chu, L. (2009). The Benefits of meditation vs-a-vis emotional intelligence, perceived stress, and negative mental health. *Stress and Health, 26*, 169-180.
- Coelho, H. F., Canter, P. H., & Ernst, E. (2007). Mindfulness-based cognitive therapy: evaluating current evidence and informing future research. *Journal of consulting And clinical psychology, 75*(6), 1000-1005.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385-396
- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the U.S. In S. Spacapan & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on Applied Social Psychology*. Newbury Park, CA: Sage
- Conley, A. H. (2012). *Exploring College Counselor Spiritual Competency in Relation to Training and Professional Practice*. (Unpublished doctoral dissertation). North Carolina State University.
- Cooper, A., & Petrides, K. V. (2010). A psychometric analysis of the Trait Emotional Intelligence Questionnaire–Short Form (TEIQue–SF) using item response theory. *Journal of Personality Assessment, 92*(5), 449-457.
- Corey, G. (2011). *Theory and practice of group counseling*. Cengage Learning. Chicago
- Curran, P. J., Obeidat, K., & Losardo, D. (2010). Twelve frequently asked questions about growth curve modeling. *Journal of Cognition and Development, 11*(2), 121-136.

- Currier, J. M., Mallot, J., Martinez, T. E., Sandy, C., & Neimeyer, R. A. (2013). Bereavement, religion, and posttraumatic growth: A matched control group investigation. *Psychology of Religion and Spirituality*, 5(2), 69-77.
- Davey, G. (2005). *Encyclopaedic Dictionary of Psychology*. London, Eng: Routedledge.
- Davidson, R. J., & Begley, S. (2012) *The emotional life of your brain: How its unique Patterns affect the way you think, feel and live-and how you can change them*. New York, NY: Hudson Street Press.
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., ... & Sheridan, J. F. (2003). Alterations in brain and immune function produced by mindfulness meditation. *Psychosomatic medicine*, 65(4), 564-570.
- Dimitrov, D. M. & Rumrill, P. D. (2003). Speaking of research: Pretest-posttest designs and measurements of change. *Work*, 20, 159-165.
- Dobmeier, R. A., & Reiner, S. M. (2012). Spirituality in the Counselor Education Curriculum: A national Survey of Student Perceptions. *Counseling and Values*, 57(1), 47-65.
- D'Souza, J. B. (2007). Integrating mindfulness into psychotherapy practice. *ABAC Journal*, 27, 23-35.
- Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of counseling psychology*, 43(3), 261.
- Dugard, P., & Todman, J. (1995). Analysis of pre-test-post-test control group designs in educational research. *Educational Psychology*, 15(2), 181-198
- Easton, C., Martin, W. E., & Wilson, S. (2008). Emotional Intelligence and implications

- for counseling self-efficacy: Phase II. *Counselor Education and Supervision*, 47, 218-232.
- Ekman, P. (2004). Micro expression training tool. CD-ROM.
- Elliot, R., Bohart, A.C., Watson, J.C., & Greenberg, L.S. (2011) Empathy. *Psychotherapy*, 48, 43-49.
- Ellis, A. (2002) *Overcoming Resistance*, New York, Ny: Springer Publishing Company.
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power 3: A flexible Statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Feller, C. P., & Cottone, R. (2003). The Importance of Empathy in the Therapeutic Alliance. *Journal Of Humanistic Counseling, Education And Development*, 42(1), 53-61.
- Ferguson, J.K., Willemsen, E. W., & Castaneto, M.V. (2010). Centering Prayer as a Healing response to everyday stress: A psychological and spiritual process. *Pastoral Psychology*, 59, 305-329.
- Fernanado, R. (2011) *Measuring the efficacy and sustainability of a mindfulness-based in-class intervention*. Retrieved February 3, 2014 from <http://www.mindfulnessschools.org/pdf/Mindful-Schools-Study-Highlights.pdf>
- Folkman, S. (2008). The case for positive emotions in the stress process. *Anxiety, Stress & Coping*, 21, 3-14.
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science & Medicine*, 45(8), 1207-1221.

