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Mindfulness Training for Mental Health Professionals and Its Implications for Compassion Towards Clients

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MINDFULNESS TRAINING FOR MENTAL HEALTH PROFESSIONALS AND ITS IMPLICATIONS FOR COMPASSION TOWARDS CLIENTS

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Mindfulness, a practice with roots in Buddhism, has been used effectively as a Western psychological tool with both clinical and nonclinical populations. In the past 10 years, interest has increased in bringing mindfulness practice to health professionals themselves, often with the aim of improving self-care, coping with stress, reducing overall psychological distress, and reducing burnout and compassion fatigue. Efforts have also been taken to examine the impact that mindfulness may have on clinicians' levels of compassion. Most empirical efforts have focused on clinician self-compassion and on clinician empathy. Very little quantitative research, however, has examined mindfulness meditation and its influence on clinician's compassion for others, particularly for their clients. This study also explored the degree to which empathy and compassion are distinct constructs, and the relationship between compassion and self-compassion.

In the current study, a brief mindfulness training program designed specifically for trainee mental health professionals was administered to members of clinical training programs, based on the notion that more mindful therapists are more effective and compassionate therapists. Self-report measures were used to evaluate the program's impact on clinicians' levels of compassion for clients, empathy for clients, self-compassion, and mindfulness. Analyses revealed that the program was generally effective, and that levels of mindfulness increased. Increases in levels of compassion, empathy, and self-compassion were not statistically

significant. Empathy and compassion demonstrated a statistically significant correlation, but the effect size was not so large as to suggest that the two constructs are the same. Self-compassion and compassion were not statistically associated.

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REVIEW OF THE LITERATURE

Mindfulness

Origins

Mindfulness principles and practices originated in Buddhism. Mindfulness, as a theoretical, spiritual, and practical concept, has been called the "heart of Buddhist meditation" (Kabat-Zinn, 1994, 2003). Mindfulness lies at the core of the original teachings of Siddhartha Gautama (later known as the Buddha) and is reflected in all Buddhist meditative traditions, including the Theravada tradition in Southeast Asia, the Mahayana tradition of Vietnam, China, Japan, and South Korea, and the Tajrayana tradition in Tibet (Kabat-Zinn, 2003). Each of these practices have different areas of focus, and yet the principles of mindfulness are heavily woven throughout each of these traditions. Within Buddhism, mindfulness is seen as one of many factors that can change one's relationship to pain and displeasure, and one component of the Noble Eightfold Path by which humans may relinquish themselves from the grips of greed, delusion, and hatred (Shonin, Van Gordon, & Griffiths, 2014).

The principles of mindfulness meditation reflect many of the core tenets of Buddhist psychology. Buddhist psychology delves into the nature of human suffering and the human condition (Kabat-Zinn, 2003), focusing primarily on how to know, shape, and free the mind (Thera, 1965, as discussed in Germer, 2005). The Buddhist framework can best be summarized in the context of the Buddha's Four Noble Truths. The Buddha taught that all life is suffering, and that the conflict between how things are and how we want them to be creates more suffering. In order to decrease suffering, one must change their relationship with pain and distress, and mindfulness lies at the heart of this transformative process (Germer, 2005). Buddhist meditative

traditions go well beyond mindfulness; other "steps" are necessary to free oneself from suffering completely, and these steps depend greatly on the specific Buddhist tradition in question. A complete discussion of Buddhist teachings is beyond the scope of this dissertation. However, mindfulness is generally considered to be a necessary component of these complex teachings (Gethin, 2011).

From its Eastern roots, mindfulness has gained the interest of Western psychologists over the past century. William James was one of the first major Western psychologists to appreciate the psychological dimension of Buddhism, and various other names in the field echoed his respect for the Buddhist tradition earlier in the 20th century including Sigmund Freud, Carl Jung, Karen Horney, and others (Epstein, 1995). And while Buddhist psychology was and in some respects is still seen as distinct from Western psychoanalysis and its offshoots, Epstein (1995) emphasized that Buddhism and Western clinical psychological theories share the goal of examining the *self*, especially as Western psychoanalysis has evolved from examinations of sexual drives and instincts to more contemporary models and practices. Epstein explained that Buddhism and psychoanalysis provide different yet related explanations or models for the same characteristics of the human experience. Throughout the early to mid-20th century, however, mindfulness and Buddhist practices remained largely outside the realm of applied psychology in the West, largely because its specific techniques and practices differed from those commonly used in the West, particularly psychoanalytic traditions (Epstein, 1995). In the last 20 years, however, Buddhist-derived practices have been more explicitly woven into Western therapeutic approaches, as researchers and theoreticians have paid more attention to the similarities between the two seemingly disparate schools of thought (Germer, 2005).

Jon Kabat-Zinn's mindfulness-based stress reduction (MBSR), developed in 1979 for the treatment of chronic pain patients in behavioral medicine settings, was the first systematic translation of Buddhist meditative practice into a practical, manual-based treatment (Baer & Krietemeyer, 2006). Kabat-Zinn's work eventually spurred research into other clinical applications of mindfulness practice, including the development of mindfulness-based cognitive therapy (MBCT; e.g. Segal, Williams, & Teasdale, 2001). The evidence base for mindfulness-based treatment approaches has increased significantly in recent years, with some of the most notable benefits found for mood and anxiety disorders (Shonin et al., 2014) and chronic pain and related psychological symptoms. MBSR, MBCT, and other applications of mindfulness meditation continue to demonstrate the blending of Eastern and Western thought, with the quality of method bridging the gap between two seemingly disparate psychological world views.

The following sections contain a broad overview and description of mindfulness, its underlying principles, purported mechanisms of change, and the empirical literature supporting its effectiveness as an intervention for clinical and nonclinical populations. Respect is paid to the historical context influencing contemporary conceptualizations and definitions of mindfulness. Common meditative applications of mindfulness are also described. Discussed first are formative and contemporary definitions of mindfulness.

Definitions of Mindfulness

A long history of translation and interpretation of Buddhist texts inspire contemporary definitions of mindfulness. This process has been made more complex by the fact that many important terms contributing to developing definitions have no clear English translations in the context of Buddhist teachings, leaving such concepts open to interpretation. These interpretations have shaped our current understanding of the classical Buddhist teachings.

T. W. Rys Davids first translated the Buddhist terms *sati* (in its Pali form) or *smrti* (Sanskrit form) using the English term "mindfulness" (Gethin, 2011). Rys Davids surmised that, in the context of Buddhism, *sati* refers not only to "memory," which is its direct translation, but also to a concept involving remembering, calling to mind, recollection, and being aware of specific facts or specific elements of existence, particularly the impermanent nature of all phenomena (Davids, 1910, as is discussed by Gethin, 2011). In essence, if you are consistently "remembering" what you are doing, only then can you truly "see" what you are doing. This unique state of remembering and "seeing" is central to eliminating one's greed, delusion, and hatred. Over the next 50 years, Rys Davids' term "mindfulness" became the only acceptable translation of *sati*, and his larger interpretation of the meaning of *sati* helped shape later definitions of mindfulness.

Nyanaponika Thera, a Theravada monk practicing in the 20th century, helped shape contemporary definitions of mindfulness. He emphasized "bare attention" as an essential piece of mindfulness, noting that humans tend to add "subjective judgments" to their assessment of how things truly are, judgments which are heavily influenced by personality, ego, and sense of self (Thera, 1962, as discussed in Gethin, 2011). Bare attention, as Nyanaponika taught, is a way of counteracting the judging process, allowing a person to free one's perception of how things are from these judgments and begin to see things from a different perspective. This understanding of mindfulness has been highly influential, to the point that many conceptualize mindfulness as synonymous with bare attention, though Nyanaponika was careful to describe bare attention as an important element of larger mindful practice (Gethin, 2011).

The work of authors such as Rys Davids and Nyanaponika precipitated modern definitions of mindfulness; these definitions vary considerably from author to author, but

generally reflect the same basic principles. Some definitions emphasize the attentional component of mindfulness, the "moment by moment awareness" with which mindful individuals greet their internal and external world (Germer, 2005). Teasdale, Segal, & Williams (1995), for example, conceptualize mindfulness as a set of "attentional control" skills. Brown & Ryan (2003), meanwhile, consider mindfulness "an enhanced attention to and awareness of the current experience or present reality" (p. 822), while Hanh (1976) defines mindfulness as "keeping one's consciousness alive to the present reality" (as discussed in Brown & Ryan, 2003).

Jon Kabat-Zinn's definition is the most-cited definition in the mindfulness literature (Gethin, 2011): *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, 1994, 2003). This definition reflects the 3 main components of mindfulness identified by Germer (2005) to be represented across working definitions of mindfulness in the psychotherapy and Buddhist literature: (1) awareness (2) of the present moment (3) with nonjudgment/acceptance. Nonjudgment/acceptance, a prominent concept when mindfulness is brought to a therapeutic context (Germer, 2005), is debated as a component of mindfulness, but is nonetheless reflected in most definitions and conceptualizations.

Kabat-Zinn's MBSR program has garnered empirical evidence supporting its efficacy for a variety of clinical populations and for a variety of outcomes, including stress, anxiety, and depression (Baer & Krietemeyer, 2006; Carlson & Garland, 2005; Grossman, Niemann, Schmidt, & Walach, 2004). Further, studies in recent years have examined the benefits of MBSR in medical and mental health professionals, finding positive effects on various measures of psychological well-being such as coping ability, stress, burnout, anxiety, empathy, and self-compassion, focus, and perceived burden (Shapiro, Brown, & Biegel, 2007; Shapiro, Schwartz,

& Bonner, 1998; Smith, 2014). Considering this growing, though young, body of research, and the fact that it incorporates the 3 elements of mindfulness most often referenced in the psychotherapy and Buddhist literature, this 3-part definition provides an appropriate framework for mindfulness as it is considered and implemented in this study.

What follows is a thorough description of mindfulness. This description is meant to reflect mindfulness as understood from a contemporary, Western point of view. However, consistent with the work of Kabat-Zinn and others, the author is careful to pay respect to its Buddhist roots and influences. This section draws heavily from the work of Jon Kabat-Zinn, Kirk Warren Brown, Richard M. Ryan, Christopher K. Germer, Shauna L. Shapiro and Britta K Holzel.

What is Mindfulness?

Mindfulness is a way of directing attention (Baer & Krietemeyer, 2006) and of cultivating full awareness of the mind and body in the present moment (Chaskalson, 2011). From a Buddhist perspective, humans live their lives in a waking state that is both limiting and limited in nature; we are often on "autopilot" (Germer, 2005), woefully unaware of ourselves, the world, and the complexity of our present experience (Kabat-Zinn, 1994). Mindfulness, then, is a way to foster greater awareness and clarity of the present-moment (Kabat-Zinn, 1994) without the lens of judgment (Chaskalson, 2011). Mindfulness has often been described simply as "being awake;" in fact, the term "Buddha" simply means "one who has awakened to his or her true nature" (Kabat-Zinn, 1994; p. 6). In this way, the mindful individual, through the calm moment-to-moment observation of the mind-body process, comes to view life as a process of constant change, greeting all aspects of experience, including pain and pleasure, with more balance and less distress (Chaskalson, 2011). Similarly, Germer (2005) conceptualizes mindfulness primarily

as a “special relationship to suffering.” Pain, displeasure, and discomfort are inescapable aspects of the human experience, and suffering rises as a function of how one relates to these unpleasant experiences. Buddhism teaches that human suffering comes from attachments, desires, and efforts to *maintain pleasure* and to *avoid pain* (Olendzki, 2005), and from attempts to change what we cannot change and keep the same what cannot be kept the same. Mindfulness practice helps accept our experience for what it is.

Shapiro, Carlson, Astin, & Freedman (2006) conceptualize mindfulness in terms of 3 axioms: Intention, attention, and attitude. The axioms, which are not discreet processes but rather aspects of a cyclic, mindfulness process that occur simultaneously, each correspond to components of Kabat-Zinn’s definition of mindfulness. “Intention” embodies the purposefulness described by Kabat-Zinn. Mindfulness is an intentional, purposeful way of directing attention which involves a dynamic personal vision towards which to work. The intention axiom reflects the active nature of mindfulness practice, which is often mistaken as a purely passive activity where the goal is simply to “stop thinking."

Shapiro et al.’s (2006) second axiom is attention, which corresponds to the moment-to-moment observing of the internal and external present experience. Attention is a vital piece of mindfulness and is central to most definitions of mindfulness. Similarly, Brown & Ryan (2003) conceptualize mindfulness as an attribute of consciousness; consciousness, then, is comprised of both awareness and attention, both of which figure prominently in most definitions of mindfulness. Awareness, according to Brown and Ryan, is the “background radar” of consciousness. Awareness involves the continuous monitoring of all aspects of the internal and external environment. The other component of consciousness, attention, is the process of

focusing one's awareness on a limited range of experience Brown & Ryan, (2003), which mindful individuals learn to do purposefully.

Shapiro et al.'s (2006) third axiom, attitude, captures the nonjudgmental quality with which one attends to the present moment. In mindfulness, one brings an attitude of openness, kindness, and curiosity to their experience. The mindful attitude is not evaluative or interpretive, as this may limit us to automatic or habitual emotional, cognitive, and behavioral reactions. By calmly, nonjudgmentally observing the present moment, we come to live life more effectively (Kabat-Zinn, 1994). We may learn to let our experience "be" what it is, without constantly striving to change it, recognizing elements of our experience, like thoughts or feelings, as "events," rather than facts necessitating habitual reactions (Stahl & Goldstein, 2010). "Acceptance" is an extension of nonjudgment Germer (2005). Acceptance is the compassion, friendliness, interest, and open-heartedness with which one may greet the observed elements of experience in the present moment, regardless of how pleasant or unpleasant the moment may be (Kabat-Zinn, 2003). The attitude of mindfulness helps create the foundation for compassion and self-compassion, which is discussed in the next chapter.

Shapiro's axioms help clarify the components of mindfulness. Taking a more global perspective, mindfulness can also be conceptualized in terms of "state" and "trait" mindfulness. Mindfulness may be situational, evoked when certain situations or behaviors, including meditation, foster a concentrated, almost trance-like state of awareness (Farnsworth-Grodd, 2012). However, mindfulness is also a quality that all individuals manifest, to varying degrees of prevalence and persistence, regardless of having any past or present meditative experience. Thus, mindfulness has been regarded as a normal quality of human consciousness that varies naturally across individuals and settings (Brown & Ryan, 2003). Germer (2005) noted that "mindful

moments" are universal experiences for everyone from experienced meditators to those who have never heard of mindfulness. These are moments of present-centered and nonjudgmental awareness of ourselves. Further, trait mindfulness is not stable, and has been shown to be responsive to training programs, like MBSR, that seek to increase participant mindfulness (e.g. Dobkin & Zhao, 2011). .

Mindfulness Meditation

Mindfulness can be thought of as a skill or a set of skills, including objective awareness, focus and attention regulation, and a nonjudgment. However, mindfulness is difficult to develop, and humans tend to live in non-mindful ways. As such, it takes practice to develop mindfulness skills and learn to live and act more mindfully. Mindfulness practice generally takes two forms; formal and informal. Informal practice generally involves intentionally bringing mindfulness into activities of daily living (e.g. Baer & Krietemeyer, 2006; Germer, 2005). Common activities in which this has been discussed include eating, walking, and driving (Baer & Krietemeyer, 2006); however, any exercise that cultivates awareness of the present moment, with acceptance, has the potential to help develop mindfulness. The informal component of mindfulness practice is featured in many structured mindfulness-based therapeutic programs, including MBSR, MBCT, dialectical behavior therapy (DBT) and acceptance and commitment therapy (ACT: Baer & Krietemeyer, 2006).

The primary means by which mindfulness is developed is through formal meditation practice, as meditations practice deliberately the specific skills associated with mindfulness. The more these skills are practiced, the more they can be generalized and used automatically in daily life. Formal meditation practices vary considerably; however, practices and their instructions tend to have several features in common. Formal meditations are usually up to 45 minutes in

length (Baer & Krietemeyer, 2006), though some are as short as 5-10 minutes. Most important, however, is the overall nature of the meditations and the style of awareness cultivated in each. According to Germer (2005), there are 3 broad types of meditations: concentration, mindfulness, and loving-kindness, all of which are part of the mindfulness tradition and which complement and overlap each other to different degrees (Boellinghaus, Jones, & Hutton, 2014; Germer, 2005). In mindfulness training programs, it is common for participants to practice all 3 types of meditations. Each of these 3 types of meditations has a different emphasis, described in the following section.

In concentration mediation, the meditator focuses their attention on a stimulus or group of stimuli, often the breath, but also other internal stimuli such as bodily sensations or external stimuli such as physical objects or sounds. When other thoughts intrude the consciousness of the meditator and draw focus away from the object of awareness, the meditator gently but firmly moves their attention back to the object of meditation (Dunn, Hartigan, & Mikulas, 1999; Germer, 2005). So, concentration meditations tend to center around particular, identified stimuli, and the "work" of the meditator is to maintain a focused attention on that stimuli all the while practicing the process of bring attention back to the stimuli when focus drifts away, which is natural and bound to happen.

In mindfulness meditation, attention is not focused on a single object. Instead, mindfulness meditation is characterized by an open receptiveness to all stimuli that enter awareness, while inhibiting the urge or instinct to judge, evaluate, or change the stimuli as they arise (Dunn et al., 1999). In this way, mediators become more and more skilled at "stopping" and noticing, without judgment, different stimuli such as thoughts, feelings, physical sensations,

many of which they likely either don't notice in daily life or try to avoid acknowledging, thus more fully experiencing the present moment (Germer, 2005; Kabat-Zinn, 1994).

Weibel (2007) described loving-kindness meditation as "using silent mental phrases that focus on the inherent connectedness in the world and the universality of the desire to be happy and free from suffering to cultivate attitudes, intentions, and feelings of love, kindness, and compassion, first for oneself and then for a sequence of other recipients that typically includes a loved one, a friend, a neutral person, one's community, a person with whom one has difficulties, all people, or all beings." Typical loving-kindness meditations involve directing warm, kind feelings towards a gradually expansive and inclusive range of individuals, including oneself, a good friend, a neutral person, an "enemy" or difficult person, and to all beings. Loving kindness is closely linked to compassion in the Buddhist tradition, as both raise the understanding that all beings are inextricably linked to one another (Hofmann, Grosmsan, & Hinton, 2011).

Meditative practices typically include the exploration of physical sensations of the body (body-scan and muscle relaxation exercises are prominent here), the activity of the mind (imagery, cognitive-oriented exercises), and the growth and diminishment of emotions. Meditations can also vary in terms of the aspect(s) of mindfulness they most directly target, specifically awareness, present experience, or nonjudgment/acceptance (e.g. Brach, 2003; Hanh, 1976; Kabat-Zinn, 1990, 1994; Teasdale et al., 2002). Further, specific meditations often involve aspects of multiple "types" of meditation. For example, a typical meditation on the breath involves elements of concentration meditation (maintain a focus on the breath) while often cultivating the open, receptive stance characterological of mindfulness meditation and encouraging the kind compassionate attitude that is the aim of loving-kindness meditations.

Mechanisms of Mindfulness

Hölzel et al. (2011) and Shapiro et al. (2006) identified several mechanisms by which mindfulness purportedly facilitates change and reviewed empirical research that supports the efficacy of these processes. Shapiro et al. (2006) defined an overarching mechanism, "reperceiving," which is the process by which "one is able to disidentify from the contents of consciousness (i.e. one's thoughts) and view his or her moment-by-moment experience with greater clarity and objectivity" (p. 377). This shift in perspective describes the broad mindfulness process, but there are also smaller, more specific processes at work. Several of these processes are reviewed next.

One important mechanism, identified by Hölzel et al.(2011), is improved attention regulation. The way one attends to internal and external stimuli is a fundamental part of mindfulness meditation, and concentration or "focused attention" meditations are often practiced early on before moving to other types of meditations. Studies have provided evidence that mindfulness meditation can help improve attention regulation. For example, Jha, Krompinger, & Baime (2007) administered the Attention Network Test (ANT: Fan, McCandliss, Sommer, Ray, & Posner, 2002) at pre and posttreatment to participants in 3 groups: one group of participants with no experience with mindfulness meditation completed a course of MBSR; one group of participants were experienced meditators, and they participated in a one month meditation retreat; and one group served as the control group and did not receive meditation training (nor had they ever had any meditation experience). The attention network test is a visual discrimination task that measures 3 subsystems of attention: alerting, orienting, and conflict monitoring. Results demonstrated the impact meditation training has on attention regulation. At Time 1, the meditation retreat group (experienced meditators) demonstrated superior conflict

monitoring performance relative to the other two groups. At Time 2, MBSR participants displayed significantly greater improvements relative to the other two groups in orienting, while the meditation retreat group demonstrated improvements in exogenous stimulus detection, part of the alerting component.

Shapiro et al. (2006) identified "exposure" as another major mechanism by which mindfulness meditation exerts its effects. By mindfully attending to painful or negative stimuli and calmly experiencing negative emotional states, one is constructively "exposed" to painful experiences and learns that these stimuli or emotions are not so overwhelming or frightening. In this way, meditation can lead to a global openness to all aspects of experience and the extinction of previous fear responses and avoidance behaviors. Holzel et al. (2011) presented neurological evidence from anatomical MRI studies demonstrating that brain regions associated with fear extinction (the reduction and eventual elimination of conditioned fear responses to a stimulus) and extinction retention (the maintenance of this reduction in conditioned fear responses, such that the fear response does not return) show structural changes following mindfulness meditation training. For example, research has shown that ventromedial prefrontal cortex (vmPFC) and hippocampal activation work in concert during extinction recall to inhibit fear (Milad et al., 2007). Luders, Toga, Lepore, & Gaser (2009) found that, compared to nonmeditators, participants with meditation experience showed significantly larger hippocampal volume, while Holzel et al. (2008) found that, in experienced meditators, cumulative hours of mindfulness training were correlated positively with gray matter concentration in the vmPFC.

Holzel et al. (2011) considered exposure as part of a broader mindfulness mechanism of improved emotion regulation which includes subprocesses of reappraisal (stressful events being construed in a more adaptive, helpful way) and, as discussed, exposure/extinction.

Neuroscientific research has supported the notion that mindfulness improves emotion regulation processes. For example, Goldin & Gross (2010) found that patients with social anxiety, after completing a course of MBSR, demonstrated quicker decreases of activation in the amygdala when presented with negative self-beliefs compared to before they began the course, while Holzel et al. (2007) found greater activation in the dorso-medial prefrontal cortex and rostral anterior cingulate cortex (ACC) (both of which are involved in emotion regulation and control) in experienced meditators compared to nonmeditators. Since diminished emotion regulation is associated with a variety of psychological disorders, like depression, anxiety, bipolar disorder, and others, the fact that mindfulness meditation improves meditation is clinically significant.

Shapiro et al. (2006) also defined "values clarification" as a mechanism by which mindfulness influences change. Mindfulness practitioners learn to step back from and observe their values and their behaviors rather than moving through life acting and behaving automatically and habitually, which inherently limits choices. By gaining the ability to objectively and calmly observe and reflect upon our values, we may have the chance to choose values or patterns of behavior that are truer to ourselves. Brown and Ryan (2003) had participants respond to a measure of state relative autonomy (used to measure whether behaviors were of a controlled or autonomous nature) and 7 items of the Mindful Attention Awareness Scale (MAAS: Brown and Ryan, 2003) at multiple times during the day for an entire week. Results showed that MAAS-assessed mindfulness predicted day-to-day autonomy, such that when participants were acting more mindfully they were acting in ways that were more congruent with their values and interests.

Similarly, Holzel et al. (2011) identified "change in perspective on the self" as a mechanism of change in mindfulness. Through meditation, practitioners develop a heightened

meta-awareness with which they are able to take a more objective, nonconceptual perspective on their conscious experiences. With this meta-awareness, practitioners come to deidentify with the sense of the self as static and unchanging and begin to view themselves and their experience as transitory and forever changing. From a Buddhist perspective, identifying with and clinging to a static, unchanging sense of self is the cause of suffering, and so dis-identification brings the freedom to live life more genuinely and meaningfully. Emarvadhana and Tori (1997) administered the Tennessee Self-Concept Scale (TSCS: Roid and Fritts, 1988) to participants before and after completing a 7-day mindfulness retreat. The Tennessee Self-Concept Scale assesses internal and external aspects of self-representation and includes subscales such as Identity, Self-Criticism, Personal Self, and Social Self. The authors found significant increases in self-concept scores on almost all TSCS subscales after treatment relative to a no-treatment control group, suggesting that mindfulness meditation helped participants develop a more positive self-representations and more self-acceptance.

