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The Effect Of Loving-kindness Meditation On Empathy, Perceived Social Support, And Problem-solving Appraisal In Counseling Students

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THE EFFECT OF LOVING-KINDNESS MEDITATION ON EMPATHY, PERCEIVED SOCIAL SUPPORT, AND PROBLEM-SOLVING APPRAISAL IN COUNSELING STUDENTS

by

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ABSTRACT

The purpose of this study was to investigate the effects of a compassion-based meditation, known as loving-kindness meditation (LKM), as an intervention to positively affect empathy, perceived social support, and problem-solving appraisal in student counselors. This quasi-experimental study included 103 master's level counseling students enrolled in a large Southeastern university. The treatment consisted of six one-hour psychoeducational groups with a LKM component. The LKM intervention was compared with a control group on the constructs of (a) multidimensional empathy (Interpersonal Reactivity Index [IRI]; Davis, 1980), (b) perceived social support (Multidimensional Scale of Perceived Social Support [MSPSS]; Zimet, Dahlem, Zimet, & Farley, 1988), and (c) problem-solving appraisal (Problem Solving Inventory [PSI]; Heppner, 1988). Participants who received the LKM intervention experienced gains in the cognitive empathy subscales of *Perspective Taking* (treatment group effect size = .213; control group effect size = .006) and *Fantasy* (treatment group effect size = .173; control group effect size = .032) and in the affective empathy subscale of *Emotional Concern* (treatment group effect size = .115, control group effect size = .028). The treatment group also demonstrated a decrease in the affective empathy subscale of *Personal Distress* (treatment group effect size = .088, control group effect size = .080). The control group did not experience changes in *Perspective Taking*, *Fantasy*, *Emotional Concern*, or *Personal Distress*. Furthermore, there was no change in either the treatment or control group in perceived social support or problem-solving appraisal from pretest to posttest. In addition, this study examined the relationship between quantity of meditation time and the dependent variables of multidimensional empathy, perceived social

support, and problem-solving appraisal. Participants who received the LKM intervention

demonstrated a moderate positive correlation (Cohen, 1992) between quantity of meditation and

Perspective Taking (Spearman's rank order correlation r_s = .29). Implications for counselor

education and directions for future research are discussed.

ACKNOWLEDGMENTS

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CHAPTER ONE: INTRODUCTION

The field of counseling is rooted in a wellness philosophy and the promotion of optimal human functioning (Myers & Sweeney, 2008; Roach & Young, 2007). The personal wellness of counselors is also emphasized because counselor characteristics affect counselor efficacy, the counseling process, and client outcomes (Norcross, 2002; Roach & Young, 2007; Rogers, 1957). Counseling is a stressful occupation (Cherniss, 1995; Maslach, 1982); thus, maintaining counselor wellness can be challenging. Chronic work stress can cause burnout or other types of counselor impairment. Burnout is defined as "a prolonged response to chronic emotional and interpersonal stressors on the job" (Maslach, 2003, p. 189) and impairment is "personal distress that interferes with professional functioning" (Lamb, Presser, Pfost, Baum, Jackson, & Jarvis, 1987, p. 597). Therefore, counselor wellness and the prevention of impairment are vital issues that need to be addressed.

In 2007, the American Psychological Association (APA) conducted a national survey (N = 1,848) that highlighted the problem of stress in professional helpers. The respondents who worked in the human services fields, such as education and health services, reported experiencing higher than the national average levels of stress. Forty percent of employees in the professional helping fields reported extreme levels of stress in the past month, compared with 32% across industries. Chronic stress in the workplace can lead to burnout (Maslach, 2003), which is a serious condition described as "a syndrome of physical and emotional exhaustion, involving the development of negative self-concept, negative job attitudes, and loss of concern and feeling for clients" (Pines & Maslach, 1978, p. 233). Considering the influence that

counselor characteristics and the counselor-client relationship have on effective counseling (Horvath & Bedi, 2002; Norcross, 2002; Rogers, 1957; Roach & Young 2007), stress and burnout are concerns for counselors. Therefore, it is critical that counselors develop effective means for minimizing the risk, and managing the factors, related to burnout.

Counselors are susceptible to stress and burnout because the inherent nature of counseling requires that professional counselors engage in emotionally demanding work, are exposed to clients' psychological and emotional problems, and are expected to be skilled and concerned (Farber, 1983; Skovholt, 2001). Counselors are privy to highly personal information, and through empathy, develop psychologically intimate relationships with their clients (Farber, 1983; Lawson, 2007; Skovholt, 2001). Moreover, they deal with issues that are naturally upsetting, such as suicidal clients, psychosis, domestic violence, and sexual abuse. Finally, counseling relationships are not reciprocal; counselors give and clients receive. These are all inherent elements of the counselor's job, but if these elements become disheartening with little evidence of success, burnout is a potential consequence (Farber, 1983; Skovholt, 2001).

One way to provide counselors with the appropriate tools for maintaining wellness and efficacy, as well as avert burnout, is to prepare and equip them with methods of stress reduction and resistance before they enter the field, while they are in their graduate training program. Counselor education programs are beginning to recognize the need to instill wellness in counseling students (Christopher, Christopher, Dunnagan, & Schure, 2006; Lawson, 2007; Roach & Young, 2007). Counselor wellness is significant because if a counselor becomes impaired due to burnout, clients may also suffer (Roach & Young, 2007). Meditation is one established means for reducing stress and promoting wellness (Creswell, Way, Eisenberger, &

Lieberman, 2007), as well as improving counselor training outcomes (Greason & Cashwell, 2009).

Meditation and mindfulness have been shown to be effective interventions to combat stress and increase wellbeing. In addition, evidence is beginning to mount that meditation can improve interpersonal relationships (e.g., Corcoran, 2007). The ability to maintain and repair interpersonal relationships is an important facet of a counselor's job, and social support can be an effective buffer against stress and burnout (Ben-Zur & Michael, 2007). One type of mindfulness-based meditation, loving-kindness meditation (LKM), explicitly emphasizes caring and connection with others (Salzberg, 1995). Studies on loving-kindness meditation (Corcoran, 2007; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Hutcherson, Seppala, & Gross, 2008; Seppala, 2009) have demonstrated statistically significant increases in social connectedness and positive interpersonal relationships. LKM focuses specifically on positive feelings toward self and others. Thus, LKM may be a viable intervention for increasing social connectedness, social support, and positive interpersonal interactions in pre-service counselors

Additionally, empathy is critical for developing a therapeutic alliance and is associated with positive client outcomes (e.g., Bohart, Elliott, Greenberg, & Watson, 2002; Greenberg, Watson, Elliott, & Bohart, 2001; Horvath & Bedi, 2002). Preliminary research on LKM suggests that this type of meditation may result in increased empathy (Corcoran, 2007; Weibel, 2007). Thus, it may be an effective intervention for those in health care professions who may be suffering from a lack of empathy due to burnout. Preparing counseling students involves teaching them to be empathic (Greenberg et al., 2001; Skovholt, 2001). A meditation technique that could improve empathic performance and serve as protection against burnout would be an

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important contribution to counselor education and the counseling field by promoting counselor wellness and efficacy.

Overview

This study examined the effects of LKM on factors that are important in counselor development and that are also associated with burnout in helping professionals. The first of these was empathy, which is the keystone of counseling and of the therapeutic relationship (Bohart et al., 2002; Rogers, 1957). Miller, Stiff, and Ellis (1988) identified a clear relationship between level of empathy and the ability of human services workers to respond appropriately to clients (N = 285). Because previous meditation studies have shown improvements in empathy, a meditation intervention for counselors-in-training may provide a foundation for developing and maintaining optimum empathy throughout their career.

The second variable examined was perceived level of social support. Scholars suggest that social support may be an indispensable buffer against stress and burnout (e.g., Lazarus & Folkman, 1984; Maslach, 1982; Maslach, Schaufeli, & Leiter, 2001). Research suggests that meditation increases positive mood, prosocial emotions, prosocial behavior, and feelings of social connectedness (Carson, Carson, Gil, & Baucom, 2004; Corcoran, 2007; Fredrickson et al., 2008; Hutcherson, et al., 2008; Seppala, 2009). Therefore, it was hypothesized that LKM would increase perceived social support.

The final variable examined was perceived problem-solving ability. Counselors not only need to have a high self-perception of ability to problem-solve, but they must also be able to teach problem-solving skills to their clients (Heppner, Reeder, & Larson, 1983; Young, 2009). Problem-solving appraisal was expected to increase with meditation because the literature

suggests that cultivating positive emotions broadens people's repertoires for problem-solving, creativity, and the ability to develop alternatives (Cohn, 2008; Corcoran, 2007; Fredrickson, 2001; Fredrickson, 2008). Thus, LKM was expected to improve empathy, perceived social support, and problem-solving appraisal in participants.

It has been recommended that clinical training programs include training in self-care practices (Shapiro & Carlson, 2009; Skovholt, 2001). In addition to promoting wellness, a meditation intervention for counseling students may prevent future impairment while working in the field. An intervention aimed at addressing known factors related to burnout can serve as a tool for maintaining counselor wellness. Therefore, before examining the concept self-care, it may be useful to review the concept of burnout as it has been described in the literature. The following describes the three components of burnout.

Features of Burnout

As stated above, burnout is a detrimental response to prolonged occupational stress that is characterized by negative attitudes toward self, toward the job, and toward clients. Maslach (1982) developed a multidimensional model of burnout based on years of research and concluded that burnout is a syndrome that can inhibit an individual's emotional, psychological, and physical wellbeing. Burnout incorporates three components: (a) emotional exhaustion, (b) depersonalization, and (c) a decreased sense of personal accomplishment (Maslach, 1982). The first component of burnout, *emotional exhaustion*, can be described as extreme fatigue and a feeling of being overextended. The second component, *depersonalization*, consists of distancing behaviors, impersonal interactions, and cynicism towards clients or patients. The third component, *reduced personal accomplishment*, includes feelings of incompetency and lack of

self-efficacy (Maslach, 1982; Vahey, Aiken, Sloane, Clarke, & Vargas, 2004). Diminished personal accomplishment may also be a result of "meaning burnout;" this is when helpers feel they are not helping their clients (Skovholt, 2001).

Burnout is a potential risk for all professional helpers (Maslach, 1982; Skovholt, 2001). The challenging nature of counseling work predisposes counselors to burnout and other types of impairment, particularly when combined with any other life stressors. Moreover, there are organizational features and individual attributes that compound the threats to counselor wellness. The following provides an overview of the strategies suggested to address some of the organizational and individual factors.

Organizational Strategies for Maintaining Counselor Wellness

Researchers agree that changing organizational or institutional policies is an important intervention to help maintain counselor wellness (Young & Lambie, 2007). One suggestion is to initiate policies that allow for flexibility and choice regarding work times and locations. Other recommendations include providing an environment with a manageable workload, choice and control for employees, rewards and recognition for good work, and a sense of community (Angerer, 2003). Maslach et al. (2001) noted that an integrated approach is necessary. They recommended a combined approach that makes changes in some of the six areas of work life (i.e., workload, control, reward, community, fairness, and values) plus education for employees in effective skills and attitudes. However, organizational interventions require time, money, and effort (Angerer, 2003; Maslach et al., 2001).

Individual Strategies for Maintaining Counselor Wellness

Developing problem-solving appraisal may be an asset for counselors facing distressing institutional issues (Heppner, Witty, & Dixon, 2004). Even though many of the organizational issues are not in the counselor's control, it is possible that an intervention aimed at increasing problem solving may mediate the overall situation by providing an increase in problem-focused and emotion-focused coping (Lazarus & Folkman, 1984). For example, if counselors perceive an increase in their problem-solving efficacy, they may gain the resources to advocate for change or determine new solutions. An increased perception of social support may also provide counselors with the personal resources to advocate for themselves. Moreover, if counselors can develop an appropriate balance of empathy, perhaps they can build a buffer of protection from the job intensity (Skovholt, 2001). Improved internal resources, a greater sense of support, and improved problem-solving appraisal may help alleviate the risk factors for burnout.

Many of the interventions aimed at individuals incorporate cognitive-behavioral techniques (LeBlanc & Schaufeli, 2008), including training in stress inoculation, time management, assertiveness, rational-emotive therapy, and interpersonal and social skills. Research findings indicated that these strategies appear to reduce emotional exhaustion, but do not affect cynicism or inefficacy (Maslach, 2003; Enzmann, Schaufeli, Janssen, & Rozeman, 1998). Similarly, other individual approaches are relaxation and stress reduction training, progressive muscle relaxation, and autogenic techniques (Maslach et al., 2001). Savicki and Cooley (1982), for example, recommended the teaching of stress reduction techniques, such as progressive relaxation, yoga, meditation, and autogenic techniques, to counseling students during their graduate training as tools to maintain wellness and avert potential burnout.

Meditation as a Coping Strategy

Research findings support that mindfulness meditation may provide a means for promoting empathy and managing stress. Kabat-Zinn (2003) defined mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (p. 145). Mindfulness involves acceptance, attentiveness to the moment, awareness, relaxation, suspension of judgment. Mindfulness can potentially transform the practitioner's perceptions and interpretations of life circumstances (Beddoe & Murphy, 2003). Mindfulness-Based Stress Reduction (MBSR) was developed by Kabat-Zinn (Center for Mindfulness, n.d.) and has demonstrated effective application to a variety of physical and psychological problems, as well as increasing wellbeing (Kabat-Zinn, 2003). MBSR calms the mind and body so that participants may gain insight and become aware of habitual reactions, thoughts, and behaviors. "Attending to the present moment, while incorporating self-reflection and suspending judgment, can be particularly beneficial in fostering the depth and authenticity of human connection required by health care professionals" (Beddoe & Murphy, 2003, p. 307).

Mmeditation may be an effective intervention for therapists-in-training by reducing stress, anxiety, negative affect, and rumination, and significantly increasing positive mood and self-compassion (Shapiro, Brown, & Biegel, 2007). Meditation has also been effective with medical and pre-medical students, resulting in reduced anxiety, reduced psychological distress, and increased empathy (Shapiro, Schwartz, & Bonner, 1998). Finally, Greason and Cashwell (2009) provided empirical support for a relationship between mindfulness practice and important

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counselor characteristics, such as empathy and counselor self-efficacy. Thus, meditation may be an effective technique in counselor development and wellness.

Statement of the Problem

Counseling Students Need Internal Resources

It is imperative that counselors maintain their personal wellness and counseling efficacy because counseling is a stressful profession (Roach & Young, 2007). A counselors' role is to interact with other human beings in a personal, emotionally demanding, and empathic, caring manner (Farber, 1983; Skovholt, 2001). The ability to foster psychologically intimate and caring relationships is fundamental to effective counseling but also may increase professional counselors' risk of stress, burnout, and impairment (Cherniss, 1995; Lawson, 2007; Maslach, 1982). Researchers suggest that counseling training programs should help students become aware of these risks (Savicki & Cooley, 1982; Skovholt, 2001) and provide the tools to maintain personal wellness (Roach & Young, 2007) because these factors potentially affect client wellbeing and counseling outcomes (Lamb et al., 1987; Norcross, 2002).

Counselors that lack the internal resources to effectively manage the stress inherent in their jobs may exhibit dysphoric symptoms without any pre-existing pathology (Angerer, 2003). They may also experience physical depletion, feelings of helplessness and hopelessness, disillusionment, and development of a negative self-concept (Pines & Aronson, 1988). In addition, burnout in professional helpers may result marital and family conflict (Farber, 1983; Maslach et al., 2001). People who are psychologically healthy demonstrate greater ability to cope with chronic stress (Maslach et al., 2001). Thus, counselors must learn to develop the resources

and qualities that support them in providing optimal counseling services to their clients and to maintain their own emotional, physical, and social wellbeing.

The inability to maintain wellness in counselors can have serious consequences. For example, decreased empathy, a cynical attitude toward clients, and dehumanization of clients may directly affect client welfare (Cherniss, 1995; Elliott et al., 1996; Lawson, 2007; Savicki & Cooley, 1982). Such counselors may become resentful and preoccupied with themselves and begin viewing clients as adversaries (Cherniss, 1995). Therefore, an intervention that targets empathy levels in counseling students is an important consideration.

Studies Addressing Characteristics Related to Burnout in Professional Helpers

Lee, Cho, Kissinger, and Ogle (2010) examined a typology of burnout in professional counselors, where the participants were counselors attending a regional counseling conference (N = 132). Participants completed a Counselor Burnout Inventory (alpha coefficients ranged from .73 to .85 across the five subscales), which measured Exhaustion, Incompetence, Negative Work Environment, Devaluing Client, and Deterioration in Personal Life. In addition, they completed the MBI-HSS, a well-established burnout inventory. A seven-item scale derived from the National Educational Study was used to measure job satisfaction, the Rosenberg Self-Esteem Scale was used to measure self-esteem, and Rotter's Locus of Control Scale (LOC) measured the extent of internal vs. external locus of control. Data analysis included cluster analysis and hierarchical agglomerative method and resulted in three clusters of counselor profiles. The group labeled as disconnected counselors (DC) scored a full standard deviation above the mean in Devaluing Client, as well as higher than the other two groups in Incompetence. The DC group also scored significantly lower on self-esteem than the other two groups. The findings supported

the multidimensional nature of burnout and the notion that interventions targeted at specific individual variables may improve counselors' internal resources.

Elliott et al. (1996) examined the relationship between problem-solving confidence, perceived tolerance, and situation-specific coping responses to burnout among nurses ($N = 88$). Results indicated that problem-solving confidence (PSC) was a significant predictor of burnout (higher confidence was related to less burnout). Inability to tolerate stress was associated with higher burnout, as was high reliance on emotion-focused coping and greater self-focus. Greater social support (seeking advice) was associated with lower burnout. Additionally, PSC was associated with higher positive affect. Elliott and colleagues noted that people with a lower problem-solving appraisal level may feel a greater lack of social support, causing interpersonal conflicts at work.

These studies support the association between helper characteristics and burnout factors. Lee et al. (2009) identified three clusters of counselor personality types. Counselors who were described as well-adjusted scored low on burnout scales and were able to maintain empathy and caring for their clients, as well as a high sense of self-efficacy. Counselors who were disconnected from their clients also felt a lower sense of accomplishment and demonstrated lower self-esteem than the other personality profiles. Counselors described as persevering were able to maintain empathy for and responsiveness to their clients even though they were experiencing some components of burnout. Elliott et al. (1996) identified the importance of confidence in problem-solving and social support in avoiding burnout. Problem-solving confidence was also associated with positive mood. Thus, the present study focused on empathy,

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problem-solving, and social support because they are important resources for professional

helpers.

Purpose of the Study: Rationale and Significance

Counselors, as distinctive human beings, are a primary agent of change in counseling

outcomes (Norcross, 2002). Intertwined with the person of the counselor is the therapeutic

working alliance between counselors and their clients. Research supports that the quality of the

therapeutic alliance accounts for about 21% to 25% of therapy outcomes (Horvath & Bedi,

2002). These findings suggest that counselor characteristics have an impact on therapy outcomes.

Consequently, it is important that counselors possess methods to maintain qualities that

contribute to effective counseling.

Empathy, Perceived Social Support, and Problem-Solving Appraisal

Empathy, perceived social support, and positive problem-solving appraisal are all

elements counseling students require to become effective counselors. Empathy is fundamental to

counseling (Bohart et al., 2002; Miller et al., 1988; Rogers, 1957). Empathy is the ability to

understand a client's story and perceive their emotional experience, which enables counselors to

respond effectively (Miville, Carlozzi, Gushue, Schara, & Ueda, 2006). Empathy also enhances

the therapeutic relationship (Bohart et al., 2002; Rogers, 1957). Social support has been

correlated with psychological health, physical health, and wellbeing (e.g., Cohen & Wills, 1985;

Taylor, Dickerson, & Klein, 2002). It is important that counselors maintain their own personal

wellness so that they can help their clients (Roach & Young, 2007). Finally, counselors need

positive problem-solving appraisal to be effective in their work, as well the ability to teach

problem-solving skills to their clients (Heppner et al., 1983; Young, 2009). Therefore, this study examined a meditation intervention believed to foster these qualities.

Additionally, counseling work contains factors that create the potential for stress and impairment (Cherniss, 1995; Maslach, 1982); thus, impeding counselor wellness. Impairment is a broad term designating a counselor's inability to function effectively (Lamb et al., 1987; Young & Lambie, 2007). However, burnout, a type of impairment, consists of three clearly defined components (Maslach, 1982). Therefore, this study examined variables that are beneficial to effective counseling and that correspond with each component of burnout.

The three identified components of job burnout (i.e., emotional exhaustion, depersonalization, and decreased personal accomplishment) affect aspects that are critical to counselors' ability to maintain their wellbeing and function effectively. An intervention that targets these elements may prevent or alleviate burnout in counselors. One possible buffer against burnout and stress reactions is increased perception of social support (Cohen & Wills, 1985; DeLongis, Folkman, & Lazarus, 1998). A feeling of greater social support can enhance the helper's responsiveness to clients and reduce depersonalization (Snyder, 2009). Additionally, empathy, in the form of cognitive empathy, or "detached concern" (Savicki & Cooley, 1982, p. 418), rather than emotional empathy or emotional contagion, is another factor that has been shown to prevent burnout. Employees in mental health settings who described having a close relationship with their clients reported that they liked their jobs, were optimistic about their effectiveness, and felt successful (Pines & Maslach, 1978). Finally, increasing the sense of reward or accomplishment may have an impact on burnout symptoms, since diminished personal accomplishment is a core component of burnout (Maslach, 1982).

Burnout and other types of impairment are less likely to occur if counselors are aware of the risk and prepare for it. Counseling students need to understand and buffer themselves against the factors associated with impairment (Savicki & Cooley, 1982; Skovholt, 2001). Increasing detached concern (i.e., healthy empathy), in addition to feeling supported by others, may buffer against difficulties. Additionally, increasing perceived problem-solving appraisal may enhance self-efficacy and provide a sense of validation or reward, which may also increase engagement in one's work. Engagement has been proposed as an antidote to burnout (Maslach & Leiter, 2008; Young & Lambie, 2007). Furthermore, employee assertiveness can make a difference with respect to self-efficacy and job satisfaction (Young & Lambie, 2007). If counselors are able to increase their psychological and emotional resources, along with problem-solving appraisal, they may find ways to influence working conditions for the better. Maslach and Leiter (2008) identified emotional exhaustion and depersonalization (cynicism) as possible early predictors of burnout and stated that they appear to reinforce each other. Increasing the cultivation of positive emotions, improving efficacious empathy levels, developing a greater perception of social support, and improving self-confidence in problem-solving ability may directly affect these burnout components. Therefore, this study provided counselors with resources developed through the practice of LKM to buffer them against burnout as they enter the field.

Meditation

A variety of benefits result from meditation. Mindfulness Based Stress Reduction (MBSR) includes one component on LKM, but LKM has just started receiving empirical attention on its own. Research began in the medical (nursing) field. Carson et al. (2005) looked at the effect of LKM on chronic pain and anger. Positive emotions are theorized to build internal

resources and broaden problem-solving repertoire; LKM generates positive emotions (Fredrickson, et al., 2008; Hutcherson et al., 2008). Research findings support that meditation, LKM, and positive emotions affect compassion (Corcoran, 2007; Weibel, 2007), empathy (Corcoran, 2007; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008), social connectedness (Hutcherson et al., 2008; Seppala, 2009), environmental mastery (Fredrickson et al., 2008), self-efficacy (Corcoran, 2007), reduced stress response (Pace, Negi, Sivillie, Issa, Cole, Adame, & Raison, 2010), and improved relationships (Corcoran, 2007; Fredrickson et al., 2008).

The purpose of this study was to examine the effects that a Loving-Kindness Meditation (LKM) intervention has on empathy level, problem-solving appraisal, and perceived level of social support in student counselors. The study protocol was based on a study by Fredrickson and colleagues (2008) in which a six-session LKM treatment was used as part of an employee wellness program. The theoretical framework was Fredrickson's (1998, 2001) *broaden-and-build theory*, which postulates that the generating of positive emotions increases people's psychological and emotional resources and broadens their repertoire for problem-solving. It was hypothesized that a LKM intervention may build counselors' resilience to stress, increase their level of empathy, provide a sense of meaning, and improve their perception of self-efficacy regarding problem-solving. Additionally, since LKM is a compassion-based meditation, it was hypothesized that it may also increase sense of connection and level of perceived social support.

Constructs

Empathy

There are two aspects of empathy: (a) cognitive and (b) emotional. Miller et al. (1988) differentiated between these with the use of the terms empathic concern and emotional

contagion. Empathic concern refers to feeling concern for the wellbeing of another person while not vicariously experiencing the other person' emotional state. Emotional contagion, on the other hand, is when an individual's emotional state is directly influenced by another's, causing the individual to take on the other person's emotions.

Omdahl and O'Donnell (1999) hypothesized that emotional contagion, empathic concern, and a third variable, communicative responsiveness, were the empathy variables related to burnout. Communicative responsiveness is defined as the ability to "effectively communicate with others about sensitive and emotional topics" (p. 1353). Their findings supported empathic concern and communicative responsiveness as negatively correlated with depersonalization. However, their findings failed to demonstrate a statistically significant relationship between emotional contagion and depersonalization, although the t-value was positive, rather than negative. The three variables together accounted for 34.9% of the variance in depersonalization. These three variables also accounted for 48.3% of the variance in reduced personal accomplishment. Communicative responsiveness and empathic concern were negatively associated with reduced personal accomplishment, while emotional contagion demonstrated a statistically significant positive relationship with reduced personal accomplishment. The three variables also accounted for a small (5.2%) but significant proportion of the variance in emotional exhaustion, with emotional contagion as the significant predictor.

Perceived Social Support

It is possible for people to have many sources of social support available; however they may be unable to draw on the support due to their perception of the support (Lazarus & (Folkman, 1984). Therefore, perceived social support was examined. In early studies, Pines and

Maslach (1978) found that when relationships among co-workers in mental health settings were good, there were higher reported positive attitudes toward work and feelings of success. These employees also described schizophrenic patients in more positive terms than those who reported negative work relationships. Overall, however, support systems for employees in mental health systems appeared to be lacking. The burnout literature recommends the development of support systems as a buffer against burnout (e.g., Pines & Maslach, 1978; Savicki & Cooley, 1982).

Pines (1983) defined social support as the perception of being cared for, loved, and valued, as well as feeling part of a network that involves communication and mutual obligation. Pines' research demonstrated that the quality of supportive relationships was significantly and negatively associated with burnout. Social support is comprised of six primary functions: (a) active listening, (b) technical support from someone who understands the field, (c) technical challenge combined with empathy, (d) emotional support and appreciation, (e) emotional challenge from a trusted person, and (f) sharing of social reality (i.e., external validation).

Another study by Pines (1983) examined the effect of these six functions of social support. Participants were professionals in a variety of fields ($N = 80$). Results indicated that the functions of listening and emotional support were of primary importance to the participants. Furthermore, higher levels of burnout were correlated with greater feelings of loneliness and isolation. She also found that it was not the number of people providing support, but the quality of support that made a difference. Pines' findings also identified that lack of support at work can increase tensions and demands on loved ones.

Problem-Solving Appraisal

Pines and Maslach (1978) found that helping professionals in mental health settings who felt a greater sense of success also felt better about themselves, their patients, and their job. Folkman and Lazarus (1984) stated that problem-solving skills are important resources for coping that draw from other resources, such as experience, knowledge, cognitive/intellectual ability to utilize knowledge, and capacity for self-control. Self-appraisal of one's problem-solving ability can affect the way an individual responds to stress and may benefit or inhibit psychological wellbeing (Heppner, Witty, & Dixon, 2004).

