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# **IMPACTS OF BRIEF MINDFULNESS TRAINING**

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**A Research Project**

**Presented to the Faculty of**

**The George L. Graziadio**

**School of Business and Management**

**Pepperdine University**

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**In Partial Fulfillment**

**of the Requirements for the Degree**

**Master of Science**

**in**

**Organization Development**

---

**by**

**Jodi K. Nielsen**

**August 2014**

This research project, completed by

JODI K. NIELSEN

under the guidance of the Faculty Committee and approved by its members, has been submitted to and accepted by the faculty of The George L. Graziadio School of Business and Management in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE  
IN ORGANIZATION DEVELOPMENT

Date: August 2013

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## **Abstract**

The present mixed method study examined the impacts of brief mindfulness training on cultivation of mindfulness traits, physical and emotional well-being, and relationship quality. Twenty-nine graduate students were organized into a control (n = 14) and a treatment (n = 15) group. All participants completed pre/post measures of their mindfulness competencies, physical and emotional well-being, and relationship quality. The treatment group participated in a 4-week mindfulness training workshop. The control group exhibited no significant changes over the study period. The treatment group exhibited significant improvement of self-reported mindfulness competencies and improved emotional and physical well-being and relationship quality. The results of the present study are encouraging, emphasizing the value of brief training designs for cultivating mindful awareness. Continued practice and research in this area is expected to introduce more and more people to the benefits of mindfulness, enabling them to experience the benefits of more personally attuned and aware living.

## Table of Contents

Abstract.....	iii
List of Tables .....	vii
1. Introduction.....	1
Purpose of the Study .....	2
Definitions.....	2
Research Setting.....	3
Significance of the Study .....	4
Organization of the Study .....	5
2. Literature Review.....	6
Mindfulness.....	6
Practicing mindfulness.....	7
Outcomes .....	9
Summary.....	12
Mindfulness Training.....	13
Dialectical behavior therapy .....	13
Mindfulness-based stress reduction .....	14
Mindfulness-based coaching.....	16
Brief mindfulness training .....	17
Summary.....	22
Conclusion .....	22
3. Methods.....	23
Research Design.....	23

Sampling .....	23
Treatment .....	25
Participant Log.....	25
Variables .....	26
Measurement.....	27
Data Analysis Procedures .....	28
Summary.....	29
4. Results.....	30
Participant Demographics.....	30
Comparison of the Groups .....	31
Control Group Results .....	32
Treatment Group Results .....	33
Mindfulness experience and practice.....	33
Mindful awareness .....	34
Physical well-being.....	42
Emotional well-being.....	43
Relationship quality .....	45
Summary.....	45
5. Discussion.....	47
Conclusions.....	47
Impacts on mindful awareness.....	47
Impacts on physical well-being .....	48
Impacts on emotional well-being.....	49

Impacts on relationships .....	50
Recommendations.....	51
Limitations .....	53
Suggestions for Continued Research .....	54
Summary.....	55
References.....	57
Appendix A: Study Invitation.....	64
Appendix B: Participation Slip.....	65
Appendix C: Workshop Design and Homework Assignments .....	66
Appendix D: Survey .....	74

## List of Tables

Table	Page
1. Participant Demographics.....	31
2. Pre-Test Scores: Control versus Treatment Groups.....	32
3. Pre- versus Post-Test Scores: Control Group .....	32
4. Pre- versus Post-Test Self-Reported Experience Scores: Treatment Group.....	33
5. Treatment Group Participant Logs.....	34
6. Treatment Group Participant Logs: Mindful Awareness.....	35
7. Reported Impacts of Brief Mindfulness Training on Observation .....	35
8. Reported Impacts of Brief Mindfulness Training on Description .....	37
9. Reported Impacts of Brief Mindfulness Training on Non-judgment.....	38
10. Reported Impacts of Brief Mindfulness Training on Non-reactivity.....	40
11. Reported Impacts of Brief Mindfulness Training on Acting with Awareness .....	41
12. Summary of Reported Impacts of Brief Mindfulness Training on Physical Well-being.....	43
13. Summary of Reported Impacts of Brief Mindfulness Training on Emotional Well-being.....	44
14. Summary of Reported Impacts of Brief Mindfulness Training on Relationship Quality.....	45



## **Chapter 1**

### **Introduction**

The objective of healthcare professionals is to help patients reach and maintain a state of health (Gantz 1990; Gottlieb & Rowat 1987; Jewell, 1994; McCormack, 2003; Schlotfeldt, 1972). Typically, this includes teaching them self-care behaviors. In contrast, it is common for healthcare professionals to neglect their own health and self-care (Han, Trinkoff, Storr, & Geiger-Brown, 2011; Miller & Alpert, 2008; Oldenburg, 2010; Tariman, 2007). Practicing mindfulness and developing its consequent outcomes of mindful awareness and physical and emotional well-being is one way that healthcare practitioners could be supported in caring for themselves and their own health.