Empirical Support of the Effectiveness of Mindfulness

The research base that supports mindfulness' efficacy and effectiveness with clinical and nonclinical populations is young but promising. Meta-analytic studies have broadly addressed mindfulness' effectiveness. Baer (2003)'s meta-analysis included 15 studies of mindfulness treatments including MBSR and MBCT, which included both controlled and uncontrolled study designs. The studies used measures of self-reported pain, medical symptoms, anxiety, depression, eating behaviors, and general psychological functioning. Effect sizes across studies were weighted by sample size and averaged to produce a general effect size of 0.59 (Cohen's d), which is in the moderate range. Grossman et al. (2004) performed a meta-analysis that included 20 studies of health-related effects of MBSR, covering a spectrum of conditions and disorders

including fibromyalgia, mixed cancer diagnoses, and chronic pain, as well as anxiety, obesity, and binge-eating disorder. Significant improvements with effect sizes of approximately 0.5 ($p < .0001$) for both controlled and uncontrolled studies were found for several outcomes including quality of life, depression, anxiety, coping style, and medical symptoms, measured with questionnaires like the Medical Symptom Checklist, Beck Depression Inventory, and Global Severity Inventory of Symptom Checklist - R.

Psychological benefits of mindfulness include decreased anxiety, depression, and stress (Baer, 2003; Kabat-Zinn et al., 1992). In a meta-analysis conducted with 39 studies evaluating the impact of mindfulness-based therapies on anxiety and depression, Hofmann, Sawyer, Witt, & Oh (2010) found uncontrolled pre-post effect sizes in the moderate range for reducing anxiety symptoms (Hedge's $g = 0.63$) and depression symptoms (Hedge's $g = 0.59$). Effect sizes for reducing anxiety in patients with anxiety disorders and depression symptoms in patients with depressive disorders were large, with effect sizes of 0.97 and 0.95, respectively. Effect sizes of anxiety and depression symptoms in controlled studies were also in the moderate range, but the authors concluded that these effect sizes were unreliable due to the small number of studies used.

Of course, various individual studies also support mindfulness as a treatment for anxiety and depression. Teasdale et al. (2000) found that MBCT reduced rates of relapse for depression by half compared to treatment in patients with recurrent major depressive episodes who had experienced at least 3 previous episodes, though the effect did not apply to those experiencing only two previous episodes. Roemer & Orsillo (2008) evaluated the efficacy of an acceptance-based behavior therapy with a sample of clients meeting criteria for generalized anxiety disorder (GAD). Using a controlled design (immediate vs. delayed treatment), the authors found that treatment led to significant reductions in clinician-rated and self-reported GAD symptoms, which

were maintained at 3-month and 9-month follow-up. Further, 78% of treated participants did not meet criteria for GAD by the end of treatment.

Evidence suggests that MBTs can be an effective treatment for substance use clients. Bowen et al. (2006) used a treatment-as-usual (TAU-controlled design to evaluate the effectiveness of a Vipassana meditation course with an incarcerated population. At 3-month post-release follow-up, results indicated significant reductions compared to controls in substance use (including marijuana, crack cocaine, and alcohol), reductions in alcohol-related problems, as well as significant increases in psychosocial outcomes. Mindfulness may also be an effective treatment for disordered eating. Tapper et al. (2009) randomly assigned 62 women who were attempting to lose weight to either a treatment group that would participate in 4 two-hour mindfulness workshops that borrowed exercises and lessons from Acceptance and Commitment Therapy or a control group. At 6-month follow up, treatment group participants demonstrated significant increases in physical activity compared to controls at the end of the study, but not significant reductions in BMI. However, when 7 participants who reported "never" applying the mindfulness principles were removed, results showed significant reductions in BMI for treatment group participants compared to controls.

Traditional Western applications of mindfulness, particularly those involving extensions of MBSR, were developed to treat patients with medical conditions, and recent research supports the effectiveness of these applications for psychological symptoms and, importantly, physical symptoms. Carlson, Speca, Faris, & Patel (2007) administered an 8-week MBSR program with breast and prostate cancer outpatients. The program led to significant improvements in measures of quality of life, self-reported stress, cortisol levels, and reductions in the T-cell production of pro-inflammatory cytokines (which have been associated with increased stress levels), with

improvements maintained or continued at 6 and 12-month follow-up. However, the conclusions of this study are limited by lack of a control group. Cash et al. (2015) used a randomized waitlist control group design and found that MBSR reduced perceived stress and the severity of fibromyalgia symptoms in a sample of women with fibromyalgia. Similarly, Grossman, Tiefenthaler-gilmer, Raysz, and Kesper (2007) found that, from pre to post treatment, MBSR led to significantly greater improvements than the active control condition (a social support intervention) on most outcome measures including those assessing visual analog pain, coping with pain, depression, anxiety, somatic complaints, and several subscales of the Quality of Life Scale for the Chronically Ill (QoL; Siegrist, Broer, & Junge, 1996).

Mindfulness meditation has also been effectively applied with nonclinical populations, particularly with respect to effects on stress-related outcomes. For example, Williams, Kolar, Reger, & Pearson (2001) administered to a nonclinical community sample an 8-week stress reduction program that applied mindfulness meditation to daily stresses. Compared to controls, treatment group participants demonstrated significant reductions in measures of daily hassles, psychological distress and medical symptoms at 3-month follow-up posttreatment. Klatt, Buckworth, & Malarkey (2008) evaluated the efficacy of a low-dose MBSR program (MBSR-ld) with a sample of healthy working adults. Compared to a waitlist control group, the treatment group demonstrated significant reductions in perceived stress and increases in mindfulness, as well as improvements in self-reported sleep quality, though the control group demonstrated sleep improvements as well.

Studies examining the efficacy of loving kindness meditation for different populations have also reported promising results. Shonin, Van Gordon, Compare, Zangeneh, & Griffiths (2015), in a meta-analysis examining the efficacy of loving kindness meditation and compassion

meditation (similar to loving kindness meditation), found that such meditations lead to significant improvements for a variety of outcomes, including psychological distress, positive and negative affect, empathic accuracy, interpersonal relations, and positive thinking. Carson (2005) found that an 8-week loving kindness meditation course led to significant reductions in pain, anger, and psychological distress in chronic low back pain patients.

A few studies have compared the effectiveness of mindfulness-based treatments with other treatment approaches, with some producing evidence that mindfulness-based treatments may provide benefits separate from or even beyond those offered by other approaches, depending on the outcomes measured and the treatment population. Byrne, Bond, & London, (2013) compared mindfulness-based group treatment with an interpersonal process group intervention and a no-treatment control condition, measuring self-reported anxiety, depression, interpersonal problems, and academic problems at pretreatment, posttreatment, and 6-month follow-up. They found that both active treatment groups exhibited significant reductions in anxiety, depression, and interpersonal problems at posttreatment. However, at 6-month follow-up, only the mindfulness group maintained reductions in anxiety and depression, while the IP group maintained reductions in interpersonal problems.

Smith et al. (2008) compared the effects of MBSR and cognitive-behavioral stress reduction (CBSR) on 8 outcome measures including perceived stress, depression, neuroticism, pain, well-being, and energy. MBSR participants demonstrated significant changes on all 8 outcome measures compared to only 3 outcome measures for the CBSR group. Further, effect sizes for MBSR participants were larger on all outcome measures than those for the CBSR group. Zautra et al. (2008) compared the effects of cognitive-behavioral therapy for pain with mindfulness meditation and emotion regulation therapy and an education-only control condition

for patients with rheumatoid arthritis. Results showed that the cognitive-behavioral condition performed as well or better than the mindfulness condition on most measures, especially pain control, and with regards to reductions in the production interleukin-6 (IL-6), a signaling molecule associated with joint destruction in rheumatoid arthritis patients. However, results also showed that, for patients with a history of recurrent depressive episodes, mindfulness meditation/emotion regulation was more effective for some measures including positive affect, negative affect, coping efficacy for pain, physician-ratings of joint tenderness, and catastrophizing. A history of recurrent depression did not moderate the effects of treatment group on pain control and IL-6 production, indicating that the cognitive-behavioral condition was superior to mindfulness for these outcomes. Studies such as those reviewed above suggest that mindfulness has a place as an effect, distinct intervention alongside other more mainstream or well-established interventions or treatment approaches.

In this chapter, mindfulness, its principles, mechanisms of change, and its empirical support were overviewed. Next the discussion moves to the related and significant topic of compassion.

Compassion and Mindfulness Training for Mental Health Professionals

In this section, compassion will be defined from both the Eastern and Western perspectives, and will be distinguished from a similar construct, empathy. The discussion will consider self-compassion, a construct very closely linked both theoretically and empirically with the broader notion of compassion. The research literature examining the link between mindfulness meditation and the development of compassion and self-compassion is reviewed. A review of the literature examining mindfulness training for mental health professionals will

follow this overview of compassion. This discussion will help illustrate the rationale for the present study.

Buddhist articulations of compassion vary among the different Buddhist schools. However, the varied perspectives share common themes and the differences are not critical to this discussion. In Buddhist psychology, compassion is a form of empathy, through which we sense or experience another's suffering and experience a deep wish to free them from their suffering. Buddhist conceptions of "suffering" differ notably from Western definitions. In the Theravada tradition, there are 3 levels of suffering: 1) obvious suffering (the physical and mental forms of discontentment that we commonly associate with suffering); 2) suffering of transience (our futile attempts to cling and grasp at pleasant things, while they are inherent unstable and impermanent); and 3) suffering of self-centered conditioning (the mind's attempt to create an unrealistic impression of a stable, unchanging self surrounded by an always-changing world). Buddhist compassion focuses on all 3 levels, and it extends to all humans equally (Makransky, 2012). The Buddhist perspective weaves compassion and "wisdom" together; a compassionate mind is more closely attuned to our real, or true, condition. Compassion with wisdom, then, form the foundation for healing and emotional freedom, empowering all positive states of mind and allowing us to awaken to our fullest potential (Makransky, 2012).

Compassion: Contemporary Western Perspectives

Traditionally, Western psychology has not acknowledged compassion as a distinct, meaningful construct, instead focusing on related constructs, some of which are applied synonymously with compassion (Siegel & Germer, 2012). Recently, however, compassion has received more direct attention, and researchers have clarified definitions and conceptualizations.

Some researchers understand compassion from an evolutionary, biological context. Paul Gilbert, a leader in the compassion field and developer of compassion-focused therapy (e.g. Gilbert, 2009, 2014) and compassionate-mind training (Beaumont, Galpin, & Jenkins, 2012; Gilbert & Procter, 2006) , views compassion through an evolutionary lens. Gilbert argues that compassion is an evolved social behavior linked to the caregiver mentality found in parenting and childrearing. According to Gilbert, humans have innate affect-regulation systems; these include the *threat-focused system* (defensive, fight, flight, freeze behaviors), and the *affiliative-focused system*. The affiliative-focused system, or the "safeness system," involves the felt sense of soothing and safety associated with the warm, empathic caring context that an engaged parent might give a child (Gilbert, 2009, 2012). Gilbert argued that children reared in stable, nurturing environments learn to be compassionate toward themselves and toward others and learn to effectively regulate their emotions. Children raised in abusive or neglecting environments develop self-criticism, shame, and emotional dysregulation; in these children, the affiliative-focused system is underdeveloped in the absence of warm, caring parenting. Wang (2005), meanwhile, described compassion as emerging from innate "species-preservation" tendencies based on an inclusive sense of self and interconnectedness with others.

Definitions of compassion vary, but are generally very similar. Gilbert described compassion as "a basic kindness, with deep awareness of the suffering of oneself and of other living things, coupled with the wish to relieve it" (Gilbert, 2009, p. xiii). Siegel & Germer defined compassion as "the experience of suffering with the wish to alleviate it (2012, p. 12)." Neff (2012), in a discussion of self-compassion, described compassion as including the recognition of suffering, the kindness and understanding of such suffering, and the desire to ameliorate it. Across the literature, compassion is described as encompassing the experience and

awareness of suffering in general, plus the desire to alleviate suffering for whomever is experiencing it. In this way, compassion might be thought of as an attitude or as a way of reacting to suffering, such that someone with higher levels of compassion more easily experiences the suffering of another and more readily accesses the wish to help that individual.

Empathy: A Related, but Distinct Construct

Compassion is often described as subsuming several related constructs, which may be considered components of compassion. These constructs include empathy, sympathy, altruism, personal distress, forgiveness, and love (e.g. Pommier, 2010; Siegel & Germer, 2012). The meanings associated with each of these words, including compassion, overlap significantly with one another. Several authors have examined the distinctions and commonalities among these terms (e.g. Germer & Siegel, 2012; Goetz, Keltner, & Simon-Thomas, 2010). A thorough discussion of the intricacies and distinctions among these constructs is beyond the scope of this paper. However, perhaps the most important construct from which to distinguish compassion is empathy, considering its prominent place in psychotherapeutic practice, theory, and empirical research.

Empathy was one of Carl Rogers' core conditions for change in psychotherapy that emerged from his six necessary and sufficient conditions for therapeutic change (e.g. Rogers, 1959). His seminal work identified empathy as a key characteristic of a strong therapeutic relationship; it is well-established in the psychotherapy outcome literature that followed that the quality and strength of the therapeutic relationship accounts for the most variance in client outcomes (Lambert, 2013). Rogers (1959) defined empathy as "to perceive the internal frame of reference of another with accuracy, and with the emotional components and meanings which pertain thereto, as if one were the other person" (p. 211).

Compassion is often spoken of interchangeably with empathy (Pommier, 2010), and yet many authors distinguish the two. While empathy involves similar "theory of mind" processes and implies an understanding of another's experience (Gilbert, 2005), compassion is described more specifically as empathy with someone's suffering along with the wish to alleviate it (Siegel & Germer, 2012). Someone may be empathic with any human emotion or experience, good or bad, but compassion is directed specifically towards experiences of suffering. Further, compassion, unlike empathy, involves a wish to alleviate that pain, an intrinsic motivation for prosocial helping behavior. Gilbert (2005) further highlighted the distinction between the two constructs by noting that a psychopath may actually be empathic (understanding of others), but may deliberately use such social processing abilities to manipulate and harm others, rather than care for them or alleviate their pain.

There are have been very few efforts to empirically distinguish empathy from compassion (Birnie, Speca, & Carlson, 2010). However, research has supported both the distinction *and* the association between the constructs. Pommier (2010), in constructing and validating the Compassion Scale, compared the scale to measures of empathy, including the Davis Interpersonal Reactivity Index (IRI; Davis 1983) and the Questionnaire Measure of Emotional Empathy (QMEE; Mehrabian and Epstein, 1972). As the author expected, the compassion scale exhibited moderate but positive correlations with the scales of empathy, supporting compassion's association with yet distinction from empathy. Klimecki, Leiberg, Ricard, & Singer (2013) found that empathy training and compassion training led to different patterns of brain activity. Specifically, empathizing with the suffering of others was associated generally with negative states, and with the activation of brain regions associated with distress and response to pain. Compassion, on the other hand, was associated with warmth and caring,

and with the activation of brain regions associated with affiliation and reward. Lim & Desteno (2016) found that the severity of adverse life experiences predicted higher levels of dispositional compassion, measured using the Compassion Subscale of the Dispositional Positive Emotion Scale (DPES; Shiota, Keltner, & John, 2006). This relationship was mediated by one component of empathy, empathic concern, such that the association between severity of adverse life experiences and compassion disappeared when levels of empathic concern were controlled. Further, both compassion and empathic concern predicted prosocial helping behavior (measured by how much money, with a 1 dollar maximum, participants donated to the Salvation Army after completing the survey), but empathic concern did not predict helping behavior outside of its association with compassion, showing that compassion, not empathy, was the primary construct driving prosocial behavior. A second study using an experimental design, in which participants had the chance to help another individual in need, again demonstrated that though empathic concern and study perspective taking, another component of empathy, both predicted dispositional compassion, neither directly predicted helping behavior, whereas compassion did. The issue of whether empathy and compassion are two distinct constructs will be further explored in this study. Discussed next is self-compassion, another construct that is highly related to compassion.

Self-Compassion

Compassion and self-compassion are distinct, but very closely linked, constructs. In essence, self-compassion is compassion turned inward toward the self. Neff (2003) defined self-compassion as "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one's pain, inadequacies and

failures, so that one's experience is seen as part of the larger human experience" (p. 87). Compassion, then, according to Neff, involves being aware of and touched by the suffering of others, the desire to alleviate that suffering, offering nonjudgmental acceptance of others' pain, and understanding their pain as part of the common human experience. Neff's definition of self-compassion is the most cited and accepted definition of self-compassion in the literature, and her Self Compassion Scale is one of the most widely used measures of self-compassion (e.g. Birnie et al., 2010; Shapiro, Astin, Bishop, & Cordova, 2005; Wei, Liao, Ku, & Shaffer, 2011).

Neff breaks self-compassion into 3 components: self-kindness, common humanity, and mindfulness (Neff, 2003). Self-kindness involves extending kindness rather than harshness or self-criticism to oneself in moments of suffering. Cultivating kindness for oneself, and for others, is often the focal point of many loving kindness meditations, and it is a skill that is often underdeveloped in people who struggle with shame and self-berating behavior. Common humanity involves understanding one's pain as part of the common human experience, rather than unique to the individual and thus isolated from others.

Neff's definition of self-compassion is significant because it deliberately links mindfulness and compassion as complementary constructs. Mindfulness, as it relates to self-compassion and compassion for others, is what allows one to hold suffering in awareness, rather than avoid or reject it. Neff's definition helps clarify the relationship between these constructs, such that more mindful individuals and individuals who have been through mindfulness training programs may have a greater capacity for self-compassion and compassion for others by virtue of the nature of the orientation to suffering that is provided (Shapiro et al., 2005). Fulton (2005) discussed mindfulness as a vehicle for developing self-compassion and compassion for others. Mindfulness practice helps open ourselves to our suffering, rather than reject it, push it away or

find other means of coping that are easier or more comfortable in the immediate moment but over time only increase the distress and malevolent nature accompanying the suffering. By turning toward suffering, one may build both wisdom/insight and compassion simultaneously, as the understanding of suffering as a universal, constant experience associated with all life comes to light. In this way, mindfulness can be thought of as a foundation for compassion, as compassion for self and others is fostered in an environment of openness and acceptance of experience (Boellinghaus, Jones, & Hutton, 2013). This idea is further supported by findings suggesting that mindfulness-based interventions (MBIs) can help foster compassion for self and for others, many of which are reviewed later.

Compassion is reciprocally linked with self-compassion. Neff (2003) contended that people often have an easier time extending compassion to others rather than themselves, and that increased self-compassion can enhance feelings of compassion for others. This link is rooted in the 3 core facets of self-compassion (self-kindness, common humanity, and mindfulness), all of which can applied to the suffering of others (Pommier, 2010). Less self-judgment, then, can lead to less judgment of others, as individuals come to understand the interconnectedness of all humans. Gustin & Wagner (2013) also suggested that developing compassion toward oneself increases one's ability to extend compassionate care towards others. They argued that self-compassion enables individuals to understand the suffering of another person as separate from one's own, and yet as part of their shared humanity. Some empirical evidence supports this notion. Neff & Pommier (2012), in a study examining the link between self-compassion and "other-focused concern," found that self-compassion is associated with several other-focused concern variables such as compassion for humanity, empathic concern, perspective taking, altruism, forgiveness, and less personal distress. Neff & Germer (2013), in a study evaluating a

new meditation program called “The Mindful Self-Compassion Program,” found that pre to posttreatment gains in self-compassion predicted gains in compassion using residual change scores, measured with the Compassion Scale (CS: Pommier, 2010). However, the statistical relationship between the two variables is a subject for further research, and was thus included as a research question in the current study.

The development of compassion for self and others has received attention from researchers aiming to improve mindfulness-based programs, especially MBSR (Raab, 2014), with findings demonstrating that an increased emphasis on developing self-compassion in such programs may be warranted. Birnie et al. (2010) found that MBSR led to increases in self-compassion and empathy, with self-compassion gains predicted by changes in mindfulness and with both self-compassion and empathy associated with better psychological functioning. In contrast, Keng, Smoski, Robins, Ekblad, and Brantley (2012) found that mindfulness and self-compassion differentially mediated separate outcomes of an MBSR program, with mindfulness mediating increases in emotion regulation and self-compassion mediating decreases in worry. Other evidence has accumulated that supports the efficacy of loving-kindness meditation and compassion meditation (a similar form of meditation which focuses on the development of empathy for the suffering of others) in the treatment of various forms of psychopathology (Shonin et al., 2015). Findings such as these suggest the importance of incorporating into mindfulness programs loving-kindness meditations and other deliberate means by which to build compassion.

Some studies have demonstrated that mindfulness or programs involving mindfulness meditation can increase levels of compassion felt for others. Kristin Neff and Christopher Germer used a randomized controlled design to pilot their Mindful Self-Compassion program,

which is an 8-week meditation program which teaches basic mindfulness skills and aims to increase self-compassion, with community members in the greater Boston area (Neff & Germer, 2013). Compared to the waitlist control group, Neff and Germer found that the program increased compassion for others from pre to post treatment, measured by the Compassion Scale (Pommier, 2010), which is the scale adapted and used in the current study. Further, treatment gains were maintained at 6-month and 1-year follow-up. Additional benefits relative to control included significant decreases in anxiety and depression and significant increases in self-compassion and mindfulness.

Few studies have employed experimental manipulation paradigms in a laboratory to study the effects of mindfulness training on compassion. Condon, Desbordes, Miller, & Desteno (2013), however, used a design in which research participants were placed in a situation in which a "suffering" person (a confederate) needed help, and then simply recorded if and how long it took them to help. First, participants were randomly assigned to either treatment or waitlist-control condition. Participants in the treatment condition then participated in either an 8-week mindfulness meditation course or an 8-week compassion meditation course (which included more specific lessons and exercises devoted to compassion, kindness towards others, and alleviating the suffering of others). After completing the training, participants came into the laboratory waiting area and sat in the only available seat. There, a confederate wearing a walking boot and holding crutches, leaned against the wall and sighed. Results were robust; participants in both treatment conditions were more than five times as likely to offer their seat to the suffering confederate than those in the control condition ($p < .05$). Further, participants in the mindfulness meditation condition were as likely to aid the sufferer as those in the compassion meditation condition, indicating that demand characteristics did not significantly influence the

results (those in the compassion meditation group were exposed to more deliberate information and education about helping others who are suffering). Lim, Condon, & Desteno (2015) used the same study design, except participants either completed a mobile-app based mindfulness training or a mobile-app based cognitive-skills training, which served as the active control group. Results echoed those from Condon et al. (2013), as participants in the mindfulness condition were significantly more likely to aid the sufferer and give them their seat.

The theoretical and empirical literature presented above suggest that a mindfulness training program can help foster both self-compassion and compassion for others. The purpose of this study, then, is to implement such a program with trainee mental health professionals, with specific efforts to help therapists use mindfulness to help develop the capacity to be compassionate for their clients.

Mindfulness Training with Health and Mental Health Professionals

Mindfulness has been successfully applied as a treatment for a variety of clinical populations and for a variety of symptoms and outcomes. Mindfulness has also received attention as an effective intervention for nonclinical populations, (e.g. Baer, 2003; Grossman et al., 2004; Williams et al., 2001), with findings showing that mindfulness can have benefits for all individuals. Further, interest has grown in applying mindfulness and loving kindness meditation training with health professionals (Boellinghaus et al., 2013). The current study builds on the literature that suggests that mindfulness can be useful for mental health professionals, such that more mindful therapists are better therapists.

According to Fulton (2005), many of the skills associated with long-term mindfulness practice can help make therapists more effective. For example, mindfulness can be thought of as an “antidote” to drifting attention, as the mindful individual learns to attend to and be aware of

all aspects of their present experience and to direct their attention to specific stimuli. In this case, a mindful therapist may train the mind to more fully engage with and attend to the client. Emotion regulation and affect tolerance are also important benefits of mindfulness practice, and its benefits in the context of therapy and the therapeutic relationship are obvious. Rather than avoiding or pushing away distressing emotions, an expanded awareness inevitably loosens the grip that distressing emotions like fear, anger, or sadness have over us. This makes for a more effective, focused, and attuned therapist (Fulton, 2005). Another key component of mindfulness, nonjudgmental acceptance, has implications for therapists' work as well. Characteristics like warmth, empathy, and acceptance have traditionally been connected to mindfulness practice, and are among the most important qualities a therapist can bring to the therapy relationship (Cigolla & Brown, 2011).

The body of research addressing the applicability of mindfulness to the training of mental health professionals is young and very small relative to the literature looking at mindfulness and its benefits for outcomes in other populations, especially clinical populations. However, initial evidence has generally been positive with both medical and mental health trainees and professionals, and for a variety of outcomes particularly important for such professions, such as empathy, self-compassion, stress, and burnout. Some of the research has been conducted on trainees in these professions while others have focused more on working professionals. The following is a review of this literature, an examination of the important gaps existing in the literature at present, and a discussion of the rationale for this study.

Many past studies have used, and the current study will use, a relatively brief program model (sometimes only lasting for 4-8 weeks), which raises the question of whether such relatively brief programs can have meaningful effects. Some studies have specifically addressed

this question with encouraging results. Aggs & Bambling (2010) developed "The Mindful Therapy Programme" and implemented it with 27 mental health professionals. The program aimed to build upon previous training protocols based on Zen meditation practice but with the added focus on therapy-related skills. The 3-module program was delivered using 1.5-hour sessions delivered at weekly intervals over the course of 8 weeks. Results, though mixed, provide evidence that a relatively brief mindful training program designed for therapists may be effective at improving therapists' ability to incorporate mindful skills into their lives and, importantly, their work with clients. At termination, there were significant increases in the capacity to invoke a mindful state (measured using the Five-Minute Mindfulness Scale, which was created by the lead author), in-session mindfulness and confidence in integrating mindfulness into therapeutic work, and also significant decreases self-reported stress and tension. The absence of a control group and the use of unproven measurements are major limitations of this study, however.