Significance of the Study

There were three primary purposes of this study. The first was to explore preliminary information regarding the effectiveness of loving-kindness meditation (LKM) on several factors that are important for counselor efficacy and positive client outcomes. The second was to investigate the notion of cultivating positive emotions as a buffer against stressors, to increase psychological resources, and to broaden individuals' repertoires for problem-solving. The third purpose was to determine if correlational relationships exist between empathy, perceived social support, or problem-solving appraisal and quantity of meditation time.

Beginning graduate counseling students may not understand the importance of wellness to their effective functioning as counselors (Yager & Tovar-Blank, 2007). Since stress, burnout, and impairment are such significant hazards in the helping professions, this study may provide a framework for either individual or group practice for preventing these from occurring. An accessible tool for wellness and prevention of impairment may, in turn, increase quality of client

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or patient care, work satisfaction, employee retention, emotional wellbeing, physical health, and co-worker relationships. LKM may provide helpers with a resource for developing more positive functioning.

Theoretical Framework

Stress and coping involve an interaction between environmental factors and personal characteristics. It is an appraisal-based approach that addresses the resources people draw on to cope with stress. There has been disagreement regarding whether resources are buffers that can build resistance to stress, or if they are extant factors that simply influence coping, which mediates stress. Although the Lazarus and Folkman person-environment model considers the latter (Folkman, 2008; Lazarus & Folkman, 1984), this study was based on the viewpoint that internal resources can serve as buffers to stress. Furthermore, based on theory arising from positive psychology, this study examined the possibility of developing and improving internal resources.

The original cognitive theory of stress and coping (Lazarus & Folkman, 1984) identified two types of coping that were determined by cognitive appraisal: problem-focused and emotion-focused. *Problem-focused coping* involves behaviors directed to change, manage, or alter the problem-similar to problem-solving strategies but also considers strategies directed inward. The steps of problem-focused coping include (a) defining the problem, (b) generating alternatives, (c) weighing alternatives, (d) choosing, and (e) acting. There are also two types of problem-focused coping. The first is directed at the environment, which includes strategies for altering pressures, barriers, resources, or procedures. The second type is directed at self, incorporating cognitive

reappraisal of the problem to initiate motivational or cognitive changes, such as shifting level of aspiration, reducing ego involvement, finding different channels of gratification, developing new standards of behavior, and learning new skills or procedures. In contrast, *emotion-focused coping* involves regulating the emotional response to the problem, which includes cognitive reappraisal, positive comparisons, and finding meaning and value in the situation. Reappraisal may be utilized to regulate emotion or to focus on the problem itself. Meditation is one behavior that can lead to reappraisal (Folkman & Lazarus, 1984).

Folkman (1997) suggested modifying the person-environment model to include positive psychological states in the coping process, based on her extensive, longitudinal research with the caregivers of partners dying from Auto Immune Deficiency Syndrome (AIDS). In the original cognitive transactional person-environment model, a favorable outcome would lead to positive emotions, thus ending the coping activity. However, unsatisfactory outcomes would result in distressing emotions, causing a new reappraisal and coping process. It is at this point that Folkman proposes modification of the model to accommodate positive psychological states, and a third coping style, which she called *meaning-based coping*.

Folkman (1997) found that positive psychological states are related to four types of coping processes. The first is positive reappraisal, which is the use of cognitive strategies to positively reframe situations according to one's values. The second is goal-directed problem-focused coping, which is often employed when the overall situation is not controllable. Goal-directed problem-focused coping involves identifying a number of small, immediate, attainable goals. Through this behavior, people are able to feel a sense of accomplishment in some areas, even though the global situation is out of their control. The third coping type involves spiritual

beliefs, practices, and experiences. Path analysis demonstrated that spirituality generates positive reappraisal, which in turn, generates positive psychological states (Folkman, 1997). The final coping type in this category is infusing ordinary events with positive meaning. The researchers identified three primary sources of meaning: (a) feeling connected and cared about; (b) feeling a sense of achievement and self-esteem; and (c) having an opportunity to be distracted from everyday cares (p. 1215). Folkman's research supports the need to study positive emotions with regard to chronic stress and the coping process.

Broaden-and-Build Model of Positive Emotions (Positive Psychology)

The *broaden-and-build theory* (Fredrickson, 1998, 2001) was developed in the field of positive psychology, which recognizes that positive emotions are an important aspect of human nature and contribute to quality of life (Diener & Larsen, 1993; Myers & Diener, 1995 as cited in Fredrickson, 1998). Fredrickson (1998) found that positive emotions were necessary for informing approaches and interventions aimed at improving wellbeing. The theory posits that positive emotions have enduring beneficial consequences.

Since negative emotions produce a narrow short-term thought-action repertoire, such as the fight or flight response, Fredrickson (1998, 2001) theorized that positive emotions may have the opposite effect. Many positive emotions seem to broaden one's momentary thought-action repertoire. Therefore, some experiences of positive emotions may result in discarding old patterns of thought and behavior to pursue novel and creative thoughts and actions. For example, the emotion of joy in children often induces the desire to play and explore in a manner that is unscripted and aimless. However, play promotes skill acquisition. Thus, it not only broadens the momentary thought-action repertoire but over time can have the effect of building physical,

intellectual, and social skills. These developed resources can be drawn on at a later time, long after the joy experience has ended (Fredrickson, 1998).

The experience of love is typically in the context of specific individuals. Love is theorized to be comprised of several emotions, primarily joy, interest, and contentment (Fredrickson, 1998). Experiences of love and the related emotions are theorized to build and strengthen social attachment and support. These social resources, similar to intellectual and physical resources, can accumulate and be drawn on at a later time (Fredrickson, 1998). Thus, positive emotions may broaden momentary thought-action repertoires as well as cumulatively develop durable personal resources. Consequently, an intervention that cultivates positive emotions would be a beneficial tool for counselors.

LKM is a compassion-based meditation that incorporates cognitive and emotional aspects. It increases feelings of warmth and caring for oneself and others. The practice begins with directing loving-kindness, or compassion, toward one's self. As a sense of respect, friendship, and love or compassion develops with oneself, the practice then expands to include others (Salzberg, 1995). Unlike CBT approaches, LKM does not attempt to modify cognitive or behavioral factors. The primary purpose is to employ an affective technique to cultivate positive emotions (Carson et al., 2005).

Research Questions

The effect of a brief loving-kindness meditation intervention for masters' level counseling students was examined. The research questions addressed within this study were as follows:

Research Question 1

Will loving-kindness meditation have a positive effect on counseling students' levels of empathy (as measured by the Interpersonal Reactivity Index [IRI]; Davis, 1980), (b) perceived social support (as measured by the Multidimensional Scale of Perceived Social Support [MSPSS]; Zimet, Dahlem, Zimet, & Farley, 1988), and problem-solving appraisal (as measured by the Problem Solving Inventory [PSI]; Heppner, 1988).

Research Question 2

Is there a relationship between reported levels of time spent meditating and empathy, perceived social support, or problem-solving appraisal?

Rationale for the Approach

The primary purpose of this study was to determine if participation in a structured psycho-educational loving-kindness meditation group affected three constructs associated with counselor development, counselor wellness, and occupational burnout. These three constructs were empathy, perceived social support, and problem-solving appraisal. This study utilized a quasi-experimental pretest-posttest design. A purposive sample of counselor education students was chosen for this study. Counseling students from two different classes were randomly assigned to either a treatment or a wait-list control group. The control group received the intervention during the second half of the semester.

To further examine the effects of the LKM intervention, volunteers were recruited from the counselor education program via department-wide e-mail. These participants received the treatment during the first half of the semester. Results from volunteer participants were included in the treatment group results.

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In addition, reports of time spent meditating during the treatment were collected, which provided information regarding actual practice of the intervention. Participants were asked to practice a total of at least 60 minutes between group sessions, although the majority of participants did not abide by this guideline. The data collected was to determine the extent of the relationship between the dependent variables of empathy, perceived social support, and problem solving appraisal with amount of time spent meditating.

Definition of Terms

Burnout

Burnout is a syndrome resulting from chronic stress inherent in helping professions. It consists of emotional exhaustion, depersonalization, and decreased personal accomplishment (Maslach, 1982).

Cognitive Empathy

Cognitive empathy is the accurate perception of another person's emotional experience combined with feeling concern for the other individual's wellbeing while not vicariously experiencing the other person's emotional state (Miller et al., 1988). Another term for cognitive empathy is detached concern (Savicki & Cooley, 1982).

Coping

Coping is the term used to refer to an individual's cognitive and behavioral efforts to manage internal or external demands that are appraised as taxing or exceeding the resources of the individual (Lazarus & Folkman, 1984).

Coping Style

Coping style refers to an individual's cognitive, emotional, and/or behavioral response to stress and stressors.

Counselor-in-training

A counselor-in-training is a student participating in a mental health counseling, marriage and family therapy, or school counseling track of a Council for Accreditation of Counseling and Related Educational Programs (CACREP) master's level counselor education program.

Counseling Student

A counseling student is another term for a counselor-in-training attending a CACREP master's level counselor education program.

Depersonalization

Depersonalization is a component of burnout that consists of distancing behaviors, impersonal interactions, and cynicism towards clients (Maslach, 1982).

Emotional Empathy

Emotional empathy is the term used to describe when an individual is influenced by another person's emotional state to the extent of taking on the other person's emotions. This is also known as emotional contagion (Miller et al., 1988).

Emotional Exhaustion

Emotional exhaustion is a fundamental core component of burnout. It is characterized by emotional depletion and feeling drained, overwhelmed, and over-extended (Maslach, 1982).

Empathy

Empathy refers to the reactions of one individual to the observed experiences of another (Davis, 1983).

Loving-Kindness Meditation

Loving-kindness meditation (LKM) is a type of guided and insight-oriented meditation focusing on positive feelings of love, compassion, caring, and kindness toward self and ultimately all others (Kristeller & Johnson, 2005; Salzberg, 1995).

Meditation

For the purpose of this study, meditation is a term that describes a particular way of focusing attention combined with a nonjudgmental stance.

Perceived Social Support

Perceived social support refers to an individual's appraisal of level of comfort and encouragement from family, friends, and significant others (Zimet, Dahlem, Zimet, & Farley, 1988).

Personal Accomplishment

Lack of personal accomplishment is a component of burnout. Personal accomplishment is a sense of self-efficacy and competence (Maslach, 1982).

Professional Helper

A professional helper is individual who works in the field of human services as a professional caregiver, such as counselor, teacher, nurse, or medical doctor.

Pscyhoeducational Group

A psychoeducational group is a distinct type of group counseling that focuses on educating group members about specific concepts and skills.

Stress

For the purpose of this study, stress refers to the relationship between a person and "the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her wellbeing" (Lazarus & Folkman, 1984, p. 19).

Stressor

A stressor is an activity or event that causes stress.

Conclusion

Counselors-in-training are prime candidates to receive a treatment that could enhance their empathy, enhance their perception of supportive relationships, and improve their problem solving appraisal. This study provided a meditation intervention intended to increase these attributes. The acquisition of improved empathy, perception of social support, and problem solving appraisal may benefit counseling students' future careers as counselors in the field. Furthermore, if counseling students can be taught early on to utilize meditation to enhance these qualities, they may also be gaining the tools to buffer against stress and the potential for impairment. Loving-kindness meditation has been shown to be effective in increasing a number of characteristics and resources important to counselor wellness and efficacy, such as compassion (Weibel, 2007), connectedness (Seppala, 2009), empathic response (Lutz et al., 2008), environmental mastery, social support, and purpose in life (Fredrickson et al., 2008). Loving-kindness meditation has also been shown to be effective in reducing negative reactions, such as anger (Carson et al., 2005) and physiological stress (Pace et al., 2010). However, the use of loving-kindness meditation in pre-service counselors had not been tested. This study was

designed to determine if loving kindness meditation can be an efficient and effective mechanism

for enhanced counselor development.

CHAPTER TWO: REVIEW OF THE LITERATURE

Introduction

This chapter provides a review of the literature pertaining to the use of positive emotions generated through loving-kindness meditation as a means for improving factors related to wellness and coping for counselors-in-training. This chapter includes (a) the history of the humanistic, wellness, and positive psychology movements that form the theoretical background; (b) research in positive emotions; (c) the broaden-and-build theory of positive emotions; (d) an overview of stress and coping literature; and (e) an overview of research on meditation as a coping skill. Additionally, this chapter provides a rationale for the importance of improving and maintaining counselor wellness in relation to the three constructs of empathy, perceived social support, and problem-solving appraisal. Finally, this chapter will summarize the research on loving-kindness meditation (Fredrickson et al., 2008), a meditation practice which has been shown to have an effect on stress (Greeson, 2009) and which is the treatment modality used in the present study.

History of Humanistic, Wellness, and Positive Psychology Movements

The humanistic psychology, the counseling wellness, and positive psychology movements advocated for similar ideas and perspectives, but each developed independently. One of the founders of the humanistic psychology movement, Carl Rogers, promoted the argument in the 1960's that the medical based illness model was not appropriate for treating most emotional problems (Kottler & Shepard, 2008). Counseling emphasizes wellness and optimal human

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functioning due to its roots in vocational guidance beginning in the 1930's, thus focusing on normal human adjustment across the lifespan (Myers & Sweeney, 2008; Sweeney, 2001). The positive psychology movement began in the late 1990's to counteract the focus on pathology and the medical model prevalent throughout the field of psychology (Seligman & Csikszentmihalyi, 2000), espousing an agenda similar to that of humanistic psychology (Aanstoos Serlin, & Greening, 2000).

Carl Rogers also recognized the importance of the therapeutic relationship in his person-centered approach to psychotherapy (Kottler & Shepard, 2008). Rogers (1957) identified several significant facilitative conditions (i.e., empathy, congruence, and unconditional positive regard) arising from the therapeutic relationship that have since been extensively researched and assimilated into the majority of counseling approaches (Norcross, 2002). Many tenets of the humanistic and positive psychology movements are evident in the counseling field's emphasis on wellness and a strength-based developmental approach. The following provides a brief history of the humanistic movement in the field of psychology, then the wellness movement in counseling, and finally, the emergence of the positive psychology movement.

Humanistic Psychology Movement

The first two forces in psychology, behaviorism and psychoanalysis, emphasized psychopathology and the medical model. However, by the early 1960's, several psychologists had become critical of both behaviorism and psychoanalysis, and what they considered to be the dehumanization and reductionism of psychological research. During the 1950's, Abraham Maslow had developed a mailing list of over 100 discontented psychologists. He, as well as other like-minded psychologists, such as Carl Rogers, Rollo May, Gordon Allport, and Gardner

Murphy, began the humanistic psychology movement (deCarvahlo, 1991; Grogan, 2008) by initiating the *Journal of Humanistic Psychology* (JHP), which was first published in 1961. The following year, Maslow and his colleagues established the American Association of Humanistic Psychology (AAHP), later dropping "American" from its name, becoming Association of Humanistic Psychology (AHP). In 1971, members of AHP formed Division 32, a humanistic psychology division of the American Psychological Association (APA; Grogan, 2008). The founders of the humanistic movement convened at what is termed the Old Saybrook Conference in 1964 to collaborate on the movement's theory and goals, thus solidifying the emergence of a third force in psychology (deCarvahlo, 1991; Grogan, 2008).

The basic philosophy of the humanist psychologists was that human nature is intrinsically positive and people are in the process of becoming. Overall, the humanistic view was that people at their best are proactive, autonomous, and choice-oriented. Furthermore, the humanistic movement focused on individualism, freedom, and self-determination, ignoring issues such as civic responsibility, altruism, and interdependency (deCarvahlo, 1991; Grogan, 2008). The overarching principles of humanistic psychology are that human beings are greater than simply the sum of their parts and are growth oriented, conscious, aware, seek meaning, and responsible for their own development (Aanstoos, Serlin, & Greening, 2000).

Humanistic psychologists began disseminating their principles and theories to the general public through books intended for lay people. As a result, humanistic philosophy gained in popularity during the mid 1960's, spawning what was known as the human potential movement. Although the original intent of humanistic psychology was to transmute the academic and professional realms of psychology, the human potential movement relied primarily on

ungrounded and untested theories, disregarded academic research and publications (Grogan, 2008).

The human potential movement was comprised of individuals seeking personal growth, self-actualization, and transcendence, which precipitated the development of "growth centers." The best known retreat and personal growth center was the Esalen Institute in Big Sur, California. However, such growth centers, as well as the human potential movement, soon became equated with counter-culture, sexual promiscuity and psychedelic drug use, creating friction between the founding members of the humanistic psychology movement-some of whom wanted to distance themselves from these improprieties. Unfortunately, this ultimately had a negative effect on humanistic psychology due to the merging of the two movements in the public's mind. For many, humanistic psychology was completely separating itself from an empirical orientation. Participation in the AHP conventions dwindled by the late 1980's, and the humanistic movement lost its momentum (Anderson, 1994; Grogan, 2008). However, the humanistic concepts of emphasizing human strengths and potential are evident in counseling and positive psychology. As this process of growth and change occurred in humanistic psychology, the counseling field was going through its own evolution.

Wellness Movement

Vocational guidance, which gained importance during the Depression in the 1930's, formed the historical foundation of the counseling field. As the U.S. government promoted and funded counseling psychology amid World War II, it also promoted occupational guidance, testing, and placement. The American Personnel Guidance Association (APGA) was formed around the same time that APA created Division 17 for Counseling Psychology. The APGA later

became the American Association for Counseling and Development (AACD) and finally the

American Counseling Association (ACA). Both Division 17 and APGA focused on normal

adjustment needs, rather than psychopathology, and embraced the notion of optimal human

development. However, a rift occurred between the two organizations in the 1970's, when the

APA fought for legislation allowing only for people with doctoral level training to practice

psychology (Sweeney, 2001).

Because of its roots in vocational guidance, the counseling profession's core has been

developmental with an emphasis on optimal human functioning. Guidance was viewed as

helping individuals successfully navigate through all facets of development. Development is the

central feature of guidance, and it is integral to wellness (Myers, 1992).

Although counseling began in opposition to a pathological viewpoint, cultural conditions

that existed toward the end of the 20th century, such as increases in violence and abuse, greater

social complexity, and competition in the mental health market, compelled the counseling

profession to adopt the medical model. The licensure of counselors in the 1980's and the lure of

profits in private practice added to this impetus. However, the counseling profession officially

recommitted to a wellness philosophy in 1989 (Myers & Sweeney, 2008), when the AACD (now

ACA) formally took a stance on wellness through a governing council resolution. Based on the

resolution, wellness in counseling can be defined as the promotion of optimal holistic human

functioning and quality of life throughout developmental levels across the lifespan (Myers,

1992). This standpoint coincided with an emerging paradigm in medicine in the early 1990's that

viewed body, mind, and spirit as integral to health and wellness (Larson, 1999; Myers &

Sweeney, 2008). During this time, counselor educators affirmed that the focus on prevention and

wellness made counseling a distinct mental health profession (Myers & Sweeney, 2008).

Emerging research in prevention, along with counselors' frustration with the illness-based

model, encouraged the counseling profession to reclaim its developmental roots (Myers, 2002;

Myers, Sweeney, & Witmer, 2001). This recommitment by the counseling profession to promote

optimal functioning and improved quality of life is referred to as the wellness movement (Myers,

Sweeney, & Witmer, 2001).

Sweeney and Witmer spearheaded research, development of a theoretical model of

wellness, and assessment tools that defined and promoted wellness across the lifespan (Myers,

Sweeney, & Witmer, 2001; Sweeney & Witmer, 1991; Witmer & Sweeney, 1992). Their

wellness model was based on the writings of Adler and Maslow and began to develop in an

empirical foundation (Myers & Sweeney, 2008). There is a current need in the counseling

profession to gain a better understanding of the dynamics of wellness over the lifespan and to

conduct wellness research with specific populations (Myers & Sweeney, 2008). It may be that

the limited empirical presence of wellness in counseling allowed for the emergence of the

positive psychology movement.

Positive Psychology

The positive psychology movement occurred separately from the humanistic and

wellness movements. Positive psychologists deny any connection to the humanistic movement,

stating that unlike humanistic psychology, positive psychology is committed to scientific method

(Seligman & Czikszentmihalyi, 2000). Another difference cited by positive psychologists is that

humanistic psychology focused on individualism and autonomy. Positive psychology, on the

other hand, considers civic issues, altruism, interdependence, and environmental responsibility (Grogan, 2008).

The positive psychology movement began with the election of Martin Seligman as APA president in 1998. Seligman credits an interaction he had with his five-year-old daughter shortly after his election for teaching him the importance of nurturing strengths in people (Seligman, 2002). Through this interaction he concluded that buffering people from problems by cultivating their strengths was more beneficial than simply correcting problems once they manifested. As a result, he chose prevention as the theme for the annual APA convention. The 1998 APA convention on prevention illuminated the fact that the disease model was losing steam as a paradigm within the profession (Seligman & Csikszentmihalyi, 2000).

Seligman was joined in the movement by other psychologists and researchers. One prominent figure was Mihalyi Csikszentmihalyi. He, along with Seligman, realized a desire to apply scientific method to study human strengths that buffer against mental illness and learn how to foster these strengths in young people. Their stated intent was to refocus psychology on strength and resilience, rather than pathology, through the positive psychology movement (Seligman and Csikszentmihalyi, 2000). This concept of emphasizing strength and resilience is analogous to the wellness focus in counseling (Roscoe, 2009).

Humanistic psychology, wellness in counseling, and positive psychology all contain kindred principles endorsing optimal human functioning. Positive psychology is applying humanistic principles to rigorous empirical methods to provide support for prevention and buffering interventions (Diener, 2009). Counseling, which historically emphasized positive human adjustment across the lifespan, has just begun promoting the need for wellness in

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counselors and counselor education programs (Myers & Sweeney, 2008; Roach & Young, 2007; Young & Lambie, 2007). The current study draws on an empirically based theory from positive psychology to target coping and wellness in counselors-in-training.

<div align="center">**Positive Emotions Research**</div>

Positive Emotions

Positive psychology is the study of positive human functioning (Seligman, 2005), one aspect of which is the study of positive human emotions. Social psychologist, Alice Isen, began researching the influence of positive affect on cognition and social behavior in the 1980's. Isen and colleagues were the first to include neutral control group comparisons in their research design, rather than just comparing positive with negative emotions (Fredrickson, 1998). Isen's research suggested that positive emotions foster an expanded cognitive framework. Her cumulative research supports that the generating of positive emotions is a source of human strength that facilitates flexible thinking, creative problem-solving, and more efficient and open-minded thinking. For example, Isen, Daubman, and Nowicki (1987) conducted four empirical studies demonstrating that positive emotions facilitated creative problem-solving ability. In all four studies, the participants in the positive affect condition performed significantly better than participants in the control groups. Isen and colleagues' theoretical conclusion was that the broadened cognition resulting from positive affect increased those participants' ability to recognize the relatedness among diverse elements that typically appear to be unrelated. Therefore, these studies provided support for the assertion that "positive emotions broaden the scope of cognition" (Fredrickson, 1998, p. 309).

In a similar vein, Olivers and Niewenhuis (2006) supported what they termed the *positive-affect hypothesis* in an examination of visual attention as it relates to perception and performance ability. Cognitive flexibility included information processing strategies that incorporated flexible attention (as opposed to selective and focused attention) and receptivity to an increased variety of visual input. To observe cognitive complexity, researchers measured attentional blink, which is the failure to detect a second image in rapid serial visual presentations. Results indicated that inducing positive affect in participants ($N = 42$) decreased attentional blink, providing support for the *positive-affect hypothesis.* The researchers theorized that the induction of positive affect in the treatment condition increased cognitive flexibility, allowing the participants to effectively focus on more than one targeted image in a series of visual presentations.

Research in positive emotions also indicates that positive affect may enhance social processes and coping ability. Isen (2009) suggested that increased cognitive flexibility may foster the ability in individuals to understand other people's perspectives and reduce excessive self-focus. This is supported by research indicating that positive affect increased helpfulness and generosity in participants (Isen, 2009) as well as pro-social behavior (e.g., Urada & Miller, 2000). Furthermore, positive emotions and greater flexibility appear to improve one's ability to simultaneously consider multiple aspects of circumstances, as well as evaluate and choose appropriate responsive behaviors (Isen, 2009). Greater flexibility is applicable to coping ability (Isen, 2009; Aspinwall &Taylor, 1997) as well as pro-social behavior arising from more favorable appraisals of other people (Urada & Miller, 2000). Finally, positive affect has been associated with increased information seeking and receptivity to negative information (Aspinwall

& Taylor, 1997); therefore, possibly improving proactive coping (Aspinwall, 2005) by inspiring active exploration of issues surrounding a problem. Barbara Fredrickson (1998, 2001) has built upon these and other studies to form the broaden-and-build theory of positive emotions.

It should be noted that the widely held belief at the beginning of the 1990's was that positive emotions resulted in simplified thinking and cognitive processing (Isen, 2000). However, this viewpoint was countered by more recent research demonstrating that the effects of positive emotions are different in situations that are deemed to be dangerous or suggest the potential for loss (Isen, 2001). In these instances, rather than promoting playfulness and exploration, positive emotions appear to generate self-protective behaviors, such as risk-avoidance and caution (Isen, 2001). Thus, contrary to earlier beliefs, current research has supported broadening of flexibility of thinking and cognitive processes resulting from positive affect; however, in extreme situations, positive emotions appear to foster increased caution and self-preservation.

Broaden-and-Build Model of Positive Emotions

Researchers agree that positive emotions are an important aspect of human nature and contribute to quality of life (e.g., Diener, Lucas, & Oishi, 2009; Fredrickson, 1998) and negative emotions generally produce a narrow short-term thought-action repertoire – e.g., fight or flight. Positive emotions seem to broaden one's momentary thought-action repertoire to an expansive and creative way of thinking before deciding on behavior. For instance, research has indicated that positive emotions result in increased open-mindedness and cognitive flexibility, expanded creativity, advanced ability to make connections between seemingly unrelated ideas or objects, and elevated curiosity and motivation (Isen et al., 1987; Fredrickson, 1998, 2001). Therefore,

some experiences of positive emotions may result in discarding old patterns of thought and behavior to pursue novel and creative thoughts and actions (Fredrickson, 1998).

Fredrickson (1998, 2001) theorized that from an evolutionary perspective, positive emotions contribute to resource building. Whereas negative emotions, like anger or fear, propel immediate, direct, and focused responses, such as to fight or flee, the adaptive value of positive emotions is not immediately apparent. Rather, resources for future use would accumulate over time from experiences of positive emotions. For example, the emotion of joy in children often induces the desire to play and explore. Play is unscripted and aimless, however, play promotes skill acquisition. Thus, it not only broadens the momentary thought-action repertoire but over time can have the effect of building physical, intellectual, and social skills. These developed resources can be drawn on at a later time, long after the joyful experience has ended (Fredrickson, 1998, 2001).

Other studies have supported the broadening and building of intellectual and social resources through generating positive emotions. For example, Masters, Barden, and Ford (1979) found that when they induced positive affective states in children they observed gains in intellectual capabilities. In two studies, the participants who were asked to recall a memory that made them happy enough to want to "jump up and down" (p. 382) exhibited a significantly higher overall rate of learning and increased speed in processing individual problems than children in the other conditions and control groups. Attachment research has indicated similar results. In a longitudinal study, Arend, Gove, and Sroufe (1979) defined positive secure attachment as one in which the caregiver is supportive of the child's exploration and also provides comfort when needed. Their findings demonstrated that children who were securely

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attached as infants still exhibited favorable consequences in preschool. The securely attached children exhibited positive affective relationships with their caregiver, confronted problems with zeal and persistence, were enthusiastically involved in their schoolwork, and were organized, persistent, and flexible in dealing with stress and problems. Thus, positive emotions appear to promote better understanding of complex situations, facilitate learning and mastery, and enhance the social bond with caregivers (Fredrickson, 1998).