The capacity to evoke mindfulness is developed using various meditation techniques that originated from Buddhist spiritual practices (Hahn, 1976). Mindfulness in Buddhist traditions occupies a central pole in a system that was developed as a path leading to the cessation of personal suffering (Silananda, 1990; Thera, 1962). Today, mindfulness has been described as a process of bringing a certain quality of attention to moment-by-moment experience (Kabat-Zinn, 1990). Mindfulness has been described as a type of mental training of stopping, observing, and accepting one's moment-by-moment experience for the purpose of reducing emotional distress, maladaptive behavior, and psychopathology (Bishop et al., 2004; Kabat-Zinn, 2005).

Mindfulness training currently is offered in many ways. Three of the most common ways include mindfulness-based stress reduction (MBSR, Kabat-Zinn, 1990), an 8-week workshop taught by certified trainers that entails weekly group meetings, homework, and instruction in mindfulness meditation, body scanning, and simple yoga postures; mindfulness coaching (Collard & Walsh, 2008; Hall, 2013), where coaches

encourage and support clients' attention to their senses, nonjudgmental observation of their here-and-now experiences, and deliberate choices of action; and brief mindfulness training (Harnett et al., 2010; Jain et al., 2007; Kingston, Chadwick, & Meron, 2007; Tang et al., 2007; Zeidan, Johnson, Diamond, David, & Goolkasian, 2010), which features instruction in mindfulness delivered over fewer sessions of shorter duration.

Reflecting on mindfulness literature, it is reasonable to hypothesize that mindfulness training could be effective for enhancing emotional and physical well-being, improving relationships, and cultivating mindfulness practices. Traditional mindfulness-based training can take significant time and commitment to achieve results. The substantial commitment required for this type of training can preclude many individuals, such as people with many time commitments (e.g., busy professionals, students, caregivers) from cultivating the practice and reaping its benefits. As a result, it is important to explore whether briefer forms of mindfulness training can yield the same types of results as more traditional training.

### **Purpose of the Study**

The purpose of this study was to examine the impacts of brief mindfulness training. Four research questions were examined:

1. What are the impacts of brief mindfulness training on mindful awareness?
2. What are the impacts of brief mindfulness training on physical well-being?
3. What are the impacts of brief mindfulness training on emotional well-being?
4. What are the impacts of brief mindfulness training on relationship quality?

### **Definitions**

Nine definitions are central to this research project:

1. Acting with awareness: being deliberate, focused, and aware in one's actions (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006).

2. Describing: being able to articulate one's attitudes, feelings, experiences, and bodily sensations (Baer et al., 2006).
3. Emotional well-being: the state of being emotionally healthy and able to manage one's thoughts, feelings, and behaviors—both by controlling them when necessary and by releasing them when appropriate. Someone who enjoys emotional well-being tends to feel positively about himself or herself and usually has satisfying relationships. He or she tends to keep problems in perspective (American Academy of Family Physicians, 2008).
4. Mindful awareness: Mindful awareness can be defined as paying attention to present moment experiences with openness, curiosity, and a willingness to be with what is (Bishop et al., 2004). Baer et al. (2006) added that mindful awareness is characterized by acting with awareness, being able to observe one's experiences, being able to describe one's experiences, practice non-judgment, and practice non-reactivity. Mindful awareness is the result of practicing mindfulness.
5. Non-judgment: being able to unconditionally accept one's self, one's thoughts, and one's emotions (Baer et al., 2006).
6. Non-reactivity: being able to notice one's thoughts and emotions without being overcome by or having to act upon them (Baer et al., 2006).
7. Observing: being able to have sensory awareness of one's environment and the effect of stimuli on one's mind and body (Baer et al., 2006).
8. Physical well-being: the state of physical wellness and fitness that includes being physically active, eating healthfully, managing stress, and achieving balance between one's personal and professional life (American Academy of Family Physicians, 2009). Ideally, it also includes the absence of any disease (National Cancer Institute, 2008).
9. Relationship quality: high quality relationships have intimacy (e.g., taking time for each other, listening to each other, openness, honesty, trust), agreement (similarities, mutual goals, only a few quarrels, common activities, harmony, and security), and independence (e.g., autonomy, maintaining individuality, and having and allowing for freedom) (Hassebrauck & Fehr, 2002).