Similarly, Moore (2008) designed a 14-session mindfulness skills-building group for clinical psychologists, with each practice session lasting 10 minutes and the entire duration of the group lasting for one month. Quantitative results were mixed and conflicted somewhat with qualitative results. Qualitatively, participant reports of the effects of the program were overall positive, indicating an increased ability for acting with awareness and nonjudgment. Participants also reported that they viewed mindfulness as a useful tool to help cope with everyday stress. Quantitatively, however, only one subscale ("Observe") on the Kentucky Inventory of Mindfulness Skills (KIMS; Baer, Smith, and Allen, 2004) showed any significant improvement as a result of treatment, as did only one scale ("Self-Kindness") of the Neff Compassion Scale. No reductions in overall stress were found on the Perceived Stress Scale (PSS14; Cohen,

Kamarck, & Mermelstein, 1983). Further, lack of a control group limits conclusions that may be drawn from the study.

Studies implementing mindfulness programs for health and mental health professionals have mostly examined outcomes for clinicians, rather than for clients. The studies reviewed here demonstrate that mindfulness training can improve mental health professionals' personal well-being and other outcomes associated with their effectiveness as therapists. Outcomes examined include various measures of psychological well-being and distress, such as depression, anxiety, stress, burnout, and compassion fatigue. None of the studies empirically measure compassion for others or for clients; however, related constructs are often assessed, including self-compassion, "other-focused concern" or overall empathy, all of which may influence a therapist's performance.

Several qualitative studies have examined the effects of mindfulness and meditative practices as a component of clinical training. While qualitative research suffers from a number of limitations that make inferences and conclusions more difficult, it also allows for more spontaneous responses that may reflect patterns of experience not captured in quantitative measures (Christopher & Maris, 2010). Christopher & Maris (2010) summarized five studies in which they administered "Mind-Body Medicine and the Art of Self-Care," a mindfulness course for counseling students based loosely on the MBSR designed by J.C. Christopher (the article's first author), to counseling and psychotherapy students. Their study evaluated the effects of the course utilizing semi-structured interviews, focus groups, and written narratives as means of data-collection. Several meta-themes emerged from narratives and responses to questions about the experience. Participants reported increased well-being in a variety of domains, including physical, emotional, mental, and interpersonal. Notably, participants reported developing more

conscientiousness and compassion for themselves and others, and indicated improved relationships with people in their lives and their clients. Further, they reported increased mental clarity, attention, and concentration, and also demonstrated increased understanding of their countertransference with clients.

Many qualitative studies revealed benefits of mindfulness practice on therapists' perceptions of the therapeutic relationship. Felton, Coates, & Christopher (2015) also administered Mind-Body Medicine and the Art of Self-Care with 41 masters-level graduate students in mental health counseling, school counseling, and marriage and family counseling. The authors used conventional content analysis to assess the data, focusing on themes, patterns, and meaning that could be drawn from answers to open-ended questions. Similar to other studies, participants indicated that mindfulness had helped them in the areas of stress, burnout, and self-compassion. Further, they noted improvements in areas pertinent to the therapeutic relationship, including "increased ability to be present with clients," "increased empathy with clients," and "less emotional reactivity with clients."

Similarly, Hemanth & Fisher (2015) administered a 10-week mindfulness group to 6 clinical psychology trainees and then interviewed participants, asking them to reflect on their experience with the group, with mindfulness in general, and how the group has impacted their lives and their professional work. Interpretive phenomenological analysis (IPA: Smith, 1999) was used to analyze the qualitative data. The authors read participant transcripts, made notes and developed lists of emergent themes. Emergent themes were then organized into groups based on similarities in meaning, creating lists of superordinate themes for each participant. The themes for all the transcripts were then analyzed together to reveal patterns and to generate superordinate themes, which represent the experience of the participants as a whole. In general, themes were

retained if they were present in half of accounts or more or if they were judged by the researcher to have significant clinical or research implications. IPA revealed two superordinate themes: (1) the experience of the mindfulness group and (2) increased personal and professional use of mindfulness. The authors also discussed significant subthemes associated with these superordinate themes. Under "increased personal and professional use of mindfulness," five participants reported that mindfulness became an effective means of daily self-care. Two participants reported that mindfulness helped improve their therapeutic presence with clients, which included more awareness of bodily states, better attunement with clients, and increased acceptance and empathy. Findings such as these support the notion that mindfulness training may improve therapists' well-being and their therapeutic effectiveness.

Cigolla & Brown (2011) interviewed 6 therapists with personal mindfulness practices and utilized IPA to analyze open-ended responses and clarify themes across interviews. In a similar process to that employed by Hemanth and Fisher (2015), the authors read participant responses, made annotations, and generated a list of master themes for each participant. Lists were then compared with one another and refined until a final list of master-themes was produced. Unlike Hemanth and Fisher (2015), Cigolla and Brown did not indicate specific criteria for including or excluding themes. Nevertheless, IPA revealed 3 subthemes: mindfulness as a "way of being" in personal life, a way of being in therapy, and encouraging a way of being in others. With regards to mindfulness providing a new way of being in therapy with clients, participants highlighted themes related to the therapeutic relationship. 3 participants spoke about the way mindfulness can influence the way attention is paid in therapy, such that they were better able to simply observe and notice topics of conversation pass and flow. Many participants reported that mindfulness improved their self-awareness; mindfulness helped them be more aware of their

cognitive and emotional reactions to clients and thus to react to clients in more therapeutic ways, rather than reacting behaviorally to such emotions and cognitions in potentially nontherapeutic ways. One participant spoke specifically about how mindfulness practice helped her face her own personal difficult feelings and subsequently made it easier to sit with her clients' distress.

In a study by Boellinghaus et al., (2013), 12 trainee therapists (TT), who had previously attended an MBCT course, took part in a 6-session loving-kindness meditation program. The authors, like two previous studies discussed, used IPA to analyze data. IPA revealed 5 master themes and 12 subthemes. One master theme was "impact on relationships," with one subtheme being "compassion for others," such that participants described becoming more accepting and kind towards others. Another master theme was "bringing compassion into the therapy room." No specific subthemes were clarified under this master theme, but the authors summarized the ways participants reported compassion manifesting itself in their work. One therapist noted that the meditation had helped them overcome a particularly negative countertransference with one client, reporting that it "helped me sort of step back from the [negative countertransference]." Other participants spoke about how the meditation helped them more easily feel empathy for the struggles of their clients, and how their therapy became "more human and more authentic and less about technique." The findings in this study help illustrate the mechanism by which meditation can improve the compassion felt by therapists for their clients, which can subsequently help them better connect with and treat the clients, particularly more difficult ones. The data, however, is limited by its qualitative nature, highlighting the need for quantitative data addressing mindfulness as a means for building compassion in therapists.

Several quantitative studies have examined the influence that mindfulness training can have on psychological variables of mental health trainees and professionals pertinent to their

effectiveness as therapists. Quantitative methods of evaluating outcomes offer significant advantages over qualitative methods, as researchers can examine specific variables which can much more easily be compared against findings of other studies. They also allow for statistical means of determining the strength or significance of different effects. As such, despite the utility of qualitative inquiry, quantitative data is generally considered to provide more valuable information.

Shapiro et al. (2005) used a randomized controlled study design to evaluate the effects of an 8-week MBSR course on a group of 18 participants against a waitlist control group of 20 paerticipants. All participants were health care professionals, including physicians, social workers, nurses, psychologists, and physical therapists. Results showed that the MBSR group, compared to the control group, demonstrated significant reductions in perceived stress, measured by the Perceived Stress Scale, and significant increases in self-compassion, measured using Neff's Self-Compassion Scale. Reductions relative to controls were also found on scales measuring life satisfaction, job burnout, and psychological distress, but these reductions were not statistically significant.

Similarly, Shapiro et al., (2007) recruited graduate students in a master's level counseling psychology program (n = 64), who were enrolled in 1 of 3 10-week courses that met weekly for 3 hours. 22 students enrolled in the intervention course, titled "Stress and Stress Management." This course included 8 weeks of MBSR as well as didactic information about stress and other non-mindfulness stress management techniques. The remaining participants enrolled in 1 of the 2 courses serving as control conditions: "Psychology Theory" and "Research Methods," neither of which included any mindfulness information or experiences. Compared to control group participants, MBSR participants demonstrated significant changes from baseline to posttreatment

in expected directions on all measures. These included reductions in perceived stress (Perceived Stress Scale), negative affect measured with the Positive and Negative Affectivity Schedule (PANAS: Watson, Clark, & Tellegen, 1988), state and trait anxiety measured with the State/Trait Anxiety Inventory (STAI: Spielberger, 1983), and rumination measured with the Reflection Rumination Questionnaire (RRQ: Trapnell and Campbell, 1999), while significantly increasing mindfulness (MAAS), positive affect (PANAS),and self-compassion (Self-Compassion Scale). The authors also created simple regression models to explore whether changes on the MAAS predicted changes on the other outcome measures. Regression models demonstrated that increases in mindfulness predicted decreases in rumination, perceived stress, and trait anxiety and increases in self-compassion.

Rimes & Wingrove (2010) administered MBCT with 20 clinical psychology trainees in a study without a control group. The authors found evidence that the program may benefit the trainees personally and professionally. From pre to posttreatment, participants demonstrated significant decreases in rumination (RRQ), self-compassion (Self-Compassion Scale), and mindfulness (Five-Facet Mindfulness Questionnaire). Further, the amount of home meditation practice during the training was significantly associated with larger increases in empathic concern, as measured with the Interpersonal Reactivity Index. This study, however, contained no comparison group, and thus conclusions about causality are very limited. These studies support the notion that mindfulness training can benefit the mental health of students and professionals in the mental health field.

The literature on the influence of mindfulness training for therapists on client outcomes is scarce. However, some preliminary evidence exists suggesting that more mindful therapists are, indeed, more effective therapists. Grepmair et al. (2007) conducted a study in which 18

psychotherapists-in-training (PiTs) were randomly assigned to either a Zen meditation group or a control group. Participants in the meditation group participated in a group meditation session each morning before the workday began, led by a Japanese Zen master, for 9 weeks. The control group also received meditation training, but at a different time (not immediately before the workday began). This study design created double-blind scenario in which neither psychotherapists nor patients were aware of the psychotherapist's condition relative to the study. Compared to the control group, clients of the psychotherapists assigned to the treatment group, demonstrated overall greater symptom reduction, evidenced by statistically significant reductions on 8 of the 10 scales of the Symptom Checklist (SCL-90-R: Derogatis, 1983) including the Global Severity Index. This study, however, is the only experimental study directly measuring the influence of mindfulness training for therapists on therapeutic outcomes for clients.

Ryan, Safran, Doran, & Muran (2012) reported the results of a study which did not involve mindfulness training but instead measured therapists' dispositional (trait) mindfulness and compared these traits and several client-related outcomes. Results of this study were mixed, and the data was correlational which limits the inferences that can be drawn. However, the study still provided initial support for the notion that therapist mindfulness can affect the therapy process and have an indirect impact on the client's experience in therapy. Total mindfulness, measured by the KIMS, was positively correlated with therapist ratings of the therapeutic alliance, measured by the Working Alliance Inventory (WAI). While total therapist mindfulness was not associated with client ratings of the alliance, one KIMS subscale (Act with Awareness) did demonstrate a significant correlation. Further, therapist mindfulness was associated with client improvements in interpersonal functioning, measured by the Inventory of Interpersonal Problems-32 (IIP-32: Horowitz, Alden, Wiggins, & Pincus, 2000). However, unlike the findings

presented by Grepmair et al. (2007) therapist mindfulness was not associated with reductions on the SCL-90-R.

Greason & Welfare (2013) reported results similar to those of Ryan and colleagues. A total of 83 counselor-client dyads in college counseling centers completed measures for this study. Counselors completed the FFMQ, while clients completed The Working Alliance Inventory-Short Form (WAI-SF: Tracey & Kokotovic, 1989), which measures client perceptions of the working alliance, and the Barrett-Lennard Relationship Inventory-Other-to-Self (Ver. 2, BLRI-OS-40: Barrett-Lennard, 1995), which measures client perceptions of counselor core conditions of empathy, positive regard, congruence, and unconditionality. Counselors' total FFMQ scores were significantly correlated with Total BLRI-OS-40 and the Unconditionality and Congruence subscales. The FFMQ Observe scale, meanwhile, exhibited significant correlation with Total WAI-SF and the Goal, Task, and Bond subscales, indicating that therapists' ability to objectively observe their present moment experience is associated with their ability to form a positive working alliance with the client.

The studies examining mindfulness for therapists have focused on several important mental health variables, including stress, burnout, compassion fatigue, depression and anxiety, and rumination, all of which are especially relevant in a field with so much potential for stress and emotional strain. Self-compassion, almost universally measured using Kristin Neff's (2003) Self-Compassion Scale, is a common outcome in many such studies. Some studies have also examined how mindfulness might impact therapist attributes that affect their effectiveness as therapists. Although only one study has empirically linked mindful therapists with better client outcomes (Grepmair et al., 2007), several have found encouraging results concerning overall therapist empathy (e.g. Felton et al., 2015; Rimes & Wingrove, 2010), which aligns with other

research demonstrating that mindfulness can increase empathy in other populations, including trainees in related fields. For example, Shapiro et al. (1998) and Krasner et al. (2009) both applied mindfulness training with medical students and found increases in overall empathy levels. While empathy holds a significant place in the psychotherapy outcome literature, compassion, which may go beyond empathy, remains relatively ignored. While studies have shown that mindfulness training can improve levels of compassion (e.g. Condon et al., 2013; Neff and Germer, 2013), no quantitative, empirical research has examined the effects that mindfulness training can have on therapists' compassion for others, and more specifically for their clients. Related constructs, including empathy, prosocial behavior, and positive affect have received attention, and yet not compassion. The purpose of this study, then, is to address this gap in the literature.

Compassionate Therapists

Components of compassion, such as empathy and warmth, have consistently been shown to associate with positive client outcomes. As such, these attributes are central to the work of health and mental health professionals and may be critical to the quality of care provided by health professionals (Heffernan, Quinn Griffin, McNulty, & Fitzpatrick, 2010).It is likely that these therapist features have impact specifically through the therapeutic relationship. Therapists who are overly self-critical and who lack self-compassion tend to subtly be less compassionate and more critical of their clients who, importantly, tend to have worse outcomes (Henry, Schacht, & Strupp, 1990). Compassionate caregivers, alternatively, in sharing in the suffering of an individual, can strengthen and comfort the individual through the expression of compassion. Many psychotherapeutic modalities emphasize the importance of a caring, warm therapist and a strong therapeutic alliance. Some therapeutic systems even specifically emphasize therapist

compassion. For example, Paul Gilbert (2009) created compassion-focused therapy (CFT), in which the focus is on the therapist demonstrating and teaching compassionate skills and attributes with the client. Empirically, CFT has shown promise as an effective treatment for mood disorders, particularly for individuals high in self-criticism (Leaviss and Uttley, 2015), and compassionate mind training (CMT), which is part of the CFT, has been applied effectively in clinical populations for the reduction of a range of symptoms including depression, anxiety, self-criticism, shame, and submissive behavior.

Despite the importance of extending warmth and empathy to clients, this can be sometimes extremely difficult. Some researchers suggest that professional care givers may, over time, struggle to maintain compassion for their clients, a phenomenon called "compassion fatigue" (e.g. Adams, Boscarino, & Figley, 2006). Further, "difficult" clients or those that activate uncomfortable countertransference reactions can make it very difficult to connect with their suffering and to experience their emotional pain, which can be a blockage to effective therapy. Developing the capacity to access a compassionate attitude toward such clients may allow clinicians to more easily appreciate the suffering of the individual and cultivate a true wish to help that person, which would benefit the therapeutic alliance, increase therapist engagement, and potentially improve client outcomes (Raab, 2014).

Further, compassion, as it manifests in therapy, may be more effective or important than empathy, despite empathy being the fundamental skills taught in virtually all clinical training programs. Compassion goes beyond empathy; compassionate individuals not only understand the suffering of others (empathy), but also experience it vicariously themselves and access the wish to care for that person. Alternatively, an empathic person may instead respond with "personal distress," or a self-focused aversive reaction to the apprehension of another's emotional state,

rather than with an "other-oriented," helping reaction (Bierhoff, 2005), and may even increase risk of compassion fatigue or burnout (Klimecki and Singer, 2011). In this way, compassion may contribute uniquely to the clinician's motivation and ability to not only identify the suffering of individuals (often extremely difficult in the face of difficult clients), but also to engage in more effective prosocial helping behavior, which is the essence of the role of the clinician. Harkening back to the discussion about difficult clients, a therapist may have the capacity to understand the pain of a difficult client, but still have trouble feeling compassion for that person. Given that common humanity is a key part of compassion, increasing clinician's levels of compassion should increase their capacity to extend kindness to all clients, including the difficult ones.

Some research has generated empirical evidence demonstrating compassion's association with helping behavior, distinct from that of empathy. Lim & Desteno (2016), which was summarized earlier, found that dispositional compassion directly predicted prosocial helping behavior, while empathy did not predict helping behavior above and beyond its association with compassion. The results of this study lend credence to notion that empathy is a necessary but not sufficient determinant of prosocial outcomes; compassion, resulting from empathy, is the missing piece. Having the ability to empathize with clients, then, may not be enough, as the ability to help in a caring manner does not necessarily equate with the motivation to help in a caring manner. As such, efforts to foster more compassion for clients may serve a significant function.

The Present Study

The current study evaluated the effects of a mindfulness training designed for mental health trainees. The study aimed to address some of the gaps in the literature described above; in particular, it included the application of quantitative methods to measure the mindfulness

training's effects on compassion felt for clients. 4 main hypotheses were tested: 1) mindfulness training would lead to increased scores on a measure of trait mindfulness from pre- to post-training; 2) mindfulness training would lead to increased scores on measures of compassion felt by therapists toward their clients, from pre- to post-training; 3) mindfulness training would lead to increased scores on a measure of empathy felt for clients; 4) mindfulness training would increase self-compassion scores for therapists. This study also served as an exploration of the relationship between empathy and compassion. It was hypothesized that 5) empathy scores would be partially associated compassion-for-clients scores. Given that one of the main theoretical distinctions between the two constructs is the "urge to help" associated with compassion, it was also hypothesized that 6) the "kindness" and "disengagement" subscales of the adapted compassion scale would demonstrate weaker associations with empathy than would the remaining four subscales. Finally, the study also explored the relationship between self-compassion and compassion. It was hypothesized that that 7) self-compassion scores would be associated with compassion-for-clients scores.

CHAPTER 2

METHODS

Participants and Recruitment

Participants included graduate students at Indiana University of Pennsylvania, sampled from the 3 mental health-related graduate programs at the university: the Psy. D Program in Clinical Psychology, the Clinical Mental Health Counseling master's program, and the Educational Psychology master's program. From the Psy. D program, of which the author is a fourth-year student, only students in years one through 3 were recruited for the study. This was to help reduce response bias, as fourth-year students had frequent contact with the author and were familiar with the purpose and hypotheses of the study. Participants were also recruited from The Open Door, a drug and alcohol treatment facility, and New Story, a school for children with autism, both of which are in Indiana, PA. The author attempted to recruit participants from the Community Guidance Center, a community mental health agency in Indiana, PA, but center scheduling and policy inhibited employees from participating.

The recruitment process was as follows. The author first emailed and/or called program coordinators to obtain permission to email graduate students and mental health workers about participating in the mindfulness training or to ask program coordinators to forward recruitment emails to graduate students and mental health workers. In the case of The Open Door and New Story, coordination regarding dates/times to administer the mindfulness training was also initiated, as the training sessions were conducted on site at these locations. In the recruitment email, prospective participants were offered the opportunity to participate in a 3-week mindfulness training program designed specifically for mental health professionals. The known benefits of mindfulness were noted in the email, as well as information regarding the

timing/duration of the training. Prospective participants were also informed that they would be asked to complete questionnaires on Qualtrics (an electronic survey platform) on 3 occasions during the study. A flyer providing information about the study was also distributed to the various programs and facilities to advertise the study.

Procedure

This study was an evaluation of a 3-session mindfulness training administered to mental health trainees at Indiana University of Pennsylvania (IUP). The mindfulness training, named "Bringing Mindfulness to the Work: A Meditation Program for Clinicians," was evaluated by examining its effects on therapist compassion for clients, empathy for clients, self-compassion, and levels of trait mindfulness. The study employed a switching replications design. Participants were assigned to either Treatment Group 1 or Treatment Group 2 based on scheduling and availability. Logistics required this mode of assignment, thus rendering group assignment not random. Treatment Group 1 completed the mindfulness training during the first 3 weeks of the study, and then Treatment Group 2 completed the mindfulness training during the following 3 weeks. Both Treatment Groups included 3 separate groups of 4-5 people. Training sessions for Treatment Group 1 took place on-site at New Story, on-site at The Open Door, and in a research room in Uhler Hall at IUP, the Psychology Department building. All Treatment Group 2 training sessions took place at Uhler Hall. All participants completed survey measures the week before Treatment Group 1 began the training (Time 1), after Treatment Group 1 completed the training and before Treatment Group 2 began the training (Time 2), and after Treatment Group 2 completed the mindfulness training (Time 3).

Measures

When competing online surveys, participants first read a reviewed a thorough informed consent form (see Appendix R). Participants who consented to the study were instructed to select "I understand and consent" and then continue with the survey. Participants who selected "I do not consent were taken immediately to the end of the survey without responding to any items, and were instructed to inform the researcher of their withdrawal from the study. Participants read the consent form before each administration of the survey.

Participants then responded to questions in which they provided information about their prior mindfulness experience, their mental health program or agency, the number of years they had been in their program or agency, and the number of years spent in the mental health field (see Appendix J). Participants then completed survey measures assessing 4 dependent variables: compassion for clients, empathy for clients, self-compassion, and trait mindfulness. A scale of social desirability was added to measure the influence that social desirability had on participant responses. The researcher also obtained permission from Psychological Assessment Resources, Inc. to administer the NEO-PI-3 Extraversion scale, which was administered to help establish discriminatory validity. Change in the Extraversion Scale was not expected because the scale measures a stable dimension of personality and should not change due to training. Finally, participants also responded to 3 questions assessing their level of familiarity with and connection to the group leader and the degree to which they felt their responses to survey items were influenced by their connection to the group leader (see Appendix I).

Toronto Empathy Questionnaire (TEQ) – Adapted

The Toronto Empathy Questionnaire was developed by Spreng, McKinnon, Mar, & Levine (2009) as a parsimonious assessment of empathy. The final 16-item self-report measure is

the result of a factor analysis containing items from a variety of popular self-report empathy scales, including Hogan's Empathy Scale (Hogan, 1969), the Interpersonal Reactivity Index (IRI; Davis, 1983), the Questionnaire Measure of Emotional Empathy (QMEE; Mehrabian & Epstein, 1972), and the Jefferson Scale of Physician Empathy (Hojat et al., 2001), among others. Spreng et al., (2009) described empathy generally as "[referring to] the consequences of perceiving the feeling state of another as well as the capacity to do so accurately" (p. 1), and noted that a formal, consensual definition of the term does not yet exist, evidenced by the numerous different scales, many of which may tap related but separate constructs. As such, the TEQ represents a consensus measure of the unidimensional empathy construct that was created and validated with statistical rather than intuitive means. A series of studies conducted by Spreng and colleagues established good internal consistency and high test-retest reliability. The studies also established strong convergent validity and discriminant validity, finding that the TEQ is positively associated with behavioral measures of social decoding, including The Reading of the Mind in the Eyes Test-Revised and the Interpersonal Perception Task-15, and with several self-report measures of empathy, such as the Interpersonal Reactivity Index (IRI) and the Baron-Cohen & Wheelwright's (2004) Empathy Quotient. The studies also demonstrated a negative association between scores on the TEQ and the Autism Quotient (Baron-Cohen, Wheelwright, Skinner et al., 2001), a measure of autism symptomatology, further establishing its validity.

The TEQ assesses overall empathy, as it extends to all people in the life of the respondent. No scale yet has been designed to specifically assess therapists' self-reported general empathy toward clients in psychotherapy. The Barret-Leonard Relationship Inventory (BLRI: Barret-Leonard, 1962) is the most commonly used instrument in research on psychotherapist empathy, and it contains rating scales for the client and therapist to assess the amount of empathy

in the therapy relationship. However, this self-rating scale is designed to assess empathy in a specific therapeutic relationship, rather than empathy felt towards clients *in general.* As such, the researcher obtained permission from Nathan Spreng to adapt the scale so that it addresses general therapist empathy felt for clients. To adapt the scale, the researcher changed the wording of the items as little as possible to maintain the original nature and integrity of the scale and to capture the same underlying empathy construct as the original scale. Generally, changes to the items were minimal, such as replacing the word "others" or "people" with "clients" or "my clients." See Appendices A and B for both the original scale and the adapted scale.