- Folkman, S., & Moskowitz, J. T. (2000). Positive affect and the other side of coping. *American psychologist*, 55(6), 647-654.
- Forem, J. (2012). *Transcendental meditation*. Hay House, Inc.
- Fowler, J. W. (1981) *Stage of Faith*, New York, NY: Harper Row.
- Frankl, V. (1986). *The Doctor of the soul*. New York, NY: Random House.
- Frankl, V. E. (1988). *The will to meaning: Foundations and applications of logotherapy*. New York: New American Library.
- Fredrickson, B. L. (2009). *Positivity: Groundbreaking research reveals how to embrace the hidden strength of positive emotions, overcome negativity, and thrive*. New York: Crown Publishers.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2(3), 300-319.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56, 218–226.
- Fredrickson, B.L., Cohn, M.A., Coffey, K.A., Peck, J., & Finkel, S. M. (2008). Open hearts build Lives: Positive emotions, induced through loving-kindness meditation, build consequential personal resources. *Journal of Personality and Social Psychology*, 95,1045 -1062.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? A prospective study of resilience and emotions

- following the terrorist attacks on the United States on September 11th, 2001. *Journal of personality and Social Psychology*, 84(2), 365 – 376.
- Friedlander, M. L., Keller, K. E., Peca-Baker, T. A., & Olk, M.E. (1986). Effects of role conflict on counselor trainees' self-statements, anxiety level, and performance. *Journal of Counseling Psychology*, 33, 73-77.
- Gardener, H. (1983) *Frames of Mind: The Theory of Multiple Intelligences*. New York, NY: Basic Books.
- Goodwin, C. J. (2010). *Research in psychology: Methods and design (6<sup>th</sup> ed)*. Hoboken: NJ, Wiley Press.
- Goleman, D. (1988). *The meditative mind: The varieties of meditative experiences*. Los Angeles, CA: Jeremy P. Tarcher.
- Goleman, D. (1995) *Emotional Intelligence: Why it can matter more than IQ*. London: Bloomsbury.
- Goleman, D. (2013) *Focus: The hidden driver of excellence*. Harper Collins.
- Goleman, D. J., & Schwartz, G. E. (1976). Meditation as an intervention in stress reactivity. *Journal Of Consulting And Clinical Psychology*, 44(3), 456-466.
- Görgens-Ekermans, G., & Brand, T. (2012). Emotional intelligence as a moderator in the stress–burnout relationship: A questionnaire study on nurses. *Journal Of Clinical Nursing*, 21, 2275-2285.
- Gottman, J. M. (1995). *What predicts divorce: The measures*. Hillsdale, NJ: Erlbaum.
- Greason, P., & Cashwell, C. S. (2009). Mindfulness and Counseling Self-Efficacy: The

Mediating Role of Attention and Empathy. *Counselor Education & Supervision, 49*, 2-19.

Greschwind, Peeters, Drukker, Os, & Wichers (2011). Mindfulness training increases Momentary positive emotions and reward experience in adults vulnerable to depression: A randomized controlled trial. *Journal of Consulting and Clinical Psychology, 79*, 618-628.

Hagedorn, W. B., & Gutierrez, D. (2009). Integration versus segregation: Applications of the spiritual competencies in counselor education programs. *Counseling and Values, 54*(1), 32-47.

Hanh, T. N. (2008). *The miracle of mindfulness: The classic guide to meditation by the world's most revered master*. London, Eng: Random House.

Hayes, J. A., & Gelso, C. J. (2001). Clinical implications of research on countertransference: Science informing practice. *Sensation: Psychotherapy in Practice, 57*, 1041-1051.

Hayes, S. C., Luoma, J. B., Bond, F. W., Masuda, A., & Lillis, J. (2006). Acceptance and commitment therapy: Model, processes and outcomes. *Behaviour Research and Therapy, 44*(1), 1-25. doi:10.1016/j.brat.2005.06.006

Hayes, S. C. (2004). Acceptance and Commitment Therapy and the new behavior therapies: Mindfulness, acceptance and relationship. In S. C. Hayes, V. M. Follette, & M. Linehan (Eds.), *Mindfulness and acceptance: Expanding the cognitive behavioral tradition* (pp. 1-29). New York: Guilford.