Fredrickson (1998) further supported the theory of building of social resources through positive emotions by pointing to early smile studies with infants suggesting that mutual smiles forge bonds and relationships with others. Fredrickson asserted that these relationships are potential enduring resources that can be utilized when necessary. The joy, amusement, and excitement experienced in social play also reportedly promote turn-taking, altruism, and lasting bonds (Fredrickson, 2001). Additionally, experiencing love and its related emotions are theorized to build and strengthen social attachment and support (Fredrickson, 1998). Therefore, there is growing evidence that positive emotions build social resources. These social resources, similar to intellectual and physical resources, can accumulate and be drawn on at a later time. Thus, in addition to augmenting cognitive resources, positive emotions also seem to cumulatively develop durable personal resources (Fredrickson, 1998).

Moreover, it appears that positive emotions may have an *undoing effect*. The *undoing hypothesis* suggests that positive emotions can serve as an antidote for the lingering effects of negative emotions (Fredrickson, 2003). Fredrickson and Levenson (1998) reported results of two studies supporting this hypotheses. In the first study ($N = 60$), female undergraduate psychology students were randomly assigned to four conditions. After viewing a film that elicited fear, the

participants' emotions were manipulated through films that generated contentment, amusement, neutrality, or sadness. The initial emotion of fear was measured by comparing cardiovascular data obtained during the film to baseline data. To measure the undoing effect, the researchers then measured the time it took for cardiovascular indices to return to baseline. Results indicated that the participants who viewed the two positive secondary films demonstrated faster cardiovascular recovery than those who viewed the negative or neutral secondary films.

In the second study ($N = 72$), the researchers' intent was to examine the effects of naturally occurring positive affect. The hypothesis was that people who spontaneously smile while viewing a sad film would demonstrate quicker cardiovascular recovery after the film clip. The results supported this hypothesis; people who smiled during the film recovered about 20 seconds faster than those who did not smile (Fredrickson & Levenson, 1998). These two studies provide preliminary support for the undoing hypothesis of the broaden-and-build model of positive emotions.

The emerging research exploring the effects of positive emotions provides support for Fredrickson's (1998, 2001) broaden-and-build theory. Positive emotions appear to broaden individuals' cognitive functioning in problem-solving. There is also evidence that positive emotions serve to build internal psychological, emotional, and social resources, as well as improve physical health. In addition, the literature supports the undoing hypothesis, suggesting that positive affect may be an effective remedy for protracted negative emotions. Thus, it may be inferred that positive emotions may improve responses to chronic stress.

Stress Factors in Counseling

Counselors are challenged with maintaining personal wellness while providing compassion and effective counseling in a difficult and challenging profession (Cashwell, Bentely, & Bigbee, 2007). It is supported in the human services literature that stress and burnout can have deleterious effects on caregivers' health and wellbeing, as well as client care, client outcomes, and job performance (e.g., Cherniss, 1995; Maslach, 1982; Roach & Young, 2007; Young & Lambie, 2007). Stress occurs when people fear that they do not have the resources to deal with a situation (Lazarus & Folkman, 1984), and stress is one of the causative agents in counselor impairment.

Counselors face not only the stress arising from daily hassles, but also stressors such as maintaining intense emotional relationships with clients, working with ambiguous and complex therapeutic issues, and the realization that they cannot realistically help every client they meet (Skovholt, 2001). As such, counseling can regularly trigger a sense of not having the necessary resources to manage the job, and constant emotional intensity and exposure to trauma can begin to wear on a counselor's emotional and physical resources. "Psychological stress…is a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984, p. 21); thus, regularly confronting the stress inherent in counseling work can lead to impairment and possibly burnout. Impairment is defined as personal distress that impedes professional obligations (Lamb et al., 1987) while burnout is an extreme type of impairment that can result from chronic stress in human services occupations (Maslach, 1982). Because stress arises from the relationship between a person and his or her environment, it is comprised of the

characteristics of individuals as well as the nature of their environment (Lazarus & Folkman, 1984). There are identified individual, interpersonal, and institutional characteristics that have the potential to adversely affect counselor development and performance.

Individual Attributes

People enter the human services field because they like people and want to help (Cherniss, 1995). However, their social sensitivity may actually predispose them to the risk of impairment or burnout (Pines, 1983). There are a number of factors that contribute to counselors' predisposition to damaging stress responses. First, many helpers enter the profession with a sense of idealism, high motivation, and the expectation that their work will provide a sense of meaning and fulfillment (Pines & Aronson, 1988). These individuals become disillusioned by the reality of overwhelming caseloads, undesirable working conditions, low pay, and difficult clients. Thus, professional helpers often experience results that are not commensurate with their level of investment and expectation, causing many novice helpers to feel incompetent and develop a sense of failure (Maslach, 1982). Moreover, it is possible that certain internalized values and beliefs may inhibit an individual's coping ability (Lazarus & Folkman, 1984).

Helpers who are more prone to impairment and burnout tend to be anxious, intolerant, easily frustrated by obstacles, lacking in self-confidence, more passive than enterprising, and have self-doubt. They also seem to place greater reliance on emotional, rather than cognitive, empathy (Maslach, 1982). Research supports the notion that certain personality characteristics are more likely in individuals who may be predisposed to adverse stress reactions. Kobasa (1979) advanced research demonstrating that hardy personality types were positively correlated with the ability to remain healthy in the midst of extreme stress.

Hardiness encompasses three general characteristics. The first is *control*, which is having the belief that one can influence or control situations, rather than feeling helpless. The second is *commitment,* which is the ability to feel deeply involved or committed in life activities. Commitment is similar to cognitive appraisal, and it helps people to find a sense of meaning or purpose in what they are doing. The third characteristic is *challenge*, which is the ability to view change as "an exciting challenge to further development" (Kobasa, 1979, p. 3; Kobasa, Maddi, & Khan, 1982).

In addition to personality, research identifies a relationship between an individual's coping style and impairment. Emotion-focused coping, which is a passive or defensive coping style, is positively related to burnout. Active, or problem-focused, coping is correlated with less burnout (Elliott et al., 1996; Maslach et al., 2001). Problem-focused coping also appears to be related to self-efficacy. Research suggests that all three components of burnout are related to low self-esteem (Maslach et al., 2001). Counselors with an inability to cope effectively with factors related to stress, impairment, and burnout (Savicki & Cooley, 1982) are most at risk for leaving the field within their first one or two years of practice.

Although stress, burnout, and impairment are constant threats for the counselor, there are several mediating variables that can reduce the risk of detrimental stress responses. The first is gaining a sense of autonomy or personal control by developing strategies for personal empowerment, which could include recognizing and making choices, as well as taking initiative to improve the situation. Improving problem-solving abilities and generating alternative possibilities can increase self-confidence and self-esteem. Finally, developing detached concern,

which is a balanced form of empathy characterized by genuine concern for others while maintaining distance from their problems, can reduce the risk of burnout (Maslach, 1982).

Interpersonal Factors

The interpersonal factors associated with impairment are those that arise from interactions with clients and co-workers. Counselors often experience stressful interactions with clients. The nature of client-counselor interactions can be emotionally intense (Savicki & Cooley, 1982) and often counselors cannot select the clients they want or with whom they are most effective. Counselors may find some clients to be unlikeable or obnoxious but are still required to effectively work with them. Furthermore, some clients are overly demanding or needy, some fail to follow instructions or take responsibility for their progress, some may be impatient, and some may be dishonest (Maslach, 1982; Savicki & Cooley, 1982). Under these conditions, counselors find it difficult to maintain empathy, or even tolerance, for these types of clients. Thus, if the interactions are unpleasant or discouraging, stress levels can rise.

Co-workers and supervisors may be just "another human being the helper must deal with" (Maslach, 1982, p. 45), and these interactions can be a source of stress (Cherniss, 1995). Problems with co-workers can include poor communication, lack of collaboration, competition, and conflict (Maslach, 1982; Young & Lambie, 2007). In such a negative work environment (Young & Lambie, 2007), some counselors may be unwilling to ask for help or share their feelings because they fear appearing incompetent (Maslach, 1982). Finally, in the counseling field, it is not uncommon to encounter impaired co-workers. With respect to interpersonal factors, it is important that counselors experience empathy and a sense of social support among co-workers (Young & Lambie, 2007).

Institutional Characteristics

Environmental factors, such as the qualities of the agency or institution, are potential sources of occupational stress for counselors. Many of these factors are out of the counselor's control (Savicki & Cooley, 1982); yet, it is still important that counselors gain awareness and become their own advocates. Companies in the United States are now cognizant of the value of employee wellness and the need to improve work conditions (Young & Lambie, 2007)**.** The interaction between individual and organizational characteristics affects the wellness of professional helpers (Maslach et al., 2001).

A significant institutional factor that contributes to chronic stress is the degree of intensity of the job. Job intensity is determined by workload, number of clients, and length of contact with clients (Savicki & Cooley, 1982; Young & Lambie, 2007). Job intensity can also be affected by the levels of distress that clients' experience. For example, it is highly stressful to deal with clients who are suicidal, dying, or extremely troubled (Young & Lambie, 2007). Additionally, in today's society, there is a significant imbalance between demands and available resources (Schauefeli, Leiter, & Maslach, 2008; Young & Lambie, 2007). High demands and low resources lead to increased stress and exhaustion in the workplace. Work overload appears to contribute to exhaustion and cynicism, while a lack of resources contributes to a sense of inefficacy (Maslach, 2003).

Two other problematic institutional factors in most agencies and institutions are bureaucratic frustration and a lack of autonomy (Cherniss, 1995; Young & Lambie, 2007). Helpers may experience higher levels of stress depending upon the institutional rules that dictate the nature of the counselor-client relationship. If company guidelines make the job more difficult

or uncomfortable for the helper, or if they clash with the helper's values, the company structure may actually fuel the potential for some type of impairment (Maslach, 1982). Furthermore, if the organization of the company does not allow for employee input, professional helpers will most likely experience a sense of a lack of control (Young & Lambie, 2007). Finally, counselors who feel unsupported by their organization are at risk for adverse reactions to stress (Cherniss, 1995). Any combination of these individual, interpersonal, and institutional factors can produce a sense of chronic stress resulting in impairment and burnout.

Burnout

When counselors feel overwhelmed, disillusioned, and incompetent due to any combination of the aforementioned factors they are at risk for developing burnout, which is a serious form of impairment. Burnout consists of three components: (a) emotional exhaustion, (b) depersonalization, and (c) reduced personal accomplishment (Angerer, 2003; Maslach, 1982: Maslach et al., 2001; Swider & Zimmerman, 2010). Exhaustion is the most widely reported symptom component of burnout (Maslach et al., 2001). It arises when helpers become over-emotionally involved with clients, therefore over-extending themselves and becoming overwhelmed. Emotional exhaustion is characterized by emotional depletion, fatigue, and lack of energy (Maslach, 1982).

Once counselors are experiencing emotional exhaustion, they feel as if they have nothing left to give. In an effort to deal with this, counselors sometimes decrease their level of involvement with their clients as a means of self-preservation. As they detach emotionally, they begin to feel callous and indifferent about their clients (Cherniss, 1995; Maslach, 1982; Skovholt, 2001). This indifference develops into hostility and contempt for their clients. These

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burned out counselors lose their empathy and start to think the clients deserve their problems. This negative attitude is reinforced by a lack of positive feedback, since it is often the difficult clients that require more time and energy. These characteristics comprise the second component of burnout-*depersonalization* (Maslach, 1981; Maslach, 1982; Maslach et al., 2001).

The third component of burnout is *reduced personal accomplishment*. The relationship between diminished personal accomplishment and the other two components is not completely understood. However, this component involves a feeling of inefficacy that may be a consequence of exhaustion and cynicism, or it may develop in conjunction with the other two components (Maslach, 2003). During the burnout process, counselors begin to turn their negativity toward themselves. They begin to feel distress about their attitude toward their clients, they feel inadequate-as if they have failed, and their self-esteem dwindles (Maslach, 1982). These three factors of burnout can be conceptualized as a stress dimension (emotional exhaustion), an interpersonal context (depersonalization) and a self-evaluation concept (reduced personal accomplishment; Ben-Zur & Michael, 2007).

Although many of the above variables are not in the counselor's control, it is possible that an intervention aimed at increasing problem solving (Heppner et al., 2004) or increasing social support may provide a lessening of stress due to an increase in both problem focused and emotion-focused coping (Lazarus & Folkman, 1984). For example, if counselors perceive an increase in their problem-solving efficacy or social support, they may gain the resources to advocate for change or determine new solutions. Moreover, if counselors can develop an appropriate balance of empathy, perhaps they can build a buffer of protection from the job

intensity. Improved internal resources, a greater sense of support, and improved problem-solving appraisal may help alleviate the risk factors for burnout.

It would be beneficial for counselor education programs to examine ways to specifically address the three components of burnout. First, depersonalization involves a lack of empathy and caring for clients. Empathy is critical to therapeutic relationships and positive client outcomes (Bohart et al., 2002). Second, social support has been shown not only to buffer against stress but also to increase well-being (Cohen & Wills, 1985), as well as mediate the symptoms of burnout (Maslach et al., 2001). Finally, an increased sense of personal accomplishment, or efficacy appraisal, addresses the component of diminished personal accomplishment. Thus, one's positive assessment of the ability to cope and manage stress may be an antidote to burnout or other types of impairment.

Stress and Coping

The *person-environment model* (Lazaraus & Folkman, 1984), one of the most prevalent conceptualizations of stress and coping (Heppner et al., 2004), substantiates the significance of self-evaluation in coping with stress. In this model, individuals experience psychological stress when they perceive a situation to be threatening and believe they do not have an effective coping response (Cohen & Wills, 1985; Lazarus & Folkman, 1984). In other words, stress is the result of the perception that the environmental demands exceed one's ability to cope (Ben-Zur & Michael, 2007). This definition of psychological stress is related to a feeling of helplessness and diminished self-appraisal (Cohen & Wills, 1985). Thus, the level of stress experienced is dependent on an individual's appraisal of a situation and their accessible resources.

In the *person-environment model*, an individual's assessment of problem-solving ability is considered a *person* variable (Heppner et.al, 2004). Individual characteristics such as coping ability and one's appraisal of coping ability play a critical role in effectively managing stress (Heppner et al., 2004). Thus, coping involves both cognitive (i.e., appraisal) and behavioral efforts (Ben-Zur & Michael, 2007).

There are two types of cognitive appraisal. Primary appraisal is the perceived level of loss, threat, or challenge depending on the person's context, such as experience, demographics, personality characteristics, or social support (Ben-Zur & Michael, 2007). Individuals, through the lens of their context, assess whether or not a situation is relevant or stressful to them (Thornton, 1992). In secondary appraisal, the individual assesses what can be done about the problem based on recognized resources, coping ability, and strategies available (Ben-Zur & Michael, 2007). If the individual determines that a situation is stressful, he or she then evaluates available coping options and resources with regard to the specific situation (Thornton, 1992).

Lazarus and Folkman (1984) defined coping as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p. 141). They identified two types of coping. The first is problem-focused coping, which involves actively taking steps to address the problem. The other is emotion-focused coping, which involves reducing the emotional and physiological distress through passive, cognitive means (Ben-Zur & Michael, 2007). Thus, coping is process-oriented, situation-specific, and requires effort, as opposed to an automatic adaptive behavior (Lazarus & Folkman, 1984). Accordingly, the *person-environment model* recognizes two critical

processes as mediators of person-environment stressors: coping and cognitive appraisal (Thornton, 1992).

Coping ability is determined by cognitive appraisal. Cognitive appraisal is dependent upon an individual's subjective, phenomenological interpretation of a situation and self-perceived ability to adequately address the situation. Accordingly, a positive view of oneself can be an important resource for coping (Lazarus & Folkman, 1984). Therefore, based on the stress and coping literature, counselors' responses to stress depend upon the individual's appraisal of self and the environment, further supporting an intervention that targets individual characteristics.

Meditation as a Coping Skill

There is strong evidence supporting individual cognitive-behavioral based interventions for stress and burnout (LeBlanc & Schaufeli, 2008). This would include relaxation techniques, encouraging healthy lifestyles, and cognitive-behavior techniques. These cognitive-behavioral approaches have been effective with regard to maladaptive cognitions, unrealistic expectations, and false hopes. Nevertheless, these interventions focus solely on reducing negative arousal and do not consider personal growth, changing attitudes, or improving resources (van Dierendonck, Garssen, & Visser, 2005; van Dierendonck, Schaufeli, & Buunk, 1998).

Meditation, on the other hand, has been shown to increase positive emotions, increase self-awareness, improve well-being, and improve factors related to effective therapy (Shapiro & Carlson, 2009; Young, Cunningham, & de Armas, in press). Meditation can be defined as "a family of self-regulation practices that focus on training attention and awareness in order to bring mental processes under greater voluntary control and thereby foster general mental well-being

and development and/or specific capacities such as calm, clarity, and concentration" (Shapiro &

Walsh, 2006, pp. 228-229). The goals of mindfulness meditation are similar to positive

psychology: promote resilience, enhance well-being, increase self-awareness and awareness of

environment, and disciplining the mind and emotions (Hamilton, Kitzman, & Guyotte, 2006;

Levine, 2000). The purpose of mindfulness is to help people find what is right, rather than

pointing out what is wrong (Kabat-Zinn, 2005).

Mindfulness Based Stress Reduction (MBSR) is an intervention that was designed by Jon

Kabat-Zinn and colleagues at the University of Massachusetts Medical Center. The intent of

MBSR is to teach practitioners to become more aware of their thoughts, feelings, and

physiological experiences and then learn to relate to them differently. The practice teaches one to

stay in the present moment, letting go of thoughts and fears regarding the past and future, and

practicing acceptance (Kabat-Zinn, 2005). Thus, the practitioner becomes cognizant of habitual

reactions to stress and can cultivate more effective or adaptive responses (Shapiro, Astin, Bishop,

& Cordova, 2005)

There are a variety of meditative traditions, but they all contain common elements

(Kristeller & Johnson, 2005). Customarily, meditation includes "a particular way of focusing

attention, generally the use of repetition [of a mental phrase or *mantra*], and a nonjudgmental

rather than analytic thought process" (Kristeller & Johnson, 2005, p. 394). The primary goal of

meditation is to train one's mind to disengage from habitual reactions and ways of thinking. The

literature identifies three overarching categories of meditation: (a) concentrative meditation, (b)

insight or mindfulness meditation, and (c) focused or directed meditation (Kristeller & Johnson,

2005).

Concentrative meditation involves focusing one's attention on a particular object, words, mantra, or the breath. The goal is to maintain focus on the object of the meditation and return to that whenever the mind wanders. In mindfulness meditation, the attention is deliberately kept open to notice, without judgment, anything that enters one's field of awareness. The point is to be fully aware and present, noticing what arises, but refraining from evaluation or following one's thoughts. Finally, directed meditation utilizes some form of content to engage a selected aspect of oneself while also maintaining a nonjudgmental and nonevaluative stance. Although meditative traditions typically emphasize one of these methods, most contain aspects of all three (Kristeller & Johnson, 2005). Mindfulness meditation has received the most attention in the literature, especially in medical research (Baer, 2003; Kabat-Zinn, 2003).

In one study on mindfulness training for counselors, Greason and Cashwell (2009) examined empathy, attention, and counselor self-efficacy of students ($N = 179$) in master's and doctoral level counselor education programs at 10 institutions. Their results indicated that mindfulness significantly increased empathy (7% of the variance) and attention (28% of the variance) in the counselor education students. Furthermore, mindfulness, empathy, and attention all significantly increased counselor self-efficacy, accounting for 34% of the variance

Shapiro, Brown, and Biegel (2007) explored the effect of Mindfulness Based Stress Reduction (MBSR) in master's level counseling psychology students ($N = 54$). The intervention consisted of an 8-week MBSR training as part of a Stress and Stress Management class, compared with a control group of students in two other classes. As in the manualized MBSR treatment program, the curriculum included one guided session on loving-kindness meditation. Data analysis indicated statistically significant improvement in all seven study outcomes. There

was a significant decrease in perceived stress, negative affect, state anxiety, trait anxiety, and rumination. Results also indicated a significant increase in positive affect and self-compassion. Thus, the findings suggest that a mindfulness-based stress reduction intervention was associated with improved mental health variables for therapists-in-training.

The Importance of Counselor Wellness

The counseling field is rooted in a wellness paradigm (Myers & Sweeney, 2008), but much of the focus has historically been on promoting client wellness. Counselor education programs are now striving to promote wellness in counseling students to hopefully avert counselor impairment once they are out in the field (Roach & Young, 2007; Young & Lambie, 2007). It is imperative that counselors learn and utilize skills to help maintain their wellness. The nature of the counselor's job is to compassionately and effectively interact with people who may be experiencing extreme emotional distress and environmental difficulties (Shapiro & Carlson, 2009), which can detrimentally affect counselors' emotional and physical well-being. It is critical that counselors learn to replenish themselves and practice self-care to remain effective in their work (Skovholt, 2001). Based on initial research described above, a meditation intervention may help to increase counselors' empathy towards others in a healthy manner, which is fundamental to effective counseling. Meditation, through the fostering of positive emotions, may also increase counselors' sense of connectedness and social support, as well as improve their sense of self-efficacy in dealing with problems and difficulties. The constructs of empathy, perceived social support, and problem-solving appraisal are examined further in the following section.

Empathy

Empathy and Counseling

Generally speaking, empathy is an individual's understanding of, and reaction to, the experiences of another (Davis, 1983a). Carl Rogers began systematically studying empathy as a necessary condition in counseling throughout the 1940's and 1950's (Bohart et al., 2002). He described empathy as the ability of counselors to sense a client's world and emotions as if they were their own but without the counselors allowing their own personal feelings to get "bound up in it" (Rogers, 1957, p. 99). Rogers posited that empathy, along with genuineness and unconditional positive regard, were necessary conditions for therapeutic change (Rogers, 1957). The counseling field soon thereafter recognized empathy as an integral helping skills component (Bohart et al., 2002). To date, empathy is a core condition in counseling (Clark, 2010) and an empirically supported key factor associated with therapeutic change, regardless of therapeutic approach or theoretical orientation (Feller & Cottone, 2003; Norcross, 2002).

Empathy is often considered to be an affective construct in which one individual feels the feelings of another. However, in person-centered counseling Rogers (1980) defined empathy as the ability to comprehend another person's perspective or frame of reference, which is a more cognitive construct, while also gaining a sense of the other person's emotions (Rogers, 1957). Empathy can be demonstrated emotionally, cognitively, in the moment, or by grasping an individual's overall experience. Empathy, therefore, is a complex and multidimensional construct (Bohart et al., 2002).

Researchers support that empathy encompasses affective and cognitive components (Pearson, 1999). Accordingly, empathy is an interpersonal, relational process in which the

counselor attempts first to perceive the client's phenomenological experience and then demonstrate understanding of the client's personal meaning (Clark, 2010; Pearson, 1999), which occurs during the here-and-now process in the counseling session. The counselor begins to understand how the client experiences his or her world during their interpersonal interactions and then reflects the client's explicit and implicit messages back to the client. The inability A to identify with the client could interfere with developing a therapeutic relationship. At the other extreme, a counselor may over-identify with a client and become excessively emotionally involved (Clark, 2010).

Nevertheless, research supports that empathy is critical to the therapeutic process (Norcross, 2002) primarily because the relationship has been shown to be a predictor of positive client outcomes (Bohart et al., 2002; Young, 2009). Empathy builds the relationship between counselor and client by letting clients know they are understood, increasing the feeling of safety in the relationship, and facilitating clients' self-disclosure (Bohart et al., 2002). Furthermore, empathy is essential to overcoming differences between the client and the counselor (Young, 2009).

Two essential skills for successful counseling are the ability to maintain attentive presence and the ability to maintain empathy (Greason & Cashwell, 2009; Lambert & Barley, 2001). Sustaining empathic caring is essential for counselor efficacy (Skovholt, 2001). Furthermore, lack of empathy is a hallmark of depersonalization, one of the three components of burnout (Maslach, 1982). Greason and Cashwell (2009) proposed that it would be beneficial for counselor education programs to address the internal processes of empathy, as well as the observable empathy skills that are currently included in counselor training. Efficacious

counseling requires an appropriate balance of cognitive and emotional empathy (Skovholt, 2001). Therefore, it makes sense to address empathy from a multidimensional perspective. Moreover, because mindfulness meditation practice consists of attending to the present moment with complete attention (Kabat-Zinn, 2005) and seems to increase empathy (Shapiro & Carlson, 2009), it addresses both essential skills in counseling.

Measuring Empathy

Researchers have conceptualized and attempted to measure empathy in various ways (Duan & Hill, 1996) and have recognized the importance of viewing empathy as a multidimensional set of related constructs (Cliffordson, 2002; Davis, 1983b; Duan & Hill, 1996; Greason & Cashwell, 2009). Historically, approaches typically consisted of targeting either the emotional components of empathy or the ability to accurately perceive others' feelings (Cliffordson, 2002). The two most widely used empathy measures in counseling are the Barrett-Lennard Relationship Inventory (Barrett-Lennard, 1978) and the Interpersonal Reactivity Index (IRI; Davis, 1980). As the Barrett-Lennard Relationship Inventory (1978) assesses only the cognitive aspect of empathy (Duan & Hill, 1996; Greason & Cashwell, 2009), the present study employed the IRI (Davis, 1980) to better capture the multidimensional nature of empathy. Moreover, the IRI (Davis, 1980) is the most widely researched and utilized measure of empathy for social situations (Greason & Cashwell, 2009; Cliffordson, 2002), thus it was chosen for the present study. Genuine empathy, needed for the development of a therapeutic alliance, requires a balance of emotional as well as cognitive empathy (Greason & Cashwell, 2009; Skovholt, 2001).

The IRI (Davis, 1980) aims to measure four aspects of empathy which were identified through initial factor analysis from a global construct of empathy. The instrument is a 28-item

self-report inventory containing 4 subscales. Each item is rated on a five-point Likert scale, ranging from 1 (*does not describe me*) to 5 (*describes me well)*. The subscales are typically interpreted individually, and higher scores suggest higher levels of empathy.

The first subscale on the IRI is the *Perspective Taking Scale* (PT). Items in this subscale reflect the tendency of individuals to assume another person's viewpoint or perspective, which is related to cognitive empathy (Davis, 1980). Confirmatory factor analysis indicated that PT was associated with the ability to adopt other people's points of view, as well as with the ability to regulate social communication (Cliffordson, 2002). Davis (1983b) found PT to be associated with better social functioning and self-esteem, as well as less self-reported anxiety and insecurity.

The second subscale is *Empathic Concern* (EC), which is characterized by feelings of compassion, warmth, and concern for another person. This is different from vicarious experience or discomfort of another person's distress. The EC aspect taps into emotional empathy and is positively associated with effective helping behavior (Davis, 1983a). The EC domain was also found to be associated with a slight tendency toward emotional vulnerability but was also related to nonselfish concern for others (Davis, 1983b). Furthermore, EC has been associated with good listening skills, as well as the ability to appropriately interpret and comprehend interpersonal communication (Cliffordson, 2002).