The Self-Compassion Scale

Kristen Neff's (2003) Self Compassion Scale is the most widely cited and used scale of self-compassion in the literature, with most studies examining self-compassion with various populations utilizing it. The scale, based off Neff's (2003) 3-faceted definition of self-compassion, contains 26 items loading onto 3 pairs of opposing factors: self-kindness and self-judgment, common humanity and isolation, mindfulness and over-identification. The self-compassion scale has strong internal consistency, with each factor having a reliability coefficient between 0.75 and 0.8. The scale has been shown to have strong construct, content, convergent, and discriminant validity, assessed by correlating the scale with other scales of related or non-related constructs. For example, the Self-Compassion Scale demonstrated a positive association with a measure of social connectedness, reflecting the common humanity facet of Neff's definition, while it was negatively associated with a measure of self-criticism (Neff, 2003). The Self-Compassion Scale can be found in the Appendix C.

The Compassion Scale

The Compassion Scale was the product of Elizabeth Ann Pommier's (2010) dissertation while she was a student of Kristin Neff's at University of Texas at Austin, and it reflects the definition of compassion presented by Neff (2003): "being touched by the suffering of others, opening one's awareness to others' pain and not avoiding or disconnecting from it, so that feelings of kindness towards others and the desire to alleviate their suffering emerge" (p. 86-87). This definition is based on Neff's 3-faceted definition of self-compassion, such that compassion as defined by Neff is directed outwardly rather than inwardly toward the self. As such, the 6 subscales of the Compassion Scale are quite similar to those of the Self-Compassion Scale: kindness vs. indifference, common humanity vs. separation, and mindfulness vs. disengagement.

The Compassion Scale is the only existing stand-alone measure of compassion; other research measuring compassion has relied on subscales of constructs similar to compassion (such as empathy), questions posed by the author without the formation of reliable and valid scale, or other psychometrically poor means of assessing compassion. Pommier's scale demonstrated good reliability via Cronbach's alpha (.87 - .90) and split-half estimates (.86 - .90). Expert review of the scale provided evidence for content validity. Convergent validity was established with significant but moderate positive correlations with measures of compassionate love, wisdom, social connectedness, and empathy. The moderate strength of these correlations also establishes discriminant validity, as it was expected that compassion would be related to but also distinct from these constructs. The scale was negatively associated with measures of personal distress, which provides theoretical support for discriminant validity. Interestingly, the Compassion Scale demonstrated no association with Neff's Self-Compassion Scale, despite the fact that 6 of the subscales measured the same underlying construct (Pommier, 2010). Neff &

Germer (2013) demonstrated that the Compassion Scale is sensitive to changes due to mindfulness intervention effects. Like the TEQ, the researcher obtained permission from Kristen Neff, an author on the scale, to adapt and use the scale to measure compassion's felt for clients. The original Compassion Scale and the adapted Compassion Scale can be found in Appendices D and E.

Five Factor Mindfulness Questionnaire (FFMQ)

The FFMQ, developed by Baer, Smith, Hopkins, Krietemeyer, & Toney (2006) is a 39-item questionnaire measuring five factors of mindfulness: Observe (attending to different stimuli in awareness), Describe (attaching words to said stimuli), Act with Awareness (focusing attention on the present moment), Nonjudge (acceptance of the current experience), and Nonreact (noticing stimuli in the present moment without reacting to them). The FFMQ represents the amalgamation of five mindfulness questionnaires, and produces one total mindfulness score. The individual subscales of the FFMQ are more commonly used in the research literature, but for the purposes of this study the total mindfulness score will be used. Internal consistency measures of the scale range from .75 to .91, according to Greason & Welfare (2013), and Baer et al.'s (2006) original study found a reliability coefficient estimate of .96. The FFMQ can be found in Appendix F.

The Marlowe-Crowne Social Desirability Scale (M-C SDS) - Selected Items

The M-C SDS, developed by Crowne & Marlowe (1960), is a set of 33 true-false items designed to assess social desirability. The authors described social desirability as characterized by "a population of culturally acceptable and approved behaviors which are, at the same time, relatively unlikely to occur." The original scale correlated significantly with an earlier measure of social desirability, the Edwards Social Desirability Scale (Edwards, 1957), as well as the L, F,

and K scales of the Minnesota Multiphasic Personality Inventory (Hathaway and McKinley, 1940). Other research has established that shorter versions of the scale can be psychometrically sound (e.g. Loo and Thorpe, 2000). For this study, 12 items from the M-C SDS were selected and included in this study, to help measure the potential influence of social desirability. Items were selected based on the author's judgment of their pertinence to the work of mental health professionals. Selected items can be found in Appendix G.

NEO-PI-3 Extraversion Scale (Mccrae, Costa, & Martin, 2005)

The extraversion scale of the NEO-PI-3 is one the five personality dimensions measured by the NEO-PI-3, along with neuroticism, openness, conscientiousness, and agreeableness. The NEO-PI-3 is the most recent version of the personality inventory developed by Costa and McRae (1985), and was developed in response to findings that some items on the NEO-PI-R were not understood and thus not relevant for 2% of adolescents, and that some items demonstrated low inter-item correlations. Mccrae, Costa, & Martin (2005), with a sample of 536 individuals aged 14-20 found internal consistency for the extraversion scale as .89. Psychological Assessment Resources, Inc., the company who owns the NEO-PI-3, reports internal consistency for all domain scales as ranging from .89 - .93 on their "NEO-PI-3 Fact Sheet," retrieved from http://www4.parinc.com (Costa & McRae, n.d.). This scale was administered to establish discriminatory validity, as it was not expected that scores on the NEO extraversion scale would change as a result of mindfulness training, given that it is a stable personality factor.

Meditation Log

Participants were asked to record their daily meditation times on a log sheet and what meditation they practiced that day, provided by the researcher (see Appendix P).

Mindfulness Training Program

What follows is a description of the content, nature and purpose of the mindfulness training that was administered to study participants in the intervention group. The structure and elements of the mindfulness group borrow from the mindfulness literature and the experiences of the author running mindfulness groups and teaching mindfulness with psychotherapy clients. The training took place over 3 weeks, with one session per week lasting 60-90 minutes each. Each session included 1-2 meditations, discussion of participants' experience of meditation, and discussions of mindfulness and self-compassion as they apply to clinical work. Of note is the time-limited nature of the mindfulness training; a more thorough training would be spread over the course of 4-8+ weeks, with meditation sessions lasting at least 90 minutes. However, this training capitalized on the literature discussed earlier suggesting that brief mindfulness interventions may still be effective and useful. It was also designed to meet the needs of the participants in this study and of the target population. Mental health professionals, and particularly graduate students training in mental health programs such as clinical psychology or mental health counseling, have high demands on their time. Thus, a shorter mindfulness intervention would be more accessible. Throughout the delivery of the mindfulness training, the researcher had to be flexible in the face of several challenges and unpredictable occurrences, as is the case with any intervention study where perfect control is impossible. The adaptations are described below.

Session One

The first session began with a brief introduction. The group leader introduced himself and describes his experience with mindfulness (both as a practitioner and teacher). Group members then to introduced themselves and spoke about their interests in mindfulness, what they hoped to

get out of the training, and how they hoped it might benefit their clinical work. The group leader then led the group in a meditation called "Awareness of Breath Meditation" based on the breathing meditation practiced in Kabat-Zinn's MBSR program, retrieved from www.mindfulnesshamilton.ca/ (Meditation scripts, 2013) and altered by the author, and then defined and described mindfulness. Scripts of all meditations can be found in the appendices. Placing a meditation before the initial description of mindfulness provided the participants, particularly those with no mindfulness experience, with an experiential frame of reference to help facilitate an increased understanding of mindfulness principles. Following the meditation, the leader processed with group members the experience they had with the meditation. Questions such as "How was that for everyone?" and "What did you notice?" were used to facilitate discussion, and the group leader worked initially to create an understanding that everyone's experience of mindfulness meditation can be very different, and that there is no "good" or "bad" meditation; it just "is." In this way, the leader modelled for the participants the mindful, accepting approach to the world that would be explained later in the group.

To describe mindfulness, the leader first provided Kabat-Zinn's (1990) definition of mindfulness: "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment." The leader highlighted the 3 basic components of this definition: awareness, of the present moment, with nonjudgment. The leader then went in-depth, assuming a teacher role and thoroughly describing the different facets of mindfulness.

Mindfulness was described as a way of directing one's attention. With mindfulness, we work to expand our awareness of the present moment, such that we come to notice different elements of our experience that generally go unnoticed. These elements include thoughts,

feelings, behaviors, physical sensations, or aspects of the external environment, such as sounds, sights, or things happening around us. The leader used the "autopilot" metaphor to describe this kind of living, in that we tend to move through life automatically and habitually without full awareness what is really happening for us in the moment. The goal of mindfulness, then, is expand our awareness and bring us out of autopilot.

Mindful individuals learn to direct attention in a purposeful manner toward particular aspects of the present moment, rather than being "gripped" by thoughts, feelings, or other stimuli that cause distress, often those that have to do with the past or the future, rather than the present. The leader used a "pool of awareness" metaphor; if our general awareness is likened to a pool of water, then distressing thoughts or feelings may be likened to pebbles dropped into the pool. If the pool is small, then the ripples will engulf the entire pool, much like troubling thoughts or feelings can dominate our attention and overwhelm us and automatically motivate us to avoid them or get rid of them. Mindfulness, then, is about expanding the pool of awareness, such that the same distressing thought or feeling can be tolerated and simply "allowed to be there." We can train the mind to be able to attend to all elements of experience. This purposeful way of directing attention can be likened to a "searchlight," as the mind may purposefully illuminate different elements of experience.

The leader emphasized the importance of taking a nonjudgmental, accepting stance or attitude when greeting the different elements of experience. Our minds, through heuristics, ingrained attitudes and learned associations, have been trained to assign labels and values to the different elements of our experience. This "lens of judgment" causes us to cling to things that bring us pleasure and avoid things that bring pain. Examples were given, such as how we might do things to resist and push away anxiety. It was emphasized that mindfulness is about letting go

of this struggle, and allowing these different elements to exist. In this way, mindfulness can also be thought of as a special "relationship" to pain and suffering, both in ourselves and of others. By struggling to push away or avoid pain, we only increase our suffering. Instead, we can train ourselves to let go of this resistance, allow the pain to be there, and reduce the suffering associated with it.

Following this educational component, and after answering any questions that group members may have, the group leader led a body scan meditation taught in Jon Kabat Zinn's MBSR program, which was retrieved from www.mindfulnesshamilton.ca/ (Meditation scripts, 2013) and altered by the author. The meditation was then processed with the group as before. To conclude session one, the leader assigned the group their homework for the week. Homework will involve meditating for 5-10 minutes each day, using the meditations practiced during the group. The leader emphasized the importance of consistent practice, likening mindfulness to a skill that must be rehearsed and repeated, or a muscle that must be strengthened. Some group members asked if they could practice other meditations or meditative practices, like yoga, and record them on the meditation logs. The leader encouraged group members to practice the meditations from the program, but allowed members to practice other meditations if they found them to be helpful, and to record them on the meditation logs.

During the first session of one of the meditation groups in Treatment Group 1, the researcher was called out of the room halfway through the body scan meditation because his car had been hit in the parking lot. The group leader addressed the issue and then came back to the group and restarted the meditation. Also, the groups run at New Story and The Open Door had to contend with sounds outside of the room, as they are busy workplaces without soundproof rooms. The group leader encouraged participants to greet sounds and distractions as

opportunities to practice mindful qualities and simply notice and accept the distractions as elements of the present moment.

Session Two

The second session began with a check in, in which participants were be asked to share with the group their experience with meditation during the past week. Though participants were not required to share, efforts were made to give each group member the opportunity to share. Many members reported having trouble practicing meditation every day. The leader again modeled an accepting, nonjudgmental attitude, and discussed with the members what it was that got in the way. The leader was careful to normalize the experience of having difficulty meditating each day, while also reinforcing the importance of daily practice.

Following check in, the group leader led the group in a sitting meditation, which is based off the sitting meditation practiced in Jon Kabat-Zinn's MBSR program, which was retrieved from www.mindfulnesshamilton.ca/ (Meditation scripts, 2013) and altered by the author. The meditation involves cultivating an awareness of the breath, from which participants are guided through a process of noticing, nonjudgmentally, their thoughts, feelings, and physiologic sensations. This meditation is a natural extension of the two meditations already practiced (mindful breathing and the body scan). This meditation was processed as before. The leader again conveyed the potential difficulty presented by meditations, and welcomed any questions or shared experiences from group members.

Unlike session one, check-in in session two was followed by the introduction of a topic of discussion, "Mindful Therapists." The purpose of this discussion was to elevate an awareness of how mindfulness practice can benefit the lives of therapists, and especially how mindfulness for therapists may influence their work with clients. This portion of the group was purposefully

open-ended and unstructured, with the aim of fostering fruitful discussion among group members.

While this portion of the group was unstructured, the leader identified particular benefits if they were not raised by group members themselves. These included: stress reduction; better self-care; being more focused and attuned to clients; awareness of our reactions to clients (countertransference); and emotional awareness and regulation both in life and in sessions with clients. Notably, the leader revisited the idea, introduced in the session one, that mindfulness can change our relationship with pain. Mindfulness can help us become more aware and tolerant of the distress and suffering of our clients. Further, the more we practice noticing, with nonjudgment and acceptance, the different elements of our experience, including the difficult ones, the easier it will be to sit with the pain our clients bring into the room.

This discussion led naturally into the next meditation, "Soften-Soothe-Allow." This meditation was created by Kristin Neff and obtained from her website, self-compassion.org (Neff, 2017). Parts of the original meditation were shortened for time purposes, but the majority of the original meditation remained essentially the same). This meditation has participants practice becoming mindful of difficult emotions, such as anger, sadness, or anxiety, and specifically where those emotions are felt in the body. They then practice softening their experience of the emotion, such that the distress and pain associated with the emotion may be lessened. Participants then practice soothing themselves by extending themselves some warmth and caring, and then allowing the meditation to exist, rather than fighting it. The exercise develops the ability to calmly allow the presence of difficult emotions and painful experiences (rather than avoiding them or hating them), while also not becoming swept away or gripped by

them. With one meditation group, one group member had a strong emotional reaction to this meditation and had to excuse herself from the room. She returned prior to the end of the group.

The leader processed the meditation with the group, in a similar fashion to how previous meditations were processed. Many participants struggled with this meditation, while some found it to be very soothing and helpful. This variability was normalized, and the leader again reinforced the fact that everyone meditates differently. The leader related this meditation to clinical work, discussing with the group the different difficult feelings that may arise during a session with a client and how they might get in the way. These may include sadness, anger, impatience, boredom, and, importantly for clinicians in training, anxiety. More mindful therapists, then, can apply these skills in sessions with clients, allowing both for increased emotion awareness but also tolerance and acceptance of difficult emotions and negative reactions to clients. Following the discussion, participants were again reminded of their homework for the week, and it was stressed that it is very important to practice. This concluded session 2.

Session 3

The third session began with a check in on homework, which was conducted as in previous sessions. Following the check in, the group leader began with a lesson on self-compassion. Self-compassion was defined as it was by Neff (2003): "being touched by and open to one's own suffering, not avoiding or disconnecting from it, generating the desire to alleviate one's suffering and to heal oneself with kindness. Self-compassion also involves offering nonjudgmental understanding to one's pain, inadequacies and failures, so that one's experience is seen as part of the larger human experience." To help explain this definition, the leader broke down the definition into the 3 components described by Neff: 1) self-kindness, 2) mindfulness, and 3) common humanity. In describing self-kindness, the focus was placed on the way we

usually treat ourselves in times of suffering. Participants discussed how they tend to respond when things in their lives go wrong, such as criticizing themselves, or perhaps getting angry or frustrated and then immediately trying to solve the problem without first taking time to care for themselves. The leader equated self-kindness with the warm, caring feelings with which a mother or father might treat a child who has injured themselves or is in some other kind of pain. In self-compassion, however, we direct these feelings toward ourselves. It was emphasized that this can be extremely hard sometimes, especially in times in which something truly was "our fault," or when immediate action to remedy a situation is necessary.

Mindfulness and common humanity were described as two facets that, when taken together, make the potential for self-kindness much greater. For mindfulness, it was emphasized that the first step in treating yourself with self-compassion is quite simply to notice that this is, in fact, a moment of pain and suffering. Often we get so caught up in what is going wrong that we forget to step back and simply notice it for what it is. Common humanity, then, is the understanding and awareness that pain and suffering is ubiquitous. No matter how hard something is, other people experience the same sorts of distress too, which can be comforting. When we become more aware of the pain of suffering of ourselves and of others, turning kindness, rather than negativity, toward our distress becomes easier.

Next was the final meditation of the mindfulness training. The meditation is called "Self-Compassion Break," created by Kristin Neff and retrieved from her website, self-compassion.org (Neff, 2017). In this meditation, participants are asked to call up either a current or recent moment of physical or emotional pain. They are then guided through the process of bringing mindful awareness to this pain, noting that difficult experiences such as this are part of living, and then bringing kindness to oneself. Following the meditation, the leader processed with the

group as before, allowing participants to share with the group the kind of suffering they had in mind, how easy or difficult the meditation was, and any other reactions they may have had.

To conclude the mindfulness training, the group leader thanked group members for participating in the group and the study. They were reminded that mindfulness is a skill that needs to practice to develop, and that is important to practice meditation every day. Finally, group members were informed that they will be receiving an email containing follow-up measures following the conclusion of the group. The group leader also offered members the chance to provide constructive feedback about the group.

CHAPTER 3

RESULTS

Participants

A total of 30 clinician participants were recruited for participation from the IUP Clinical Psychology Psy. D program, the IUP Educational Psychology Program, the IUP School Counseling Program, the Open Door and New Story. 3 participants' schedules prohibited them from participating in the study (their available times did not match the group meeting times), and so they were excluded from the study. Two participants in the IUP Psy. D program joined the study after the first data collection time point; they contributed data at Times 2 and 3 and received the mindfulness training during the second treatment block. Two employees at the Open Door asked to participate in the second training session; the researcher allowed their participation but they did not contribute any data. In total, the study included 27 participants, with 13 participants receiving treatment at Time 1 and 14 participants receiving treatment at Time 2. Participant attendance for the training sessions was excellent. Throughout the study, only one participant missed a session, while one participant left one session early.

Participants indicated with which clinical training program or mental health agency they were affiliated. Table 1 depicts the number of participants from each agency or training program that completed their questionnaires at Times 1, 2, and 3, as well as the total number of responses at each time point. Participants most frequently came from the IUP Psy. D Program. Further, attrition was not an issue, as the number of participants failing to complete a questionnaire never exceeded 3 at any time point. Participants were also asked how many years they have been in their mental health agency or training program and how many years they have been in the mental health field. Table 2 depicts the amount of mental health experience prior to study participation

for participants in each agency. Treatment Group 1 had, on average, more mental health experience than Treatment Group 2 An independent samples t test revealed that this difference was statistically significant ($p < .01$). Results should therefore be interpreted with the knowledge that the treatment groups may not be equivalent on constructs that may influence outcome measures.

Table 1

Name of Agency, Facility, or Graduate Program

	Frequency	Percent
IUP Psy. D Program	11	40.7
IUP Ed. Psych/SchoolPsych	3	11.1
The Open Door	5	18.5
New Story	4	14.8
Other or not specified	4	14.8
Total	27	100.0

Table 2

Mental Health Experience Prior to Study

	Years at agency/training program			Years in the mental health field		
	N	Mean	SD	N	Mean	SD
Treatment Group1	13	1.96	1.83	13	6.19	5.11
Treatment Group1	14	1.21	.378	14	3.54	1.39
Total	27	1.57	1.33	27	4.82	3.86

To address the issue of the possible influence of prior mindfulness training, participants were asked to describe any prior experience they had with mindfulness or meditation prior to the training program. Participants were instructed to only respond to this item the first time they completed the questionnaire; however, some participants responded at multiple time points, and

only their first responses were considered. Categories were then made rationally by the researcher, with participant responses coded as either "No experience," "Limited Experience," or "Extensive Experience." Participants coded as "Extensive Experience" were those who have had BOTH 1) formal training or education in mindfulness or meditation and 2) a formal, consistent meditation practice. "Limited Experience" was used for participants with only one of the above two experiences. Participants were coded as "No Experience" if they had not had either of those experiences prior to their participation. Table 3 depicts the level of prior experience with mindfulness of participants in each treatment group. Participants most frequently reported having no experience or limited experience with mindfulness prior to this study.

Table 3.

Prior Training or Experience With Mindfulness, N = 27

	No experience		Limited experience		Extensive experience	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Treatment Group 1	8	29.6	3	11.1	2	7.4
Treatment Group 2	7	25.9	6	22.2	1	3.7
Total	15	55.6	9	33.3	3	11.1

Given that the researcher recruited participants from his current graduate university and from his own program, it was important to consider the possibility that participant familiarity with the researcher could influence responses. To address this issue, participants were asked 3 Likert-type questions (Min=1, Max=5) at the end of the survey (at all 3 time points), measuring their feelings of connection with the researcher, their degree of familiarity with the researcher, and the degree to which they felt their connection with the researcher influenced their responses to scale items. See Tables 4, 5, and 6 for means and standard deviations of participant responses at each time point.

Table 4

To What Degree Do You Feel Connected to the Group Leader?

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment Group 1	12	1.92	1.16	11	3.64	1.21	11	3.00	1.34
Treatment Group 2	12	3.17	1.11	14	3.00	1.04	13	3.31	0.75
Total	24	2.54	1.28	25	3.28	1.14	24	3.17	1.05

Note. Min=1, Max=5

Table 5

Rate Your Level of Familiarity With [The Group Leader]. How Well Do You Feel You Know Him?

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment Group 1	12	1.50	1.00	11	2.82	0.87	11	2.45	1.04
Treatment Group 2	12	2.83	1.11	14	2.64	1.08	13	3.08	0.76
Total	24	2.17	1.24	25	2.72	0.98	24	2.79	0.93

Note. Min=1, Max=5

Table 6

To What Degree Do You Feel Your Responses to These Questions are Influenced By Your Connection to the Group Leader?

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment Group 1	12	1.00	0.00	11	1.18	0.40	11	1.18	0.40
Treatment Group 2	12	1.08	0.29	14	1.21	0.43	13	1.38	0.65
Total	24	1.04	0.20	25	1.20	0.41	24	1.29	0.55

Note. Min=1, Max=5. All participants in Treatment at Time 1 responded with a "1" to this question.

Independent samples t-tests revealed that Treatment Group 2 tended to feel significantly more connected to ($t = 2.686$, $p = .013$) and familiar ($t = 3.084$, $p = .005$) with the researcher at Time 1, but not at Times 2 and 3. This was expected, as Treatment Group 2 contained more students in the researcher's program of study. Both treatment groups reported their highest levels of connection and familiarity immediately posttreatment. Means were very low for both treatment groups for the question assessing the degree to which responses were influenced by feelings of connection to the researcher, indicating that respondents felt that their reaction to study procedures was not substantially influenced by their connection to the investigator.

Participants completed daily meditation logs each week during their participation in the mindfulness training and submitted these logs (2 total for each participant) to the researcher. On their logs, participants indicated which meditation type they practiced as well as how long they meditated on a given day. Some participants practiced meditations outside of those taught in the program, and some reported mindful or meditative activities, such as yoga, as meditation time. The researcher made rational decisions to judge whether a particular entry was "counted" as meditation outside the study activities. For example, "yoga" was counted as meditation time, whereas "mindful breathing during a structured activity" or "mindful breath while shooting [guns]" were not included. Average weekly meditation times were calculated by totaling meditation time across the two meditation logs (turned into the researcher at the 2nd and 3rd days of the mindfulness program) and then dividing by two. Each treatment group reported similar average weekly meditation times: Average weekly meditation time for each treatment group were as follows: Treatment group 1 (M=46.71 min, SD=27.12), Treatment group 2 (M=50.93,

SD=21.36), Total (M=48.90, Med=45.00, SD=23.92). A median split was performed such that participant data was split into two groups based on the median meditation time values.T-test analysis comparing these two groups revealed that there were no statistically significant different on any of the dependent variables at Time 1 and Time 3, Time 2 being excluded from the analysis given the influence of treatment effects for Treatment Group 1 participants.

Mindfulness

The Five-Facet Mindfulness Questionnaire (FFMQ) was administered to help evaluate the effectiveness of the mindfulness training program, and it was hypothesized the mindfulness training would lead to increases on the FFMQ from pre- to post-training.. The Five-Facet Mindfulness Questionnaire has good internal consistency. Greason and Welfare (2013) reported Cronbach's Alpha for total mindfulness as .91 and subscale reliabilities ranging from .83-.89, while Baer et al.'s (2006) original study found internal consistency of the 5 subscales as ranging from .75 - .91, with reliability estimate of the whole scale as .96. In this study, Cronbach's Alpha was .944, .942, and .957 at Times 1, 2, and 3, respectively, all of which are acceptable.