Gray, R. (2010). Shame, labeling and stigma: Challenges to counseling in alcohol and



- other drug settings. *Contemporary Drug Problems*, 37, 685-703.
- Harris, R. (2009). *ACT made Simple: An easy to read primer on Acceptance and Commitment therapy*. Oakland, CA: New Harbinger Publishing Inc.
- Hayes, S. C. (n.d.). *ACT: State of the Evidence*. Retrieved from Association for Contextual Behavioral Sciences: [http://contextualpsychology.org/state\\_of\\_the\\_act\\_evidence](http://contextualpsychology.org/state_of_the_act_evidence)
- Heine, R., & Trossman, H. (1960). Initial expectations of the doctor-patient interaction as a factor in continuance in psychotherapy. *Psychiatry*, 23, 275-278.
- Ivey, A. & Ivey, M. B. (2013). *Intentional Interviewing and Counseling: Facilitating client development in a multicultural society*. Blemont, CA: Brooks and Cole.
- Jennings, L., & Skovholt, T. M. (1999). The cognitive, emotional, and relational characteristics of master therapists. *Journal of Counseling Psychology*, 46(1), 3-11.
- Jennings, L., Sovereign, A., Bottorff, N., Mussell, M. P., & Vye, C. (2005). Nine ethical values of master therapists. *Journal of Mental Health Counseling*, 27(1), 32-47.
- Kabat-Zinn, J. (2003) Mindfulness-based interventions in context: Past, present, and Future. *Clinical Psychology: Science and Practice*, 10(2), 144-156.
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain and illness*. New York, NY: Delacourt.
- Kass, J. D., Friedman, R., Leserman, J., Zuttermeister, P. C., & Benson, H. (1991). Healthoutcomes and a new index of spiritual experience. *Journal for the Scientific Study of Religion*, 30, 203-211.

- Keating, T. & Pennington, B. (1997) *Centering praying in daily life and ministry*. New York, NY: Bloomsbury Academic.
- Kemeny, M. E., Foltz, C., Cullen, M., Jennings, P., Gillath, O., Wallace, B. A., Cavanagh, J. F., Giese-Davis, J., Rosenberg, E. L., Shaver, P. R., & Ekman, P. (2012) Contemplative emotion training reduces negative emotional behavior and promotes prosocial responses. *Emotion, 12*, 338-350.
- Kirschbaum, C., Pirke, K. M., & Hellhammer, D. H. (1993). The 'Trier Social Stress Test'—a tool for investigating psychobiological stress responses in a laboratory setting. *Neuropsychobiology, 28*(1-2), 76-81.
- Kirk R. E. (1994) *Experimental design: Procedures for the behavioral sciences*. Pacific Grove, CA: Brooks/Cole Publishing
- Knabb, J. J. (2012). Centering Prayer as an alternative to mindfulness-based cognitive Therapy for depression relapse prevention. *Journal of Religion and Health, 51*, 908-924
- Koortzen, P., & Mauer, K. F. (2005). A theoretical interpersonal style repertoire for middle-level managers. *SA Journal of Industrial Psychology, 31*, 39-45.
- Lambert, M. J. (1986). Implications of psychotherapy outcome research for eclectic psychotherapy. *Handbook of eclectic psychotherapy, 436-462*.
- Lambert, M. J., & Cattani-Thompson, K. (1996). Current Findings Regarding the Effectiveness of Counseling: Implications for Practice. *Journal of Counseling & Development, 74*(6), 601-08.

- Larson, L. M., Suzuki, L. A., Gillespie, K. N., Potenza, M. T., Bechtel, M. A., & Toulouse, A. L. (1992). Development and validation of the Counseling Self Estimate Inventory. *Journal of Counseling Psychology, 39*, 105-120.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer Publishing Co.
- Leppma, M. (2011) The effect of Loving-Kindness meditation on empathy, perceived social support, and problem-solving appraisal in counseling students. (Unpublished doctoral dissertation). University of Central Florida, Orlando FL.
- Levenson, R. W., Ekman, P., & Ricard, M. (2012) Meditation and the startle response: A case study. *Emotion, 12*, 650-658.
- Linehan, M., & Dawkins, K. (1995). *Treating borderline personality disorder*. Chicago, IL: Guilford Publications.
- Lizeretti, N. P. & Extremera, N. (2011). Emotional Intelligence and clinical symptoms in outpatients with Generalized Anxiety Disorder. *Psychiatry Quarterly, 82*, 253-260.
- Lomas, T., Edgington, T., Cartwright, T., & Ridge, D. (2013). Men developing emotional intelligence through meditation? Integrating narrative, cognitive, and electroencephalography (EEG) evidence. *Psychology of Men & Masculinity, 14*, 1-10.
- Lopez, S. J., & Snyder, C. R. (2009). *Oxford handbook of positive psychology (2nd ed.)*. New York, NY US: Oxford University Press.
- Lugo, L. (2012). Nones' on the Rise: One-in-Five Adults Have No Religious Affiliation.