The third subscale is the *Fantasy Scale* (FS). Items on the FS scale indicate the tendency for individuals to strongly identify with fictitious characters in books, films, or plays, which appears to tap into an aspect of emotional empathy (Davis, 1980). Higher ratings on the FS

subscale have been shown to be correlated with helping behavior. An example of an item in this subscale is, "I really get involved with the feelings of the characters in a novel" (Davis, 1983b).

The fourth subscale is *Personal Distress* (PD), which is reverse-scored. This subscale measures an individual's tendency to undergo feelings of discomfort, anxiety, or fear when observing someone else's negative experiences or emotions. Thus, it is intended to measure an individual's self-oriented, or self-centered, reactions to other people's distress, as opposed to other-oriented concern (Davis, 1980). Confirmatory factor analysis also suggested a relationship between PD and lack of proficiency in emotional and social control (Cliffordson, 2002). Additionally, PD was significantly associated with low self-esteem, poor interpersonal functioning, greater anxiety, and greater emotional vulnerability (Davis, 1983b).

In summary, empathy is a multi-faceted concept that is essential to the therapeutic alliance and effective counseling (Norcross, 2002). Empathy is not simply either cognitive or emotional but rather a set of related constructs that include components of both (Davis, 1983b). The IRI (Davis, 1980) addresses the multidimensional nature of empathy by incorporating four subscales: *Perspective Taking* (PT), *Empathic Concern* (EC), *Fantasy* (FS), and *Personal Distress* (PD). The PT and FS subscales measure the cognitive aspects of empathy, whereas EC and PD target the emotional aspects. It is necessary that counselors maintain a balance of the various domains of empathy to remain effective and buffer against impairment (Greason & Cashwell, 2009; Skovholt, 2001). Thus, the utilization of the IRI in this study provides valuable information regarding the efficacy of the meditation intervention in affecting the different domains of counselor empathy.

Perceived Social Support

Perceived Social Support

It is well established in the literature that social connection and social support have a significant effect on mental health and well-being (e.g., Ben-Zur & Michael, 2007; Clara, Cox, Enns, Murray, & Torgrudc, 2003; Taylor, Dickerson, & Klein, 2004). Researchers have indicated that social support is negatively correlated with depression and positively correlated with psychological and physical health (Clara et al., 2003; Park, Wilson, & Lee, 2004; Taylor et al., 2004). People who acknowledge having access to social support are healthier, tend to heal faster from disease, and have lower mortality rates than those with minimal social connection (Clara et al., 2003; Cohen & Wills, 1985; Taylor et al., 2004; Uchino, 2009). It is becoming evident that a sense of social connectedness may be a predominant resource for optimal human functioning (Taylor et al., 2004).

Perceived adequacy of social support is a better predictor of psychological well-being than objectively measured *received* social support (Cohen & Wills, 1995; Haber, Cohen, Lucas, & Baltes, 2007; Uchino, 2009; Zimet et al., 1988). Perceived social support is defined as an individual's subjective evaluation of potential access to support (Uchino, 2009). Perceived social support appears to be connected to the severity of physical and psychological symptoms (Zimet et al., 1988), and the benefits are particularly realized with regard to stress. Increasingly, research indicates that perceived social support has a buffering effect on the physiological processes of stress (Haber et al., 2007; Taylor et al., 2004).

A literature review by Cohen and Wills (1985) provided clear support for the buffering effect of perceived social support on chronic stress. Zimet, Powell, Farley, Werkman, and

Berkoff (1990) also demonstrated support for a buffering effect from perceived social support. It has been posited that perceived social support improves an individual's overall perception, thus contributing to a positive psychological adjustment to stress (Brissette, Scheier, & Carver, 2002). As previously mentioned, stress arises from the perception that one does not possess adequate resources to cope with a particular situation (Ben-Zur & Michael, 2007; Cohen & Wills, 1985; Lazarus & Folkman, 1984). Thus, experiencing a greater perception of social support may increase counselors' assessment of self-efficacy and control on the job. A study by Park et al. (2004) supported this conclusion. The study examined the effects of social support in hospital employees ($N = 240$) and found a relationship between perceived social support at work and a higher perception of job control, as well as lower depression and increased job performance. Their results supported previous research directly connecting social support, perceived job control, and reduced psychological strain (Park et al., 2004). Furthermore, Snyder (2009) found that perceived social support from co-workers was associated with improved levels of emotionally sensitive responsiveness to clients, thus improving client care and alleviating symptoms of burnout.

Measuring Perceived Social Support

There exists a wide assortment of measures for perceived social support. One such measure evident in the literature is the Social Support Behaviors Scale (SS-B; Vaux, Riedel, & Stewart, 1987). The SS-B contains 45 items and must be administered once for family and a second time for friends, which was too lengthy and time-consuming for the present study. Furthermore, the SS-B does not account for significant others as a support system (Kazarian & McCabe, 1991). A briefer instrument, the Sources of Social Support Questionnaire (SSSQ;

Haddad, 1988), consists of 18 items; however, it assess three specific domains of supportive behavior rather than providing a global perception of support from various subgroups. Other measures target only one support subgroup, such as just family, friends, or romantic partners (Zimet et al., 1988).

The present study employed the Multidimensional Scale of Perceived Social Support (MSPSS; Zimet et al., 1988). Of all the instruments available, the MSPSS was the only one included in a sourcebook identifying the most appropriate brief, and psychometrically sound instruments (Fischer & Corcoran, 2007). The MSPSS was developed because other measures did not assess family, friends, and significant others as distinct subgroups. Furthermore, the MSPSS specifically measures an individual's perceived assessment of the adequacy of social support (Zimet et al., 1988). Confirmatory factor analysis indicated moderate to high correlations between the MSPSS and global perceived social support (Clara et al., 2003).

The MSPSS consists of 12 items with three subscales: *family*, *friends*, and *significant others* (Zimet et al., 1988) and measures the extent that respondents perceive social support from these three sources (Fischer & Corcoran, 2007). The *family* and *friends* subscales demonstrated moderate to high correlations with the SS-B (Kazarian & McCabe, 1991). Each item is rated on a Likert scale ranging from 1 (very strongly disagree) to 7 (Very strongly agree). The broader range of responses is intended to increase response variance and minimize a ceiling effect (Zimet et al., 1988). The MSPSS is a brief measure of the multidimensional nature of perceived social support that can be utilized in a variety of settings (Clara et al., 2003). The current study explored the possible relationship between positive emotions generated through loving-kindness meditation and perceived social support assessed using the MSPSS.

Problem-Solving Appraisal

Problem-Solving Appraisal

Effective problem-solving may be beneficial for people facing life struggles or experiencing distress (Lopez & Janowski, 2004). From a positive psychology perspective, problem-solving ability is a human strength that can be developed to promote optimal human functioning (Heppner & Lee, 2009). Recall that the level of stress one experiences is associated with an individual's self-appraisal combined with his or her appraisal of the environment (Cohen & Wills, 1985; Lazarus & Folkman, 1984). In other words, if people perceive that they have adequate resources to successfully manage a particular situation, they will experience a lower level of stress than people who believe their resources are inadequate. Thus, how people appraise their problem-solving ability is related to their manner of coping as well as their psychological adjustment (Heppner & Wang, 2003). Problem-solving *appraisal* is an internal resource that can contribute either to resistance or susceptibility to stress (Heppner et al. 2004).

Furthermore, the construct of problem-solving is pertinent for counselors because counseling involves helping clients effectively manage or resolve their problems (Heppner et al., 2004). Effective counseling entails improving clients' perceptions of their own problem-solving ability (Heppner, Cooper, Mulholland, & Wei, 2001). Based on empirical evidence, problem-solving appraisal appears to be an important dimension of problem-solving ability (Heppner et al., 2004). Consequently, improved problem-solving appraisal seems to significantly affect mastery of problem-solving ability (Shewchuck, Johnson, & Elliott, 2000).

Research has demonstrated a relationship between positive problem-solving appraisal and increased social skills, greater social support, and better psychological adjustment (Heppner &

Lee, 2009). People with higher perceived problem-solving ability also report lower levels of depression, even in high stress situations. In addition, perceived problem-solving ability has been associated with reduced levels of hopelessness in stressful circumstances, as well as decreased risk for suicide (Heppner & Lee). Several researchers have demonstrated significant relationships between stress, self-appraised problem-solving, hopelessness and suicidality (e.g., Bonner & Rich, 1992; Schotte & Clum, 1987). Thus, people with higher perceived problem-solving ability may be better able to ward off depression and hopelessness, both of which are factors of stress or impairment. Moreover, higher self-appraised problem-solving ability has also been associated with beneficial coping behaviors (Heppner & Lee, 2009). Therefore, positive problem-solving appraisal is a valuable resource for counselors-in-training.

Measuring Problem Solving Appraisal

Researchers have devised a number of instruments for assessing problem-solving. One such measure is the Social Problem-Solving Inventory-Revised (SPSI-R; D'Zurilla, Nezu, & Maydeu), which has a long form, consisting of 52 items, and a short form with 25 items. This instrument, however, actually measures individuals' decision-making styles, rather than problem-solving (Lindsey, 2002), and it has "psychometric problems" (Owens, 2002, para. 18). The Ways of Coping Questionnaire (WCQ; Folkman & Lazarus,) consists of 66 items that assess coping styles, however it is not a test. The authors (Folkman & Lazarus as cited by Hess, 2002) specified that the WCQ is not appropriate for test-retest measures and lacks normative data. Another instrument, the Means-Ends Problem-Solving Procedure (MEPS; Platt & Spivak, 1975 as cited in D' D'Zurilla, Chang, & Sanna, 2004) includes 10 hypothetical scenarios in which respondents come up with a number of means to resolve the presenting problem in the story.

This instrument measures problem solution outcomes (D'Zurilla et al., 2004), not one's personal assessment of problem-solving capabilities.

The Problem Solving Inventory (PSI; Heppner, 1988) is a widely used measure of problem-solving appraisal and has favorable psychometric properties (Owens, 2002). Furthermore, the PSI is the only problem-solving inventory deemed to provide a global measure of problem-solving appraisal (Heppner & Lee, 2009), assessing self-perceived ability to cope with and solve problems (Camp, 2004; LoBello, 2004). Additionally, the PSI has over 20 years of empirical support and has been employed in over 120 studies (Heppner et al., 2004). Hence, the PSI was utilized in the present study.

The PSI is a self-report inventory containing 35 items. Three of the items are filler items. Respondents rate items using a 6-point Likert scale, ranging from 1 (*strongly agree*) to 6 (*strongly disagree*). The measure contains three subscales that are added for a total PSI score. Lower scores indicate higher problem-solving appraisal. The first subscale is *Problem Solving Confidence* (PSC), which assesses respondents' self-confidence and trust in ability to resolve problems. The second subscale, *Approach-Avoidance Style* (AAS) measures the general tendency to either approach or avoid problem-solving actions. The final subscale is *Personal Control* (PC), which assesses respondents' belief that they are in control of their emotions and behaviors when dealing with problems (Heppner, Witty, & Dixon, 2004). The PSC and PC subscales measure aspects of problem orientation (i.e., cognitive set and general tendencies). The AAS subscale assesses problem-solving skills (D'Zurilla, Nezu, & Maydeu-Olivares, 2004).

The present study measured problem-solving appraisal because generating positive emotions appears to increase individuals' thought-action repertoire when faced with problematic

circumstances (Fredrickson, 1998, 2001). Neff (2003) noted that positive emotions directed toward oneself in the form of kindness and compassion was positively related to proactive behavior and motivation. Neff further theorized that self-directed positive affect may be related to coping ability. In addition, Neff, Rude, and Kirkpatrick (2007) found that positive affect toward self (i.e., compassion and kindness) when faced with negative or unpleasant circumstances was significantly correlated with personal initiative, exploration, and optimism. Likewise, self-directed positive affect was negatively related to negative affect and neurotic characteristics, such as unfavorable self-judgment, anxiety, and pessimism. In light of all the above, this study examined the hypothesized relationship between positive affect directed toward self and others and self-assessed problem-solving ability measured with the PSI. According to the *Broaden-and-Build Theory* (Fredrickson, 1998, 2001), positive emotions may improve one's self-appraisal of problem-solving through a number of means, such as greater flexibility, increased ability to be creative and generate more alternatives, greater self-confidence, and an improved sense of self-efficacy.

<div align="center">

Constructs/Independent Variable

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Loving-Kindness Meditation

Loving-kindness arises from a Buddhist concept related to compassion, empathy, love, altruism, and connectedness (Kristeller & Johnson, 2005). Loving-kindness meditation (LKM) is a type of insight or mindfulness meditation; however, the aim is to cultivate "compassion, joy, equanimity, and a sense of love and connectedness with others" (Kristeller & Johnson, p. 395). The practice of LKM combines mindfulness, in the form of nonjudgmental awareness of the present moment (Kabat-Zinn, 2005), with the cultivation of kindness, warmth, and compassion

(Fredrickson, 2009). According to the Dalai Lama, in the Buddhist tradition compassion is the desire to see others free from suffering, and it contains two aspects. The first is loving-kindness, which is the desire for others to be happy. The second is connectedness, defined as a sense of endearment, warmth and tenderness toward others (Ekman, 2008). Although loving-kindness meditation has been utilized in research stripped of Buddhist connotations (Fredrickson et al., 2008; Weibel, 2007), these principles remain as part of the process.

Kabat-Zinn (2003) described mindfulness as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (p. 145). Based on this definition, Shapiro, Carlson, Astin, and Freedman (2006) developed a model describing three components of mindfulness. The first is intention, which refers to why someone is practicing meditation. The second is attention, which can be defined as observing one's moment-by-moment internal and external experience. The third component is attitude, which is how an individual participates in the practice, or the "qualities one brings" (pp. 375-376). These three components are implicit in LKM, along with the concept of connectedness (Salzberg, 1995, 2005; Weibel, 2007).

A state of loving-kindness or compassion is defined as "unconditional readiness and availability to help living beings" (Lutz, 2008, para. 17). The process of LKM begins with first directing warmth, love, kindness, and compassion toward oneself. This is the foundation of the practice. From there, the practice is typically expanded to include people for whom the meditator feels gratitude, then to family, friends, and other loved ones. Next, the practice is generally expanded to include neutral people, people with whom the meditator has difficulty, and ultimately to all beings or the entire planet. During the meditation, it is customary to silently

repeat phrases or intentions of loving-kindness (Fredrickson, 2009; Salzberg, 1995, 2005; Weibel, 2007). The typical phrases are "May I be safe, may I be happy, may I be healthy, and may I live with ease." However, meditators may personalize their intentions to suit themselves (Salzberg, 1995, 2005).

Loving-kindness meditation is aimed at training the mind to generate feelings of warmth, kindness, and compassion toward ourselves and others (Fredrickson, 2009); thus, LKM is distinctly different from other mindfulness practices. Consequently, the research on mindfulness does not adequately predict the effects of LKM (Corcoran, 2007) because other mindfulness practices focus on awareness of the present moment, rather than the explicit cultivation of positive emotion. As previously mentioned, MBSR includes one specific loving-kindness meditation during the eight-week program (Kabat-Zinn, 2005; Weibel, 2007).

Studies Related to Current Study

Research on LKM is still in its infancy. For the most part, researchers have disregarded meditation's customary goals, such as compassion, wisdom, and clarity (Walsh & Shapiro, 2006). However, research on LKM emerged early in the 2000's, beginning with the exploration of brain activity resulting from the practice of LKM. The following paragraphs discuss the findings in the LKM research to date. These studies support the possibility of a relationship between LKM and increased empathy, increased stress tolerance, and increased social connectedness. In addition, these studies demonstrate that LKM has been shown to cultivate positive emotions, which is believed to expand cognitive flexibility. Thus, there is evidence supporting the use of LKM as an intervention to improve empathy, perceived social support, and problem solving appraisal in counselors-in-training.

Lutz and colleagues (2004) explored the effects of LKM on brain activity. The researchers utilized electroencephalogram (EEG) to measure gamma-band patterns, which play a part in higher order cognitive processes such as attention, learning, memory, and perception. The study compared expert eight Buddhist meditators with ten novice meditators who received six-weeks of LKM training prior to the study. Participants were instructed to cultivate "a state of unconditional loving-kindness and compassion" (p. 16369) during the study. Results indicated first that baseline profiles were significantly different between the two groups ($p < .001$), suggesting that long-term meditation may alter the resting state of the brain. Second, both groups exhibited increases in gamma-band rhythms during the LKM ($p < .05$), but the expert meditators demonstrated a significantly greater increase in gamma-band activity than the novice group ($p < .05$). These results should be interpreted with some caution due to the small sample size and possible confounding variables. The expert meditators were Tibetan Buddhist monks; therefore, there may be significant lifestyle differences between the two groups that accounted for some of the change. Nevertheless, the findings support the emerging evidence that meditation beneficially alters brain activity.

The first known study specifically utilizing LKM as an intervention investigated its effect on chronic lower back pain (Carson et al., 2005). This study employed an experimental design with a treatment and control group ($N = 43$). Based on the hypothesis that negative emotions, such as anger and resentment, increased pain intensity, researchers examined the possibility that increasing positive affect through LKM would reduce negative affect and pain intensity. The LKM intervention was conducted through eight weekly 90-minute group sessions that included the meditation plus psychoeducation.

Utilizing within group univariate analyses and multilevel modeling, results indicated that participants in the experimental group demonstrated reduced pain intensity and usual pain ($p <$ .05) with a mean effect size of .42. There was also significant reduction in the psychological variables with an effect size of .50: psychological distress, ($p = .02$), anxiety ($p=.05$), 52% reduction in daily anger ($p < .01$) and 45% reduction in daily tension ($p < .01$). The more the patients in the treatment group meditated, the less pain they felt that same day, and the less anger they experienced the following day

Several limitations in the study warrant caution in interpreting results. First, the groups demonstrated initial inequality in baseline anger measures; the treatment group demonstrated lower anger variables at the outset. Additionally, there was a high rate of attrition in the treatment group (41.9%), so only 18 of 31 participants in the LKM group completed the study, compared with 25 out of 30 (16.7%) in the usual care control group. Nevertheless, the findings provided preliminary support for further exploration of LKM as an intervention for pain and negative emotions.

Corcoran (2007) conducted a grounded theory qualitative study on the effects of LKM; participants included two experienced meditation teachers and seven practicing meditators. All nine participants reported helpful changes in emotions, thoughts, behaviors, and relationships resulting from the practice of LKM. The changes in emotional states included (a) reductions in anger, (b) anxiety, (c) fear, (d) helplessness, (e) emotional pain, and (f) judgments; and increases in happiness, well-being, compassion, openness, and self-efficacy. Moreover, participants reported that the ability to practice LKM on other people helped them to develop a greater sense

of acceptance and cognitive empathy. Additionally, practitioners reported greater cognitive flexibility due to increased awareness of choices.

There were also noted effects with respect to relationships. Participants reported feeling better about themselves, being kinder to themselves, and having easier relationships with others. The practice of LKM seemed to improve difficult relationships and decrease feelings of isolation. Participants reported feeling more positive towards the people in their lives and a sense of increased compassion and care overall. They were also able to avoid taking other people's negative behaviors personally and developed a detached concern for others. Finally, some participants experienced a greater sense of connection combined with less blaming of others (Corcoran, 2007).

Based on these results, Corcoran (2007) recommended LKM for caregivers. LKM may increase compassion for self and others, decrease feelings of helplessness, decrease judgmental attitudes, and decrease anger. Additionally, Corcoran posited that LKM may support caregivers in increasing efficacy and preventing burnout.

Weibel (2007) investigated LKM as an intervention to increase compassion in students enrolled in psychology classes ($N = 71$). Participants were randomly assigned into treatment and control groups. The intervention consisted of four weekly 90-minute group sessions and included mindfulness meditations along with LKM. Outcomes were measured with the Self-Compassion Scale (Neff, 2003), the Compassionate Love Scale – Humanity Version (Sprecher & Fehr, 2005), the State-Trait Anxiety Inventory – Trait Form (Speilberger, Gorsuch, & Lushene, 1970), and two measures designed specifically for the study: Weekly Meditation Check and Post Intervention Survey. Results indicated that the treatment group demonstrated greater increases in

self-compassion (effect size .45) and compassionate love (effect size .33) and a greater decrease in trait anxiety (effect size .30, *p*=.014) than the control group.

Fredrickson and colleagues (2008) utilized LKM to test Fredrickson's (1998, 2001) b*roaden-and-build* theory. The study employed an experimental design; the participants were 139 full-time employees at software and information technology company who volunteered for an employee wellness program. The treatment group consisted of 67 participants with 72 in a waitlist control group.

The researchers provided an orientation for participants that outlined the known benefits of meditation but did not describe LKM or the broaden-and-build theory. Fredrickson and colleagues hypothesized that practicing LKM would increase daily positive emotions and build a variety of personal resources that would positively affect participants' mental health and overall life satisfaction. The treatment group participated in six one-hour LKM meditation group sessions held over a period of seven weeks (due to holidays). The mean number of sessions attended was five.

To test for cognitive resources, the researchers utilized the Mindfulness and Awareness Scale, Trait Hope Scale, and the Savoring Beliefs Inventory. To examine psychological resources, they employed the Life Orientation Test, ego-resilience measure (Block & Kremen, 1996), and the psychological resources subscale of Ryff's psychological well-being measure. Social resources were measured by the Dyadic Adjustment Scale and the positive relations with others subscale of Ryff's psychological well-being scale. Physical resources were assessed using an illness symptom self-report measure (Eliott & Sheldon, 1998) and a single item extracted from the Pittsburgh Sleep Quality Index for sleep duration. Outcome measures included the

Satisfaction with Life Scale and the Center for Epidemiological Studies-Depression Measure (excluding the four positively worded items to avoid conceptual overlap with positive emotions). Additionally, participants completed the Modified Differential Emotion Scale and the Daily Report of Mood (DRM) for daily reports of emotions and time spent meditating.

Fredrickson et al. (2008) utilized hierarchical linear models with time nested within individual to investigate the impact of the intervention, passage of time, and time spent meditating on self-reported emotions. The researchers tested the *build hypothesis* with a combined latent growth curve and path-analysis structural equation model (SEM). The data analysis indicated that LKM increased positive emotions in the participants over the course of the study. While results did not indicate a statistically significant increase in compassion or a significant reduction in negative emotions, analysis of the DRM indicated that positive emotions increased during LKM, they persisted after the meditation session ended, and over time, a cumulative increase in positive emotions was evident whether or not the participant meditated that day. The array of positive emotions experienced included "love, joy, gratitude, contentment, hope, pride, interest, amusement, and awe" (Fredrickson et al, 2008, p. 1057). Path analyses supported a significant relationship between increased positive emotions, increased personal resources, and increased life satisfaction. The paths were significant for nine out of the eighteen resources examined: (a) mindfulness, (b) pathways thinking, (c) savoring the future, (d) environmental mastery, (e) self-acceptance, (f) purpose in life, (g) social support received, (h) positive relations with others, and (i) illness symptoms. Even though the increase in positive emotions was small in magnitude and occurred gradually, it was associated with increases in several personal resources, such as mindful attention, good physical health, positive interpersonal

relationships, and greater self-acceptance. These gains in personal resources generated increased life satisfaction and fewer symptoms of depression.

Lutz, Brefczynski-Lewis, Johnstone, and Davidson (2008) examined neuroimaging of participants practicing LKM suggested that cultivating the intent to be compassionate enhanced empathic responses. Researchers used functional magnetic resonance imaging (fMRI) to examine the neurological impact of voluntary cultivation of compassion. Participants ($N = 30$) included novice and expert practitioners of LKM. Results indicated that expert practitioners of LKM were able to cultivate positive emotions that altered the circuitry associated with empathy, defined as "the capacity to understand and share another person's experience" (para. 3). The researchers theorized that empathic response would be amplified by the extent of meditation training. Observed activation in the insula cortex was more intense for those who reported greater intensity of meditative state for both groups; however, expert meditators demonstrated greater activity in the brain regions related to empathy overall. Both novice and expert meditators exhibited stronger neural responses to various audio stimuli during the meditation compared to state of rest. Results indicated that generating the intent to be compassionate can strengthen empathic responses.

Seppala (2009) conducted six studies exploring the relationship between a LKM intervention and social connectedness. The first five studies utilized differing research designs and protocol to investigate the effects of LKM on social connectedness and mood. Study 1 included 33 non-clinical participants and employed a single subject design. Studies 2 and 3 included 93 and 77 psychology students respectively and employed an experimental design with random assignment to either treatment or control groups. Studies 1 and 2 consisted of simplified

versions of LKM with specified targets, whereas Study 3 utilized a more traditional form of LKM with self-selected targets and ultimately including the entire planet.

The results of these first three studies suggested that LKM increases overall implicit and explicit social connectedness with small to moderate effect sizes. However, the effects on mood between Studies 1 and 2 were inconclusive. Study 1 demonstrated an increase in negative emotions, which was attributed to the treatment design (Seppala, 2009). Results of Study 2 suggested that just a few minutes of LKM toward targeted individuals increased positive emotions and decreases negative emotions (Hutcherson, Seppala, & Gross, 2008; Seppala, 2009).

Study 3 (Seppala, 2009) expanded the investigation of emotions using a more traditional form of LKM to compare self-focused emotions, such as self-esteem, self-satisfaction, and pride, with socially connected positive moods, such as affectionate, close to others, friendly, and loving. In addition, this study looked at specific negative emotions, such as angry, bored, sad, and unhappy. Results were that the treatment group exhibited a significant increase in socially connected mood but not in self-focused mood, with no increase in positive mood in the control group. However, both treatment and control groups demonstrated a significant decrease in negative mood.

Study 4 ($N = 174$; Seppala, 2009) explored the difference between traditional LKM and a self-focused positive mood (pride) induction (PMI) on social connectedness. Both LKM and PMI resulted in significantly increased positive mood compared with a neutral control group. The LKM group demonstrated a greater increase in explicit social connectedness with regard to a specified target person than did the PMI group. Similar to the first three studies, Study 4 demonstrated increased explicit social connectedness after practicing LKM. Positive mood

induction also led to increases in positive mood and social connectedness but to a lesser degree than LKM.

Study 5 (N = 161; Seppala, 2009) explored the effect of traditional LKM on both explicit and implicit social connectedness. Findings were that the LKM intervention increased socially focused positive mood, whereas PMI increased self-focused positive mood. Results from the LKM group also indicated greater social connectedness than the PMI or neutral control groups. Study 5 included the IRI, which is utilized in the present dissertation study, and merged it with three other scales as a measure for trait factors. Those participants in the LKM group demonstrated an overall increase in positive emotion, socially focused positive emotion, and explicit connectedness when compared with the PMI and control groups.

Study 6 (Seppala, 2009) explored the influence of trait and mood as moderating variables regarding LKM's effect on social connectedness (N = 109). To accomplish this, the researcher assessed the level of state or trait positive affect of the participants who received the LKM intervention in Studies 4 and 5. The combined dataset of LKM participants demonstrated increases in overall positive emotion, socially focused positive emotion, and explicit connectedness. Results of the combined dataset also showed a significant decrease in negative emotions in the LKM participants. Based on results, the researcher also indicated that there was a possible ceiling effect in positive mood for those participants who rated higher in social connectedness at baseline.

Lexical analysis indicated that participants who made more references to social processes experienced greater increases in overall positive emotions and explicit social connectedness after LKM. Furthermore, there was a correlation between participants who expressed higher optimism

and self-assuredness and changes in positive mood. Thus, certain positive states may have predisposed participants to experience significant changes from LKM (Seppala, 2009).