Baer et al. (2006) reported that the Observe scale of the FFMQ behaved in unexpected ways and did not load onto an overall mindfulness factor as well as the other 4 subscales, which raises the concern that the Total Mindfulness score may not be as reliable or valid a measure of mindfulness as are the five factors interpreted separately or as the other four subscales without the Observe scale. Baer did report, however, that all five facets loaded significantly on the overall mindfulness factor in a sample of people with meditation experience. In this study, 44.4% of participants had prior experience with meditation or mindfulness, and all participants had experience with experience with meditation by Time 3 as a result of the treatment.

Nevertheless, to address concerns with the psychometric properties of the Observe Scale, the internal consistency of the FFMQ at each time point was measured with and without the Observe scale (see correlation tables in Appendix Q). Cronbach's Alpha levels increased slightly at Times 1 and 3 when the Observe subscale was removed, but it decreased at Time 2. Correlations were also run among the five subscales and total mindfulness at each time point. The Observe subscale correlated at the $p < .01$ level at all 3 time points (.565, .777, .653, respectively), while correlating more strongly at Time 2 with Total Mindfulness than did the Describe subscale. The Observe scale also correlated with at least one other subscale at the $p < .05$ level at each time point. Despite Baer's findings, it seems that the Observe scale correlates with the other items in the FFMQ such that the Total Mindfulness score is interpretable and useful for the purposes of this study.

Scores for the FFMQ were calculated by reverse scoring negatively worded items, summing items to calculate subscales, and then summing all subscales to produce a total mindfulness score. Total Mindfulness data is found in Tables 13 and 14.

Table 7

Mean FFMQ Total Mindfulness Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	126.08	25.20	11	139.64	15.90	11	134.27	29.53
Treatment at Time 2	12	118.92	16.97	14	119.71	18.88	13	127.15	17.42
Total	25	122.64	21.52	25	128.48	20.01	24	130.42	23.46

Table 8

Mean FFMQ Total Mindfulness Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	119.46	24.49	15	125.20	21.69	13	123.46	20.91
Treatment at Time 2	9	119.44	14.13	7	126.57	14.71	8	131.75	23.89
Total	3	146.00	15.13	3	149.33	10.69	3	157.00	18.08

Baer (2006) did not report total mindfulness means, but Greason and Welfare (2013) reported Total Mindfulness means of 149.15 (participants with weekly meditation practice) and 146.33 (participants without meditation practice). Total Mindfulness means in this study were overall lower than those reported in Greason and Welfare's (2013) study. Participants with zero or limited prior mindfulness experience had noticeably lower means at all Time points than non-meditators in Greason and Welfare's (2013) study. Participants in this study with extensive mindfulness experience, however, had similar mean Total Mindfulness scores to the participants in Greason and Welfare's (2013) study with a weekly meditation practice at Times 1 and 2 and larger mean scores at Time 3. Overall, mean Total Mindfulness scores increased across the study, with the largest increases coming for participants with limited and extensive prior mindfulness experience. Further, both treatment groups exhibited their largest mean increases immediately post-treatment. Treatment group 1 started with a slightly higher Total Mindfulness mean than did Treatment group 2, but an independent samples t-test revealed that the difference was nonsignificant ($t = .826$, $p = 417$).

Visual inspection of a boxplot revealed the presence of an outlier at Time 1 for Treatment Group 1. Inspection of tests of normality, skewness statistics, and of Q-Q plots and histograms revealed that Mindfulness scores meet the assumption of normality at all 3 time points.

Compassion

It was hypothesized that mindfulness training would lead to increased scores on a measure of compassion felt by therapists toward their clients from pre- to post-training. According to Pommier (2010), The Compassion Scale (CS) has good internal inconsistency, with a Cronbach's Alpha reported as .90. For the purposes of this study, the individual items were altered such that they pertained to compassion felt toward clients, rather than people in general. Despite this change, the adapted scale demonstrated good internal consistency at Times 1, 2, and 3, with Cronbach's Alpha coefficients of .88, .92, and .91, respectively, all of which are acceptable.

Scores for the adapted Compassion Scale were calculated by first calculating mean scores for the six subscales. The Indifference, Separation, and Disengagement subscale means were then reverse scored, then all six subscales were summed and divided by 6 (number of subscales) to produce a total mean compassion score. See Tables 7 and 8 for compassion data.

Table 9

Mean CS Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	4.51	0.41	11	4.52	0.45	11	4.56	0.43
Treatment at Time 2	12	4.27	0.36	14	4.24	0.42	13	4.24	0.38
Total	25	4.40	0.40	25	4.36	0.45	24	4.39	0.43

Table 10

Mean CS Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
No experience	13	4.33	0.41	15	4.31	0.50	13	4.29	0.47
Limited experience	9	4.43	0.43	7	4.35	0.33	8	4.42	0.38
Extensive experience	3	4.61	0.25	3	4.67	0.33	3	4.72	0.27
Total	25	4.40	0.40	25	4.36	0.45	24	4.39	0.43

Pommier (2010) reported grand mean values of 3.57 – 3.84 (SD=0.60 – 0.61), with a maximum of 5 in samples of undergraduate students at a large Southwestern university. In the current study, the overall mean for compassion was 4.38 (N=74, SD=0.42), which is notably higher than the overall means reported in Pommier's original study. Overall standard deviation in the current study was also smaller than that reported by Pommier. The two treatment groups differed at Time 1 but an independent samples t-test revealed that the difference was nonsignificant ($t = 1.556$, $p = .133$). Participants with zero and limited prior mindfulness experience demonstrated similar means at time one, whereas those participants with extensive experience had higher mean compassion scores at Time 1. Mean scores for participants with extensive experience exhibited slight increases in overall compassion from Time 1 to Time 3; all others had little or no change. There was one outlier at in Treatment Group 1, but outliers were not removed or modified due to the small sample size.

Compassion Scale Subscales

It was hypothesized that increases in empathy scores would be partially associated with increases in compassion scores. Descriptive statistics and reliability coefficients for the Toronto Empathy Questionnaire and the Compassion Scale are provided above. It was also hypothesized

that the “Kindness” and “Disengagement” subscales of the adapted compassion scale would demonstrate weaker associations with empathy than would the remaining four subscales. According to Pommier (2010), internal consistency (Cronbach’s Alpha) of the six subscales are as follows: Kindness (.77 - .83), Indifference (.68 - .71), Common Humanity (.70 - .71), Separation (.64 - .68), Mindfulness (.67 - .72), and Disengagement (.57 - .71). In this study, subscale internal consistency values (calculated separately at Times 1, 2, and 3) were similar to those reported by Pommier (2010), with the lowest Cronbach’s Alpha as .570 (Common Humanity, Time 1) and the highest as .848 (Separation, Time 2). The Separation subscale in this study demonstrated consistently higher internal consistency than was reported by Pommier, while the Kindness subscale demonstrated generally lower internal consistency coefficients than those reported by Pommier (2010). Many of the subscales’ Cronbach’s Alpha values fell below .7. Given that reliability estimates tend to be sensitive to lower numbers of scale items, it is useful to consider inter-item correlations for these subscales. According to Briggs & Cheek (1986), .2-.4 range is the optimal range in which for inter-item correlations to fall. When subscale internal consistency fell below .7, inter-item correlation mean values all fell within this optimal range, with the exception of the Mindfulness Subscale at Time 2 (mean = .451). As such, the Compassion Scale’s 6 subscales are considered acceptable and interpretable for the purposes of this study.

Empathy

It was hypothesized that mindfulness training would lead to increased scores on a measure of empathy felt by therapists toward their clients from pre- to post-training. Research has demonstrated that the TEQ has good internal consistency. Spreng et al. (2009) reported Cronbach’s Alpha coefficients ranging from .85 to .87 across a series of 3 studies, while Gould

(2014) reported Cronbach's Alpha as .79. Like the Pommier Compassion Scale, the individual items of the TEQ were altered such that they pertained to compassion felt toward clients, rather than people in general. Despite this change, the adapted scale demonstrated good internal consistency at Times 1, 2, and 3, with Cronbach's Alpha coefficients of .82, .83, .86, respectively, all of which are acceptable.

TEQ scores were calculated by summing the 16 item responses, each response having a minimum score of 16 and a maximum score of 90. TEQ data can be found in Tables 9 and 10.

Table 11

Mean TEQ Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	51.31	6.49	11	52.36	6.00	11	53.00	6.72
Treatment at Time 2	12	49.67	4.96	14	50.00	5.20	13	50.00	5.89
Total	25	50.52	5.75	25	51.04	5.58	24	51.38	6.33

Table 12

Mean TEQ Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
No experience	13	50.08	6.34	15	50.47	6.21	13	50.47	6.21
Limited experience	9	50.89	5.80	7	52.29	5.53	8	52.29	5.53
Extensive experience	3	51.33	4.16	3	51.00	2.00	3	51.00	2.00
Total	25	50.52	5.75	25	51.04	5.58	24	51.04	5.58

Spreng et al. (2009) reported mean TEQ scores of 44.54 (SD=7.7), 47.47 (SD=7.48) and 46.95 (SD=7.47) for 3 studies with samples of University of Toronto students. TEQ means in this study fell in the average range and were higher than those reported by Spreng et al. (2009),

while standard deviations tended to be slightly lower. An independent samples t-test showed that the treatment groups did not differ significantly at the start of the study ($t = .706$, $p = .487$). Empathy scores did not change substantially across the study. Inspection of tests of normality, skewness, and visual inspection of histograms and Q-Q plots revealed that TEQ data meet the assumption of normality. There were 3 outliers at Time 3 in Treatment group 2. Given the small sample size, outliers were not removed from the dataset for inferential statistics.

Self-Compassion

It was hypothesized that mindfulness training would lead to increased scores on a measure of self-compassion from pre- to post-training. According to Neff (2003), the Self-Compassion Scale has strong internal consistency, with a reported Cronbach's Alpha of .92. In the current study, Cronbach's alpha was .937, .934, .968 at Times 1, 2, and 3, respectively, all of which are acceptable.

Self-Compassion scores were calculated by reverse-scoring negative subscale items (Self-Judgment, Isolation, and Overidentification) and then computing a grand mean of all six subscale means. This scoring method adheres to instructions on the scale provided on Kristin Neff's website but differs from the method used in the original article. Neff endorsed this new method of scoring because it makes scores more interpretable (see scale in Appendix Q). Self-Compassion data can be found in Tables 11 and 12.

Table 13

Mean SCS Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	3.12	0.59	11	3.52	0.48	11	3.30	1.05
Treatment at Time 2	12	2.90	0.78	14	3.01	0.68	13	3.23	0.64
Total	25	3.01	0.69	25	3.23	0.64	24	3.26	0.84

Table 14

Mean SCS Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
No experience	13	2.91	0.80	15	3.19	0.64	13	3.23	0.73
Limited experience	9	3.16	0.60	7	3.30	0.72	8	3.25	0.97
Extensive experience	3	3.01	0.40	3	3.32	0.70	3	3.43	1.22
Total	25	3.01	0.69	25	3.23	0.64	24	3.26	0.84

Neff (2003) reported SCS means of 23.19 (SD=3.50) for a sample of Buddhist practitioners with a regular Vipassana meditation practice and 18.26 (SD=3.99) for a sample of undergraduates, which correspond to means of 3.83 (SD=0.58) and 3.04 (SD=0.67), respectively. Means in this study tended to fall between the means of the Buddhists and undergraduates in Neff's study, while standard deviations tended to be higher. Initial means were approximately the same as Neff's sample of undergraduates. Treatment groups did not differ significantly at Time 1 ($t = .798$, $p = .433$). SCS scores tended to increase across the study, with each treatment group making its largest increase from pre to post treatment. Participants with limited experience had the highest average levels of self-compassion at the start of the study, but those with

extensive experience exhibited the most improvement by time 3. Inspection of tests of normality, skewness, and visual inspection of histograms and Q-Q plots revealed that TEQ data meet the assumption of normality.

NEO-PI-3 Extraversion

The Extraversion Scale of the NEO-PI-3 was administered to help establish the discriminant validity of the compassion and empathy scales. It was expected that the Extraversion Scale, which theoretically measures a stable personality trait, should not change across Times 1, 2, and 3, whereas it is hypothesized that the Compassion, Self-Compassion, and Empathy scale would change as a result of the mindfulness training. According to Mccrae et al., (2005) the Extraversion Scale of the NEO-PI-3 has good internal consistency, with Cronbach's Alpha reported at .89. In this study, Cronbach's Alpha was .877, .919, and .889 at Times 1, 2, and 3, respectively, all of which are acceptable.

Table 15.

Mean NEO-PI-3 Extraversion Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	114.46	17.21	11	118.73	22.16	11	112.18	21.75
Treatment at Time 2	12	104.75	20.68	14	106.07	21.19	13	108.54	19.27
Total	25	109.80	19.20	25	111.64	22.11	24	110.21	20.07

Table 16.

Mean NEO-PI-3 Extraversion Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
No experience	13	110.15	21.13	15	110.15	21.13	13	106.85	20.77
Limited experience	9	113.00	17.23	7	113.00	17.23	8	116.50	20.79
Extensive experience	3	98.67	17.95	3	98.67	17.95	3	108.00	17.06
Total	25	109.80	19.20	25	109.80	19.20	24	110.21	20.07

An independent samples t-test demonstrated that the treatment groups did not differ significantly at Time 1 ($t = 1.280$, $p = .213$). Participants with extensive prior meditation experience had lower Extraversion scores at Time 1 than did other participants, with scores increasing at Time 2. Visual inspection of box plots revealed the presence of 1 outlier at Time 2 for Treatment 2 (145) and 1 outlier at Time 3 for Treatment 2 (146), both the same participant. As discussed earlier, the small sample size precluded the removal of outliers.

Social Desirability

Twelve items from the Marlowe-Crowne Social Desirability Scale (M-C SDS) were administered to detect the influence of social desirability participant responses to scale items. Previous research has utilized shortened version of the M-C SDS. Neff & Pommier (2012) administered Strahan and Gerbasi (1972)'s 10-item version of the 33-item M-C SDS and reported Cronbach's Alpha as .67. In the study, the 12 M-C SDS items had Cronbach's Alpha coefficients of .700, .716, and .663 at Times 1, 2, and 3, respectively. Removal of the item "There have been occasions when I felt like smashing things" increased Cronbach's Alpha significantly at all 3 time points and so the item was removed. The item "I have never intensely disliked anyone" had zero variance at Time 3 and was thus removed from the scale at Times 1, 2,

and 3. The resulting 10-item scale had Cronbach's Alpha coefficients of .725, .732, and .705 respectively, all of which are in the acceptable range. Tables 17 and 18 depict M-C SCS group means at each time point.

Table 17

Mean M-C SDS Scores at Times 1, 2, and 3 for Each Group

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Treatment at Time 1	13	5.85	2.19	11	5.82	2.64	11	5.36	2.62
Treatment at Time 2	12	4.58	2.57	14	4.14	1.79	13	3.85	1.57
Total	25	5.24	2.42	25	4.88	2.32	24	4.54	2.21

Table 18

Mean M-C SDS Scores at Times 1, 2, and 3 for Each Level of Prior Mindfulness Experience

	Time 1			Time 2			Time 3		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
No experience	13	4.69	2.50	15	4.53	2.67	13	4.08	2.63
Limited experience	9	5.67	2.55	7	5.29	1.60	8	5.13	1.13
Extensive experience	3	6.33	1.53	3	5.67	2.08	3	5.00	2.65
Total	25	5.24	2.42	25	4.88	2.32	24	4.54	2.21

Social desirability of Treatment Groups 1 and 2 ranged from 3.85 – 5.85 across the 3 Time points, all of which are around the lower or middle range of the scale (maximum of 10), indicating that social desirability generally was not very high in this study. Social desirability scores decreased slightly across the study, and Treatment Group 1 tended to produce higher social desirability scores than did Treatment Group 2; however, independent samples t-tests at all

revealed the two treatment groups' social desirability scores did not differ significantly at any time point, with t = 1.324 (p = .199), t = .890 (p = .071), and t = 1.682 (p = .112), respectively.

Hypotheses 1, 2, 3 and 4: Effects of Treatment

To evaluate the effectiveness of the mindfulness program and hypotheses 1, 2, and 3, a doubly-multivariate design was used with time as a within-subjects variable, treatment group as the between subjects variable, and the compassion (CS), self-compassion (SCS), empathy (TEQ), and mindfulness (FFMQ) as the 4 dependent variables. Mauchley's Test of sphericity was conducted to determine if the variance/covariance matrix of the data contains approximately equal variances and covariances. The assumption of sphericity was not violated for empathy (W = .80, χ^2 (2) = 3.795, p > .150) or mindfulness (W = .84, χ^2 (2) = 2.940, p > .230), but it was violated for compassion (W = .646, χ^2 (2) = 7.424, p < .024) and self-compassion ((W = .432, χ^2 (2) = 14.261, p < .001). Because the assumption of sphericity was violated for compassion and self-compassion, a Greenhouse-Geisser correction was used to correct the degrees of freedom of the F-distributions for the univariate analysis of these dependent variables.

Multivariate tests revealed a significant within-subjects main effect (Wilk's λ), with F(8,66) = 2.228, p = .036, indicating that there was significant treatment effect for the multivariable of compassion, self-compassion, empathy, and mindfulness. The multivariate between-subjects effect was not significant, with F (4, 15) = .862, p = .509. This was expected, as the test means were averaged across all 3 Time points and each treatment group received treatment during the study. There was not a significant Time x Treatment Group interaction effect, with F (8, 66) = .714, p = .678, indicating that within-subjects changes across the 3 Time points did not differ significantly by treatment group. This result was not expected; rather, it was

expected the two treatment groups would demonstrate significantly different patterns of within-subjects change across the study.

Hypotheses 1, 2, 3 and 4 predicted that overall mindfulness, compassion for clients, empathy for clients, and self-compassion would increase as a result of the mindfulness intervention. Table 19 displays results of univariate analysis of treatment effects on the four dependent variables. Of the four dependent variables, only mindfulness demonstrated a significant change as a result of treatment. Treatment effects on self-compassion approached significance but did not reach the $p < .05$ criterion for significance. Tests of within-subjects contrasts revealed that the relationship of mindfulness over time was linear, as expected. Levene's Test revealed that the assumption of equal error variances across groups was met for each dependent variable

Table 19

Univariate ANOVA Analyses of Within-Subjects Effects on Compassion, Self-Compassion, Empathy, and Mindfulness

Dependent variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial eta squared
CS	.064	1.477	.044	1.283	.285	.067
SCS	1.051	1.276	.824	3.551	.063	.165
TEQ	15.009	2	7.505	.930	.404	.049
FFMQ	1355.074	2	677.537	10.124	.000	.360

A Bonferroni correction was used for Tukey's HSD post hoc analysis to compensate for the inflated type 1 error rate presented by the number of hypotheses. Tukey's HSD revealed a significant mean difference from Time 1 to Time 3 for mindfulness, with a mean increase of 11.641 (SE = 3.019, p = .003). This significant mean difference verifies the results of the univariate ANOVA concerning mindfulness. Mean difference for self-compassion from Time 1 to Time 2 approached significance, with a mean increase of .197 (SE = .075, p = .051), but again

did not reach the p = .05 cutoff. The mean increases from Time 2 to Time 3 and from Time 1 to Time 3 were nonsignificant.

Figure 1 illustrates the pattern of mean changes in mindfulness for each treatment group across time. As expected, Treatment Group 1 demonstrated a large increase at Time 2, which was immediately posttreatment. Treatment Group 2 had a notably small increase at Time 2, but a much larger increase posttreatment at Time 3, while Treatment Group 1 demonstrated a very small increase from Time 2 to Time 3. Paired samples t-tests confirm this pattern of mean changes. Treatment Group 1 exhibited a statistically significant mean increase from pre (Time 1) to post treatment (Time 2) (t = 2.645, p = .025), and then maintained these gains at Time 3 (t = .376, p = .716). As expected, Treatment Group 2 did not exhibit significant mean changes from Time 1 to Time 2 (t = .265, p = .796). Treatment Group 2 also exhibited mean increases from pre (Time 2) to post treatment (Time 3). These increases were not statistically significant, though they did approach the p = .05 significance level (t = 1.877, p = .085).

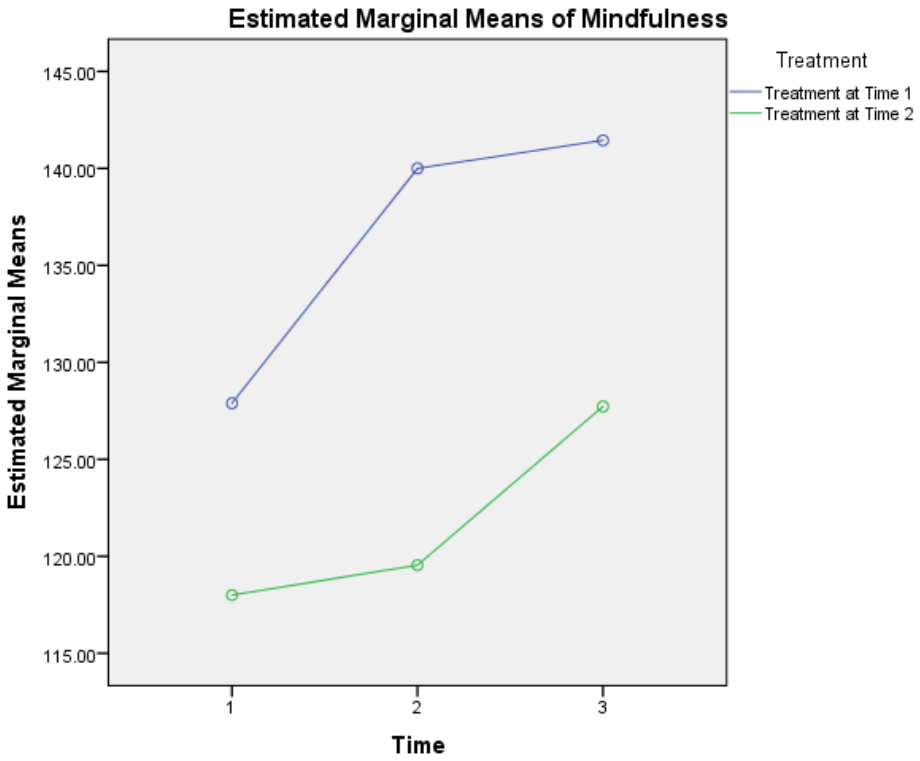

Figure 1. Time x treatment group effect on mindfulness.

Figure 2 illustrates the pattern of mean changes in self-compassion for each treatment group across time. As expected, Treatment Group 1 demonstrated a large increase immediately posttreatment, confirmed by paired samples t-test ($t = 2.726$, $p = .021$). Treatment Group 1 then exhibited a small decrease at Time 3, but this decrease was not statistically significant ($t = .156$, $p = .880$). Treatment Group 2 maintained its baseline level of self-compassion at Time 2, and then demonstrated a mean increase posttreatment at Time 3 that approached statistical significance ($t = 1.550$, $p = .147$). Both mindfulness and self-compassion demonstrated the expected patterns of mean changes across the study, though self-compassion's univariate changes were not statistically significant. Empathy and compassion, illustrated in Figures 3 and 4, did not demonstrate the expected patterns of mean changes.

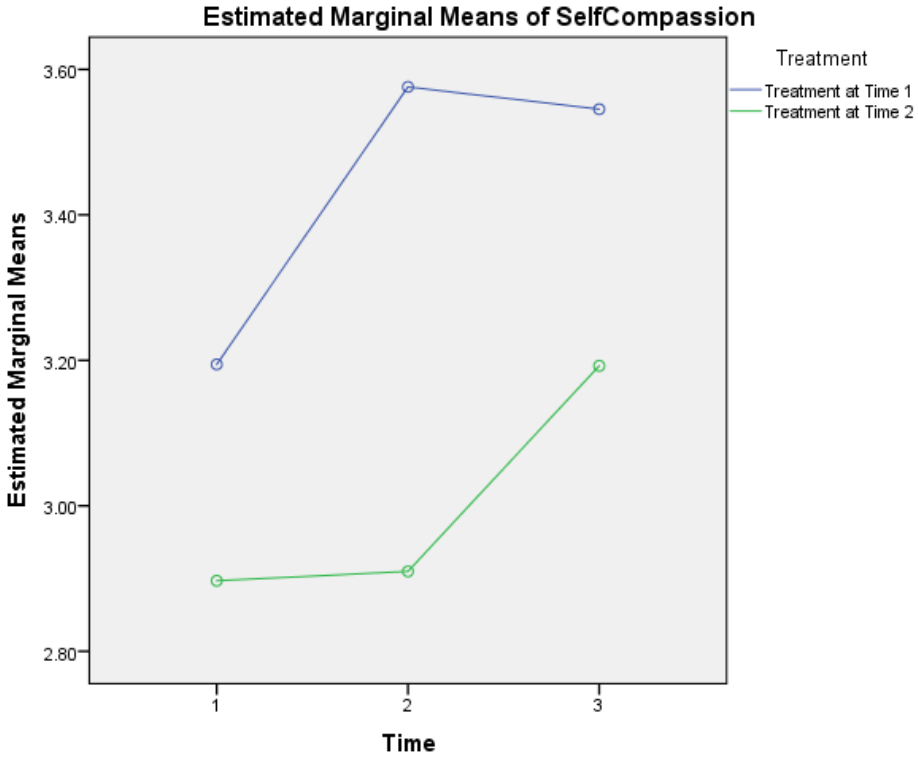

Figure 2. Time x treatment group effect on self-compassion.