In *Pew Research Center's Forum on Religion & Public Life*. Retrieved October 16, 2012 from <http://www.pewforum.org/Unaffiliated.nones-on-the-rise.aspx>.

Lynch, C. P., Hernandez-Tejada, M. Strom, J. L., & Egede, L. E. (2012). Association between spirituality and depression in adults with type 2 diabetes. *The Diabetes educator*, 38(3), 427–35. doi:10.1177/0145721712440335

Martin, W. E., Easton, C., Wilson, S., Takemoto, M. & Sullivan, S. (2004). Salience of Emotional Intelligence as a core characteristic of being a counselor. *Counselor Education and Supervision*, 44, 17- 44.

Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.

Matthews, G., Roberts, R. D., & Zeidner, M. (2004). Seven myths about emotional intelligence. *Psychological Inquiry*, 15, 179-196.

Mayer, J. D., Salovey, P., & Caruso, D. R. (2008). Emotional Intelligence: New ability or eclectic traits? *American Psychologist*, 63, 503-517.

Mayer, J.D., DiPaolo, M., & Salovey, P. (1990). Perceiving affective content in ambiguous visual stimuli: A component of emotional intelligence. *Journal of Personality Assessment*, 54, 772-781.

McGee, M. (2008). Meditation and psychiatry. *Psychiatry*, 5, 28–40.

Miller, G. E., Chen, E., & Zhou, E. S. (2007). If it goes up, must it come down? Chronic stress and the Hypothalamic-Pituitary-Adrenocortical Axis in humans. *Psychological Bulletin*, 133, 25-45.

Miller, W. R., & Rollnick, S. (2012). *Motivational interviewing: Preparing people for*

- change*. New York, NY: Guilford press.
- Myers, J. E., & Williard, K. (2003). Integrating spirituality into counselor preparation: A developmental approach. *Counseling and Values, 47*, 142-155.
- Neacsiu, A. D., Ward-Ciesielski, E. F., & Linehan, M.M. (2012). Emerging approaches To counseling intervention: Dialectical behavior therapy. *The Counseling Psychologist, 40*, 1003-1032.
- Negd, M., Mallan, K. M., & Lipp, O. V. (2011). The role of anxiety and perspective -taking strategy on affective empathic responses. *Behaviour research and therapy, 49*(12), 852- 857.
- Nelis, Quiodback, Mikolajczak & Hansenne (2009) Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences, 47*, 36-41.
- Norcross, J. C. (2009). *Psychotherapy relationships that work: Therapist contribution And responsiveness to patents*. New York: Oxford University Press.
- Norcross, J.C. & Wampold, B. E. (2011). Evidence-based therapy relationships: Research Conclusion and clinical practices. *Psychotherapy, 48*, 98-102.
- Nowen, H. J M. (1983). *Way of the heart*. Toronto, Can: Ballantine Publishing Group.
- Orlinsky, D. E., Grawe, K., & Parks, B. K. (1994). Process and outcome in psychotherapy: Noch einmal. In A. E. Bergin, S. Garfield (Eds.) , *Handbook of psychotherapy and behavior change (4th ed.)* (pp. 270-376). Oxford England: John Wiley & Sons.