In addition to the ability to predict changes resulting from positive states, participants with certain baseline negative affect also demonstrated beneficial changes from LKM. Expressed lack of optimism in participants predicted less overall change in positive mood, but negative affect predicted increases in implicit positive emotions after LKM. There was a significant correlation between level of anxiety and a greater increase in explicit positive mood after LKM. Further, there was a correlation between sadness and a greater increase in explicit connectedness after LKM (Seppala, 2009).

Study 6 also indicated significant results with regard to traits. There was a negative correlation between rejection sensitivity and overall positive mood, self-focused positive mood, and socially connected positive mood at baseline. However, those participants who were initially higher in rejection sensitivity experienced a greater reduction in negative mood and a greater increase in implicit positive mood post LKM (Seppala, 2009).

Finally, resulting data indicated relationships between connectedness, mood, and other traits that may have influenced the post LKM results. Agreeableness correlated with increases in explicit connectedness. Openness correlated with increases in both explicit connectedness and positive emotions. These results suggest that certain participant traits may have moderated the effects of LKM (Seppala, 2009). Overall, these studies provide support for the continued exploration of LKM as positive intervention.

There is preliminary support of LKM as a treatment to reduce negative symptoms of schizophrenia (Johnson, Penn, Fredrickson, & Meyer, 2009). Treatment based on Broaden-and-

Build Theory of Positive Emotions (Fredrickson, 1998, 2001). Positive emotions may build

resources such as improved health, improved social relationships, improved intellectual skills,

and increased resilience, thus this a positive emotion generating intervention may be applicable

to negative symptoms of schizophrenia by increasing motivation, social interaction, and

anticipatory pleasure. Further, improvement in these areas may have a positive affect on life

satisfaction. This study described three case illustrations of patients who were assessed at

baseline, after treatment, and at a three month follow-up. One patient demonstrated global

improvement in blunted affect, motivation, and asociality, which in turn provided cognitive

flexibility which appeared to facilitate her treatment. The other two cases demonstrated

improvement in specific domains, such as anhedonia and reduction in hallucinations. These two

patients also expressed difficulty in focusing on the LKM exercises, therefore they relied more

on basic mindfulness meditation.

Compassion-based meditation decreased physiological stress response in 30 students

enrolled in a health education class (Pace Negi, Sivilli, Issa, Cole, Adame, & Raison, 2010).

Participants were administered a standardized laboratory Trier Social Stress Test (TSST) in

which innate immune, neuroendocrine, and distress responses were measured. Results indicated

that a six-week compassion-based meditation intervention downregulated innate immune and

distress responses to psychosocial stress. These findings, along with those of a previous study

(Pace, Negi, Adame, Cole, Sivilli, Brown, Issa, & Raison, 2009), suggested that the compassion

meditation practice, rather than other factors such as psychoeduction and expectancy bias, was

related to the resultant health benefits.

Burgard and May (2010) utilized Metta (loving-kindness) meditation to explore its potential to reduce the attentional blink (AB), which is the failure to detect a second image in rapid serial visual presentations ($N = 39$). One group practiced LKM and the other relaxation in one session for a total of 11 to 12 minutes. This study resulted in no differences between the two groups; however, treatment time may have been an issue.

These studies provide support for generating positive emotions via LKM (Carson et al. 2005; Fredrickson et al., 2008; Hutcherson et al, 2008; Seppala, 2009). The studies also substantiate examining LKM as an intervention that may increase empathy, because it has been shown to increase compassion (Weibel, 2007) and empathic brain activity (Lutz et al.) There is also evidence that LKM increases social connectedness, thus it may increase perceived social support. Finally, positive emotions have been shown to increase cognitive flexibility and environmental mastery (Fredrickson et al., 2008); thus, LKM may increase self-appraisal of problem-solving ability. The protocols utilized by Fredrickson et al. (2008) and Weibel (2007) provided the framework for the current study.

Conclusion

Counseling is based on normal development across the lifespan, incorporating humanistic principles with an emphasis on prevention and wellness. Positive psychology has expanded the focus of psychological research to prevention and the fostering of human potential, which aligns with counseling's focus on optimal human functioning and wellness. Now, the counseling field is recognizing and emphasizing the need for wellness in its practitioners, due to the stressful nature of counseling work.

The current trend of emphasizing wellness, optimal functioning, and prevention supports the exploration of the potential of positive emotions and human strengths. The broaden-and-build theory of positive emotions posits that the experiencing of positive emotions cumulatively over time helps to build psychological, emotional, physical, intellectual, and social resources that individuals may draw on as needed. These resources would be beneficial to counselors, who work in emotionally draining and stressful circumstances. Various means for generating positive emotions have been explored. One intervention that has shown promise for cultivating positive emotions and helping to develop personal resources is meditation.

Research has demonstrated that mindfulness meditation may increase positive affect (e.g., Shapiro & Carlson, 2009). Furthermore, meditation has been shown to be an effective antidote to stress and depression and may buffer against maladaptive stress responses. Meditation can generate calmness, relaxation, and acceptance. LKM is a specific type of meditation that is included in Mindfulness Based Stress Reduction program, but it is just beginning to be explored on its own. Preliminary research indicates that LKM can foster compassion (Weibel, 2007), and connectedness (Seppala, 2009), as well as reduced anger, depression, and anxiety (Carson et al, 2005; Fredrickson et al, 2008; Hutcherson, Seppala, & Gross, 2008); Seppala, 2009). Additionally, positive emotions, generated through meditation, can improve environmental mastery, flexibility in thinking, and creative problem-solving (Isen et al., 1987; Fredrickson et al., 2008). Based on the potential benefits of positive emotions through meditation, this study explored the use of a positive affect based meditation intervention on counselors-in-training.

Taking in to consideration of the potential benefits of positive emotions, this study aimed to target three specific variables associated with counselor efficacy and burnout. The first is counselor empathy, one of the key components in positive counseling outcomes. Moreover, lack of empathy is a distinctive feature of counselor burnout. The second variable is perceived social support. Perception of available social support has been correlated with positive outlook (Brissette et al., 2002), and perceived social support and perceived self-efficacy may buffer counselors against a negative stress response (Koeske & Koeske, 1989).

The third variable is self-appraisal of problem-solving ability. A feeling of lack of accomplishment is another distinctive feature of burnout. Furthermore, counselors must be effective problem solvers as well as have the ability to teach effective problem-solving to their clients. The stress and coping literature emphasize an individual's self-perception of problems and coping ability. According to Lazarus and Folkman (1984), "...quality of life and what we usually mean by mental and physical health are tied up with the ways people evaluate and cope with the stresses of living" (p. 181). Because positive emotions seem to broaden and expand cognitive flexibility in problem-solving, this study explored whether positive emotions generated from LKM could increase problem-solving appraisal.

The American Counseling Association's (ACA) Task Force on Impaired Counselors indicated that a counselor's ability to self-monitor and practice self-care is one of the most important safeguards against impairment (Lawson & Venart, n.d.). Because meditation incorporates self-awareness and self-monitoring, it logically follows that meditation practice may be beneficial for counselors. Furthermore, LKM is specifically intended to increase positive

affect and compassion toward self and others. Thus, in light of the nature of counseling work, LKM seems particularly suited to counselors.

The current study examined whether a six-session loving-kindness intervention could increase empathy, perceived social support, and/or problem-solving appraisal in masters level counseling students. Loving-kindness meditation has shown promise as a means for cultivating positive emotions and developing personal resources. Loving-kindness meditation has also long been considered an antidote to negative mind states (Salzberg, 1995; Weibel, 2007). Therefore, the current study compared a six-week loving-kindness intervention to a wait-list control group, hypothesizing that LKM would increase empathy, perceived social support, and problem-solving appraisal in counselors-in-training.

CHAPTER THREE: RESEARCH METHODOLOGY

Introduction

The primary aim of this study was to investigate the effects of a loving-kindness meditation (LKM) intervention on empathy, perceived social support, and problem-solving appraisal in counseling students based on empirical evidence suggesting that LKM generated positive emotions. The second purpose of the study was to determine if a relationship exists between the amount of time spent meditating and the three dependent variables of empathy (i.e., four subscales), perceived social support, and problem-solving appraisal. This chapter includes the research questions and a description of the research methodology. Statistical data analyses methods are also included.

Research Design and Methodology

Research Questions

1. Will loving-kindness meditation have a positive effect on counseling students' levels of empathy (as measured by the IRI), perceived social support (as measured by the MSPSS), or problem-solving appraisal (as measured by the PSI)?

2. Is there a relationship between reported levels of time spent meditating and empathy, perceived social support, or problem-solving appraisal?

Research Design

This study utilized a quantitative, quasi-experimental pretest-posttest design. A quasi-experimental design is appropriate for use in practical settings when a true experimental design is not possible (Campbell & Stanley, 1963; Heppner, Kivlighan, & Wampold, 1992). A switching

replication format was utilized to collect additional data for Research Question Two. A purposive sample of master's level counselor education students at a large, Southeastern, Council for Accreditation of Counseling & Related Educational Programs (CACREP) university was chosen for this design. Counseling students from two different classes were randomly assigned into treatment and control groups. In addition, the treatment group included volunteer participants not receiving class credit.

Population and Sample

A total of 107 master's level counseling students agreed to participate in this study. Four participants withdrew from the study, leaving a total sample of 103. All participants were students attending a large CACREP-accredited doctoral degree granting university in an urban area of the Southeastern United States. Participants were enrolled in classes in the Counselor Education program with varying levels of time in the graduate program.

Instructors for the Introduction to Counseling class and the Wellness class agreed to provide class time and class credit for participation in the study. A program-wide e-mail was sent out prior to the start of the Fall semester introducing the study and soliciting participants. Seven participants who initially volunteered were enrolled in either the Introduction or Wellness class; therefore, they received class credit for participation. In total, 84 of the participants earned class credit as part of the Introduction to Counseling and Wellness classes. The e-mail resulted in 23 additional participants who received no class credit for participating in the study.

Initially, 62 of the participants were in the Introduction to Counseling class, two of which withdrew from the program, leaving a total of 60. This class has a mandatory experiential psychoeducational group requirement consisting of six-weeks in a wellness group and six-weeks

in an interpersonal skills group. Participants were randomly assigned to one of four groups, two wellness groups and two interpersonal skills groups. Those assigned to the wellness groups received the LKM intervention protocol. Those assigned to the interpersonal skills group served as the wait-list control group for the first half of the semester. Participants switched groups at mid semester.

Twenty-two of the participants were students enrolled in the Wellness class. One of these participants withdrew from the program, leaving a total of 21. This class included an assigned six-hour wellness activity of the student's choice. One option was to participate in this study by attending the LKM group. The group time was scheduled to begin one-half hour before class started and ended one-half hour into the class time, requiring participants to attend class one-half hour early. All students agreed to participate, but one student was unable to attend the group due to the earlier start time. This student's data was included in the control group. The remaining students were randomly assigned to either the treatment or wait-list control group.

Twenty-three participants volunteered to participate in the study without receiving class credit. These self-selected participants were given the option of three different group times. Four of those participants opted to attend during the session for the wellness class, which met on Wednesday evenings, and were included in the random assignment procedure for that class. Those four participants were randomly assigned to attend either the intervention group, which occurred during the first half of the semester, or the wait-list control group. The remaining 19 volunteers chose one of two other available group times, and they all received the treatment during the first half of the semester. However, one volunteer participant did not complete the study.

Informed consent for this research study was obtained from all participants. The demographic information for participants is outlined in Chapter 4 of this study. The demographic details include gender ratios, ages, ethnic make-up, length of time in the master's program, and meditation experience.

Facilitators

There were a total of eight group facilitators for this study. Seven of the facilitators were first year doctoral students. As such, they were required to co-facilitate wellness and interpersonal skills psychoeducational groups for the master's students enrolled in the Introduction to Counseling class. Four of these first-year doctoral students co-facilitated the treatment groups, while the other three facilitated/co-facilitated the interpersonal skills groups (i.e., wait-list control group). Three of the co-facilitators for the LKM groups also had personal experience with meditation.

The groups interchanged at mid semester. Two of the four original facilitators for the intervention groups remained as co-facilitators for the second set of intervention groups. They were joined by two of the other doctoral students who had facilitated the wait-list control groups, which was done to help maintain group cohesiveness as the groups exchanged.

Two additional facilitators were selected because they were experienced meditators. One was a licensed mental health counselor and a doctoral candidate. The other was a post-doctoral instructor in the counselor education program. In addition to their personal meditation experience, both of these facilitators had taught master's level counseling classes and had several years of experience facilitating groups.

To avoid researcher influence or bias, the researcher did not facilitate any of the meditation groups. The researcher is a licensed mental health counselor with over five years experience in meditation. Drawing from experience and research in the areas of counseling, wellness, group facilitation, and meditation practice, the researcher conducted a two hour training session to explain the curriculum for the intervention and highlight important aspects of meditation and mindfulness to ensure all facilitators understood the basic concepts. While the selected facilitators had differing levels of experience in meditation, all held master's degrees in counseling with experience facilitating groups. The researcher also provided audio recordings of loving-kindness meditations for the facilitators enabling them to personally experience the intervention.

Research Setting

The study was conducted on the campus of a large university located in the Southeastern United States. The meditation group for the Wellness class was held in their classroom in the Psychology building. Three of the meditation groups for the Introduction to Counseling class were held in group counseling rooms at the UCF community counseling clinic, and the fourth group met in their classroom in the College of Education Teaching Academy. The meditation groups for the volunteer participants were held in a conference room in the College of Education.

Informed Consent

The researcher explained the study to all participants and obtained the participants' informed consent. The six-week wellness group was a required component of the Introduction to Counseling class; thus, all participants received the LKM intervention during either the first half or second half of the semester. Similarly, a six-hour wellness activity was a required component

of the Wellness class. All but one student in the Wellness class participated in the LKM

intervention during either the first or second half of the semester. Participants were advised that

if they declined to participate in the study, their data would not be used. Their level of

participation in the intervention did not affect their grades in the class. See Appendix A for a

copy of the Informed Consent form.

Group Assignment Procedures

Participants enrolled in the Wellness class, plus the four volunteer participants included

with the wellness class, participated in the informed consent process on the first evening of class.

Participants were advised that the study included a meditation group that met for six weeks. In

accordance with the procedures utilized by Fredrickson et al. (2008), informed consent consisted

of a description of the general benefits of meditation. Loving-kindness meditation and the

broaden-and-build theory were not described. After the informed consent process, the wellness

class participants completed the pre-intervention surveys. Participants were randomized in

advance into the LKM intervention or wait-list control condition using the class roster and a

random numbers table. They were advised of their group start date upon completion of the

pretests. Two students were not present the first night of class. The investigator arranged to have

those participants complete the pretests prior to commencement of the LKM groups the second

week of class.

Participants in the Introduction to Counseling class received informed consent the second

week of class. In accordance with the procedures utilized by Fredrickson et al. (2008), informed

consent consisted of describing the general benefits of meditation. Loving-kindness meditation

and the broaden-and-build theory were not described. After the informed consent process, the

Introduction class participants completed the pre-intervention surveys. Participants were randomized in advance into one of the two LKM or two wait-list control groups using the class roster and a random numbers table. Participants were advised of their group assignments and facilitators upon completion of the pretests. The investigator made arrangements for any students not present that night to complete the pretests before the first group session began the following week.

The remaining volunteer participants met with the investigator and their group facilitator for an orientation session on their selected evening for the LKM group. At this session, participants completed the informed consent process and the pre-intervention surveys. In accordance with the procedures utilized by Fredrickson et al. (2008), informed consent consisted of a description of the general benefits of meditation. Loving-kindness meditation and the broaden-and-build theory were not described. Brief introductions were made. Participants in the Thursday evening group were advised they would begin the meditation sessions the following week. Participants in the Monday group were advised they would begin after two weeks due to a holiday.

Loving-Kindness Meditation Intervention

Based on the protocol utilized by Fredrickson et al. (2008), the LKM intervention consisted of six weekly 60-minute sessions in a group format. Groups consisted of 13 to 17 participants. There were a total of three treatment groups and three wait-list control groups for the students receiving class credit. The intervention consisted of 30 minutes for check-in, processing, and psychoeducation related to meditation and counselor wellness, 10 to 20 minutes for the LKM exercise, and the remaining 10 to 20 minutes for processing and discussion. The

psychoeducation aspect of the treatment explicitly connected meditation with counselor wellness. Throughout the intervention, participants were encouraged to remain mindful and to practice loving-kindness principles in their daily lives.

To strengthen the research design, a self-selected treatment group was included to provide a sample of strictly volunteer participants. Twenty-three people volunteered to participate without receiving class credit. These participants had a choice of three different nights for their LKM groups. Because their chosen groups met on three different evenings, there were not enough volunteer participants to allow for random assignment to treatment and wait-list control groups. However, four of the volunteers were included in the random assignment process in the Wellness class. One of those volunteers was assigned to the control group. Consequently, all but one of the volunteers received the treatment during the first half of the semester. The individual in the control group was unable to participate in the treatment during the second half of the semester due to a change in work schedule. The remaining 19 participants received the treatment during the first half of the semester on their selected night. Due to a scheduling conflict, one participant attended one group for two weeks and then switched to another group for the remaining four weeks. All other participants remained with their group to foster group cohesion.

The investigator developed a manual specifically for this research study that included scripts for the psychoeducation sessions, handouts for the lessons, and scripts for the meditations. In addition, the investigator developed session outlines delineating the time allotted for each component of the session (see Appendix B) and advised facilitators to teach the psychoeducation portion in a manner comfortable to them but to use the scripts for the meditation. All facilitators

were experienced in running counseling groups, thus the investigator advised them to utilize their counseling skills for the discussion and processing during the sessions.

The present study utilized meditation scripts primarily from Weibel (2007) in the LKM sessions. Additional nominal verbiage was included from the MARC website, Fredrickson et al. (2008), and Salzberg (2005). The investigator chose to base the LKM scripts on Weibel (2007) as that verbiage had been utilized effectively in meditation groups for college students. Moreover, the meditations were developed in accordance with the manner in which MBSR delivers group meditation of Buddhist origin to a secular audience while maintaining the central themes of mindfulness and loving-kindness mediation (Kabat-Zinn, 2005; Weibel, 2007). Table 1 provides an overview of the objectives for each of the six sessions.

Table 1: Loving-Kindness Meditation Group Session Objectives

Session 1
Introduce group members and leaders to each other.
Discuss purpose of group – clearly indicate that they should not share this info with other students until the 6 weeks is over
Introduce concepts of mindfulness & loving-kindness meditation (LKM)
Begin practice of LKM
Distribute meditation CD's & logs
Session 2
Introduce students to concept of burnout in counselors and the consequences for clients.
Discuss importance of counselor self-care & strategies
Practice LKM exercise
Facilitate student discussion
Session 3
Introduce students to six areas of wellness.
Help students identify how self-perception and thinking patterns affect aspects of wellness.
Practice LKM – expanding to include loved ones
Distribute In-Vivo exercise as another option for practicing loving-kindness meditation
Session 4
Provide psychoeducation on benefits of connectedness
LKM practice expanded to include neutral people

Session 5
>Check in on previous week's practice.
>Provide psychoeducation on empathy
>Expand LKM practice to include a difficult person

Session 6
>Brief review
>Expand LKM to include all beings
>Closure
>Complete posttests

Facilitator Training

The researcher provided a two-hour training to the group facilitators. The training

consisted of psychoeducation regarding loving-kindness meditation and group facilitation. The

facilitators received an audio-recording of loving-kindness meditation facilitated by the

researcher as part of the training. The facilitators were also instructed to listen to the on-line

meditation from MARC to familiarize themselves with the meditation for use in the first group

session. The facilitators were provided with manuals including scripts for the group curriculum

and the meditations, as well as copies of the psychoeducational handouts for the participants.

Scripts were provided for the sessions, but the investigator instructed the facilitators to deliver

the psychoeducational sessions in language that was comfortable to them. However, they were

instructed to utilize the scripts when facilitating the meditations. The group facilitators were

advised that the researcher would randomly attend treatment groups to ensure fidelity of

treatment via a checklist (see Appendix C).

Control Group

Participants did not know if they would be in the treatment or control group until after

completion of the pretest instruments. Participants were not explicitly informed that they were in

the control group. They were advised that they would participate in the meditation group during

the second half of the semester. They completed the posttest instruments at the same time as the participants in the treatment group. The wait-list control groups completed a second posttest upon completion of their six-session intervention to provide additional correlational data.

Instrumentation

This study utilized three self-report data collection instruments that were administered pre-intervention, at the conclusion of the first treatment period of six sessions, and again after the second group (i.e., the wait-list control group) completed six weeks of the treatment. The third administration of the questionnaires served as a posttest for the wait-list control group participants receiving the intervention during the second half of the semester to provide additional data to use in correlational analysis. All participants also completed a demographic questionnaire pre treatment, weekly meditation logs and posttest questionnaires designed by the investigator.

Demographic Questionnaire and Weekly Meditation Logs

All participants completed a Demographic Questionnaire along with the pretest measures. The Demographic Questionnaire gathered information regarding age, sex, race, education, and employment. In addition, information was collected regarding meditation experience, spirituality, stress, wellness, and life satisfaction (see Appendix D).

While participants were in the LKM groups, they completed Weekly Meditation Logs documenting time spent daily practicing formal meditation in between group sessions. The logs also asked if the participant listened to the CD that was provided for the study, and if so, which track they listened to. Finally, each log asked participants to rate how well they were able to

bring the attitudes, intentions, and principles discussed in the group into their daily lives. They were provided options ranging from *Strongly Disagree* to *Strongly Agree* (see Appendix E).

Posttest Questionnaires

During the final session of the LKM intervention, participants in the treatment group completed a Posttest Questionnaire along with the three outcome measures. This questionnaire collected data regarding meditation practice, self-rated level of participation, satisfaction with LKM and the effect the meditation had on their mood. There was also an open-ended section for comments (See Appendix F). Participants in the control group completed a Meditation Study Questionnaire along with the three outcome measures. This questionnaire collected information regarding meditation, relaxation, prayer, and exercise (see Appendix G).

Interpersonal Reactivity Index

The Interpersonal Reactivity Index (IRI; Davis, 1980, 1996) is the most widely researched and utilized measure of empathy for social situations (Greason, Cashwell, et al., 2009; Cliffordson, 2002). The IRI was selected for use in this study because it examines empathy as a multidimensional construct, addressing both the emotional and cognitive aspects of empathy. Genuine empathy, consisting of both aspects of empathy, is necessary for developing therapeutic alliance with clients (Greason & Cashwell, 2009; Skovholt, 2001).

The IRI (Davis, 1980) contains a total of 28 self-report items and is divided into four subscales. Each of the four subscales includes seven items rated on a five-point Likert scale, ranging from 1 = *does not describe me* to 5 = *describes me well*. The first subscale is Perspective Taking (PT), which addresses the cognitive aspect of empathy by measuring the tendency to assume another person's viewpoint. The second subscale is Fantasy (FS), which assesses the

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ability to identify with fictional characters. The third subscale is Empathic Concern (EC), which examines the tendency toward compassion, warmth, and concern for others. The last subscale is Personal Distress (PD); the items in the PD subscale are reverse-scored and assess the propensity for experiencing self-focused discomfort or anxiety when witnessing negative emotions in others (Davis, 1983b; Cliffordson, 2002; Constantine, 2001). The IRI was designed for individual interpretation of each subscale to capture the multidimensional nature of empathy. Higher scores suggest higher levels of empathy (Davis, 1980).

The IRI demonstrates acceptable internal reliability. The final form of the instrument was normed on a population of 1,161 college students, with 579 males and 582 females. Standardized alpha coefficients for the four subscales range from .70 to .78 (Davis, 1980). Research has supported the four factors included in the instrument (Cliffordson, 2002; Davis, 1983b). The overall Cronbach's alpha coefficient for the IRI with the data in the current study was acceptable at .74.

Problem-Solving Inventory

Problem-solving appraisal is an important construct in applied problem solving. The Problem-Solving Inventory (PSI; Heppner, 1988) assesses perception of problem-solving styles, as well as behaviors and attitudes associated with problem solving (Heppner & Wang, 2003). The PSI is intended to measure individuals' awareness and appraisal of their problem-solving confidence, which is a key issue for counselors when working with clients (Fischer & Corcoran, 2007). The instrument specifically applies to the counseling field and assesses perceptions of ability, style, behavior, and attitudes with respect to coping and problem-solving skills (Fischer & Corcoran, 2007; Nezu, 1985).

The PSI is a 35-item self-report inventory utilizing a 6-point Likert scale, ranging from 1 = *strongly agree* to 6 = *strongly disagree*. There are three subscales: (a) Problem-Solving Confidence, (b) Personal Control, and (c) Approach-Avoidance Styles. The instrument also includes three filler items. Barlow (2007) suggested that the PSI is psychometrically sound and effective for use in clinical research.

Problem-Solving Confidence is the belief and trust in one's own ability to manage a variety of problems as well as coping abilities. *Approach-Avoidance Style* refers to a tendency to either approach or avoid problem-solving behavior. *Personal Control* reflects emotional overreaction and behavioral control. Higher scores indicate lower confidence in problem-solving ability, avoidant problem-solving style, and lack of personal control (Heppner & Lee, 2009).

The PSI has strong reliability; the Cronbach's alpha for the total inventory is .91. The internal consistency of the three subscales ranges from .90 to .95 (Fischer & Corcoran, 2007; Heppner & Lee 2009). The three-factor structure has been supported over a range of populations (Heppner & Lee, 2009). The PSI was normed on a population of 1,165 individuals. The majority of the norming population consisted of college students, however small elderly and clinical populations were included (Fischer & Corcoran, 2007). Subsequent research has demonstrated that PSI scores are stable across time for varying populations and cultures (Heppner & Wang, 2003; Heppner et al., 2004). The Cronbach's alpha for the PSI in the present study was .89.

Multidimensional Scale of Perceived Social Support

The Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) is a 12-item scale used to assess three aspects of perceived social support: (a) support from *Friends*, (b) support from *Family*, and (c) support from *Significant*

Others. There are four items per subscale, and each uses 7-point Likert scale ranging from 1 = *very strongly disagree* to 7 = *very strongly agree*. Higher scores indicate higher levels of perceived support.

The MSPSS has demonstrated high reliability. The alpha coefficient for the total scale is .90, and coefficients for the three subscales range from .90 to .95 (Fischer & Corcoran, 2007). Confirmatory factor analysis utilizing clinical and non-clinical samples supported the three-factor structure (Clara et al., 2003), with effect sizes ranging from .44 to .95. Clara et al. (2003) also found a negative correlation between level of perceived social support and depressive symptoms, suggesting that social support may have a buffering effect against psychological distress. Barlow (2007) suggested that the MSPSS is psychometrically sound and appropriate for clinical research. The Cronbach's alpha for the MSPSS in the present study was .92.

Data Collection

After obtaining approval from the Institutional Review Board (IRB), the researcher disseminated informed consent forms to each participant during the first Wellness class, the second Introduction to Counseling class, and orientation sessions prior to commencement of the self-selected groups. See Appendices H and I for the IRB approval letters. The investigator explained the purpose and procedures of the study and administered four pre-intervention instruments: (a) demographic questionnaire, (b) IRI, (c) PSI, and (d) MSPSS to all participants. Once the instruments were completed, the researcher collected the assessment forms and advised participants of their assigned groups and facilitators, which had been randomly determined in advance. The researcher placed all forms in a file and locked them in a file cabinet in the counselor education office.