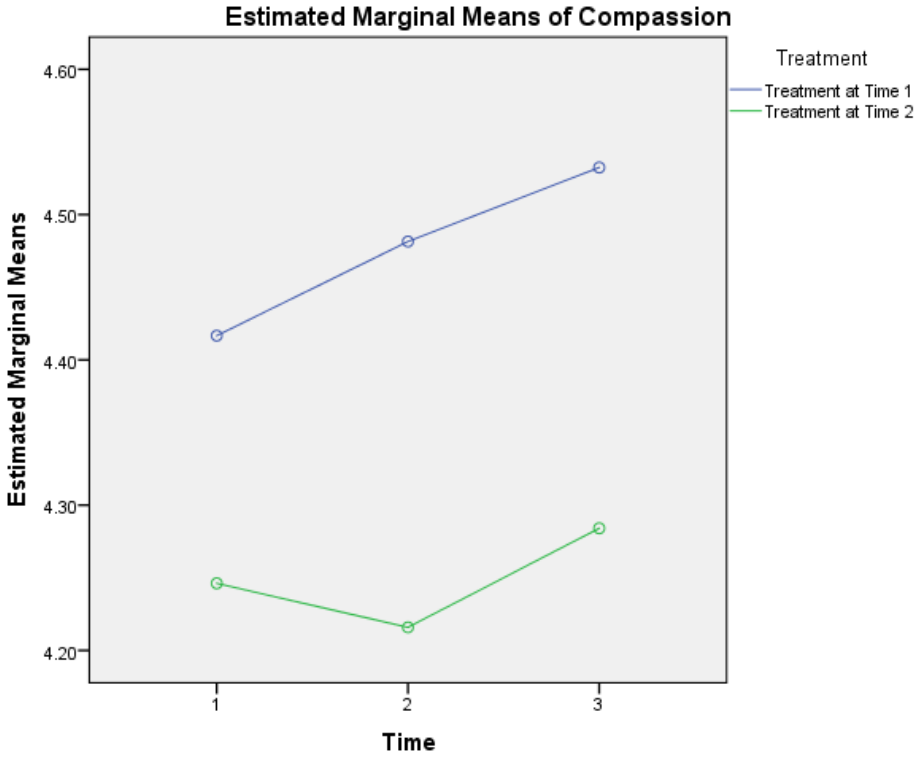

Figure 3. Time x treatment group effects on compassion for clients.

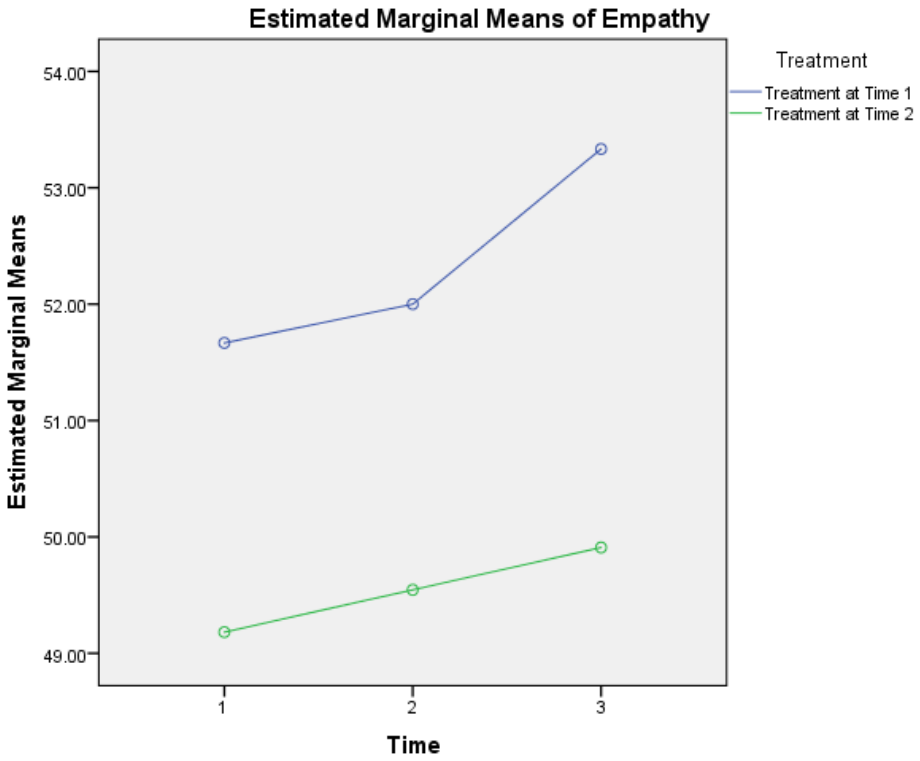

Figure 4. Time x treatment group effects on empathy for clients.

A univariate ANOVA was conducted for the NEO-PI-3 Extraversion scale. It was expected that Extraversion would not change as a result of treatment. Figure 5 shows the patterns of mean changes for each treatment group. There was a significant effect of treatment, with F (2, 17) = 3.919, p = .04, indicating that extraversion increased significantly across the study. There was also a significant Time x Treatment Group interaction effect, with F (2, 17) = 3.583 p = .05, indicating that changes in Extraversion scores varied depending on when participants received the mindfulness training. There was not a significant between-subjects effect, with F (1) = .733, p = .403. Levene's Test revealed that the assumption of equality of error variances was met, while Mauchley's Test revealed that the assumption of sphericity was met. Tukey's HSD post hoc analysis revealed that there were no significant mean differences among any of the time points for the Extraversion score. Figure 5 illustrates the pattern of change for each treatment group for the NEO-PI-3 Extraversion scale. The treatment groups demonstrated very different

patterns of mean changes. Treatment group 1 showed an increase from Time 1 to Time 2 and then a sharp decrease from Time 2 to Time 3, while Treatment Group 2 showed a steady increase from Time 1 to Time 3. Significant changes on the Extraversion scale, a scale measuring a personality dimension that was not expected to change from a brief mindfulness treatment, indicate that results of other scales should be interpreted with caution.

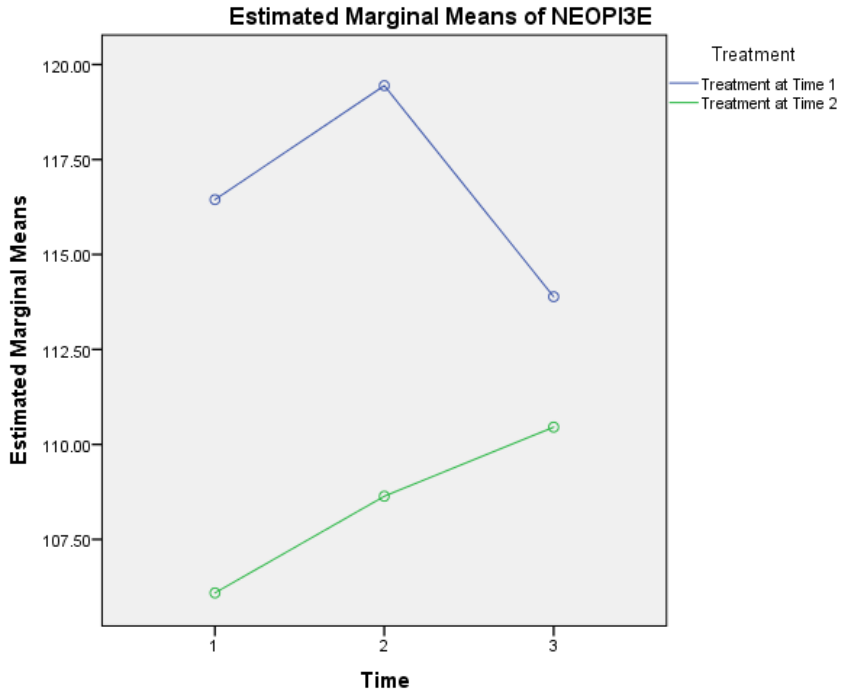

Figure 5. Time x treatment group effects on extraversion.

Hypotheses 5, 6, and 7: Scale Intercorrelations

Pearson product-moment correlation coefficients were generated to examine statistical associations among the 4 dependent variable scales (CS, TEQ, SCS, and FFMQ), the NEO-PI-3 E, and the covariate scale (M-C SDS) at all 3 time points. Data can be found in tables 20, 21 and 22. Correlation tables were also generated for the TEQ and the six subscales of the Compassion Scale. Correlation data can be found in Tables 23, 24, and 25. Some results may be significant for the purposes of interpreting multivariate and univariate analyses of the dependent measures, described above. The NEO-PI-3 E correlated with multiple DVs at Times 2 and 3, including the

FFMQ, which was the only dependent measure demonstrating a statistically significant treatment effect. Since univariate analysis revealed that NEO-PI-3 scores also changed across the study, which was unexpected, interpretation of inferential statistics of the dependent measures should be made with caution. The M-C SDS correlated with one DV at each time point, two of which were the TEQ. However, it did not correlate with the FFMQ, suggesting that social desirability did not explain a significant amount of variance in FFMQ scores.

The fourth hypothesis was that empathy and compassion would be partially associated. The CS and TEQ demonstrated strong, significant correlations at all 3 time points. It was hypothesized that the Kindness and Disengagement subscales would exhibit weaker associations with the TEQ than the other four subscales. The Kindness subscale had the highest correlation, measured with the Pearson product-moment coefficient, with the TEQ than any other subscale at all Time points (all 3 statistically significant at the $p < .01$ level), while the Disengagement subscale's coefficients were among the highest at each time point and were all significant at the $p < .01$ level. It was also hypothesized that 6) compassion and self-compassion would demonstrate significant associations. The SCS and the CS did not correlate significantly at any time point.

Table 20

Summary of Intercorrelations on the CS, TEQ, SCS, FFMQ, NEO-PI-3 Extraversion Scale, and M-C SDS at Time 1

Measure	1	2	3	4	5	6
1. CS	—					
2. TEQ	.723**	—				
3. SCS	0.03	-0.13	—			
4. FFMQ	0.20	0.03	.695**	—		
5. NEO	0.29	0.28	0.39	0.28	—	
6. MC	0.39	.524**	-0.09	-0.01	0.24	—

Note. NEO=NEO-PI-3 Extraversion Scale. MC=M-C SDS.

Table 21

Summary of Intercorrelations on the CS, TEQ, SCS, FFMQ, NEO-PI-3 Extraversion Scale and M-C SDS at Time 2

Measure	1	2	3	4	5	6
1. CS	—					
2. TEQ	.786**	—				
3. SCS	0.16	-0.01	—			
4. FFMQ	.494*	0.29	.676**	—		
5. NEO	.473*	0.38	.509**	.579**	—	
6. MC	.437*	0.37	0.38	0.35	.431*	—

Note. NEO=NEO-PI-3 Extraversion Scale. MC=M-C SDS.

Table 22

Summary of Intercorrelations on the CS, TEQ, SCS, FFMQ, NEO-PI-3 Extraversion Scale, and M-C SDS at Time 3

Measure	1	2	3	4	5	6
1. CS	—					
2. TEQ	.790**	—				
3. SCS	0.05	-0.02	—			
4. FFMQ	0.39	0.27	.709**	—		
5. NEO	.609**	.533**	.514*	.564**	—	
6. MC	0.32	.523**	0.05	0.01	0.16	—

Note. NEO=NEO-PI-3 Extraversion Scale. MC=M-C SDS.

Table 23

Summary of Intercorrelations on the TEQ and Six Compassion Scale Subscales at Time 1

Measure	1	2	3	4	5	6	7
1. TEQ	—						
2. K	.807**	—					
3. D	-.599**	-.706**	—				
4. CH	.118	.026	-.017	—			
5. S	-.553**	-.705**	.690**	-.053	—		
6. M	.480*	.513**	-.373	.463*	-.236	—	
7. I	-.539**	-.651**	.850**	.069	.706**	-.343	—

Note. K=Kindness. D=Disengagement. CH=Common Humanity. S=Separation. M=Mindfulness. I=Indifference.
*p < .05. **p < .01

Table 24

Summary of Intercorrelations on the TEQ and Six Compassion Scale Subscales at Time 2

Measure	1	2	3	4	5	6	7
1. TEQ	—						
2. K	.773**	—					
3. D	-.635**	-.527**	—				
4. CH	.540**	.726**	-.294	—			
5. S	-.462*	-.528**	.806**	-.282	—		
6. M	.666**	.509**	-.429*	.658**	-.237	—	
7. I	-.595**	-.495*	.923**	-.193	.783**	-.334	—

Note. K=Kindness. D=Disengagement. CH=Common Humanity. S=Separation. M=Mindfulness. I=Indifference.
*p < .05. **p < .01

Table 25

Summary of Intercorrelations on the TEQ and Six Compassion Scale Subscales at Time 3

Measure	1	2	3	4	5	6	7
1. TEQ	—						
2. K	.786**	—					
3. D	-.690**	-.842**	—				
4. CH	.356	.173	-.154	—			
5. S	-.442*	-.556**	.750**	-.029	—		
6. M	.761**	.606**	-.432*	.519**	-.239	—	
7. I	-.589**	-.716**	.906**	-.184	.785**	-.392	—

Note. K=Kindness. D=Disengagement. CH=Common Humanity. S=Separation. M=Mindfulness. I=Indifference.
*p < .05. **p < .01

Correlation tables were also generated for the 3 questions about the researcher and the 4 DVs at all 3 time points. Few correlations among between DVs and the questions about the researcher were statistically significant, and those that were statistically significant were of low-moderate strength. See Tables 26, 27, and 28 for data. Pearson coefficients were also generated between Average Weekly Meditation Time and the 4 DVs. No correlations among these comparisons were significant. See Appendix Q for these correlation data.

Table 26

Summary of Intercorrelations among Researcher Questions and the 4 DVs at Time 1

Measure	1	2	3	4	5	6	7
1. Con	—						
2. Fam	.897**	—					
3. Inf	.242	.315	—				
4. CS	-.124	-.184	.147	—			
5. TEQ	-.005	-.142	.059	.723**	—		
6. SC	-.036	-.110	-.197	.028	-.129	—	
7. FFMQ	.171	.036	-.178	.202	.026	.695**	—

Note. Con=To what degree do you feel connected to the group leader? Fam=Rate your level of familiarity with [the group leader]. How well do you feel you know him? Inf= To what degree do you feel your responses to these questions are influenced by your connection to the group leader? *p < .05. **p < .01

Table 27

Summary of Intercorrelations among Researcher Questions and the 4 DVs at Time 2

Measure	1	2	3	4	5	6	7
1. Con	—						
2. Fam	.784**	—					
3. Inf	.413*	.458*	—				
4. CS	.367	.455*	.253	—			
5. TEQ	.228	.269	.161	.786**	—		
6. SC	.195	.217	.207	.157	-.014	—	
7. FFMQ	.466*	.413*	.141	.494*	.285	.676**	—

Note. Con=To what degree do you feel connected to the group leader? Fam=Rate your level of familiarity with [the group leader]. How well do you feel you know him? Inf= To what degree do you feel your responses to these questions are influenced by your connection to the group leader? *p < .05. **p < .01

Table 28

Summary of Intercorrelations among Researcher Questions and the 4 DVs at Time 3

Measure	1	2	3	4	5	6	7
1. Con	—						
2. Fam	.526**	—					
3. Inf	.289	.293	—				
4. CS	.387	.192	-.109	—			
5. TEQ	.265	.206	.204	.790**	—		
6. SC	.257	.357	-.019	.047	-.015	—	
7. FFMQ	.345	.390	-.131	.390	.269	.709**	—

Note. Con=To what degree do you feel connected to the group leader? Fam=Rate your level of familiarity with [the group leader]. How well do you feel you know him? Inf= To what degree do you feel your responses to these questions are influenced by your connection to the group leader? *p < .05. **p < .01

CHAPTER 4

DISCUSSION

Overview of Findings

This study evaluated the effectiveness of a mindfulness training designed for mental health trainees and professionals, testing its effects on levels of compassion for clients, levels of empathy for clients, and levels of self-compassion. The study also explored the relationships between compassion for clients and empathy for clients and between compassion for clients and self-compassion.

Overall, results were mixed, indicating that the mindfulness training was somewhat effective but not in several of the ways hypothesized by the researcher. Multivariate analysis of variance revealed a statistically significant within-subjects main effect, such that the four dependent measures exhibited significant increases. Further, levels of trait mindfulness, measured with the FFMQ, increased significantly, with a main effect of treatment across both treatment groups and a significant mean difference from Time 1 to Time 3. Examination of profile plots and subsequent t-test analysis also revealed that the pattern of changes in trait mindfulness was as expected for a switching replications design: Treatment Group 1 exhibited a significant increase in mindfulness compared to Treatment Group 2 at posttreatment (Time 2) and then maintained those gains at Time 3, while Treatment Group 2 demonstrated significant gains from Time 2 to Time 3. However, changes on the other three dependent variables (compassion, empathy, and self-compassion) were nonsignificant, indicating that the mindfulness program did not have several hypothesized effects.

Scores on the M-C SDS exhibited statistically significant correlations with only one DV at each time point, suggesting that social desirability did not significantly influence treatment

effects. The small sample size prevented the use of the M-C SDS as a covariate in the MANOVA (degrees of freedom would have been reduced too far, thereby damaging the reliability of the results), which would have revealed if there were significant changes on dependent measures above and beyond the influence of social desirability. Interestingly, however, the NEO-PI-3 Extraversion scale exhibited a significant within-subjects main effect and a significant interaction effect, such that changes in Extraversion depended on treatment group. However, the pattern of mean changes was not as one would expect of the changes were due to treatment; Treatment Group 1 showed a large increase posttreatment but did not maintain these gains, with a large decrease at Time 3. Meanwhile, Treatment Group 2 demonstrated a steady increase from Time 1 to Time 3. Further, the NEO-PI-3 Extraversion scale did demonstrate significant correlations with dependent measures, including mindfulness, at various time points.

This result was curious, given that Extraversion, a personality trait, would not be expected to change as a result of a brief mindfulness treatment, a prediction verified by Robert McRae via email to the author (McCrae, personal communication). It is possible that changes on the Extraversion scale indicates that participants may have been responding to the demand characteristics of the study, such that they changed their self-reporting behavior to conform to the aims of the study. Given that the social desirability items were generally not significantly correlated with the dependent measures, and the fact that the Extraversion scale did not demonstrate mean changes consistent with what would be expected in a switching replications design, the results of this study should still be considered valid while being interpreted with caution. A potential alternative explanation for the changes in Extraversion scores is that participants' orientation to others became more active as a result of the training. While such a

change is not to be expected on a trait dimension like Extraversion, future research might explore the influence of mindfulness training on or the association of mindful qualities with elements of extraversion or related constructs, such as sociability.

Examination of individual dependent variable measures revealed some noteworthy findings. Participants exhibited higher initial means (at Time 1, before training) on the Compassion Scale and the Toronto Empathy Questionnaire, both adapted for use in this study, than did undergraduate or normal populations in the original studies (Pommier, 2010; Spreng et al., 2009). These differences suggest that clinicians tend to report being more compassionate and empathic towards their clients than other people are compassionate and empathic towards people in their daily lives. It is also possible that clinicians, given that they have selected into helping professions, tend to be more compassionate and empathic in general, or tend to report more general compassion and empathy because of the nature of the profession. However, this comparison is limited because the scales used in this study were altered to measure compassion and empathy felt for clients rather than people in general (i.e. compassion for clients may be different than compassion for people in general). Meanwhile, results indicated that clinicians in this study were no more self-compassionate before treatment than were non-meditating undergraduates participating in Neff's (2003) original study. Taken in combination with the compassion and empathy initial means, this suggests that while clinicians may be more compassionate and empathic than normal populations, they are not more self-compassionate.

Hypothesis 1 predicted that mindfulness training would increase levels of overall mindfulness, measured using the FFMQ. Results supported this hypothesis. This finding aligns with findings in other studies demonstrating that a mindfulness intervention can improve levels of trait mindfulness (i.e. Baer et al., 2012; Rimes and Wingrove, 2010). This finding also serves

as a form of manipulation check, such that it helps verify that the mindfulness did indeed effect change in participants in the expected manner by making them more mindful. Further, it is encouraging that significant changes took place in such a short time-span, and it is likely that, with increases mindfulness practice, levels of overall mindfulness would continue to improve.

Hypothesis 2 predicted that mindfulness training would increase levels of compassion felt for clients. Results did not support this hypothesis. This finding contrasts findings in studies demonstrating that mindfulness training can increase compassion (Condon et al., 2013; Neff & Germer, 2013); however, this is the first study that focuses specifically on compassion felt for clients by clinicians. Future research may focus on refining and strengthening the mindfulness program, including adding a loving kindness meditation, which was originally part of session 3 but was removed from the study to reduce the threat of demand characteristics. The addition of a loving kindness meditation that allows participants to practice extending warmth and kindness towards other people in their lives, including difficult clients, may affect compassion extended outward.

One major limitation of this study was the low sample size. A power analysis was conducted prior to the study and it was determined that 9 participants in each treatment group would provide sufficient power, which was exceeded (13-14 in each). However, it is generally recommended that there be 30 participants in each cell, which would increase statistical power and provide more likelihood of detecting any effects that do exist. Available resources made this sample size very difficult to achieve. Small sample size may then account for the lack of significant findings in this study on the Compassion Scale and for other measures, particularly for constructs that approached significance. Further, the small sample size prevented the researcher from conducting more sophisticated inferential analyses, such as including covariates

to parse out the effects of constructs like social desirability or amount of prior mindfulness experience on results.

One potential reason that significance was not found for the compassion scale is that there may have been a ceiling effect, such that the Compassion Scale or at least the adapted version with changed wording does not adequately distinguish people scoring on the high end of the scale. Participants averaged a mean score of 4.40/5.00 at Time 1, which was substantially higher than what Pommier's (2010) original study reported. While this comparison is limited by the fact that Pommier's study did not measure compassion for clients, it indicates that clinicians may be naturally more compassionate than normal populations, which raises two issues for discussion. First, a new scale designed specifically for clinicians may warrant development, such that it can more effectively detect changes in compassion levels in people already high in compassion. Second, this raises the question of whether clinicians, in general, even need a meditative or other sort of program designed to improve compassion, if their levels of compassion are already high. Future research utilizing multiple methods and measures is warranted to explore this further.

Another explanation for the lack of a statistically significant compassion effect and for the ceiling effect described above is that participants may have over-reported their compassion. The items in the adapted Compassion Scale are transparent enough that participants were likely able to deduce how a "good" therapist "should" respond. However, MC-SDS scores were only significantly associated with compassion scores at Time 2, suggesting that social desirability was not a significant factor.

Hypothesis 3 predicted that the mindfulness training would increase empathy for clients, measured with an adapted version of the Toronto Empathy Questionnaire (Spreng et al., 2009).

Results did not support this hypothesis, countering findings from other studies suggesting that mindfulness-based treatments may increase clinicians' (Felton et al., 2015; Rimes & Wingrove, 2010) or other health professionals' (Krasner et al., 2009; Shapiro et al., 1998) empathy levels. Like compassion, this result was unexpected, and elements of the mindfulness program may need to be altered to improve its effectiveness in increasing empathy. Future studies would benefit from a formal debriefing procedure in which participants could provide formal feedback as to how they experienced different elements of the program and what they believed could be changed to make it more effective. Also like compassion, TEQ means in this study were higher than those reported in other studies with other populations, suggesting that clinicians may be generally more empathic than normal populations. Thus, clinicians may not benefit from a mindfulness training (in terms of increases in empathy) as strongly as other populations.

Hypothesis 4 predicted that self-compassion, measured using the Self-Compassion Scale, would increase after mindfulness training. While increases in self-compassion approached significance, results did not support this hypothesis. This finding was surprising particularly because the program included a session focused entirely on self-compassion, and because the Self-Compassion Scale is a very reliable and well-validated scale that has been shown to respond to mindfulness-based treatments. Examination of profile plots showed that self-compassion means followed the pattern of change expected in the study, such that means increased for each treatment group immediately following treatment but remained relatively constant otherwise. This suggests that a larger sample size and thus more statistical power may have revealed a statistically significant effect for self-compassion, a result which would align with previous research demonstrating that mindfulness programs can improve self-compassion. Also of note is that the training session focused on self-compassion was positioned at the very end of the

training program. This means that participants completed posttreatment follow up measures immediately after or not long after their first exposure to the self-compassion exercise and lesson. It is possible that treatment effects on self-compassion scores would have increased with time and with more personal practice of the self-compassion meditation. This question may be addressed by examining how Treatment Group 1 scores changed from Time 2 to Time 3. Self-compassion scores decreased slightly at Time 3, which would suggest that there is not a delayed effect of treatment on self-compassion. However, this study also lacked a measurement of posttreatment meditation practice, and so it cannot be determined if Treatment Group 1 participants continued to practice meditation from Time 2 to Time 3. Future studies should include such a measure.