- Ospina, M. B., Bond, K., Karkhaneh, M., Tjosvold, L., Vandermeer, B., Liang, Y., . . . Klassen, T. P. (2007). *Meditation practices for health: State of the research*. Edmonton, Alberta, Canada: University of Alberta Evidence-Based Practice Center.
- Oser, C. B., Biebel, E. P., Pullen, E., & Harp, K. L. (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.
- Palser, J. (2004). *The relationship between occupational burnout and emotional intelligence among clergy or professional ministry workers*. *Dissertation Abstracts International*, 66, (01), 214B.
- Parhami I., Davtian M, Collard M., Lopez, J., and Fong, T. W. (2012). A Preliminary 6-Month Prospective study examining self-reported religious preference, religiosity/spirituality, and retention at a Jewish residential treatment center for substance-related disorders, *Journal of Behavioral Health Services and Research* 12, 1-12.
- Perelman, A. M., Miller, S. L., Clements, C. B., Rodriguez, A., Allen, K., & Cavanaugh, R. Meditation in a Deep South prison: A longitudinal study of the effects of Vipassana. *Journal of Offender Rehabilitation*, 51, 176-198.
- Perich, T., Manicavasagar, V., Mitchell, P. B., & Ball, J. R. (2013). The association between meditation practice and treatment outcome in Mindfulness-based Cognitive Therapy for bipolar disorder. *Behaviour Research & Therapy*, 51(7), 338-343.

- Petrides, K. V. & Furnham A. (2001) Trait emotional intelligence: Psychometric Investigation with reference to established trait taxonomies. *European Journal of Personality, 9*, 425-480.
- Petrides, K. V. & Furnham, A. (2006). The role of trait emotional intelligence in a gender-specific model of organizational variables. *Journal of Applied Social Psychology, 36*, 552-569.
- Pishghadam, R., & Sahebjam, S. (2012). Personality and emotional intelligence in teacher burnout. *The Spanish Journal Of Psychology, 15*, 227-236.
- Preacher, K. J., Wichman, A. L., MacCallum, R. C., & Briggs, N. E. (2008). *Latent Growth curve modeling*. Thousand Oaks, CA: Sage publications.
- Ray, D. C., Hull, D. M., Thacker, A. J., Pace, L. S., Swan, K. L., Carlson, S. E., & Sullivan, J. M. (2011). Research in Counseling: A 10-Year Review to Inform Practice. *Journal of Counseling & Development, 89*(3), 349-359.
- Reynolds, W. M. (1982). Development of reliable and valid short forms of the marlowe? crowne social desirability scale. *Journal of clinical psychology, 38*(1), 119-125.
- Ritz, L. (2006) *Neurotheology: This is your brain on meditation*. Paper presented at the Spirituality and Health Center, University of Florida. Retrieved June 5' 2013 from <http://www.spiritualityandhealth.ufl.edu/assets/wmv/neurotheology.wmv>
- Roach, L. F., & Young, M. E. (2007). Do counselor education programs promote wellness in their students? *Counselor Education and Supervision, 47*(1), 29-45.
- Rogers, C. (1957). The necessary and sufficient conditions of psychotherapeutic personality change. *Journal of Counseling Psychology, 21*(2), 95-103.

- Park, J., & Roh, S. (2013). Daily spiritual experiences, social support, and depression among elderly Korean immigrants. *Aging & Mental Health, 17*(1), 102-108.
- Rosenberger, E. W., & Hayes, J. A. (2002). Therapist as subject: A review of the empirical countertransference literature. *Journal of Counseling & Development, 80*(3), 264-270.
- Rothaupt, J. W., & Morgan, M. M. (2007). Counselors' and Counselor Educators' practice of Mindfulness: A qualitative inquiry. *Counseling and Values, 52*, 40-54.
- Salovey, P., Bedell, B.T., Detweiler, J.B., & Mayer, J.D. (1999). Coping intelligently: Emotional intelligence and the coping process. In C.R. Snyder (Ed.), *Coping: The psychology of what works* (pp. 141-164). New York: Oxford University Press.
- Salovey, P. & Mayer, J. D. (1990). Emotional Intelligence. *Imagination, Cognition, and Personality, 9*, 185-211
- Salovey, P., Mayer, J. D., Caruso, D., & Yoo, S. (2008). The positive psychology of emotional intelligence. In J. C. Cassady, M. Eissa (Eds.), *Emotional intelligence: Perspectives on educational and positive psychology* (pp. 185-208). New York, NY US: Peter Lang Publishing.
- Sapolsky, R. M., Romero, L. M., & Munck, A. U. (2000). How do glucocorticoids influence stress responses? Integrating permissive, suppressive, stimulatory, and preparative actions. *Endocrine Reviews, 21*, 55–89.
- SAS Institute (2013). *SAS/STAT 13.1 User's guide: The MIXED procedure*. Cary, NC: SAS Institute Inc.