The treatment group participants received their daily meditation logs during each group session. They recorded their time spent in meditation and utilization of the audio recordings during the week between sessions and submitted their logs to their group facilitators on a weekly basis. The researcher collected the forms from the facilitators each week and placed them in a file, locking them in a cabinet in the counselor education office.

All participants in the control and treatment groups completed their post-intervention surveys at the same time, during the sixth session. The post-intervention assessment battery included the IRI, the MSPSS, the PSI, and a post-intervention questionnaire. Posttests were administered at midterm and again at the end of the semester. Thus, there were three data collection times, including pre-intervention, post-intervention, and follow-up outcome measures.

Confidentiality

All forms were coded with no identifying information. The researcher began entering data into SPSS 18.0 at mid-term, upon culmination of the first six-session groups. The follow-up posttest data was entered at the end of the 15-week semester. The SPSS database was password protected and contained no identifying information.

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Data Analysis

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All statistical analyses were performed using SPSS 18 (2009) PASW package. Descriptive statistics were generated from the demographic questionnaires. The range and distribution of the demographic data was reported using standard deviations and percentages.

Research Question 1

Mixed Mode Multivariate Analysis of Variance (MANOVA) and Mixed Mode Analysis of Variance (ANOVA)

To test the first research question, "Will loving-kindness meditation have a positive effect on counseling students' levels of empathy (as measured by the IRI), perceived social support (as measured by the MSPSS), or problem-solving appraisal (as measured by the PSI)?" several repeated measures mixed-mode analysis of variance procedures were conducted. Univariate (ANOVA) and multivariate (MANOVA) analysis of variance procedures are useful when investigating the difference between groups in conjunction with a researcher manipulated independent variable, such as an experimental treatment (Hair, Black, Babin, Anderson, & Tatham, 2006). ANOVA procedures provide the ability to judge if the observed effects are due to a treatment effect, as opposed to random sampling variability. The MANOVA allows for the simultaneous analysis of several related dependent variables, whereas ANOVA examines a single dependent variable (Hair et al.)

The IRI assesses the multidimensional construct of empathy with four separately interpreted subscales; therefore, a repeated measures mixed mode MANOVA was used to determine if there was a difference between two groups (i.e., treatment and control group) and within groups (i.e., at pretest and posttest) with regard to IRI subscale scores. Global scores can be used on the MSPSS to assess perceived social support and on the PSI to assess problem-solving appraisal; therefore, repeated measures mixed mode ANOVAs were used to determine if there was a difference between the two groups from pretest to posttest with regard to MSPSS and

PSI scores. Higher scores on the MSPSS indicate higher perceived social support; whereas, lower scores on the PSI indicate higher perception of problem-solving ability.

Pearson's product-moment correlation was performed to further explore Research Question 1. The theoretical framework for this study maintained that the experiencing of positive mood resulting from LKM was associated with increased internal resources (i.e., in this study, empathy, perceived social support, and problem-solving appraisal). One question on the posttest questionnaire pertained to mood resulting from LKM, which was explored using Pearson's product-moment correlation coefficient. Descriptive information was consulted to examine level of satisfaction with LKM and self-reported level of participation.

Research Question 2

Spearman's Rank Correlation Coefficient Analysis

Spearman's rank correlation coefficient was used to test the second research question, "Is there a relationship between reported levels of time spent meditating and empathy, perceived social support, or problem-solving appraisal?" This procedure is appropriate because the data was not normally distributed (Pallant, 2007). The data for weekly mean meditation time contained numerous outliers due to several participants' regular practice of meditation during the study, which resulted in much higher weekly means for those participants. The majority of participants practiced sporadically, or very little. Therefore, to retain important data, the researcher elected to utilize the rank order procedure of Spearman's rho. This procedure examined the mean number of minutes spent in weekly meditation and the three outcome measures to determine if increased time spent meditating improved participants' scores.

CHAPTER FOUR: RESEARCH FINDINGS

This section presents the results of the effect of LKM on counseling students' empathy, perceived social support, and problem-solving appraisal, as well as the relationship between these three factors and time spent meditating. First, this chapter delineates the demographic characteristics of the participants. Second, this chapter addresses the two research questions posed in this study by describing the results of the statistical analyses that were performed

Demographic Characteristics

A total of 107 females ($n = 94$, 88%) and males ($n = 13$, 12%) agreed to participate in this study. Of these, three students withdrew from the program and one volunteer participant did not complete the posttest, leaving a total of 103 participants who completed the first two observations (i.e., pretest and posttest). All four participants who withdrew from the study were female.

The mean age of the counseling student participants was 27.5 ($SD = 8.2$), ranging between 20 and 57 years of age, with a modal age of 23. All participants were graduate students enrolled in counselor education classes at a large Southeastern university. Slightly over one half of the participants were in their first semester ($n = 57$, 53%). The reported racial composition of the overall sample included Caucasian ($n = 80$, 75%), Hispanic ($n = 12$, 11%), Black ($n = 4$, 4%), Asian ($n = 2$, 2%) and Other or Biracial ($n = 9$, 8%). Fifty-one percent ($n = 56$) of the participants reported that they have tried meditating in the past but only 12% ($n = 13$) reported that they currently meditated.

Demographic information also included current self-reported levels of stress, life satisfaction, and wellness. Ten percent ($n = 11$) of the participants reported that their stress level was low, 54% ($n = 57$) reported having a moderate stress level, 26% ($n = 28$) reported a high stress level, and 9% ($n = 10$) reported having a very high stress level. Two percent ($n = 2$) reported a low level of life satisfaction, 24% ($n = 26$) reported moderate life satisfaction, 61% ($n = 65$) reported high level of life satisfaction, and 13% ($n = 14$) reported very high life satisfaction. Six percent ($n = 7$) reported low level of wellness, 43% ($n = 46$) reported moderate, 49% ($n = 52$) reported high, and 2% ($n = 2$) reported very high level of wellness. Two percent of the participants did not report this information.

Results Related to Broaden-and-Build Theory of Positive Emotions

Because the theoretical foundation for this study was the broaden-and-build theory of positive emotions, correlations between mood and other variables were examined. Descriptive statistics indicated that the majority of participants ($n = 64$, 64%) indicated improved mood resulting from LKM, 31% ($n = 30$) reported no difference in resultant mood, and 5% ($n = 5$) reported worse mood resulting from LKM.

To further explore the broaden-and-build theory as the basis for this study, relationships between mood and outcomes were examined using Pearson product-moment correlation coefficient. Small correlations were found between mood and Perspective Taking (PT; $r = .2$, $n = 96$, $p = .05$) and Emotional Concern (EC; $r = .22$, $n = 96$, $p = .03$). No correlations were found between mood and perceived social support, mood and problem-solving appraisal, mood and FS, or mood and PD.

Finally, data was collected on several variables having the potential to affect study outcomes. The first was self-reported level of participation in the study. Five percent ($n = 5$) indicated *none*, 66% ($n = 65$) indicated *moderate*, 29% ($n = 29$) indicated *high*. The second was the number of LKM groups attended. Out of the 99 participants who answered this question, 64% ($n = 63$) attended all 6 sessions, 23% ($n = 23$) attended 5 sessions, 9% ($n = 9$) attended 4 sessions, 3% ($n = 3$) attended 3 sessions, and 1% ($n = 1$) attended only 1 session. The final variable having the potential to affect outcomes of the study was level of satisfaction with LKM ($n = 99$). Four participants (4%) were *very dissatisfied*; 24 were *dissatisfied* (24%); 54 were *satisfied* (55%); and 17 were *very satisfied* (17%).

Results for Research Questions

This study explored the effects of a LKM intervention on factors related to counselor development and wellness. More specifically, this study investigated whether or not a LKM intervention would have a positive effect on self-reported empathy, perceived social support, and problem-solving appraisal of masters'-level counseling students. Research Question One addressed one independent variable (group membership) with two levels (treatment and control group). The analysis investigated whether mean differences would result within groups and between groups for three constructs (multidimensional empathy, perceived social support, and problem-solving appraisal). The analysis consisted of a mixed-mode multivariate analysis of variance (MANOVA) for the multidimensional construct of empathy. Mixed-mode analysis of variance (ANOVA) was performed to investigate perceived social support and problem-solving appraisal, which were each assessed by a single total score.

The second research question explored any possible relationship between the amount of time spent practicing meditation and posttest scores for the three dependent variables. This analysis consisted of a Spearman Rank Order Correlation. Weekly mean meditation time was calculated for participants in the treatment group and the wait-list control group after each received the treatment. Thus, dependent variable scores from observation two were used for the treatment group, and dependent variable scores from a third observation time were used for the wait-list control group upon completion of their intervention, which they received during the second half of the semester.

Treatment and Control Group Characteristics

Analyses of variance (ANOVA's) were conducted to investigate any group differences between treatment and control group with regard to several independent variables. Results examining the variables of sex ($F[1, 105] = 1,62, p > .05$), race ($F[1, 105] = 1.46, p > .05$), age ($F[1, 105] = .328, p > .05$), stress level ($F[1,104] = .006, p > .05$), wellness level ($F[1, 105] = 2.14, p > .05$), and life satisfaction level ($F[1, 105] = .007, p > .05$) indicated no difference between the groups.

Independent t-tests were conducted to examine any pretest mean differences between treatment and control group. There were no significant differences between the treatment and control group on initial *Fantasy* (FS) scores, *Personal Distress* (PD) scores, *perceived social-support* (MSPSS), or *problem-solving appraisal* (PSI) scores. Results indicated that there were initial differences on *Perspective Taking* (PT) and *Emotional Concern* (EC) scores between groups at pretest. The results of the t-tests examining pretest comparisons between groups are

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presented in Table 2. Table 3 presents the means and standard deviations for treatment and

control groups for each pretest measure.

Table 2: Comparison of Pretest Scores Between Treatment and Control Group

	Levene's Test		t-test for Equality of Means		
Source	F	p	t	df	p
PT	.003	.955	3.376	105	.001
FS	.141	.708	1.449	105	.150
EC	8.731	.004	2.568	103	.012
PD	.862	.355	1.810	105	.073
MSPSS	1.470	.228	1.300	105	.195
PSI	.045	.833	1.792	105	.076

Table 3: Pretest Means and Standard Deviations for Treatment and Control Group

Source	Group	Mean	SD
PT	Treatment	26.74	3.69
	Control	29.19	63.63
EC	Treatment	27.20	4.50
	Control	29.14	3.31
FS	Treatment	24.57	4.68
	Control	25.93	4.83
PD	Treatment	18.37	4.35
	Control	16.67	5.32
MSPSS	Treatment	70.08	13.20
	Control	73.10	8.82
PSI	Treatment	79.46	17.95
	Control	73.02	18.45

Research Question One Results

Multidimensional Empathy

The first part of Research Question One examined the effect of LKM on four empathy subscale scores on the IRI. Because the subscales on the IRI are intended to measure the multidimensional construct of empathy as opposed to a combined empathy score (Davis, 1980), repeated measures mixed-mode multivariate analysis of variance (MANOVA) was conducted to compare pre and posttest scores within and between treatment and control groups.

Although samples sizes were unequal for these groups, the treatment group was less than twice the size of the control group, which is acceptable (Pallant, 2007). Box's M test of equality of covariance was significant ($p < .001$), so the assumption of equal covariance was violated. However, Box's M test is particularly sensitive to deviations from normality (Hair et al., 2006). Tests for skewness and kurtosis were conducted and determined that the Emotional Concern (EC) scores at observation time one were slightly skewed, nearly within two standard deviations ($g_1 = -.488$). Review of the histogram revealed that the scores were negatively skewed, indicating that participants responded at the higher end of the scale at the outset. It is common in the social sciences that data are not normally distributed, and the statistical tests are generally considered to be robust enough to accommodate departures from normality for sample sizes larger than 30 (Pallant). However, because of the assumption violations, Pillai's Trace statistic was consulted, as this test is more robust than the commonly used Wilks' Lambda (Pallant).

Results from the multivariate test indicated a significant interaction effect between time and treatment, Pillai's Trace = .105, $F(4, 98) = 2.89$, $p = .026$, *partial* $\eta^2 = .105$. Univariate test results were consulted to determine which of the four subscales demonstrated a significant time

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and treatment interaction effect. Results indicated that there was no interaction effect between time and treatment for either of the two affective empathy subscales: EC $F(1, 101) = 1.35$, $p > .05$, *partial* $\eta^2 = .013$ and PD $F(1, 101) = .213$, $p > .05$, *partial* $\eta^2 = .002$. Between subjects treatment main effect results for these two subscales were also not statistically significant: EC $F(1,101) = 3.204$, $p > .05$, *partial* $\eta^2 = .031$ and PD $F(1,101) = 2.6$, $p > .05$, *partial* $\eta^2 = .025$. Since there was no time and treatment interaction effect for EC or PD, the univariate test results were consulted and determined a main effect for time for both affective subscales. These results are presented in Table 4.

Table 4: Time Main Effect on Affective Empathy for Treatment and Control Groups

| | *n* | Pretest | | Posttest | | |
		M	*SD*	*M*	*SD*	
EC	103	27.95	4.025	29.39	3.48	
PD	103	17.75	4.68	16.83	5.34	

Source	*SS*	*df*	*MS*	*F*	*p*	*Partial* η^2
EC	81.46	1	81.46	6.75	.011	.063
PD	38.17	1	38.17	8.1	.005	.074
Error	1218.45	101	12.06			

A simple main effects test was conducted to determine the effect sizes of the change

within the control and treatment groups for the two affective empathy subscales (EC and PD), as

assessed by *partial* η^2. These results indicated that the increase in EC scores for the treatment

group was statistically significant. There was a large (Sink & Stroh, 2006) relationship between

the LKM treatment and the increase in EC scores. The LKM treatment accounted for 11.5% of

the variance in EC scores in the treatment group. There was no change in EC scores for the

control group. These results are presented in Tables 5 and 6.

Table 5: Simple Main Effects of LKM on EC for Treatment Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
EC	64	27.34	4.38	29.22	3.53	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial* η^2
EC	112.5	1	112.5	8.21	.006	.115
Error	863.50	63	13.71			

Table 6: Simple Main Effects of LKM on EC for Control Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
EC	39	28.95	3.16	29.67	3.44	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η^2*
EC	10.05	1	10.05	1.08	.306	.028
Error	354.95	38	9.34			

The results of the test of simple main effects for the PD subscale indicated that the decrease in PD scores for the treatment group was statistically significant. There was a moderate (Sink & Stroh, 2006) relationship between the LKM treatment and the decrease in PD scores, as assessed by *partial η^2*. The LKM treatment accounted for 8.8% of the variance in PD scores in the treatment group. There was no change in PD scores in the control group. These results are presented in Tables 7 and 8.

Table 7: Simple Main Effects of LKM on PD for Treatment Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
PD	64	18.39	4.38	17.36	5.22	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η^2*
PD	34.03	1	34.03	6.11	.016	.088
Error	350.97	63	5.57			

Table 8: Simple Main Effects of LKM on PD for Control Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
PD	39	16.69	5.02	15.95	5.50	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η^2*
PD	10.78	1	10.78	3.29	.078	.080
Error	124.72	38	3.28			

There was a statistically significant interaction effect between time and treatment for the two cognitive empathy subscales: PT $F(1,101) = 5.05$, $p = .027$, *partial* $\eta^2 = .048$ and FS $F(1, 101) = 9.46$, $p = .003$, *partial* $\eta^2 = .086$. A simple main effects test was conducted for the two cognitive subscales (PT and FS) exhibiting the statistically significant time and treatment interaction effect. People who received the treatment scored higher on the posttest than pretest on the PT and FS subscales, compared to those in the control group. The results for the PT subscale are presented in Tables 9 and 10.

Table 9: Simple Main Effects of LKM on PT for Treatment Group

	n	Pretest		Posttest		
		M	*SD*	*M*	*SD*	
PT	64	26.83	3.65	29.05	3.78	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial* η^2
PT	157.53	1	157.53	13.18	.000	.213
Error	582.47	63	9.25			

Table 10: Simple Main Effects of LKM on PT for Control Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
PT	39	29.21	3.68	29.51	3.08	

Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η²*
PT	1.85	1	1.85	.232	.63	.006
Error	302.15	38	7.95			

Tables 11 and 12 present the results for the FS subscale.

Table 11: Simple Main Effects of LKM on FS for Treatment Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
FS	64	24.63	4.70	26.33	5.26	

Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η²*
FS	92.82	1	92.82	13.18	.001	.173
Error	443.68	63	7.04			

Table 12: Simple Main Effects of LKM on FS for Control Group

		Pretest		Posttest		
	n	*M*	*SD*	*M*	*SD*	
FS	39	25.97	4.98	25.23	6.47	
Source	*SS*	*df*	*MS*	*F*	*p*	*Partial η^2*
FS	10.78	1	10.78	1.24	.273	.032
Error	330.72	38	8.70			

Perceived Social Support

A one-way between-groups analysis of variance (ANOVA) was conducted to compare the effectiveness of LKM on counseling students' perceived social support. The independent variable was the LKM intervention. The dependent variable consisted of the total posttest scores on the MSPSS. Assumption testing verified equality of variance and covariance. However, tests for normality indicated that data were kurtotic ($g_2 = 4.94$) and negatively skewed ($g_1 = -1.93$), indicating very high levels of perceived social support. However, ANOVA was deemed a suitable procedure because the test is generally robust enough to accommodate violations of normal distribution for sample sizes greater than 30 (Pallant, 2007).

A repeated measures mixed between-within subjects ANOVA was conducted to assess the impact of the LKM intervention on MSPSS scores of counseling students pre-intervention

and at posttest, compared with a control group. There was no significant interaction between type of group (treatment or control) and time, Wilks Lambda = .992, $F(1, 101) = .766$, $p > .05$, *partial* $\eta^2 = .008$. There was also no significant main effect for time, Wilks Lambda = .989, $F(1, 101) = 1.16$, $p > .05$, *partial* $\eta^2 = .011$.

Problem-Solving Appraisal

A repeated measures mixed-mode ANOVA was conducted to compare the effectiveness of LKM on counseling students' problem-solving appraisal. The independent variable was the LKM intervention. The dependent variable consisted of the total posttest score on the Problem Solving Inventory (PSI). All assumptions were met.

A mixed between-within subjects ANOVA was conducted to assess the impact of the LKM intervention on PSI scores of counseling students pre-intervention and at posttest, compared with a control group. There was no significant interaction between type of group (treatment or control) and time, Wilks Lambda = .994, $F(1, 101) = .595$, $p > .05$, *partial* $\eta^2 = .006$. There was also no significant main effect for time, Wilks Lambda = .984, $F (1, 101) = 1.68$, $p > .05$, *partial* $\eta^2 = .016$.

Research Question Two Results

The purpose of this investigation was to determine if there was a significant relationship between weekly mean meditation time and outcome variables. The relationship between mean weekly meditation (as measured by mean meditation time calculated from completed meditation logs) was investigated using Spearman's rho correlation coefficient. There was a medium (Cohen, 1992) positive correlation between meditation time and the cognitive empathy subscale

for Perspective Taking (PT), $r_s = .292$, $n = 96$, $p = .004$, with higher meditation times correlated with higher levels of perspective taking. No significant relationships were found between mean weekly reported meditation time and IRI subscales of EC, PD, FS; perceived social support (as measured by MSPSS); or problem-solving appraisal (as measured by PSI). The correlation results are presented in Table 13.

Table 13: Correlations Between Mean Meditation Time and Outcome Variables

Weekly Meditation Mean		
	Correlation	Significance
Perspective Taking	.292	.004*
Fantasy	.103	.318
Emotional Concern	.024	.819
Personal Distress	-.111	.281
Perceived Social Support	-.069	.504
Problem-Solving Appraisal	-.064	.534

*Significant at .05 Level

Conclusion

In conclusion, Chapter Four presented the results of two research questions. The first question investigated the effects of LKM on empathy, perceived social support, and problem-solving appraisal. The second question examined the relationship between time spent in meditation and the three outcome variables. Results of statistical analyses indicated a significant treatment effect for the two cognitive empathy subscales of PT and FS and the two affective subscales of EC and PD. The strength of the relationship between the LKM treatment and improvement in all four empathy subscales was moderate to large. No main treatment effects were observed for any of the other outcome variables. Furthermore, only a small correlation was found between weekly mean meditation time and the cognitive empathy subscale PT. No other statistically significant relationships were indicated.

The following chapter provides a brief overview of the current study. In addition, a discussion of the findings resulting from the statistical analyses is included with respect to both research questions. The next chapter presents the implications for counselor education arising from this study, as well as limitations and recommendations for future research.

CHAPTER FIVE: DISCUSSION

This chapter first provides a brief summary of this study, including the purpose and research design. Next, the conclusions based on the results of the statistical analyses are presented. Finally, this chapter discusses the limitations, implications for counselor development, and recommendations for future research.

Summary of the Study

The purpose of this study was to investigate the effect of a loving-kindness meditation intervention on variables related to counselor development. More specifically, this study examined the effects of the meditation intervention on counseling students' cognitive and affective empathy (Interpersonal Reactivity Index [IRI]; Davis, 1980), perceived social support (Multidimensional Scale of Perceived Social Support [MSPSS]; Zimet et al., 1988), and problem-solving appraisal (Problem-Solving Inventory [PSI]; Heppner, 1988). In addition, this study explored the relationship between quantity of meditation practice and the three outcome variables.

The sample for this study included 103 counseling students enrolled in counselor education classes at a CACREP master's degree program at a large university in the Southeastern United States during the Fall semester of 2010. The intervention consisted of six one-hour psychoeducational sessions which combined wellness and loving-kindness meditation instruction and practice. The treatment group consisted of 42 master's students in two classes, *Introduction to Counseling* and *Counseling for Wellness*, as well as 22 self-selected volunteer students who were enrolled in other classes. The wait-list control group included 39 counseling master's

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students in the Introduction and Wellness classes. The current study was the first to examine loving-kindness meditation as an intervention for pre-service masters' level counselors.

Review of the Results

The following section discusses the results and conclusions based on the information presented in Chapter Four. This discussion is presented organized within the context of each research question. The results are also compared with results of previous studies examining meditation for professional helpers, as well as findings concerning positive emotions and loving-kindness meditation in general.

Research Question One

The current study compared a loving-kindness intervention to a non-intervention control group in a sample of masters' level counseling students, assessing them at pre and post-intervention. The first research question asked if a loving-kindness meditation (LKM) intervention for counseling students would positively affect empathy, perceived social support, or problem-solving appraisal. This research question was analyzed using a mixed-mode MANOVA and follow-up tests for simple main effects for the multidimensional construct of empathy, as measured by the Interpersonal Reactivity Index ([IRI]; Davis, 1980). The results of the MANOVA indicated that at posttest the LKM group experienced a significant gain in cognitive empathy, with large effect sizes, when compared to controls, as measured by the FS (Fantasy) and PT (Perspective Taking) subscales. Furthermore, the LKM group demonstrated gains in affective empathy, as measured by the EC (Emotional Concern) and PD (Personal Distress) subscales, with moderate to large effect sizes.

These results suggest that a wellness intervention with a loving-kindness meditation component may be an effective means for increasing the cognitive aspects of empathy in counselors-in-training. This preliminary finding is important because the literature indicates that counselors need a balance of affective and cognitive empathy (Maslach, 1982; Skovholt, 2001). Although affective empathy scores also increased, the effect sizes for the cognitive subscales (PT and FS) in the treatment group were considerably larger than the effect sizes for the affective subscales (EC and PD). The effect sizes for PT and FS were .213 and .173 respectively, compared to .115 for EC and .088 for PD. Therefore, it is beneficial that the present study demonstrated the possibility to increase cognitive empathy scores through a LKM intervention to help maintain the balance between emotional and cognitive empathy.

It must be noted that the *affective empathy* pretest scores for counseling students in this study were 20% to 30% higher than those of typical college-age females in other studies (Atkins & Steitz, 2000; Davis, 1980) as well as 30% to 50% higher than female psychologists (Hall, Davis, & Connely, 2000). Females generally score higher than males on these measures (Davis, 1980), thus pretest means in the present study were also considerably higher than those of males in other studies. The affective empathy scores improved in the present study; therefore, the fact that the intervention also resulted in increased cognitive empathy scores is promising because higher affective empathy is associated with burnout (Maslach, 1982). Moreover, PD decreased in the treatment group, suggesting that the LKM intervention may reduce self-focused distress resulting from witnessing the suffering of others. The literature indicates that individuals with higher levels of emotional empathy are drawn to the helping professions, yet this same characteristic predisposes professional helpers to experience burn out (Maslach, 1982: Pines &

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Aronson, 1988). An intervention that increases cognitive empathy may help to offset the susceptibility to burnout that is intrinsic to those with high affective empathy.

The *cognitive empathy* pretest scores of participants in the current study were also higher than other populations. For example, the PT and FS scores of participants in this study were 25% to 40% higher than typical college-age female students (Atkins & Steitz, 2000; Davis, 1980). Additionally, PT pretest scores for participants in the current study were 26% higher than those of female psychologists in the study by Hall et al. (2000). Hall and colleagues did not include the FS scale in their study. In sum, the intervention was able to positively affect cognitive empathy scores that were already elevated at the outset.

A repeated measures mixed-mode ANOVA was utilized to investigate the effect of the LKM intervention on perceived social support, as measured by the Multidimensional Scale of Perceived Social Support ([MSPSS]; Zimet et al., 1988). The results indicated that there was not a statistically significant treatment-time interaction effect between groups, nor was there a main effect for time within each group.

Based on these results, it did not appear that the LKM intervention increased participants' perceived social support. This finding was surprising given that the meditation specifically focuses on feelings of kindness and caring toward oneself and others. In addition, six studies by Seppala (2009) demonstrated increased social connectedness resulting from various forms of LKM. One possible explanation for the current results may be a ceiling effect. Pretest scores on the MSPSS in the current study were 3.5% to 5% higher than those of undergraduates in previous studies (Schmidt & Welsch, 2010; Zimet, Dahlem, Zimet, & Farley, 1988). Thus the scores were clustered at the high end of the scale prior to the intervention, which limited the

range available for scores to increase. The modal age in the present study was 23, with over half of the participants under the age of 24. Thus, the sample population was young and in still in the developmental phase wherein friendship, intimacy, and loyalty are predominant foci (Berk, 2001), which may explain the high initial social support scores.

A repeated measures mixed-mode ANOVA was utilized to investigate the effect of the LKM on problem-solving appraisal, as measured by the Problem-Solving Inventory ([PSI]; Heppner, 1988). The results indicated that there was not a statistically significant treatment-time interaction effect between groups, nor was there a main effect for time within each group.

Based on these results, LKM did not appear to affect problem-solving appraisal in the counseling students, although there was a downward trend in the scores that did not reach statistical significance. Lower scores on the PSI indicate higher problem-solving appraisal. Here, again, there may have been an issue with a restricted range of variability because of the population, or possibly a floor effect. The participants in the present study were graduate students; therefore, it is likely that they presented with elevated problem-solving appraisal (i.e., lower scores on the PSI). In fact, the participants in the current study began with pretest scores that were at least 10% lower than other study populations (Elliott et al., 1995; Heppner et al., 1983). Therefore, the lower PSI pretest scores may be due to a selection process whereby individuals who choose to enter graduate school, or a master's level counseling program, innately have an elevated self-appraisal of problem-solving ability.

Discussion

The researcher chose LKM as the intervention primarily because it has been shown to improve mood in practitioners (Carson et al., 2005; Fredrickson et al., 2008; Seppala, 2009). In

accordance with Frederickson's (1988) broaden-and-build theory of positive emotions, cultivating positive emotions over time potentially builds internal and interpersonal resources that may be beneficial to counselors. To substantiate this theoretical framework, the Meditation Study Questionnaire Posttest included the question, "In general, what effect did the meditation have on your mood?" with three choices: *worsened, no effect, improved*. Of the 99 participants who answered this question, 64% reported *improved* and 31% reported *no effect*. Five percent of participants reported that it made their mood worse. Thus, LKM did appear to improve the mood in the majority of participants, however it did not have a positive effect on mood for a fairly large proportion.