Interestingly, examination of mean changes for participants stratified by amount of prior mindfulness experience revealed that participants with extensive prior mindfulness experience exhibited the greatest mean self-compassion increase from Time 1 to Time 3. Further, participants with limited and extensive experience exhibited greater mean changes in total mindfulness than participants with no prior mindfulness experience. Small sample size prohibited the inclusion of "prior mindfulness experience" as a covariate, which would have helped piece apart the influence of this variable on treatment effects. However, future research might address the question of who can benefit the most from a meditation training. Conventional thought would suggest that someone with little to no prior mindfulness or meditation experience would exhibit the most treatment gains. However, perhaps previously developed mindfulness skills make one more likely to benefit from a short-term mindfulness training program because those skills can simply be re-activated, whereas those without prior experience may require more time to develop mindfulness skills and then reap their benefits.

Hypothesis 5 predicted that scores on the adapted Toronto Empathy Questionnaire would demonstrate a significant but partial association with scores on the adapted Compassion Scale, such that compassion for clients would be correlated significantly with empathy for clients but not at such a high level that would suggest that the two constructs are the same (a correlation value approaching 1.0 would suggest a complete overlap between the two constructs). Results supported this hypothesis, with Pearson product-moment correlations between the two scales significant at the $p < .01$ level at all 3 time points ($r = .723$, $r = .786$, $r = .790$, respectively). The correlations between the scales revealed a moderately large overlap between the two constructs. This result provides evidence that empathy and compassion, often considered interchangeable, are indeed distinct constructs but are associated with one another.

Hypothesis 6 predicted that the Kindness and Disengagement subscales of the Compassion Scale would demonstrate the weakest associations with the Toronto Empathy Questionnaire compared to the other 4 subscales (Common Humanity, Separation, Mindfulness, Indifference). This hypothesis was based on theoretical literature suggesting that compassion and empathy share certain processes such as cognitive and emotional perspective taking but that compassion is unique in that it involves the kindness and warm response to the suffering of another (Kindness) and the urge to help rather than ignore or disengage from the sufferer (Disengagement, which was reverse scored), while empathy does not necessarily involve these processes. This hypothesis was not supported; in fact, the Kindness subscale exhibited the strongest correlation with the TEQ at all time points, while Disengagement was among the highest at all time points.

While no research has examined the Compassion Scale subscale's relationships with empathy and empathic behaviors, the above result was unexpected. Research by Klimecki et al.

(2013) and Lim & Desteno (2016) found that compassion was associated more strongly with warmth and caring than was empathy, while Lim and Desteno (2016) demonstrated that compassion explained unique variance in prosocial helping behavior above and beyond the influence of empathy. These findings suggest that the aspects not shared or less strongly shared with empathy would be tapped by the Kindness and Disengagement scales, which measure the warmth and helping aspects of compassion, as opposed to the other subscales. An alternative explanation is that the null hypothesis is correct and empathy does necessarily include elements of kindness. Empathy without kindness, or perspective taking without any warmth or motivation to help a suffering individual, might be conceptualized as a different construct altogether. Such a form of perspective taking might be associated with interpersonally manipulative rather than altruistic or prosocial behaviors and motivations. The results of this study suggest that empathy and compassion are distinct constructs, but future research is warranted to explore further the eccentricities of the relationship between empathy and compassion.

Hypothesis 7 predicted that self-compassion and compassion for clients would exhibit a significant association. This hypothesis was not supported, replicating findings in Pommier (2010)'s original study in which the new Compassion Scale was not associated with Neff (2003)'s Self-Compassion Scale, such that people with low and high levels of self-compassion were still compassionate towards others. In the present study, the association between self-compassion and compassion may have been limited by the ceiling effect of compassion, such that the small variance in compassion scores grouped in the high range combined with the small sample size reduced the chances of finding a significant association between the two constructs.

Pommier (2010) suggested several other reasons to explain this finding, some of which may apply to the present study. For one, Pommier pointed out that the population in her study

consisted predominantly of White Americans, and that Christianity in its various forms is the predominant religion in the United States. One of the key principles in Christianity is self-sacrifice, which suggests that individuals influences by Christian values have learned that it is "right" to be hard on themselves but kind to others. While religious or cultural demographic information was not collected in this study, participants were predominantly White Americans (as in Pommier's study), and thus this cultural factor may also account for the lack of association between self-compassion and compassion for clients. Pommier also noted that while the Kindness, Mindfulness, and Common Humanity subscales of the Compassion Scale were conceptualized the same way as their corresponding subscales in the Self-Compassion Scale, their opposing constructs were conceptualized differently because they are directed towards other people rather than the self. For example, a lack of kindness for the self manifests as a harsh and critical internal voice, whereas a lack of kindness for others manifests itself as cold, indifference toward others. As such, 3 of the 6 scales inherently measure different processes.

Despite the findings in this study, previous research has demonstrated that self-compassion may be related to other-focused concern variables (e.g. Neff and Pommier, 2012), which suggests that with a larger sample size or with compassion scales conceptualized differently, the two constructs may demonstrate a stronger association. Further, theoretical and empirical research suggests that increasing self-compassion may contribute to the development of compassion for others (Neff and Germer, 2013). Future research should continue to explore the nuances of the relationship between compassion and self-compassion. Also, this study did not explore the temporal relationship between self-compassion and compassion; future research should address the question of whether building self-compassion leads to the development of compassion, or vice versa.

Limitations and Future Research

Overall, the method used in this study was comparable to other studies assessing the effectiveness of a mindfulness program with both an intervention and control group. For example, Neff and Germer (2013), in assessing the effectiveness of the Mindful Self-Compassion program utilized a randomized control-group design. In fact, the switching replications design used in this study is stronger than that of many studies evaluating mindfulness training programs with clinicians; many did not employ a control group (such as Rimes and Wingrove, 2010), for example, which limits the conclusions that can be made, or used qualitative means to assess constructs like compassion and empathy, which are inherently subjective and thus also limited in their conclusive power.

Despite the strength of the research design, this study comes with several limitations, many of which have already been considered previously. The biggest limitation is the small sample size. A larger sample size increases statistical power and thus may have helped reveal treatment effects and associations among variables that were not strong enough to manifest statistical significance in this study. The findings in this study the training program was effective overall, that it improved trait mindfulness measured by the FFMQ, and that increases in self-compassion approached significance are encouraging results that suggest that future studies with a larger sample size, more rigorous and controlled methodology, and a more powerful mindfulness program may reveal further that mindfulness can be an important component of clinical training of mental health professionals and trainees. Further, the small sample size prevented the exploration of the effects of variables such as weekly meditation time, connection and familiarity with the researcher, social desirability, and amount of prior mindfulness

experience, as entering variables as covariates would have reduced degrees of freedom and threatened the reliability of the results.

Another possible limitation was the fact that the researcher ran all of the treatment groups and knew personally many of the participants prior to the treatment. These characteristics of the study introduced several potential threats to construct validity as conceptualized by Shadish, Cook, and Campbell (2002). The researcher may have conveyed his expectations about desirable responses to measures. Further, participant responses may have been influenced by their connection to the researcher. While participant responses to questions about their familiarity with and connection to the researcher revealed no evidence that this threat impacted participants' scores, future evaluations of this program should utilize a research methodology that reduces these threats, such as a double-blind procedure in which the primary researcher does not lead any of the treatment or comparison groups. This study also used only self-report methods, another threat to construct validity according to Shadish, Cook and Campbell (2002). Future evaluations of this program may utilize other methods, such as coded behavioral observations of empathic or compassionate behaviors in-session or measures of clients' perceptions of empathy and compassion in-session.

The study may have also been limited by the credentials of the researcher. The researcher had no formal training or certifications in the administration of mindfulness interventions, outside of training pursued as part of practicum and other clinical experiences. It is unclear the extent that the group leaders' formal training in MBSR, MBCT, KORU, or other well-established mindfulness intervention programs may have on outcomes. Other studies employ Zen masters (e.g. Grepmair et al., 2007) or clinicians with extensive personal and professional experience with mindfulness (e.g. Neff and Germer, 2012). It is possible that a clinician with

more formal, extensive training in mindfulness may have been able to lead a more powerful, effective mindfulness training. This is an area for future research.

Construction of the treatment groups was also limited by the nature of the study, the resources available to the researcher, and time constraints of the participants. As such, the two groups differed significantly in terms of total experience working in the mental health field and in the type of agency or training program (Treatment Group 1 was comprised mostly of working mental health professionals in a alcohol and drug addiction facility and a center for children with autism, while Treatment Group 2 was comprised mostly of students in the clinical Psy. D program). How these differences may have affected responses on outcome measures is unclear. On the one hand, greater mental health experience may facilitate a greater understanding of mindfulness principles and thus more rapid treatment effects. The opposite could also be true, however, such that less experienced individuals may have more to gain from a program that improves mindfulness, empathy, and other constructs that can benefit clinical work. This question suggests future studies that examines whom would benefit most from a mindfulness training program.

Another limitation in this study threatened both the validity measures and the effectiveness of the mindfulness program itself. The self-report measures used in this study were potentially transparent, such that it was possible that participants would be able to perceive the aims of the study, creating a demand characteristics threat to internal validity. This threat is often unavoidable in within-subjects research designs using self-report measures, and the threat may have been higher in this study where exercises and psychoeducation pertained explicitly to the content of scale items (especially self-compassion and mindfulness). Given that the primary hypothesis of this study centered around the development of compassion for clients, the author

elected to remove a 6th and final meditation/psychoeducation piece from the mindfulness training program which would have focused explicitly on the changing participant's attitudes towards their clients, especially difficult clients. The elimination of this element of the training represents a departure from the structure of similar mindfulness/loving kindness training programs. This piece would have included a loving kindness meditation with some adapted wording such that it gave participants the chance to practice extending kindness and warmth to difficult clients. The addition of this meditation and psychoeducational component would have done 2 things: 1) It would have made the program more effective and powerful, and 2) it would established a response set by making the aims of the study much more transparent, raising even more concern about the validity of the adapted Compassion Scale. Future iterations and refinements of this mindfulness training should include this 6th piece, as it would likely make the program more effective. Evaluation of the program, then, may necessitate the use of other scales or of a research methodology that better hide the aims of the study. At present, however, there exists no other scale that measures levels of compassion felt for clients.

Future iterations of this training program may also be strengthened by changes to the mindfulness protocol. The researcher received informal feedback from participants that, had meditation practice between mindfulness sessions been framed as a requirement, rather than simply a "strong suggestion," they would have been more likely to follow through and meditate consistently. Meditation outside of session was not made a requirement for participant out of respect for the participants' time, many of whom are graduate students with little spare time or working professionals with families and responsibilities that limit the amount of time they could spend toward the study. However, participants largely disagreed and noted that a requirement

would not have been received negatively. As such, participants may have practiced meditation more diligently and thus may have benefited from the mindfulness training more.

Mindfulness training programs, such as MBSR, often stress informal mindfulness practice, often referred to as "mindfulness in daily living." For example, participants may be asked to perform routine daily tasks such as brushing their teeth in a more mindful way. This was not included as part of the protocol, but it is possible that such activities may have unique added benefits.

Relatedly, another limitation of this study was the use of scales that were originally designed to measure empathy (TEQ) and compassion (CS) for people in general, rather than for clients, and were then altered. This may have threatened the construct validity of the study. While the adapted scales demonstrated acceptable reliability in this study, future explorations into clinician compassion and empathy towards their clients would benefit from scales designed specifically for this purpose (especially compassion, of which there are few measures to begin with).

Conclusion

In this study, a mindfulness intervention was employed with mental health professionals and trainees and evaluated on a number of constructs. Its effects on compassion for clients was the primary construct of analysis. Overall, results were mixed. The significant multivariate F and the significant increases in trait mindfulness suggest that the program may have had a general benefit for its participants. The lack of significant effects for compassion, empathy, and self-compassion, however, suggest that the intervention did not have several hypothesized benefits. While the limitations outlined above suggest that under different circumstances the mindfulness training may have been more effective, the conservative interpretation of these results is that

mindfulness training, or at least this mindfulness training, does not influence these variable, at least not for mental health clinicians.

However, considering the small sample size and low statistical power it creates, the finding that the program had some general benefit as an intervention is promising. The findings in this study align with other research suggesting that mental health professionals can benefit from a mindfulness training program. The results did not provide evidence that a mindfulness program can improve a clinician's compassion for clients, empathy for clients, or self-compassion. However, the scarcely-studied question "Are mindful therapists better therapists?" is one deserving of further exploration and research. And while this study did not answer this question, it is likely that future research that corrects for the limitations of this study while capitalizing on its strengths will further demonstrate the benefit of mindfulness for mental health professionals.

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Appendix A

Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009)

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

		Never	Rarely	Sometimes	Often	Always
1.	When someone else is feeling excited, I tend to get excited too	0	1	2	3	4
2.	Other people's misfortunes do not disturb me a great deal	0	1	2	3	4
3.	It upsets me to see someone being treated disrespectfully	0	1	2	3	4
4.	I remain unaffected when someone close to me is happy	0	1	2	3	4
5.	I enjoy making other people feel better	0	1	2	3	4
6.	I have tender, concerned feelings for people less fortunate than me	0	1	2	3	4
7.	When a friend starts to talk about his\her problems, I try to steer the conversation towards something else	0	1	2	3	4
8.	I can tell when others are sad even when they do not say anything	0	1	2	3	4
9.	I find that I am "in tune" with other people's moods	0	1	2	3	4
10.	I do not feel sympathy for people who cause their own serious illnesses	0	1	2	3	4
11.	I become irritated when someone cries	0	1	2	3	4
12.	I am not really interested in how other people feel	0	1	2	3	4
13.	I get a strong urge to help when I see someone who is upset	0	1	2	3	4
14.	When I see someone being treated unfairly, I do not feel very much pity for them	0	1	2	3	4
15.	I find it silly for people to cry out of happiness	0	1	2	3	4

16.	When I see someone being taken advantage of, I feel kind of protective towards him\her	0	1	2	3	4

Appendix B

Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009) - Adapted

Below is a list of statements. Please read each statement carefully and rate how frequently you feel or act in the manner described. Circle your answer on the response form. There are no right or wrong answers or trick questions. Please answer each question as honestly as you can.

		Never	Rarely	Sometimes	Often	Always
1.	When my client is feeling excited, I tend to get excited too.	0	1	2	3	4
2.	My clients' misfortunes do not disturb me a great deal.	0	1	2	3	4
3.	It upsets me to hear from my client that they are being treated disrespectfully.	0	1	2	3	4
4.	I remain unaffected when a client is happy.	0	1	2	3	4
5.	I enjoy making my clients feel better.	0	1	2	3	4
6.	I have tender, concerned feelings for clients who are less fortunate than me.	0	1	2	3	4
7.	When a client starts to talk about his\her problems, I tend to steer the conversation towards something else.	0	1	2	3	4
8.	I can tell when my clients are sad even when they do not say anything.	0	1	2	3	4
9.	I find that I am "in tune" with my clients' moods.	0	1	2	3	4
10.	I do not feel sympathy for clients who cause their own serious illnesses or difficult life circumstances.	0	1	2	3	4
11.	I become irritated when a client cries.	0	1	2	3	4
12.	I am not really interested in how clients feel.	0	1	2	3	4
13.	I get a strong urge to help when a client is upset.	0	1	2	3	4
14.	When a client is being treated unfairly, I do not feel very much pity for them.	0	1	2	3	4
15.	I find it silly when clients cry out of happiness.	0	1	2	3	4
16.	When a client is being taken advantage of, I feel kind of protective towards him\her.	0	1	2	3	4

Appendix C

The Self-Compassion Scale (SCS; Neff, 2003)

HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost Never				Almost Always
1	2	3	4	5

_____1. I’m disapproving and judgmental about my own flaws and inadequacies.

_____2. When I’m feeling down I tend to obsess and fixate on everything that’s wrong.

_____3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.

_____4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.

_____5. I try to be loving towards myself when I’m feeling emotional pain.

_____6. When I fail at something important to me I become consumed by feelings of inadequacy.

_____7. When I'm down and out, I remind myself that there are lots of other people in the world feeling like I am.

_____8. When times are really difficult, I tend to be tough on myself.

_____9. When something upsets me I try to keep my emotions in balance.

_____10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

_____11. I’m intolerant and impatient towards those aspects of my personality I don't like.

_____12. When I’m going through a very hard time, I give myself the caring and tenderness I need.

_____13. When I’m feeling down, I tend to feel like most other people are probably happier than I am.

_____14. When something painful happens I try to take a balanced view of the situation.

_____15. I try to see my failings as part of the human condition.

_____16. When I see aspects of myself that I don’t like, I get down on myself.

_____17. When I fail at something important to me I try to keep things in perspective.

_____18. When I’m really struggling, I tend to feel like other people must be having an easier time of it.

_____19. I’m kind to myself when I’m experiencing suffering.

_____20. When something upsets me I get carried away with my feelings.

_____21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.

_____22. When I'm feeling down I try to approach my feelings with curiosity and openness.

_____23. I’m tolerant of my own flaws and inadequacies.

_____24. When something painful happens I tend to blow the incident out of proportion.

_____25. When I fail at something that's important to me, I tend to feel alone in my failure.

_____26. I try to be understanding and patient towards those aspects of my personality I don't like.

Appendix D

Compassion Scale (CS; Pommier, 2011)

HOW I TYPICALLY ACT TOWARDS OTHERS

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost Never				Almost Always
1	2	3	4	5

_____1. When people cry in front of me, I often don't feel anything at all.

_____2. Sometimes when people talk about their problems, I feel like I don't care.

_____3. I don't feel emotionally connected to people in pain.

_____4. I pay careful attention when other people talk to me.

_____5. I feel detached from others when they tell me their tales of woe.

_____6. If I see someone going through a difficult time, I try to be caring toward that person.

_____7. I often tune out when people tell me about their troubles.

_____8. I like to be there for others in times of difficulty.

_____9. I notice when people are upset, even if they don't say anything.

_____10. When I see someone feeling down, I feel like I can't relate to them.

_____11. Everyone feels down sometimes, it is part of being human.

_____12. Sometimes I am cold to others when they are down and out.

_____13. I tend to listen patiently when people tell me their problems.

_____14. I don't concern myself with other people's problems.

_____15. It's important to recognize that all people have weaknesses and no one's perfect.

_____16. My heart goes out to people who are unhappy.

_____17. Despite my differences with others, I know that everyone feels pain just like me.

_____18. When others are feeling troubled, I usually let someone else attend to them.

_____19. I don’t think much about the concerns of others.

_____20. Suffering is just a part of the common human experience.

_____21. When people tell me about their problems, I try to keep a balanced perspective on the situation.

_____22. I can’t really connect with other people when they’re suffering.

_____23. I try to avoid people who are experiencing a lot of pain.

_____24. When others feel sadness, I try to comfort them.

Appendix E

Compassion Scale (CS; Pommier, 2011) – Adapted

HOW I TYPICALLY ACT TOWARDS MY CLIENTS

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

Almost Never Almost Always

1 2 3 4 5

_____1. When clients cry in front of me, I often don't feel anything at all.

_____2. Sometimes when clients talk about their problems, I feel like I don't care.

_____3. I don't feel emotionally connected to clients in pain.

_____4. I pay careful attention when clients talk to me.

_____5. I feel detached from clients when they tell me their tales of woe.

_____6. If a client is going through a difficult time, I try to be caring toward that person.

_____7. I often tune out when my clients tell me about their troubles.

_____8. I like to be there for clients in times of difficulty.

_____9. I notice when clients are upset, even if they don't say anything.

_____10. When I see a client feeling down, I feel like I can't relate to them.

_____11. Everyone feels down sometimes, it is part of being human.

_____12. Sometimes I am cold to clients when they are down and out.

_____13. I tend to listen patiently when clients tell me their problems.

_____14. I don't concern myself with clients' problems.

_____15. It's important to recognize that all clients have weaknesses and no one's perfect.

_____16. My heart goes out to clients who are unhappy.

_____17. Despite any differences I have with clients, I know that everyone feels pain just like me.

_____18. When clients are feeling troubled, I usually hope someone else attends to them.

_____19. I don't think much about the concerns of my clients.

_____20. Suffering is just a part of the common human experience.

_____21. When clients tell me about their problems, I try to keep a balanced perspective on the situation.

_____22. I can't really connect with clients when they're suffering.

_____23. I'd rather avoid clients who are experiencing a lot of pain.

_____24. When clients feel sadness, I try to comfort them.

Appendix F

Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006)

Please rate each of the following statements using the scale provided. Write the number in the blank that best describes your own opinion of what is generally true for you.

Never or very rarely true	**Rarely true**	**Sometimes true**	**Often true**	**Very often or always true**
1	**2**	**3**	**4**	**5**

_____ 1. When I'm walking, I deliberately notice the sensations of my body moving.

_____ 2. I'm good at finding words to describe my feelings.

_____ 3. I criticize myself for having irrational or inappropriate emotions.

_____ 4. I perceive my feelings and emotions without having to react to them.

_____ 5. When I do things, my mind wanders off and I'm easily distracted.

_____ 6. When I take a shower or bath, I stay alert to the sensations of water on my body.

_____ 7. I can easily put my beliefs, opinions, and expectations into words.

_____ 8. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.

_____ 9. I watch my feelings without getting lost in them.

_____ 10. I tell myself I shouldn't be feeling the way I'm feeling.

_____ 11. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.

_____ 12. It's hard for me to find the words to describe what I'm thinking.

_____ 13. I am easily distracted.

_____ 14. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.

_____ 15. I pay attention to sensations, such as the wind in my hair or sun on my face.

_____ 16. I have trouble thinking of the right words to express how I feel about things

_____ 17. I make judgments about whether my thoughts are good or bad.

_____ 18. I find it difficult to stay focused on what's happening in the present.

_____ 19. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.

_____ 20. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.

_____ 21. In difficult situations, I can pause without immediately reacting.

_____ 22. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.

_____ 23. It seems I am "running on automatic" without much awareness of what I'm doing.

_____24. When I have distressing thoughts or images, I feel calm soon after.

_____ 25. I tell myself that I shouldn't be thinking the way I'm thinking.

_____ 26. I notice the smells and aromas of things.

_____ 27. Even when I'm feeling terribly upset, I can find a way to put it into words.

_____ 28. I rush through activities without being really attentive to them.

_____ 29. When I have distressing thoughts or images I am able just to notice them without reacting.

_____ 30. I think some of my emotions are bad or inappropriate and I shouldn't feel them.

_____ 31. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.

_____ 32. My natural tendency is to put my experiences into words.

_____ 33. When I have distressing thoughts or images, I just notice them and let them go.

_____ 34. I do jobs or tasks automatically without being aware of what I'm doing.

_____ 35. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.

_____ 36. I pay attention to how my emotions affect my thoughts and behavior.

_____ 37. I can usually describe how I feel at the moment in considerable detail.

_____ 38. I find myself doing things without paying attention.

_____ 39. I disapprove of myself when I have irrational ideas.

Appendix G

The Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960) – Selected Items

1. I never hesitate to go out of my way to help someone in trouble. (T)
2. I have never intensely disliked anyone. (T)
3. No matter who I'm talking to, I'm always a good listener. (T)
4. I always try to practice what I preach. (T)
5. I don't find it particularly difficult to get along with loud mouthed, obnoxious people. (T)
6. I sometimes try to get even rather than forgive and forget. (F)
7. I am always courteous, even to people who are disagreeable. (T)
8. There have been occasions when I felt like smashing things. (F)
9. I have never been irked when people expressed ideas very different from my own. (T)
10. I am sometimes irritated by people who ask favors of me. (F)
11. I sometimes think when people have a misfortune they only got what they deserved. (F)
12. I have never deliberately said something that hurt someone's feelings. (T)

Appendix H

NEO-PI-3 Extraversion Scale (McCrae, Costa, and Martin, 2005)

SD (Strongly Disagree) D (Disagree) N (Neutral) A (Agree) SA (Strongly Agree)

1. I find it easy to smile and be outgoing with strangers.
2. I prefer jobs that let me work alone without being bothered by people.
3. I am dominant, forceful, and assertive.
4. I have a laid-back style in work and play.
5. I like to be where the action is.
6. I have never literally jumped for joy.
7. I don't get much pleasure from chatting with people.
8. I like to have a lot of people around me.
9. I don't find it easy to take charge of a situation.
10. My life is fast-paced.
11. I wouldn't enjoy vacationing in Las Vegas.
12. I have felt overpowering joy.
13. I have strong emotional attachments to my friends.
14. I usually prefer to do things alone.
15. I have often been a leader of groups I have belonged to.
16. I'm not as quick and lively as other people.
17. I love the excitement of roller coasters.
18. I rarely use words like "fantastic!" or "sensational!" to describe my experiences.
19. Many people think of me as somewhat cold and distant.
20. I enjoy parties with lots of people.