- Satija, S., & Khan, W. (2013). Emotional Intelligence as Predictor of Occupational Stress among working professionals. *Aweshkar Research Journal*, 15(1), 79-97.
- Schure, M. B., Christopher, J., & Christopher, S. (2008). Mind–Body Medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and Qigong. *Journal of Counseling & Development*, 86(1), 47-56
- Schutte, N.S., & Malouff, J.M. (2011). Emotional intelligence mediates the relationship between mindfulness and subjective well-being. *Personality and Individual Differences*, 50, 1116-1119.
- Sedlmeier, P., Eberth, J., Schwarz, M., Zimmermann, D., Haarig, F., Jaeger, S., & Krunze, S. (2012). The psychological effects of meditation: A meta-analysis. *Psychological Bulletin*. Advance online publication. Doi:10.1037/100288168.
- Segal, Z. V., Teasdale, J. D., & Williams, M. (2004). Mindfulness-based cognitive therapy: Theoretical rationale and empirical status. In S. C. Hayes, V. M. Follette, & M. M. Linehan (Eds.), *Mindfulness and acceptance: Expanding the cognitive behavioral tradition* (pp. 45–65). New York: Guilford.
- Shadish, W. R., Cook, T. D., & Campbell, C. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. (2nd ed.). Ann Arbor, MI: Wadsworth Publishing Company.
- Shapiro, D. H. (1982). Overview: clinical and physiological comparison of meditation with other self-control strategies. *American Journal Of Psychiatry*, 139, 267-274.

- Shapiro, S. L., Brown, K. W., & Biegel, G. M. (2007). Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Training and Education in Professional Psychology, 1*, 105-115.
- Shapiro, S. L., Carlson, L. E., Astin, J. A., & Freedman, B. (2006). Mechanisms of mindfulness. *Journal of clinical psychology, 62*(3), 373-386.
- Singh, R. (2012). Meditation technique. In R. Singh (Ed.). *Meditation as medication*. Lisle: IL: Radiance Publishers.
- Singh, Y., & Sharma, R. (2012). Relationship between general intelligence, emotional intelligence, stress levels and stress reactivity. *Annals of Neurosciences, 19*, 107-111.
- Singer, J. D. (1998). Using SAS PROC MIXED to fit multilevel models, hierarchical models, and individual growth models. *Journal of educational and behavioral statistics, 23*(4), 323-355.
- Skovholt, T. M., Grier, T. L., & Hanson, M. R. (2001). Career counseling for longevity: Self-care and burnout prevention strategies for counselor resilience. *Journal of Career Development, 27*(3), 167-176
- Smith, J. C. (1976). Psychotherapeutic effects of transcendental meditation with controls for expectation of relief and daily sitting. *Journal of Consulting and Clinical Psychology, 44*, 630-637.
- Smith, W. P., Compton, W.C., & West, W. B. (1995). Meditation as an adjunct to a happiness enhancement program. *Journal of Clinical Psychology, 51*, 260-273.
- Snijders, T.A.B., & Bosker, R.J. (2011). *Multilevel analysis. An Introduction to Basic*

- and Advanced Multilevel Modeling*. Thousand Oaks, CA: Sage.
- Stebnicki, M. A. (2007). Empathy fatigue: Helping the mind, body, and spirit of Professional counselors. *American Journal of Psychiatric Rehabilitation*, *10*, 317-338
- Spielberger, C. D., Gorsuch, R. L., Lushene, P. R., Vagg, P. R., & Jacobs, A. G. (1968). *Spielberger State-Trait Anxiety Inventory*. California: Mind Garden.
- Stoltenberg, C. D., & McNeill, B. W. (2010). *IDM supervision: An integrative developmental model for supervising counselors and therapists* (3rd ed.). New York: Routledge Taylor & Francis Group.
- Stone, H., Parker, J. D. A., & Wood, L. M. (2005). Report on the Ontario Principals Council Leadership Study. Toronto: Ontario Principals' Council.
- Stuart, E. A. & Rubin, D. (2008). Best practices in quasi-experimental designs: Matching methods for causal inference. In J. Osbourne, (Eds.), *Best Practices in Quantitative Methods* (pp.155-176). Thousand Oaks, CA: Sage Publishers.
- Tabachnick, B. G., & Fidell, L. S., J. (2007). *Using multivariate statistics* (5<sup>th</sup> Ed.) Boston, MA: Pearson.
- Tanner, M. A., Travis, F., Gaylord-King, C., Haaga, D. A., Grosswald, S., & Schneider, R. H. (2009). The effects of the Transcendental Meditation program on mindfulness. *Journal of Clinical Psychology*, *65*(6), 574-589.
- Thorndike, E. L., (1920) Intelligence and its uses. *Harper's Magazine*, *140*, 227-235.