### **Research Setting**

This study was performed at a university for health practitioners located in the western United States. It offers evidence-based residential and blended-style programs in Health Science (four programs), Nursing (two programs), Occupational Therapy (five

programs), Physical Therapy (three programs), Physician Assistant, and Speech-Language Pathology, as well as seven continuing education programs. The university focuses on training practitioners to be skilled in leadership and clinical inquiry, effectively advocate for healthcare change, and reach the next level in their professional development.

The president of the university agreed that emphasizing the need for and teaching skills to care for oneself during a healthcare degree program was an important complement to clinical training. For the purposes of this study, one cohort of one degree program—Cohort 4 of the Doctor of Physical Therapy program—was selected to participate. During the study period, they were experiencing substantial stress due to having to complete final exams and reaching the point in their program where they were having to interview and be selected for clinical rotations, which would dramatically affect their personal and professional lives. As a result, it was anticipated that this cohort would benefit from participation in the study.

### **Significance of the Study**

The present study produced empirical data regarding the impacts of brief training on mindful awareness, physical and emotional well-being, and relationship quality.

Participants' suggestions and feedback about the design also were solicited.

These empirical data can be helpful for informing the design of brief mindfulness training and the expectations that might be associated with brief training. These findings can be utilized by mindfulness trainers, educators, and coaches as well as by those who wish to cultivate mindfulness within themselves.

## **Organization of the Study**

Chapter 1 provided the introduction to the study, including a background of the issue, the purpose of the study, the study setting and population, and the significance of the study. Chapter 2 provides a review of literature relevant to this study, including mindfulness definition, practice and outcomes, and forms of mindfulness training. Chapter 3 describes the methods used to design the study, recruit participants, and collect and analyze data. Chapter 4 reports the findings of the study and addresses each of the research questions in order. Chapter 5 provides a discussion of the results, including conclusions, recommendations, limitations, and suggestions for additional research.

## Chapter 2

### Literature Review

This chapter reviews literature relevant to the present study. First, mindfulness is discussed, including its definition, theoretical background, manner of practicing, and outcomes. Three forms of mindfulness training are then reviewed. The chapter closes with a summary.

#### **Mindfulness**

Mindfulness as a construct has been described by various researchers (Kabat-Zinn, 1990, 1998; Segal, Williams, & Teasdale, 2002; Shapiro & Schwartz, 1999, 2000; Teasdale, 1999); however, a clear and agreed upon definition of the construct is lacking (Bishop, 2002). Most often, the concept is described within the context of mindful awareness or mindfulness meditation. Mindfulness has many definitions with distinct nuances, but many authors agree that aspects of mindfulness include self-observation, self-inquiry, and mindful action (Kabat-Zinn, 2005). The idea of mindfulness is also often juxtaposed with mindlessness where attention is distracted and drawn away from the experience of the present moment (D. Black, 2011).

Mindfulness has been described as a process of bringing a certain quality of attention to moment-by-moment experience (Kabat-Zinn, 1990) for the purpose of alleviating or eliminating suffering (Silananda, 1990; Thera, 1962).

Bishop et al. (2004) defined mindfulness as a process of self-observation (i.e., introspection, observing self, reflective functioning) rather than self-knowledge per se (i.e., psychological mindedness, insight, and self-awareness), which relies on intensive self-observation (such as through meditation or psychotherapy). Bishop et al. clarify that mindfulness reflects a quality of self-focused attention characterized by openness and

acceptance of experience. Adaptive openness and acceptance of self and one's thoughts and experiences is a central aspect of mindfulness because other types of self-focused attention (e.g., rumination, worry) can heighten distress and psychopathology (Nolen-Hoeksema, 1991; Pyszczynski & Greenberg, 1987). Thus, it is important to emphasize that the deeper sense of awareness involved in mindfulness has a kind, caring quality with regard to self and others that lends itself to "paying attention in a particular way: on purpose in the present moment and nonjudgmentally" (Kabat-Zinn, 2005, p. 3).