Further examination of the data revealed that 87% of participants attended five to six sessions, and 95% of participants reported moderate to high participation in the groups. In addition, 72% of participants were satisfied or very satisfied with LKM, while 28% were dissatisfied or very dissatisfied. Pearson product-moment correlations of these variables indicated a strong correlation between mood and satisfaction with LKM ($r = .72$, $n = 97$, $p < .001$); a moderate correlation between mood and level of participation ($r = .411$, $n = 97$, $p < .001$); and a small correlation between satisfaction with LKM and level of participation ($r = .241$, $n = 97$, $p < .05$). Therefore, LKM did demonstrate efficacy as a means for generating self-reported positive mood for the majority of participants, however this improvement did not hold for all counseling students.

These results may be partially explained by the *congruence hypothesis* or the *buffering hypothesis* (Seppala, 2009). The buffering hypothesis suggests that LKM would have a stronger effect for people low on state and/or trait positive affect and social connectedness, thus they

would experience a greater change from baseline. LKM would presumably buffer these individuals against feeling social unease or discomfort by escalating their affective and social well-being. According to this hypothesis, people already high in trait and state positive affect and social connectedness would experience only a small to moderate change as a result of LKM (Seppala).

Over the course of six studies, Seppala (2009) reported greater support for the buffering hypothesis because LKM was more effective for those participants suffering from social anxiety and rejection sensitivity. In addition, through lexical analysis (i.e., examination of the language participants' used in their profiles) Seppala found that negative affect, indicated through profile descriptives such as "hurt, ugly, nasty," (p. 42) predicted improvement in implicit positive mood after LKM. Furthermore, LKM appeared to be more beneficial to participants who reported anxiety and sadness in their profiles. Seppala's interpretation was that LKM may be more effective for particular types of negative states.

Conversely, the congruence hypothesis suggests that LKM would demonstrate a strong effect for people high in state or trait positive affect and social connectedness, because their worldviews are congruent with LKM. This worldview would make it easier to follow instructions in LKM sessions and foster existing high prosocial tendencies. Likewise, people low on trait or state positive affect and social connectedness would find LKM more difficult. Because LKM did not match their worldview, they would feel distress, anger, and discomfort in response to the meditation envisioning others sending them love and sending love in return (Seppala, 2009).

Seppala's (2009) research also provided some support for the congruence hypothesis. She found that the more social references made in participants' profiles, the greater the increase in positive emotions and explicit social connectedness. Also, the more optimism and self-assuredness expressed, the greater the increase in positive mood, suggesting that these participants were able to follow the LKM instructions more comfortably and effectively. Finally, in accordance with the congruence hypothesis, lack of optimism predicted less change in positive mood.

The current study did not collect data on positive affectivity or social connectedness. However, data was collected regarding self-reported wellness, life satisfaction, stress, and importance of spirituality, which may provide some insight into participant mindset. About one-half of the participants reported high or very high levels of wellness, and 42% reported a moderate level of wellness. Over 70% of the participants reported high or very high life satisfaction. About half of the participants reported experiencing moderate stress levels, and 35% reported high or very high stress. Seventy-seven percent of participants reported that spirituality was important or very important, and 28% reported spirituality was only a little important. In addition, there was a small correlation between one's rated importance of spirituality and mood from LKM ($r = .203$, $n = 97$, $p < .05$). Thus, the majority of participants reported positive evaluations of their own wellness, life satisfaction, and spirituality and were experiencing at least moderate levels of stress.

The majority of participants in the current study appeared to be high in state or trait positive affect, based on levels of wellness, life satisfaction, empathy and problem-solving appraisal at pretest. They were also high in social connectedness, based on the perceived social

support pretest scores. These data seem to support the congruence hypothesis, which predicts that participants' high in positive affectivity would experience substantial change after practicing LKM. Seppala (2009) reported finding greater evidence supporting the buffering hypothesis, because participants who were high in rejection sensitivity, anxiety, and sadness demonstrated greater increases in positive mood after a LKM treatment. In contrast, the participants in the present study initially presented high in the positive attributes. Consequently, they demonstrated improvements in cognitive empathy, with large effect sizes (Sink & Stroh, 2006), after receiving the LKM intervention. Treatment accounted for 21.3% of the variance in PT scores and 17.3% of the variance in FS scores. Furthermore, those who received the LKM intervention improved in the affective empathy subscale of EC, with a moderate to large effect size of .115, and in PD, with a moderate effect size of .088 (Sink & Stroh). Thus, in accordance with the congruence hypothesis, individuals high in positivity experienced moderate to large changes as a result of the LKM intervention.

In further support of the congruence hypothesis, participant comments post intervention indicated that a minority of the participants experienced feelings similar to stress, discomfort, or anger in response to the meditation. One participant explicitly stated that LKM was not congruent with his or her worldview. Consequently, the congruence hypothesis would explain the lack of positive effect from LKM on mood in some participants.

There was insufficient data regarding possible negative affective states of participants in the current study to fully explore the buffering hypothesis. Seppala (2009) indicated that participants with a negative mindset responded less to LKM with respect to explicit mood but did show increases in implicit mood. Furthermore, those participants with reported anxiety or

sadness demonstrated greater change in positive mood and social connectedness after LKM. The fact that there were no statistically significant changes in perceived social support or problem-solving appraisal may be explained by the buffering hypothesis, which posits that people already high in trait and state positive affect and social connectedness would experience little change as a result of LKM. The buffering hypothesis warrants exploration in future studies.

Fredrickson et al. (2008) also provides some explanation of the failure of LKM to improve mood in some participants. In their study, initial lower levels of positive emotions were evident in the LKM group. Fredrickson and colleagues theorized that beginning a meditation program was similar to starting any self-change project when individuals realize they must actually do the work. Beginning meditation practice involves doing something unfamiliar and difficult without immediate rewards. Fredrickson et al. postulated that this may be due to "increased awareness of challenging inner states" that participants were not aware of (p. 1059). Kabat-Zinn (2005) outlined five typical obstacles to meditation: craving, anger, boredom, restlessness, and doubt. This was evident in the present study, as some participants expressed reactions such as anger, boredom, restlessness, and doubt.

The lack of positive improvements in perceived social support and problem-solving appraisal in the current study contradicts the findings by Fredrickson et al. (2008). In their study, positive emotions generated via LKM resulted in the increasing, or building, of two categories of resources. The first was having a loving attitude toward self, which included self-acceptance, social support, and positive relationships. The current study did not find improvement in perceived social support.

The other category of improved resources suggested by the Fredrickson et al. (2008) study was a sense of competency regarding one's life. This category included "pathways thinking," which is the belief that there are multiple ways to achieve goals. It also included purpose in life (meaning) and environmental mastery, (the perception of ability to cope). Pathways thinking and environmental mastery are BOTH evidence of positive problem-solving appraisal, which did not improve as a result of LKM in the current study.

Joiner et al. (2001) investigated the relationship between positive emotions and improved problem-solving appraisal. Participants included 113 patients at a military medical center (93 men, 20 women), primarily diagnosed with mood and anxiety disorders. Regression analyses indicated that patients with higher positive affectivity showed greater gains in problem-solving appraisal than those with negative affectivity. Further mediational regression analyses suggested that patients with higher positive affectivity experienced fewer suicidal symptoms partially as a function of improvement in problem-solving appraisal. However, the mean pretest PSI score in the Joiner et al. study was 104 and reduced to 91.6 at the 6-month follow up post treatment. The pretest treatment group mean in the current study was 79.22 and decreased to 76.7 after treatment. Thus the PSI may not have been as sensitive to change for participants scoring in the lower range of the instrument.

The increase in cognitive empathy resulting from the LKM intervention in the current study is consistent with the finding of increased mindfulness by Fredrickson et al. (2008). The process of mindfulness (i.e., awareness in lieu of automated mindless behavior; Fredrickson et al, 2008) allows one to disidentify oneself from emotions and value judgments thereby increasing awareness of the present moment with greater clarity and objectivity (Shapiro & Carlson, 2009).

This is analogous with the goal of detached concern, which is the balancing of empathy and caring with enough emotional detachment to maintain objectivity (Savicki & Cooley, 1982). Detached concern describes cognitive empathy, which is defined as the accurate perception of another person's emotional experience combined with feeling concern for the other individual's wellbeing while not vicariously experiencing the other person's emotional state (Miller et al., 1988).

Greason and Cashwell (2009) demonstrated a relationship between mindfulness, attention, counselor self-efficacy, and empathy in their study on 179 master's and doctoral-level counseling students. Path analysis identified mindfulness as a predictor of counselor self-efficacy with attention as a mediating variable. In other words, counselors who are able to maintain an attentive presence with clients, as well as strategically focus their attention during a counseling session as a result of mindfulness, demonstrate higher counselor self-efficacy. It is hypothesized that mindfulness shifts one's tendency from a *doing* mode to a *being* mode. This shift in focus enables one to better tolerate difficult emotions that arise during counseling, thus increasing the ability to sustain and direct attention effectively. In addition, mindfulness was a predictor of empathy, as measured by the EC and PT subscales of the IRI. These findings suggest a need for further investigation of mindfulness and meditation as mechanisms for counselor development.

Research Question Two

The second research question examined any relationships between self-reported meditation time and multidimensional empathy, perceived social support, and problem-solving appraisal. Spearman's rank order correlational analysis indicated no relationship between weekly mean meditation time and EC, PD, FS, perceived social support, or problem-solving appraisal.

However, there was a small to medium correlation ($r = .29$; Cohen, 1992) between meditation time and the cognitive empathy subscale for PT.

Discussion

Studies of mindfulness meditation have yielded mixed results with regard to the effects of time spent in meditation outside group sessions (Baer, 2003; Shapiro et al., 2006; Weibel, 2007). The study by Carson et al. (2005) indicated that minutes practicing LKM predicted daily anger scores the following day, but it did not predict improvement in pain or other psychological symptoms. Beddoe and Murphy (2004), in a study with16 nursing students, found a significant relationship between regular home mindfulness meditation and belief in ability to improve one's health, awareness of stress and its causes, better self-care, and hopefulness. Fredrickson et al. (2008) found that the amount of time spent in meditation was a significant predictor of positive emotions.

On the other hand, Shapiro, Brown, and Biegel (2007) in a study involving 54 masters' level counseling psychology students found no relationship between the amount of mindfulness meditation practice and changes in stress or well-being. Similarly, Davidson and colleagues (2003) found no relationship between amount of mindfulness meditation practice and physiological outcome measure in a sample of 41 biotech employees. Finally, Weibel (2007) also found no relationship between amount of time spent in loving-kindness meditation between sessions and improvement in outcome measures in his study of 71 undergraduate psychology students.

In conclusion, it remains unclear if the quantity of meditation time has a significant impact on variables important to counselor development. Shapiro et al. (2007) suggested that

there may be a critical threshold of practice time necessary to significantly affect psychological variables. They further suggested that quality of meditation may be a more potent factor than quantity. Similar to Shapiro et al., actual time spent in weekly meditation for the present study was limited when compared with studies that demonstrated significant associations with quantity of meditation practice (e.g., Carson et al., 2005) or with Mindfulness Based Stress Reduction, in which participants average 80 minutes per week (Baer, 2003). Nonetheless, the fact that the current study revealed a statistically significant positive correlation between quantity of meditation and the cognitive empathy aspect of PT suggests that increasing the amount of practice may help to improve one's perspective-taking ability, which is a critical factor in effective counseling.

Limitations

Although this study does provide some statistically significant results, several limitations should be considered. This section will address limitations stemming from the research design, implementation of the study, and the sample. Consideration of these limitations can aid in critical evaluation of the results from the present study, as well as in guiding future research in this area.

Research Design

Although the majority of participants were randomly assigned to treatment or control groups, 22 self-selected volunteers were included in the treatment group. Therefore, the research design is quasi-experimental, rather than a true experimental design. This presents a threat to internal validity due to possible pretreatment differences between groups (Campbell & Stanley, 1963; Heppner et al., 1992), particularly because almost all the volunteers were included in the

treatment group. To mitigate this threat to validity, the researcher conducted analyses of demographic data and pretest measures to test for pre-intervention group differences. There were no between group differences except for Emotional Concern (EC), an affective aspect of empathy, and Perspective Taking (PT), a cognitive aspect of empathy. The treatment group EC mean (M = 29.22, p = .001) was slightly lower than the control group EC mean (M = 29.67) at pretest. The treatment group PT mean (M = 29.05, p = .01) was slightly lower than the control group PT mean (M = 29.51) at pretest. Thus, results on these two subscales should be interpreted with caution.

In addition, the intervention itself consisted of two components. One was the experiential aspect of the LKM meditation. The other was a psychoeducational component tying LKM and related concepts to counselor wellness. Consequently, it is difficult to determine which specific components led to changes in outcomes. It would be beneficial for future studies to investigate the specific mechanisms of change by separating and comparing the different aspects of the intervention included in this study. Shapiro et al. (2006) recommend two approaches to investigating mechanisms of change of underlying meditation interventions. The first is to tease apart and compare the various components of the intervention, such as meditation practice, relaxation, and cognitive elements in psychoeducation. The second is to examine the central constructs of the meditation, in this case loving-kindness, and measure the specific constructs. Some examples would be compassion, empathy, mindfulness, connectedness, etc.

Implementation

Another limitation was variation in the implementation of the intervention. The treatment group was comprised of five different LKM groups led by different facilitators and met

on different days of the week. All groups met in the evening; however, the treatment span varied due to holidays or class scheduling issues that occurred on the different days of the group sessions. Furthermore, some meeting rooms were more conducive to meditation than others.

It is possible that participants experienced differing perceptions of empathy and caring in facilitators, which could have affected outcomes. It is also possible that there were differences in the teaching or presentation skills of the different facilitators. To help control for these possibilities, the researcher determined through statistical analysis that there was no interaction effect based on specific groups. Furthermore, the researcher randomly attended each group and completed a treatment fidelity checklist (Appendix C) indicating that all facilitators were following the prescribed protocol. Nevertheless, there may have been differences not noted by the researcher, and there is no confirmation of consistency of facilitation by the different leaders.

Additionally, much of the literature suggests that facilitators of meditation interventions should be seasoned and practicing meditators (e.g., Kabat-Zinn, 2003; Shapiro & Carlson, 2009). Five of the eight facilitators in the present study had between one and fifteen years of experience practicing meditation. The other three facilitators were not experienced meditators. Although all facilitators held advanced counseling degrees and were experienced in facilitating counseling groups, lack of experience in meditation, or failure to practice meditation while facilitating the groups, may have affected outcomes. Individuals with experience in meditating might be better able to explain the method and deal with problems.

Instrumentation

A further limitation was that the instruments were self-report. Self-report measures allow for ease of administration and provide access to phenomenological perceptions of the

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participants (Heppner et al., 1992); however, the possibility exists that participants answered in ways that they believed were preferable for counselors, i.e., socially desirable responses. The literature indicates that the PSI and MSPSS are not likely to be influenced by social desirability (Fischer & Corcoran, 2007), but no comparable support was found for the IRI. Furthermore testing i.e., the use of pretests, may have sensitized participants alerting them to the constructs being examined (Campbell & Stanley, 1963; Heppner et al., 1992).

Sample

A final limitation is the homogeneity of the sample. The participants were primarily White females from one counselor education program at a large southeastern university. Therefore, generalizability to other populations may be limited. In addition, maturation may have threatened internal validity as participants progress developmentally over time (Campbell & Stanley, 1963). However, the brevity of the intervention most likely limited this threat. There is also the threat of history (Campbell & Stanley, 1963; Heppner et al., 1992) because 22 of the participants were simultaneously in a wellness class along with the LKM intervention.

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Implications for Counselor Educators and Future Research

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Despite the limitations, this study offers implications for counselor education and development. This study is the first to explore the use of LKM as an intervention for counselors in training. In addition, it is the first study investigating a theory of positive emotions as a means to enhance the internal resources and efficacy of counseling students.

The findings from this study provide preliminary support for the use of the LKM intervention to increase cognitive empathy in pre-service counselors. Research indicates that it is important for counselors to have a balance of emotional and cognitive empathy (Maslach, 1982;

Savicki & Cooley, 1982; Skovholt, 2001) and this intervention may provide that balance. The counseling student participants in the current study demonstrated higher than average scores on the IRI empathy subscales at the outset. Participants who experienced the LKM intervention demonstrated significant increases in affective and cognitive empathy compared to those in the control group; however, the effect size for cognitive empathy was greater than the effect size for affective empathy. Although affective empathy is necessary for effective counseling, these findings are important because it is believed that too much affective empathy can predispose counseling students to potential burnout (Maslach, 1982; Skovholt, 2001). Moreover, the findings of the current study suggest that spending time in meditation is associated with increased perspective taking, which is a cognitive aspect of empathy. Thus, meditation in general, and LKM specifically, may positively affect cognitive empathy in counseling students.

The findings in the study also generally supported LKM as a means for cultivating positive emotions because 64% of the participants reported that LKM had a positive effect on their mood. However, this type of meditation was not favorable for all participants. Researchers have suggested that it is preferable to provide various options in meditation interventions (Christopher, Christopher, Dunnagan, & Schure, 2006). The present study offered alternatives for meditation practice outside the sessions, but LKM was the only type of meditation practiced during the six sessions. The principles of LKM were deemed particularly suitable for counselors because the process entailed directing compassion toward oneself and then toward others, emphasizing the importance of self-care. As LKM is a form of mindfulness meditation (Kristeller & Johnson, 2005), it also incorporates non-judgmental awareness of the present moment (Kabat-Zinn, 2005), which enhances attention, presence, acceptance, and self-regulation

(Greason & Cashwell, 2009; Kristeller & Johnson, 2005; Shapiro & Carlson, 2009). Nonetheless, not all participants were receptive to meditation practice.

Written comments from the participants in this study were primarily positive; however, several participants indicated that LKM was not their choice of meditation. The most common complaints were annoyance at the redundancy of the meditation verbiage and a distracting environment. Other comments indicated that meditation was not for them, or they preferred other wellness activities, such as relaxation, deep breathing, or yoga. Few participants listened to the CD between sessions. Future studies may investigate and determine the mechanisms and mediators of change with respect to LKM and positive emotions (Weibel, 2007) and explore what practices or aspects of meditation are most helpful (e.g., breath work, loving-kindness, mindfulness, meditation without an object of concentration, etc.; Bruce, Shapiro, Constanatino, & Manber, 2010). The findings suggested the possibility that simply exposing counseling students who are novice meditators to the ideas and values surrounding LKM may be enough to produce change. It would be interesting to explore this notion in future research.

It is further suggested that future research explore additional means for cultivating positive emotions. Positive emotions have been shown to increase cognitive flexibility and social connectedness. However, the results of this study did not support improvement in problem-solving appraisal or perceived social support based on the PSI and the MSPSS respectively. Although these instruments are commonly used and are recommended as effective, psychometrically sound brief measures (Fischer & Corcoran, 2007), they may not be sensitive enough to detect changes in participants with high levels of perceived social support and problem-solving appraisal at the pre-intervention observation. Or, perhaps, a positive emotions

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approach other than LKM may be more effective for promoting change in this type of population.

A final recommendation for future research is to explore the effects of LKM, positive emotions, and other types of meditation for professional helpers who have already spent time working in the field. Participants in the present study consisted of pre-service counselors who have not yet experienced the stressors related to burnout and impairment. Possible samples of professional helpers could include mental health and school counselors, teachers, nurses, social workers, physicians, and legal aid attorneys. Future studies may investigate the mitigating effects of meditation and other positive emotion interventions on helpers who have begun to experience adverse stress responses as a result of professional caregiving work.

Conclusion

The purpose of this study was to ascertain if a LKM intervention would positively affect factors related to counselor development in counseling students. The constructs measured in this study were multi-dimensional empathy, perceived social support, and problem-solving appraisal. The results indicated that participants who received a LKM intervention experienced gains in the cognitive empathy aspects of perspective taking and fantasy, as well as improved affective empathy aspects of emotional concern and personal distress. Results also suggested that students enrolled in counselor education courses may demonstrate elevated empathy overall. Moreover, findings suggested that counselor education students exhibit high levels of perceived social support and problem-solving appraisal. Neither the treatment nor control group experienced significant changes in these two variables from pretest to posttest. Finally, results indicated a significant relationship between quantity of meditation and perspective taking.

This study contains limitations that warrant future exploration. However, the findings support the use of LKM as an effective intervention for most counseling students. The findings also support the use of meditation as an appropriate intervention for increasing perspective taking ability in counseling students. The absence of significant changes in perceived social support and problem-solving appraisal merits future research in the areas of LKM and positive emotions for professional helpers. In conclusion, this study provides preliminary evidence that meditation may positively affect the balance of cognitive and affective empathy, which is essential for counselors.

APPENDIX A
INFORMED CONSENT

Meditation Study
Informed Consent

Principal Investigator(s):   Monica Leppma, MA, LMHC
Faculty Supervisor: Mark E. Young, Ph.D.
Sponsor: Association for Spiritual, Ethical, and Religious Issues in
   Counselor Education
Investigational Site(s):   University of Central Florida
   College of Education

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 70 to 90 people in the Counselor Education master's program. You have been asked to take part in this research study because you are a student in the counselor education program.

The person doing this research is Monica Leppma of the Counselor Education program in the College of Education at UCF. Because the researcher is a doctoral candidate, she is being guided by Mark Young, Ph. D., 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 effects of compassion-based meditation on counselors-in-training.

What you will be asked to do in the study:

For this study, you will be asked to complete several pretest and posttest questionnaires, as well as weekly meditation logs. Some of you will also be asked to participate in six weekly one-hour educational meditation groups taking place during the Fall 2010 semester. The groups will be facilitated by doctoral or post-doctoral students in the Counselor Education program and will

take place on the UCF campus. Participation in the groups will also involve listening to meditation CD's and completing weekly meditation logs.

The pretest questionnaires should take about 35-40 minutes to complete. The posttest questionnaires and/or follow-up questionnaires should take about 30 minutes to complete. Meditation logs should take about 5 minutes to complete. The guided meditations on the CD's are 15 to 20 minutes long.

There are no reasonably foreseeable risks associated with participation in this study. However, if you experience any emotional discomfort during the meditation, please discuss it with your group facilitators.

Location: University of Central Florida College of Education

Time required: We expect that you will be in this research study for six weeks during the Fall 2010 semester. The meditation groups will be one hour long and will meet weekly. Students enrolled in the Introduction to Counseling class will participate in groups that take place during the class period. Other students will participate in groups outside of class time.

Funding for this study: A portion of this research study is being funded by the Association of Spiritual, Ethical, and Religious Values in Counseling (ASERVIC), which is a division of the American Counseling Association (ACA).

Risks: There are no reasonably foreseeable risks or discomforts involved in taking part in this study. However, if you do experience any emotional discomfort during the meditation, please discuss it with your group facilitators.

Benefits:
We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits may include reduced stress or an improved sense of wellbeing.

Compensation or payment:
There is no compensation, payment or extra credit for taking part in this study.

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. Organizations that may inspect and copy your information include the IRB and other representatives of UCF.

To help maintain confidentiality, the study documents will be coded with the first three letters of your first name and the first three letters of your last name. Your full name will not be included on any research documents, and class rosters and volunteer lists will be kept separately from all study documents. All documents pertaining to this study will be kept in a locked cabinet in the

Faculty Supervisor's office. Only the researcher and the faculty advisor will have access to the data. All documents will be destroyed once data analysis is completed.

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, talk to Monica Leppma, Doctoral Candidate, Counselor Education Program, College of Education, (407) 823-2410 or Dr. Mark Young, Faculty Supervisor, Counselor Education Department at (407) 823-2233 or by email at myoung@cfl.rr.com.

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.

Withdrawing from the study:
If you decide to leave the research study your data will not be included in the data analysis. The person in charge of the research study or the sponsor can remove you from the research study without your approval. Possible reasons for removal include missing more than three meditation groups.

APPENDIX B
FACILITATOR TRAINING MANUAL

Wellness/LKM Group Session 1

Objectives:
1. Introduce group members and leaders to each other.
2. Discuss purpose of group – clearly indicate that they should not share this info with other students until the 6 weeks is over
3. Introduce concepts of mindfulness & loving-kindness meditation (LKM)
4. Begin practice of LKM
5. Distribute meditation CD's & logs

Procedure:
1. Group leaders should introduce themselves and talk about the purpose of the group. Also, logistics of the group should be addressed. (5 min)
2. Group leaders facilitate introduction between the students to help them get to know each other and the leaders. (15 min)
3. Introduction to mindfulness & LKM (15 min)
4. LKM exercise (10 min)
5. Process & discussion (10 min)
6. Distribute CD's and weekly logs

Facilitator Guidelines

Introduction to Mindfulness and Loving-Kindness Meditation

Over the course of this 6-week class we will learn the importance of, and strategies for, counselor self-care. One tool that we will be practicing every week is loving-kindness meditation (LKM). We will discuss what this practice is like for you and connect it with your overall self-care, as well as with aspects that are important for counselors, like empathy, compassion, flexibility, self-efficacy, and connectedness.

Let's take a few minutes to get to know each other. (Facilitators introduce yourselves). Now, I'd like each of you to tell us your name, and in 1 or 2 sentences tell us… (facilitators choose: (a) what you would like to get out of this group; (b) why you want to be a counselor; (c) what you know or believe about meditation; (d) why you chose to participate in this meditation group)

*** IMPORTANT*** The information you will be learning in this group should be very helpful to you as counselors, but please do not share this information, or the cd's, with other students during this 6 week period. It is extremely important that your fellow students get to experience this group in the same way as you, without prior knowledge or information. After you complete this 6 weeks, feel free to share what you have learned with anyone! Do we have everyone's agreement?

Now we'll go over some of the basic concepts of the meditation. Loving-kindness meditation falls under the category of mindfulness, or insight, meditation. Mindfulness can be defined as "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment" (Kabat-Zinn, 2003, p. 145). Practicing mindfulness can include such things as taking the time to:

- focus on your breathing
- observe or connect with your inner experience
- be present and focused while completing a chore
- savor food while you are eating-involving all your senses.
- engage in meditation or yoga
- spend time in nature.

Mindfulness meditation has received a lot of attention in the research over the past 20 years as an effective intervention for physical, psychological, and emotional issues (Kabat-Zinn, 2003). In the last ten years, research has demonstrated that mindfulness addresses issues such as (a) lowering blood pressure; (b) boosting the immune system; (c) increasing attention and focus; (d) helping with difficult mental states such as anxiety and depression; (e) fostering well-being and less emotional reactivity; and (f) thickening the brain in areas in charge of decision making, emotional flexibility, and empathy (UCLA Mindful Awareness Research Center [MARC]).

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Loving-kindness meditation (LKM) incorporates mindfulness in the form of (a) compassion, (b) a non-judgmental stance, and (c) self-awareness – which are also all critical to being effective counselors! In practicing LKM, we are "attempting to generate feelings of kindness, acceptance, and compassion for ourselves and then slowly and gradually trying to cultivate these same feelings for other people" (Weibel, 2007, p. 68). So, the process involves directing compassion and kindness toward ourselves, and then gradually expanding to people we love and care about, neutral people, people we have problems with, and eventually all life forms on earth. Even though you may find meditation to be challenging – since as humans we have "monkey-minds" (that go all over the place and are hard to control), it can also be fun and may increase and expand positive emotions and a general sense of well-being. We will take it slow and support each other throughout this process.