- Tugade, M. M., Fredrickson, B. L., & Feldman, B. L. (2004). Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. *Journal of personality, 72*(6), 1161-1190.
- Trapnell, P. D., & Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: distinguishing rumination from reflection. *Journal of personality and social psychology, 76*(2), 284-304.
- Van Asselt, K., & Senstock, T. (2009). Influence of Counselor spirituality and training on treatment focus and self-perceived competence. *Journal Of Counseling & Development, 87*(4), 412-419
- Van Rooy, D. L. & Viswesvaran, C. (2004). Emotional intelligence: A meta-analytic investigation of predictive validity and nomological net. *Journal Of Vocational Behavior, 6*, 571-95.
- Veach, T. L., & Chappel, J. N. (1992). Measuring spiritual health: A preliminary study. *Substance Abuse, 13*, 139-147.
- Venart, E., Vassos, S., & Pitcher-Heft, H. (2007). What Individual Counselors Can Do to sustain wellness. *Journal Of Humanistic Counseling, Education & Development, 46*, 50-65.
- Wachholtz, A., & Pargament, K. (2005). Is spirituality a critical ingredient of meditation? Comparing the effects of spiritual meditation, secular meditation, and relaxation on spiritual, psychological, cardiac, and pain outcomes. *Journal of Behavioral Medicine, 28*(4), 369-384.
- Wallace, R., Benson, H., & Wilson, A. (1971). A wakeful hypometabolic physiologic

- state. *The American Journal Of Physiology*, 221(3), 795-799.
- Walsh, R., & Shapiro, S. L. (2006). The meeting of meditative disciplines and western Psychology: A mutually enriching dialogue. *American Psychologist*, 61, 227 – 239.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology*, 54(6), 1063-1070.
- Witkiewitz, K., & Bowen, S. (2010). Depression, craving, and substance use following a randomized trial of mindfulness-based relapse prevention. *Journal of consulting and clinical psychology*, 78(3), 362-374.
- Weng, H., Hung, C., Liu, Y., Cheng, Y., Yen, C., Chang, C., & Huang, C. (2011). Associations between emotional intelligence and doctor burnout, job satisfaction and patient satisfaction. *Medical Education*, 45(8), 835-842.
- Witmer, J. M. & Young, M.E. (1985). *Pathways to personal growth*. Muncie, IN: Accelerated Development.
- Worthington Jr, E. L., Kurusu, T. A., McCollough, M. E., & Sandage, S. J. (1996). Empirical research on religion and psychotherapeutic processes and outcomes: A 10-year review and research prospectus. *Psychological Bulletin*, 119(3), 448 – 487.
- Yalom, I. D. (1980). *Existential psychotherapy*. Basic Books.
- Yalom, I. (2009). *The gift of therapy*. HarperCollins.

- Yip, J. & Cote, S. (2013) The emotionally intelligent decision-maker: Emotion understanding ability reduces the effect of incidental anxiety on risk-taking, *Psychological Science*; 24, 48-55.
- Young, M. E. (2013) *Learning the art of helping: Building blocks and techniques*. Upper Saddle River: NJ: Pearson.
- Young, M. E., de Armas, L., & Cunningham, L. (2011). Using meditation in addictions counseling. *Journal of Addictions and Offender Counseling*, 32, 58 -71.
- Young, M. E., & Lambie, G. W. (2007). Wellness in school and mental health systems: Organizational influences. *Journal of Humanistic Counseling, Education and Development*, 46, 98-113.