21. In meetings, I usually let others do the talking.

22. I am a very active person.

23. I tend to avoid movies that are shocking or scary.

24. I am a cheerful, high-spirited person.

25. I really enjoy talking to people.

26. I shy away from crowds of people.

27. Other people often look to me to make decisions.

28. My work is likely to be slow but steady.

29. I often crave excitement.

30. I'm not happy-go-lucky.

31. I really like most people I meet.

32. I'd rather vacation at a popular beach than an isolated cabin in the woods.

33. I would rather go my own way than be a leader of others.

34. I usually seem to be in a hurry.

35. I have sometimes done things just for "kicks" or "thrills."

36. Sometimes I bubble with happiness.

37. I'm known as a warm and friendly person.

38. Social gatherings are usually boring to me.

39. In conversations, I tend to do most of the talking.

40. I act forcefully and energetically.

41. I like loud music.

42. I am not a cheerful optimist.

43. I take a personal interest in the people I work with.

44. I really feel the need for other people if I am by myself for long.

45. Sometimes I don’t stand up for my rights like I should.

46. I often feel as if I’m bursting with energy.

47. I like being part of the crowd at sporting events.

48. I laugh easily.

Appendix I

Questions about the Researcher

1. To what degree do you feel connected to the group leader (Peter)?

   Not at all connected — Extremely connected

   1 2 3 4 5

2. Rate your level of familiarity with Peter. How well do you feel you know him?

   Not at all — Extremely well

   1 2 3 4 5

3. To what degree do you feel your responses to these questions are influenced by your connection to or feelings towards the group leader?

   Not at all — Very much

   1 2 3 4 5

Appendix J

Demographics/Participant Information

1. Name of agency, facility, or graduate program
2. Years working/training in current agency/facility/program.
3. Total years training/working in the mental health or mental health-related field (including work prior to your current training or work experience).
4. Please describe any previous experience with mindfulness training, including type of training, length/frequency of personal mindfulness practice, and applications with clients/patients (if any).

Appendix K

Awareness of Breath Meditation (Meditation scripts, 2017)

This guided meditation on the breath will help you learn to simply be and to look within yourself with mindfulness and equanimity. Allow yourself to switch from the usual mode of doing to a mode of non-doing. Of simply being. As you allow your body to become still, bring your attention to the fact that you are breathing. And become aware of the movement of your breath as it comes into your body and as it leaves your body. Not manipulating the breath in any way or trying to change it. Simply being aware of it and of the feelings associated with breathing. And observing the breath deep down in your belly. Feeling the abdomen as it expands gently on the inbreath, and as it falls back towards your spine on the outbreath. Being totally here in each moment with each breath. Not trying to do anything, not trying to get any place, simply being with your breath. Giving full care and attention to each inbreath and to each outbreath. As they follow one after the other in a never ending cycle and flow.

You will find that from time to time your mind will wander off into thoughts. When you notice that your attention is no longer here and no longer with your breathing, and without judging yourself, bring your attention back to your breathing and ride the waves of your breathing, fully conscious of the duration of each breath from moment to moment. Every time you find your mind wandering off the breath, gently bringing it back to the present, back to the moment-to-moment observing of the flow of your breathing. Using your breath as an anchor to focus your attention, to bring you back to the present whenever you notice that your mind is becoming absorbed or reactive. Using your breath to help you tune into a state of relaxed awareness and stillness.

Now as you observe your breathing, you may find from time to time that you are becoming aware of sensations in your body. As you maintain awareness of your breathing, see if it is possible to expand the field of your awareness so that it includes a sense of your body as a whole as you sit here. Feeling your body, from head to toe, and becoming aware of all the sensations in your body. So that now you are observing not only the flow of breathing, but the sense of your body as a whole.

Being here with whatever feelings and sensations come up in any moment without judging them, without reacting to them, just being fully here, fully aware. Totally present with whatever your feelings are and with your breath and a sense of your body as a whole. And again whenever you notice that your mind wandering off, just bringing it back to your breathing and your body as you sit here not going anywhere, not doing anything just simply being, simply sitting. Moment to moment, being fully present, fully with yourself.

Reestablishing your awareness on the body as a whole and on the breath as it moves in and out of your body. Coming back to a sense of fullness of each inbreath, and the fullness of each outbreath. If you find yourself at any point drawn into a stream of thinking and you notice that you are no longer observing the breath, just using your breathing and the sense of your body to anchor you and stabilize you in the present.

Just being with your breathing from moment to moment, just sitting in stillness, looking for nothing and being present to all. Just as it is, just as it unfolds. Just being right here, right now. Complete. Human. Whole.

Appendix L

Guided Body Scan (Meditation scripts, 2017)

Lie down in a warm and private place, dressed in loose and comfortable clothing at a time when you will not be interrupted. Closing your eyes, and letting your arms lie alongside your body, your feet falling away from each other and slowly bringing your attention to the fact that you are breathing. Not trying to control your breath in any way but simply experiencing it as the air moves in and out of your body and noticing your abdomen and feeling the sensations there as your breath comes into your body and your abdomen gently expands. Then noticing your belly deflate as the breath comes out of your body. And following the rhythmic movement of each breath…the rising of your belly on the inbreath and on each outbreath just letting go, letting your body become heavy as it sinks a little bit deeper into relaxation. Just bringing full attention to each breath in each moment.

Now bringing your attention to your feet, becoming aware of whatever sensations are there. If you are registering a blank as you tune in, then just experiencing nothing. And as you breathe in, imagine your breath moving all the way down to your feet and then when you reach your feet, begin your outbreath and let it move all the way up your body and out your nose. So that you're breathing in from your nose and breathing out from your feet. And when you are ready, letting your feet dissolve in your mind's eye. Become aware of the shins and calf muscles and the sensations in the lower legs, not just on the surface but right down into the bones, experiencing and accepting what you feel here and breathing into it, then breathing out from it. Then letting go of your lower legs as you relax into the bed or mat. And moving now into the thighs and if there's any tension just noticing that. Breathing into and out from the thighs. Then letting your thighs dissolve and relax.

Direct your attention now to your lower back. And just experiencing your back as it is. Letting your breath penetrate and move into every part of your lower back on the in-breath. And on the out-breath, just letting any tension, any tightness, any holding on just flow out as much as it will. And then letting go of your lower back. And moving up into your upper back now. Just feeling the sensations in your upper back. You may even feel your ribcage, in back as well as in front, expand on the in-breath. And any tightness, fatigue or discomfort in this part of your body, just letting them dissolve and move out with the outbreath as you let go and sink even deeper into stillness and relaxation.

And now shifting your attention to your belly again and experiencing the rising and falling of your belly as you breathe. Feeling the movements of your diaphragm, that umbrella-like muscle that separates your belly from your chest. And experiencing the chest as it expands on the in-breath and deflates on the out-breath. And if you can, tune into the rhythmic beating of your heart within your chest. Feeling it if you can. As well as the lungs expanding on either side of your heart. Just experiencing your chest, your belly, as you lie here…the muscles on the chest wall, the breasts, the entirety of the front of your body. And now just letting this region dissolve into relaxation as well.

Moving your attention now to your fingertips and to both hands together, just becoming aware of the sensations now in the tips of your fingers and thumbs where you may feel some pulsations from the blood flow, a dampness or a warmth or whatever you feel. Just feeling your fingers. And expand your awareness to include the palms of your hands and the backs of your hands and your wrists. And here again perhaps picking up the pulsations of the arteries in your

wrists as the blood flows to and from your hands. And becoming aware as well of the forearms. And the elbows. Any and all sensations regardless of what they are. Allowing the field of your awareness to include now the upper arms. Right up to your shoulders. Just experiencing your shoulders and if there are any tensions, breathing into your shoulders and arms. And letting that tension dissolve as you breathe out. Letting go of the tension and letting go of your arms. All the way from your fingertips, right through to your shoulders. As you sink even deeper into a state of relaxed awareness. Just being present in each moment. Letting go of whatever thoughts come up or whatever impulses to move and just experiencing yourself in this moment.

And now focus your attention on your neck and throat and feel this part of your body, experiencing what it feels like perhaps when you swallow and when you breathe. And then letting it go. Letting it relax and dissolve in your mind's eye. Becoming aware of your face now. Focusing on the jaw and the chin, just experiencing them as they are.

Becoming aware of your lips and your mouth. And becoming aware of your cheeks now…and your nose, feeling the breath as it moves in and out at the nostrils. And be aware of your eyes. And the entire region around your eyes and eyelids. And if there's any tension, letting it leave as the breath leaves. And now the forehead, letting it soften to let go of stored emotions. And the temples. And if you sense any emotion associated with the tension or feelings in your face, just being aware of that. Breathing in and letting the face dissolve into relaxation and stillness. And now become aware of your ears, and back and top of your head. Now letting your whole face and head relax. For now, just letting it be as it is. Letting it be still and neutral. Relaxed and at peace.

Now letting your breath move through your entire body in whatever way feels natural for you. Through the entire length of your body. All of your muscles in a deep state of relaxation. And your mind simply aware of this energy, of this flow of breath. Experiencing your entire body breathing. Sinking deeper and deeper into a state of stillness and deep relaxation. Allow yourself to feel whole. In touch with your essential self in a realm of silence, of stillness, of peace. And seeing that this stillness is in itself healing. And allowing the world to be as it is beyond your personal fears and concerns. Beyond the tendencies of your mind to want everything to be a certain way. Seeing yourself as complete right now as you are. As totally awake right now.

As the exercise ends, bring your awareness back to your body again, feeling the whole of it. You may want to wiggle your toes and fingers. Allow this calmness and this centeredness to remain with you when you move. Congratulate yourself on having taken the time to nourish yourself in this way. And remember that this state of relaxation and clarity is accessible to you by simply paying attention to your breath in any moment, no matter what's happening in your day. Let your breath be a source of constant strength and energy for you.

Appendix M

Guided Sitting Meditation (Meditation scripts, 2017)

This guided sitting meditation will help you learn to simply be and to look within yourself with mindfulness and equanimity. Allow yourself to switch from the usual mode of doing to a mode of non-doing. Of simply being. As you allow your body to become still, bring your attention to the fact that you are breathing. And become aware of the movement of your breath as it comes into your body and as it leaves your body. Not manipulating the breath in any way or trying to change it. Simply being aware of it and of the feelings associated with breathing. And observing the breath deep down in your belly. Feeling the abdomen as it expands gently on the inbreath, and as it falls back towards your spine on the outbreath. Being totally here in each moment with each breath. Not trying to do anything, not trying to get any place, simply being with your breath.

You will find that from time to time your mind will wander off into thoughts, fantasies, anticipations of the future or the past, worrying, memories, whatever. When you notice that your attention is no longer here and no longer with your breathing, and without judging yourself, bring your attention back to your breathing and ride the waves of your breathing, fully conscious of the duration of each breath from moment to moment. Every time you find your mind wandering off the breath, gently bringing it back to the present, back to the moment-to-moment observing of the flow of your breathing. Using your breath to help you tune into a state of relaxed awareness and stillness.

Now as you observe your breathing, you may find from time to time that you are becoming aware of sensations in your body. As you maintain awareness of your breathing, see if it is possible to expand the field of your awareness so that it includes a sense of your body as a whole as you sit here. Feeling your body, from head to toe, and becoming aware of all the sensations in your body.

Being here with whatever feelings and sensations come up in any moment without judging them, without reacting to them, just being fully here, fully aware of whatever you're experiencing. And again whenever you notice that your mind wandered off, just bringing it back to your breathing and your body as you sit here not going anywhere, not doing anything just simply being, simply sitting. Moment to moment, being fully present, fully with yourself.

Now as you sit here once again allowing the field of your awareness to expand. This time, expanding your awareness to include thoughts as they move through your mind. So letting your breathing and sense of your body be in the background and allowing the thinking process itself to be the focus of your awareness. And rather than following individual thoughts and getting involved in the content and going from one thought to the next, simply seeing each thought as it comes up in your mind as a thought and letting the thoughts just come and go as you sit and dwell in stillness, witnessing them and observing them. Whatever they are…just observing them as events in the field of your consciousness…as they come into your awareness and they linger and as they dissolve.

If you find yourself at any point drawn into this stream of thinking and you notice that you are no longer observing them, just coming back to observing them as events and using your breathing and the sense of your body to anchor you and stabilize you in the present.

The thoughts can take any form, they can have any content and they can be either neutral or very highly charged. If thoughts come up that have fear in them, then just be aware of fear being here

and letting these thoughts come and go. The same for worries, preoccupations, and so on. Regardless of the feeling that a thought might create for you, just observing it as simply a thought and letting it be here without pursuing it or without rejecting it. Noticing that from moment to moment, new thoughts will come and go.

And now, let your mind relax, and let it do whatever it wants. Instead of focusing on the breath, just let your mind attend to or think about whatever. And simply observe what it does. Always just noticing.

And now, once again, bring your attention back to your breathing. Allow your breath to anchor you, always there, always present. As thoughts and feelings arise, simply noticing them, nonjudgmentally, before returning to the breath.

Appendix N

Soften-Soothe-Allow (Neff, 2017)

Start with deep breathing, awareness of breath

Now I'd like you to think of a circumstance or situation that's causing you a lot of upset right now. It may be something you're feeling about yourself, something you don't like, or some mistake you've made. Or it could be a situation that's very difficult to deal with right now. Just remind yourself of the details involved. Get in touch with what is troubling you, and how you feel about it. What we're going to be doing is working with the emotions in the body itself, seeing if we can bring some soothing and comfort to the painfulness of the emotion by focusing our attention on the body. So I'd like you to try to become aware of what emotions are attached to this painful circumstance. Maybe just labelling these emotions….anger, disappointment, grief, fear….what's coming up for you now? Then, choose the emotion that you feel most strongly….what's the predominant emotion that you feel with this circumstance? Now see if you can tell where you feel that emotion in your body. Is a it a gripping in the throat, a heaviness behind the eyes, a clenching in the gut. See if you can notice what part of the body is physically manifesting the emotion most strongly. And then, see if you can describe to yourself the sensations…tight, hot, tingling, numb, cold. Just describe it in your mind.

Now because this is a painful emotion, we naturally want to resist it, tighten up against it, make it go away. But unfortunately this just makes it more painful. So what I want you to do is be aware of the emotion in the body and try to soften around it. See if you can relax a little bit the feeling of tension or pressure. And just soften. If the emotion is very intense you may want to focus your awareness on the edges of the emotion. Just kind of soften around the boundaries or borders of the emotion. Imagining maybe that you have a pool of water that you've let down the side, so that it's not so tightly contained, so that the pool of water can pour out naturally. Just softening around the sensation.

Recognizing how hard it is to be feeling this. Every one of us constantly feels really difficult emotions, And we need to be able to comfort ourselves in these times. And so just take your hand and gently touch the place where you're feeling the emotion. Let your touch be soft, caring….maybe caress the spot a little but. And as you gently touch that spot, try to soothe the difficult emotion. Just telling yourself that you recognize how hard it is to feel this way. And if it feels comfortable, you might even say something to yourself like "I'm so sorry its so hard for you right now." Remember that you are allowed to feel this. This is your natural reaction. You aren't choosing to feel this. This is what's happening. Just soothe and comfort yourself, that this is hard right now to be feeling this.

And then see if you can just allow the sensation of the emotion to be there. You're safe right now at this moment. There's no danger, your body is experiencing this emotion. See if you can allow it to be there as it is. Don't try to make it go away. Also notice, does it change at all? Is the sensation moving or shifting or changing quality? So what I'd like you to do for the next few minutes…is if the same emotion is still very strong and predominant…or perhaps a new emotion arises to become strong…. just repeat the same 3 steps. Locating the sensation in body Softening around the edges of the sensation so that there's not so much tightness or constriction. Soothing yourself and your body, the difficulty of what your feeling right now with lots of tender

compassion. And then just allowing the sensation, the feeling, the emotion to be there. Its ok, you're safe right now.

And if your mind gets pulled away into thinking about the situation or circumstance…that's ok, its only natural but gently try to bring your awareness back to the actual sensation in your body. And if any feelings of peace arise, or comfort, see if you can be aware of and be with those emotions as well. And if its still very difficult, then stay with the pain, with the 3 techniques of soften, soothe, and allow. And if you feel your mind starting to drift, or if you notice yourself starting to tune out again, just try to refresh in your mind the source of the pain and get in touch with the feelings in your body. Soften, soothe, and allow.

Appendix O

Self-Compassion Break (Neff, 2017)

This practice is called the self-compassion break. It is something you can do anytime during the day or at night when you need a little self-compassion. So to practice this exercise, we actually need to call up a little suffering. So I invite you to think about a situation in your life right now that is difficult for you. Perhaps you're feeling stress, or having a relationship problem, or you're worried about something that might happen. I invite you to think of something that is difficult, but not overwhelmingly difficult, especially if you are new to practicing the self-compassion break. So finding the situation and getting in touch with it…what's going on…what's happened, or what might happen…who said what…really bring the situation to life in your mind's eye. And then I'm going to be saying a series of phrases that are designed to help us remember the 3 parts of self-compassion when we need it the most.

So the first phrase is "This is a moment of suffering." We're bringing mindful awareness to the fact that suffering is present. And I invite you to find some language that speaks to you. Something like, "This is really hard right now," or "I'm really struggling." We're actually turning toward our difficulty, acknowledging it, naming. This is a moment of suffering.
The second phrase is "suffering is a part of life." We're reminding ourselves of our common humanity. Suffering is a part of life. And again, finding language that speaks to you…it may be like "It's not abnormal to feel this way." "Many people are going through similar situations." The degree of suffering may be different, the flavor of suffering may be different, but suffering is a part of life, a part of being human.

And then the third phrase is "May I be kind to myself in this moment." And to support bringing kindness to yourself, I'd invite you to perhaps put your hands over your heart, or perhaps some other place over your body that feels soothing or comforting…feeling the warmth of your hand…the gentle touch... letting those feelings of care stream through your fingers. May I be kind to myself. And using any language that supports that kind of language. Perhaps language you would use with a good friend that you care about who is going through a very similar situation. You know it may be something like "I'm here for you," "it's gonna be ok," "I care about you." You can try calling yourself by your first name, anything that feels natural to express your deep wish that you be well, and happy, and free from suffering.
And then letting go of the practice, and noticing how the body feels right now. Allowing any sensations to be, just as they are. Allowing yourself to be just as you are, in this moment.

Appendix P

Meditation Log

Identification code (the last two numbers of your social security number, the first two letters of the street name with which you most strongly associate with your childhood, the last two numbers of your phone number) _____

During the past week, on which days did you practice your meditations? How long did you practice each day?

Day	**Practice (Yes/No)?**	**Length (minutes)**
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		

Appendix Q

Additional Tables

Table 29

Kindness Subscale Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.378	.376	.485
Minimum	.108	.152	.272
Maximum	.586	.635	.640
Variance	.028	.031	.014
N of Items	4	4	4

Table 30

Kindness Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.677	.656	.768

Table 31

Disengagement Subscale Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.387	.431	.473
Minimum	.230	.213	.211
Maximum	.515	.661	.698
Variance	.009	.022	.028
N of Items	4	4	4

Table 32

Disengagement Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.646	.676	.715

Table 33

Common Humanity Subscale Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.285	.570	.652
Minimum	.147	.312	.532
Maximum	.400	.712	.767
Variance	.011	.020	.009
N of Items	4	4	4

Table 34

Common Humanity Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.570	.821	.862

Table 35

Separation Subscale Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.505	.606	.574
Minimum	.261	.417	.424
Maximum	.878	.799	.937
Variance	.058	.023	.031
N of Items	4	4	4

Table 36

Separation Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.808	.848	.843

Table 37

Mindfulness Subscale Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.279	.451	.278
Minimum	.007	.330	-.071
Maximum	.500	.750	.501
Variance	.035	.022	.037
N of Items	4	4	4

Table 38

Mindfulness Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.573	.769	.601

Table 39

Indifference Subscale Internal Consistency and Inter-Item Correlations at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Mean	.335	.444	.383
Minimum	.096	.254	.207
Maximum	.520	.601	.494
Variance	.027	.018	.010
N of Items	4	4	4

Table 40

Indifference Subscale Internal Consistency at Times 1, 2, and 3

	Time 1	Time 2	Time 3
Cronbach's Alpha	.603	.746	.663

Table 41

Summary of Intercorrelations among FFMQ Total Mindfulness Score and 5 Subscales at Time 1

Measure	1	2	3	4	5	6	7
1. Total	—						
2. Obs	.565**	—					
3. NJ	.851**	0.293	—				
4. Act	.852**	.579**	.661**	—			
5. NR	.721**	0.181	.629**	.529**	—		
6. Des	.684**	0.123	.480*	0.378	.431*	—	

Note. Total = Total FFMQ Score. Obs = Observe subscale. NJ = Nonjudge subscale. Act = Act with Awareness subscale. NR = Nonreact subscale. Des = Describe subscale.
*p < .05. **p < .01

Table 42

Summary of Intercorrelations among FFMQ Total Mindfulness Score and 5 Subscales at Time 2

Measure	1	2	3	4	5	6	7
1. Total	—						
2. Obs	.777**						
3. NJ	.790**	.449*					
4. Act	.735**	.540**	.584**				
5. NR	.735**	.540**	.584**	.590**			
6. Des	.524**	0.290	0.166	0.049	0.315	—	

Note. Total = Total FFMQ Score. Obs = Observe subscale. NJ = Nonjudge subscale. Act = Act with Awareness subscale. NR = Nonreact subscale. Des = Describe subscale.
*p < .05. **p < .01

Table 43

Summary of Intercorrelations among FFMQ Total Mindfulness Score and 5 Subscales at Time 3

Measure	1	2	3	4	5	6	7
1. Total	—						
2. Obs	.653**						
3. NJ	.810**	0.365					
4. Act	.830**	.434*	.737**				
5. NR	.829**	.445*	.678**	.551**			
6. Des	.670**	0.356	0.244	0.365	.545**	—	

Note. Total = Total FFMQ Score. Obs = Observe subscale. NJ = Nonjudge subscale. Act = Act with Awareness subscale. NR = Nonreact subscale. Des = Describe subscale.
*p < .05. **p < .01

Table 44

Correlations between 4 DVS and Avg. Weekly Meditation Time Times 1, 2, and 3 for Treatment Group 1

	Meditation Time		
	Time 1	Time 2	Time 3
CS	-.013	-.061	-.046
TEQ	.003	.203	-.136
SCS	-.062	-.511	-.215
FFMQ	.350	.148	.213

Note. Avg. Weekly Meditation Time is the same value at each time point, as each participant has one Avg. Weekly Meditation Time value.
*p < .05. **p < .01

Table 45

Correlations between 4 DVS and Avg. Weekly Meditation Time Times 1, 2, and 3 for Treatment Group 2

	Meditation Time		
	Time 1	Time 2	Time 3
CS	.319	.513	.513
TEQ	.351	.417	.479
SCS	-.197	-.203	.036
FFMQ	.167	.010	.334

Note. Avg. Weekly Meditation Time is the same value at each time point, as each participant has one Avg. Weekly Meditation Time value.

Appendix R

Informed Consent Form

You are invited to participate in this research study. The following information is provided in order to help you to make an informed decision about whether or not to participate. If you have any questions please do not hesitate to ask. The Project Director, Peter Hauge, can reached by email at p.d.hauge@iup.edu and by phone at (732)859-0954. You are eligible to participate because you are trainee or a professional in a mental health or mental-health-related program or agency.

The purpose of this study is to examine the effectiveness of a mindfulness training program designed for mental health professionals and trainees. The information gained from this study may help us to better understand the benefits that mindfulness training has for the personal and professional lives of mental health professionals. Participation in this study will require a total of 4-5 hours of your time spread across a number of weeks. Participation is not mandatory and declining to participate will not impact your academic or job performance. You will be participating in three weekly mindfulness training groups, each of which last 60-75 minutes. You will also be completing a total of three survey measures via Qualtrics, each of which takes approximately 15 minutes to complete. Half of participants will complete two surveys before participating in the mindfulness training and one after, and the other half will complete one survey before and two after.

All participants will have the chance to win one of three randomly-drawn 50-dollar Visa gift cards if they complete the mindfulness training and complete all survey measures. Depending on the policies of professors, supervisors, or managers, participants may also be eligible to earn extra credit for a course or fulfill training requirements for a program or agency. Confirmation or proof of participation in the program will be provided by the researcher to professors, supervisors, or managers for participants who complete the mindfulness training.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators or IUP. Your decision will not result in any loss of benefits to which you are otherwise entitled. If you choose to participate, you may withdraw at any time by notifying the Project Director. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your academic standing or services you receive from the University. Your identity and your participation in the study will be held confidential, and will only be known to other participants in your mindfulness training group. Your survey responses will be considered only in combination with those from other participants. There are no risks associated with your participation. The information obtained in the study may be published in scientific journals or presented at scientific meetings but your identity will be kept strictly confidential.

If you are willing to participate in this study, please select "I understand and consent." If you choose not to participate, please select "I do not consent," do not continue with this survey, do not participate in any of the mindfulness trainings or other aspects of the study, and please inform the researcher that you are withdrawing from the study.

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This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).