In this meditation process, we take the time to reconnect with ourselves. We sit, attend to our bodies and minds, and open up to every aspect of our experience in *this* moment. LKM acknowledges our own need for love, kindness, and compassion and then helps us to try to provide these for ourselves, which can actually be quite challenging (Weibel 2007).

As the process continues, we reconnect with the world by recognizing that all people want love, kindness, and compassion. Just like us, other people want to be free from suffering and experience contentment. By projecting kindness and compassion out toward others, we are also being kind to ourselves. Also, sending love and kindness outward can provide us with relief from worry and may reduce feelings of separation and isolation.

What you will learn in this group can help you with your wellness plan. Wellness is important for counselors for several reasons. First and foremost, we must to take care of

ourselves in order to be helpful and effective with clients. Second, the emotional intensity of counseling can become quite stressful or draining, so it's important that we know how to replenish ourselves. Third, in counseling we often may not witness the positive results of our work, or clients may be resistant, so we need to know how to create meaning, connection, and a sense of accomplishment for ourselves to avoid becoming emotionally depleted. Finally, there is a risk of becoming too emotionally involved in the lives of our clients. Therefore, we need to be able to practice a healthy and compassionate "detached concern," maintain appropriate boundaries, and make sure we are not utilizing counseling relationships to meet our own needs.

So, wellness involves consideration of all aspects of ourselves, as well as recognizing the mind/body connection. By practicing this type of meditation, we can become more aware of what is really going on internally so that we can intervene in harmful thinking patterns or automatic reactions. Also, when practicing mindfulness in our daily activities, we enjoy whatever we are doing more. Thus, this group will have a lot of practical application to your profession as counselors.

One very important aspect of wellness is social-connectedness and a sense of social-support. A compassion-based meditation, such as loving-kindness, can help you to feel more connected to others. Feeling connected with other people is associated with improved physical and psychological health and improved moods. A feeling of social support and connection is the most important buffer against stress for people in the helping professions.

Loving-kindness meditation is a practice designed to increase feelings of compassion for ourselves and others in order to promote our well-being. This practice can help us cope with anger and other negative emotions. It can also fill us with positive emotions such as empathy,

compassion, and happiness, which may facilitate our relationships with others as well as have a

positive impact on our health. LKM is just starting to be used to promote happiness, compassion,

and personal growth.

So, in this group, the first 2 weeks will focus on directing positive wishes, kindness, and

compassion toward ourselves. As counselors, we are used to focusing on others, but we must

take care of ourselves in order to be present and helpful to others. Sometimes people have

difficulty sending themselves kindness, as they may have been taught that focusing on

themselves is selfish, and it is more important to care for others. However, within this meditation

practice, we emphasize the connectedness between self and others. Therefore, by being kind to

ourselves we prepare ourselves to be kind to others, and vice versa, we realize that in being kind

to others, we are being most kind to ourselves (Franklin, 1786 as cited in Weibel, 2007). So if

you are not accustomed to sending kind feelings to yourself, see if you can make a sincere effort

during the exercise.

> As with mindfulness, we practice loving-kindness meditation with attitudes of
>
> acceptance, non-judgment, non-striving, patience, letting go, and compassion. *Thus,*
>
> *please be compassionate about your efforts to generate compassion* (said with emphasis
>
> and inflection to denote irony, humor, and importance). In other words do not judge
>
> yourself if you are not immediately generating powerful feelings of compassion. This is a
>
> difficult practice. [But] with practice, you may be able to generate more vivid images and
>
> feelings of compassion. This is not a competition, and in fact we want to separate
>
> ourselves from our normal notions of success and failure (Weibel, 2007, p. 78).

If you are having the intention of generating compassion, you *are* [emphasis added]

doing the practice. Even if your mind wandered for 99% of the exercise, but you had the

intention [emphasis added] to practice when you first began, you are doing the practice.

See if you can congratulate yourself for making the effort. Now that we have introduced

the practice, why don't we give it a try. These practices are sometimes best learned by

doing them rather than talking about them, and I will instruct you throughout the exercise

(Weibel, 2007, p. 79).

Loving-Kindness Exercise Script

(Read in slow, soft, soothing voice, pausing frequently- short pauses after every few

words; longer pauses at the end of a section) (This meditation is from the UCLA Mindful

Awareness Research Center website: http://marc.ucla.edu/body.cfm?id=22)

Process and Discussion

What was the experience like for them? Allow them to share.

At end of discussion: I just want to remind you that it's OK if you didn't feel the

feelings, or your mind wandered. Your intention of loving-kindness is the key, and any time your

mind wanders off, and then is returned to the meditation during your practice, is a powerful

accomplishment.

Again, even if your mind wandered 99% of the time, that is perfectly fine. Meditation is

difficult, and like anything important, requires consistent practice in order to improve. It is

completely natural to feel resistance, boredom, or for your mind to wander. Our mind is used to

compulsively thinking. Boredom, resistance, and thinking are games our mind plays to distract

us from the very important and enjoyable experience of meditation. The point of meditation

practice is to eventually learn to turn those voices off - but it takes perseverance. Even a little bit of practice, a few minutes a day, can lead to noticeable benefits. I encourage you to practice meditation, mindfulness, and loving-kindness in your daily lives.

Also, please remember not to share what you learn here until the 6 weeks are over.

Distribute CD's and Meditation Logs

Ask participants to listen to Track 1 during the week. The ultimate goal is daily – but it is OK if they don't listen every day. Encourage them to listen as many times as possible, hopefully at least 3 or 4 times. Also ask them to pay attention to any times during their daily activities that thoughts of loving-kindness arise.

Stress that it is important that they HONESTLY record the amount of time they meditate. Even if they don't listen to the entire track at a sitting, ask them to record the approximate amount of minutes they did listen or practice meditating. You (facilitator) will not see their logs. They will place them in an envelope (I will provide for you) and seal it. You will turn the sealed envelopes in to the researcher.

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Wellness/LKM Session 2

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Counselor Burnout/Impairment

Objectives:

1. Introduce students to concept of burnout in counselors and the consequences for clients.
2. Discuss importance of counselor self-care & strategies
3. Practice LKM exercise
4. Facilitate student discussion

Procedure:

1. Check-in regarding meditation practice for the week-discuss any problems/barriers (15 min)

2. Collect & distribute meditation logs
3. Group leaders describe the characteristics of burnout in the counseling profession (15 min)
4. LKM practice (15 min)
5. Processing & discussion (10 min)
6. Assignment: continue listening to Track 1 of CD daily (or as much as possible) & complete meditation logs

Check-in

1. How did they do in their practice during the week?
2. What difficulties did they encounter? Brainstorm ways to overcome them.
3. What benefits did they notice?
4. Did they notice kind or compassionate thoughts arising in situations during the week?

Collect and Distribute Meditation Logs

Burnout Psychoeducation – Facilitator Guidelines

Counseling focuses on client strengths and promoting wellness across the lifespan. Your degree of wellness can affect the services you provide to clients. As counselors, you have the ethical obligation to monitor your own wellness and to recognize any signs of impairment. Both ACA and ASCA address this issue in their Codes of Ethics (Young & Lambie, 2007). Therefore, it is imperative that you practice wellness and enhance your own strengths.

Counseling can be an extremely rewarding profession. However, there are aspects of the counseling profession (e.g., emotional intensity of the work, institutional characteristics, large workloads, lack of immediate gratification) that predispose counselors to the potential for chronic stress, impairment, and burnout. Stress arises when we perceive a situation to be threatening in some way and don't think we have an effective way to cope (Lazarus & Folkman, 1984).

Impairment occurs when counselors' personal distress interferes with their ability to function effectively, which compromises client care. Furthermore, impairment affects the "whole" counselor: physical, cognitive, behavioral, emotional, social, and spiritual aspects. So, understanding and engaging in wellness practices can help you to effectively manage stress, as well as possibly increasing your flexibility, creativity, and/or assertiveness when dealing with your work situations (Young & Lambie, 2007).

Burnout is a specific type of impairment that occurs among helping professionals. Burnout is defined as *a detrimental response to prolonged stress characterized by negative attitudes toward yourself, toward your job, and toward your clients*. There are three components to burnout:

1. **Emotional exhaustion** can be described as extreme fatigue and a feeling of being overextended. When you experience emotional exhaustion, you feel depleted and like you have nothing else to give.
2. **Depersonalization** consists of distancing behaviors, impersonal interactions, and cynicism or hostility toward clients. So, when experiencing this, you might avoid facing your clients, act brusque or hostile towards your clients, or even blame your clients for their problems. It's kind of like viewing your clients as enemies.
3. **Reduced personal accomplishment** includes feelings of incompetency and a lack of self-efficacy. This is like turning your anger onto yourself and blaming yourself for clients' lack of progress. When experiencing this component, you may feel that you are a terrible counselor and start to feel guilty for not being able to help your clients. This component is also related to what is known as "meaning burnout." This is when counselors entered the counseling profession because they wanted to help people but then start to believe they are not making a difference-like a loss of idealism (Maslach, 1982).

As you can see, burnout is a serious syndrome that can affect counselors' ability to establish therapeutic relationships, keep up with their professional responsibilities, and practice self-care (Lambie, 2006). So, it's important that counselors-in-training understand these risks and be prepared to effectively manage them.

Practicing the loving-kindness meditation that you're learning provides you with a tool for taking time for yourselves to relax, replenish, and refocus on your connection to yourself and others. It also helps you to become more self-aware, so you are more likely to notice the signs of stress – because so often we are oblivious. Also, practicing the non-judging and accepting stance of meditation can help you to let go of things and not let them get to you so much.

--(If there is time, allow students to discuss their reactions to this information and go over the self-care handout, *making sure* to leave time [about a half hour] to do the meditation and processing).

Loving-Kindness Facilitator Script

See Weibel (2007, pp 79-82). An additional portion of the script was requested from Fredrickson et al., (2008).

Processing & Discussion

What was their experience like today? What are their intentions for the week?

Assignment

Continue listening to Track 1 on CD daily, or as much as possible, and complete meditation logs. Try saying the intentions (May I be….) – either from the meditation, or their own words – whenever they think about it. Other possible wording: May I have mental happiness. May I have physical happiness. May I live with ease.

Wellness/LKM Session 3

Wellness Dimensions and Meditation

Objectives:

1. To introduce students to six areas of wellness.
2. To help students identify how self-perception and thinking patterns affect aspects of wellness.
3. Practice LKM – expanding to include loved ones
4. Distribute In-Vivo exercise as another option for practicing loving-kindness meditation

Procedure:

1. Check-in (10 min)
2. Collect weekly logs
3. Distribute the "POSIES" wheel to students. Discuss the various aspects of wellness (use Hattie, Myers, & Sweeny, 2004; Myers & Sweeny, 2003; Witmer & Sweeny, 1998 as references) and identify ways that LKM can address the different aspects of wellness (15 min).
4. LKM meditation (15-20 min)
5. Process (15 min)
6. Assignment: Listen to Track 2 on CD during the week & complete meditation logs. Practice In-Vivo exercise (Weibel, 2007, pp. 113-115) as an alternative form of LKM – if they wish.

Check-in

1. How did they do in their practice during the week?
2. What difficulties and successes did they experience?
3. Did they notice kind or compassionate thoughts arising in situations during the week?

Collect and Distribute Meditation Logs

Wellness & Meditation Psychoeducation – Facilitator Script

In counseling, we take a holistic view of people, meaning that we consider the "whole"

person. Accordingly, we recognize that there are various dimensions of wellness. Here is the

POSIES Wheel, which delineates 6 aspects of wellness: Physical, Occupational, Social,

Intellectual, Emotional, Spiritual (distribute handouts). You can use this wheel for yourself or with your clients. First, you (or your client) would color in the percentage of actual participation in each area of wellness currently. Then, you (or your client) would color in the amount you would like to participate in each area. This helps you identify what areas are most important to you compared with the extent that you are either fulfilling or neglecting those areas.

As you look at the handout, I will briefly review some of the main tenets of meditation, and then we will tie it all together. First, meditation involves paying attention to the present moment with a non-judgmental and accepting awareness. It involves an open-hearted curiosity into what is going on for us now, here, in the present. It can help us reconnect with all aspects of ourselves, which can improve self-understanding and help us make wise choices. By learning to attend to life in the present we can interrupt habitual cycles of worry, fear, and self-criticism, while coming to appreciate the simple pleasures of this life. The act of attending to our experience in an accepting and non-judgmental manner could also be thought of as an act of kindness or compassion toward ourselves. We attend to ourselves, listen to ourselves, and pay attention to our experience, right here, now, in this moment, without getting caught up in self-evaluative processes about how we are doing (Weibel, 2007).

Our thought patterns, beliefs, emotions, and personalities greatly influence our physical and emotional health. Physical health is intimately affected by our thinking patterns, how we view ourselves, and our relationships with other people. For example, self-efficacy is your confidence in your ability to manage events in your life, even in the face of unpredictable or stressful circumstances. So, it is your *perception* of what you *think* you can handle or control in your life. And, self-efficacy is a strong predictor of positive health outcomes, such as successful

recovery from medical problems, coping with pain, and the ability to make lifestyle changes. A strong belief in your ability to succeed influences your choice of activities, the amount of effort you put forth in your endeavors, your level of perseverance, and how much stress you experience. There is a well-known Stress Clinic that Jon Kabat-Zinn started at the University of Massachusetts Medical School, where they practice mindfulness meditation, including loving-kindness and compassion-based meditations. It is reported that through practicing Mindfulness Based Stress Reduction (MBSR), the patients experienced profound positive changes in the way they viewed themselves and others (Kabat-Zinn, 1990). So, regularly practicing this type of meditation can help us to better deal with life's stressors, as well as help us make better choices, improve our wellness practices, and improve our view of self and others.

We can accomplish this by bringing our thoughts and feelings, along with their physical, psychological, and social consequences, to our awareness and observing them. As we observe harmful or negative beliefs, thoughts, and behaviors in ourselves, we can work to lessen their hold on us. So, as you experience your daily activities, as well as when you are formally meditating, pay attention to how it feels in your body when you express or don't express angry feelings, when you are distrustful, when you are hostile, etc. Conversely, observe how it feels in your body when you experience joy, when you are trusting, when you are loving, etc. Scientific evidence indicates that certain perceptions, such as recognizing the basic goodness in ourselves and others, actually has intrinsic healing power. Therefore, we can use this awareness of our own personal experience, along with the scientific evidence that certain attitudes and self-perceptions are beneficial, to consciously develop the qualities we desire in ourselves in each moment.

Meditation practice can improve our ability to cultivate new options and perceptions for ourselves (Kabat-Zinn, 1990).

To sum it up, *we* are responsible for our own actions and perceptions. Our choices and behaviors typically arise out of our beliefs and perceptions. Even though our minds seem to have a mind of their own ☺, we can utilize meditation to practice internal wisdom allowing us to choose which qualities and perceptions to either nurture or let go of. As you grow through your experience, remember to forgive yourself. Practice compassion for yourself as you work on self-development (Salzberg, 2005).

Here's a parable to reinforce this lesson (see Weibel, 2007, p. 112).

Loving-Kindness Facilitator Script

See Weibel (2007, pp. 79-83). An additional portion of the script was requested from Fredrickson et al., (2008).

Processing and Discussion

The facilitator reviews what they have done in this session and points out how unique this type of experience is. The facilitator points out that many people do not take the time to be mindfully present or spent time cultivating compassion for themselves or others. The facilitator asks the participants if they might want to give themselves congratulations or a "pat on the back" for engaging in these practices today. The facilitator also points out that these are difficult practices and that people often dedicate their entire lives to cultivating the qualities of mindfulness and loving-kindness. Therefore, they are encouraged to bring patience, non-judgment, acceptance, and self-compassion to their practice.

Distribute In-Vivo (natural setting) Exercise

See Weibel (2007, pp. 113-115) for exercise. Briefly describe. Advise students they can

practice this during the week if they choose; it can even be used in place of some sitting

meditation. If they are going to practice this during the week, please remind them to include this

on their logs.

Wellness/LKM Group Session 4

Connectedness

Objectives:

1. Provide psychoeducation on benefits of connectedness
2. LKM practice expanded to include neutral people

Procedure:

1. Check in with students on previous week's practice. (15 min)
2. Psychoeducation on benefits of connectedness (15 min)
3. LKM meditation (15-20 min)
4. Process (15 min)
5. Assignment: Listen to Track 2 or 3 on CD during the week & complete meditation logs.

Check-In:
Talk about their thoughts and experiences regarding their practice this week (e.g., any surprises, what they expected, what they learned). Did anyone practice the In-Vivo Exercise?

Collect and Distribute Meditation Logs
Psychoeducation on Connectedness - Facilitator Script

The purpose of this discussion is to more fully clarify why we're meditating. It also may

provide us motivation to continue meditating and help us bring any useful lessons we learn while

meditating into our lives. See Weibel (2007, pp. 93-100) for psychoeducation on connectedness.

Loving-kindness Exercise – Facilitator Script
See Weibel (2007, pp. 79-84). An additional portion of the script was requested from

Fredrickson et al., (2008).

Processing and Discussion

Allow students to share what the meditation was like for them.

Wellness/LKM Group Session 5

Empathy

Objectives:

1. Check in on previous week's practice.
2. Provide psycheducation on empathy
3. Expand LKM practice to include a difficult person

Procedure:

1. Check in, discuss, and process previous week's practice. Did anyone practice in vivo exercise? What was it like to expand LKM to others.
2. Psychoeducation on empathy
3. Assignment: listen to CD track 3/practice LKM daily.

Psychoeducation on Empathy Facilitator's Guidelines

The therapeutic relationship between the counselor and client is the foundation of effective counseling. A necessary component of creating a therapeutic relationship with clients is empathy. Empathy has been shown to account for anywhere between 7% to two-thirds of the variance in successful counseling outcomes (Lambie, 2006; Norcross, 2002). Empathy is what enables counselors to profoundly understand the client's experience. However, even though empathy is critical to the counseling process, it can also be a double-edged sword. A counselor must be empathic in order to develop the helping relationship, but absorbing or overly experiencing clients' pain can be harmful to the counselor. Thus, counselors must maintain a

balance between healthy empathy, (i.e., detached concern) and emotional contagion (i.e., taking on the client's emotional experience).

The caring cycle (Skovholt, 2001, pp. 13-24): We must feel for the client first, become involved, and then separate in a positive way. We go through this cycle with each client.

Empathic Attachment → **Active Involvement** → **Felt Separation** → **Empathic Attachment**…

Empathic Attachment: The counselor is the one who is responsible for creating a positive human relationship with clients. The paradox is that we must be emotionally involved with our clients while remaining emotionally distant (Skovholt, 2001).

During **active involvement**, the counselor must remain emotionally attached to the client in a healthy way, with appropriate boundaries. The primary way we accomplish this as counselors, is through active listening and maintaining the core counseling skills: empathy, unconditional positive regard, and congruence/honesty (Skovholt, 2001). (Those of you in Intro will learn a lot more about this throughout the program).

The next part of the caring cycle is **felt separation**. This involves ending the therapeutic relationship in a positive way and honoring any feelings of grief or loss that may arise (Skovholt, 2001).

Fortunately, meditation can help us acknowledge and honor all our feelings. Through meditation, we practice observing our feelings and reactions and not becoming engulfed by them. We remain emotionally detached, yet we generate compassion and caring for ourselves and others. The process you are learning now can be very valuable to your future work with clients.

In the spirit of empathy and altruism, today our loving-kindness exercise will be expanded to include someone with whom you have problems. See Weibel, (2007, pp. 102-103) for psychoeducation.

Loving-Kindness Exercise Facilitator's Script

See Weibel (2007, pp. 79-83). An additional portion of the script was requested from Fredrickson et al., (2008).

Processing and Discussion

Process what it was like to include someone they have problems with.

Wellness Group Session 6

LKM for all beings/Closure

Objectives:

1. Brief review.
2. Expand LKM to include all beings.
3. Closure
4. Complete posttests

Procedure:

1. Facilitators review the main points from the past 5 weeks. Why Meditate? Importance of self-care, connection, awareness of feelings, navigating barriers (10 min.)
2. Do LKM Meditation – expanded to include all beings (20 min).
3. Closure: (15 min).
4. Complete posttests (20-30 min)
5. Collect meditation logs and completed posttest

Review - Facilitator's Script

Today is our last session. We will need to complete the posttests before you leave tonight, so

we'll jump right into a brief review and then the meditation. We will have some time for

processing and closure after the meditation, before you begin filling out the paperwork. The

following summary was adapted from protocol information requested from Fredrickson et al.

(2008):

- Provide brief overview of the following:
- Why meditate? To instill the habit of being calm and centered every day.
- Importance of caring for self and doing so out of feelings of love and caring rather than guilt or "self-improvement" or to please others.
- Bringing to mind loving connections with others naturally feels good and can be generated during a meditation session as well as between sessions.
- Feelings matter. Increase awareness of feelings. Noticing when situations provoke negative emotions or positive emotions.
- Recognize one's ability to choose a response to situations and to generate positive thoughts and feelings intentionally.
- Customizing the meditation practice to become yours.

Loving-Kindness Meditation Facilitator's Script

See Weibel (2007, pp. 79-83). An additional portion of the script was requested from

Fredrickson et al. (2008).

Closure:

We will need to complete the posttests before you leave this evening. But, first, I'd like

us all to take a moment and share what you will take away from this group experience.

Posttests

Students to complete packets: IRI, MSPSS, PSI, and Posttest Questionnaire.

APPENDIX C
CURRICULUM FIDELITY CHECKLIST

Checklist for LKM Group Process

Group # _____

1 = Does not meet expectations
2 = Somewhat meets expectations
3 = Meets expectations
4 = Exceeds expectations

Facilitator(s) appear(s) warm and friendly:

1   2   3   4

Therapeutic atmosphere, as evidenced by comfortable and easy discussion/participation among group members.

1   2   3   4

Facilitator(s) conduct group in accordance with curriculum

1   2   3   4

Facilitator(s) discuss(es) and process(es) participants' experience and/or barriers regarding meditation practice

1   2   3   4

APPENDIX D
DEMOGRAPHIC QUESTIONNAIRE

Demographic Information Questionnaire

1. **Age:** _____

2. **Gender:**   Female   Male   Other

3. **Race/Ethnicity: (circle all that apply)**

   White   Latino/Hispanic   Black   Asian   Other

4. **Undergraduate Major:**_____

5. **Counseling Track:**   Mental Health   Marriage & Family   School   Other

6. **Is this your first semester in the Counselor Education Program?**   Yes   No

   If no, how many hours have you completed? _____

7. **Have you matriculated into the counselor education program?**   Yes   No

   How many classes are you taking this semester?_____

9. **Are you employed?**   Yes   No

   If so, on average how many hours do you work per week?_____

10. **Have you ever meditated before?**   Yes   No

11. **Do you currently meditate?**   Yes   No

   If yes, how many times per week do you meditate? _____

How many minutes do you typically meditate at each sitting? _____

12. **How important is spirituality in your life?**

   Not important   A little important   Important   Very Important

13. **Do you engage in any regular spiritual practices?**   Yes   No

   If yes, please describe:_____

14. **Do you use prayer on a regular basis?**   Yes   No

15. **How important is fitness and exercise in your life?**

   Not important   A little important   Important   Very Important

16. **How would you describe your current level of stress?**

   None   Low   Moderate   High   Very High

17. **Are you currently receiving psychotherapy?**   Yes   No

18. **Overall, how would you currently rate your level of life satisfaction?**

   Low   Moderate   High   Very High

19. **Overall, how would you rate your current level of wellness?**

   Low   Moderate   High   Very High

APPENDIX E
WEEKLY MEDITATION LOG

WEEKLY MEDITATION LOG

How much time did you spend in formal meditation outside of class?

Day	With CD	Tracks (1, 2, 3)	Without CD
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			
Saturday			
Sunday			

Weekly Total _____

Please indicate your level of agreement with the following statement:

I was able to bring the attitudes, intentions, and principles discussed in the group to my daily life, whether meditating or not:

Strongly Disagree   Disagree   Undecided   Agree   Strongly Agree

APPENDIX F
POSTTEST QUESTIONNAIRE

MEDITATION STUDY QUESTIONNAIRE POSTTEST

During the past six weeks, about how many minutes per week did you participate in the following?

1.   Other types of meditation (not LKM) or relaxation (minutes per week):_____

2.   Prayer (minutes per week):_____

3.   Prayer specifically for wellbeing of others (minutes per week):_____

4.   Exercise (minutes per week):_____

5.   How many (out of 6) group sessions did you attend? _____

6.   In general, what level of involvement or participation did you attempt when you practiced the meditation (circle one)?

      None   Moderate   High

7.   How satisfied were you with the loving-kindness meditation (circle one)?

      Very Dissatisfied   Dissatisfied   Satisfied   Very Satisfied

8.   In general, what effect did the meditation have on your mood?

            Worsened   No effect   Improved

9.   Comments:

APPENDIX G
CONTROL GROUP POSTTEST QUESTIONNAIRE

MEDITATION STUDY QUESTIONNAIRE

During the past six weeks, about how many minutes per week did you participate in the following?

Sitting Meditation (minutes per week):_____

Other types of meditation or relaxation (minutes per week):_____

Prayer (minutes per week):_____

Prayer specifically for wellbeing of others (minutes per week):_____

Exercise (minutes per week):_____

APPENDIX H
IRB APPROVAL

Approval of Human Research

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

To: **Monica Leppma**

Date: **July 27, 2010**

Dear Researcher:

On 7/27/2010, the IRB approved the following human participant research until 7/26/2011 inclusive:

Type of Review: UCF Initial Review Submission Form
Project Title: The Effect of Loving-Kindness Meditation on Empathy, Perceived Social Support, and Problem-Solving Appraisal in Counseling Students
Investigator: Monica Leppma
IRB Number: SBE-10-07037
Funding Agency: Association for Spiritual, Ethical, and Religious Values in Counseling(ASERVIC)
Grant Title: The Effect of Loving-Kindness Meditation on Empathy, Perceived Social Support, and Problem-Solving Appraisal in Counseling Students
Research ID: N/A

The Continuing Review Application must be submitted 30days 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 7/26/2011, 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 Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:
Signature applied by Joanne Muratori on 07/27/2010 09:30:49 AM EDT
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
IRB Coordinator

APPENDIX I
IRB MODIFICATION APPROVAL

Approval of Human Research
From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Monica Leppma**

Date: **October 11, 2010**

Dear Researcher:

On October 11, 2010, the IRB approved the following modifications/human participant research until 07/26/2011 inclusive:

Type of Review:	IRB Addendum and Modification Request Form
Modification Type:	Addition of posttest questionnaire
Project Title:	The Effect of Loving-Kindness Meditation on Empathy, Perceived Social Support, and Problem-Solving Appraisal in Counseling Students
Investigator:	Monica Leppma
IRB Number:	SBE-10-07037
Funding Agency:	Association for Spiritual, Ethical, and Religious Values in Counseling (ASERVIC)
Grant Title:	The Effect of Loving-Kindness Meditation on Empathy, Perceived Social Support, and Problem-Solving Appraisal in Counseling Students
Research ID:	N/A

The Continuing Review Application must be submitted 30days 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 07/26/2011, 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.

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

On behalf of Joseph Bielitzki, DVM, UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 10/11/2010 04:53:03 PM EDT
University of Central Florida Institutional Review Board
Office of Research & Commercialization
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IRB Coordinator

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