**Practicing mindfulness.** Mindfulness traditionally has been cultivated using meditation techniques originating in Buddhist spiritual practices (Hahn, 1976). Bishop et al. (2004) called mindfulness a form of mental training where focus of attention is directed to present moment experiences in an open, curious and non-judgmental manner (Kabat-Zinn, 1990). The technique to enter present moment experiences is usually the focus on breath or body sensations (Bishop, 2002). Importantly, mindfulness is not a simple relaxation technique (Dimidjian & Linehan, 2003), nor is it restricted to formal meditation. Rather, it can be incorporated into one's everyday activities (Brown & Ryan, 2004). However, that also may be one of its challenges, as it can be hard to remember to practice being mindful. Kabat-Zinn (2005) asserted that "mindfulness requires effort and discipline for the simple reason that the forces that work against our being mindful, namely, our habitual awareness and automaticity, are exceedingly tenacious" (p. 8). It follows that "while it may be simple to practice mindfulness, it is not necessarily easy" (p. 8).

A simple three-step model for practicing mindfulness described by Kabat-Zinn (2005) is to (a) Stop, (b) Observe, and (c) Accept. Stopping can include simply focusing your mind on a direct sense, such as breathing, and doing so often. Breath is an important

part of mindfulness practice. For example, Siegel (2009) recommends starting with the breath because it is rhythmic and connects the internal world to the external world outside the body. Rock (2009) described a family ritual he observes of stopping for 10 seconds and noticing three small breaths before they eat a meal. Kabat-Zinn (2005) suggests “sitting down and becoming aware of your breathing once in a while throughout the day . . . whether for 5 minutes, or even five seconds” (p. 11). Regardless of the specifics of one’s stopping, it is important to fully accept the present moment, including one’s feelings and perceptions, without trying to change anything.

Observing means being reflective, pondering, and being curious about oneself, one’s life, one’s loved ones, and the goings on of the present moment (Kabat-Zinn, 2005). Shapiro, Carlson, Astin, and Freeman (2006) referred to observation of *attention*, naming it as the second of three fundamental components of mindfulness. Shapiro et al. clarified that attention involves observing one’s moment-to-moment, internal and external experience without interpretation. They add that, according to Gestalt tradition, this present moment attention by itself is healing. Kabat-Zinn (2005) elaborated that observing involves shifting from “doing” to “being” mode, explaining that he gives attention to the thoughts and sensations in the present moment, asking, “What is happening? What do you feel? What do you see? What do you hear?” (p. 12).

The final step, Accepting, means being open and loving to the realities of the present moment. Kabat-Zinn (2005) encouraged, “For these moments, don’t try to change anything at all, just breathe and let go” (p. 14). Shapiro et al. (2006) referred to this step as *attitude*, explaining that the qualities one brings to attention distinguishes mindfulness from other forms of mere self-awareness and self-focus. Kabat-Zinn (2003) elaborated that rather than have a neutral or, worse, a cold, critical quality, attention during a state of



mindfulness has “an affectionate, compassionate quality . . . a sense of openhearted, friendly presence and interest” (p. 145). Shapiro et al. (2006) emphasized that acceptance means attending to one’s internal and external experiences, without evaluation or interpretation, but with kindness and openness, even when what one is observing is contrary to deeply held wishes or expectations. Ultimately, this means bringing attitudes of patience, compassion, and non-striving to attention rather than striving for pleasant experiences while pushing negative ones away.

The simplicity of three steps suggests that mindfulness can be accomplished at any time, in any place, and for any duration (Shapiro et al., 2006). Thus, mindfulness can be incorporated into nearly anyone’s life. The next section examines the outcomes associated with mindfulness to explore why someone would want to adopt a mindfulness practice.

**Outcomes.** In contemporary psychology, mindfulness has been incorporated as a type of mental training designed to increase self-awareness and self-management for the purpose of reducing emotional distress, maladaptive behavior, and psychopathology (Bishop et al., 2004).

Bishop et al. (2004) utilized a self-regulation model of cognition and mood (Carver & Scheier, 1981, 1990) as well as contemporary cognitive models of psychopathology to elaborate on the conceptual model of mindfulness and illuminate its effects. The authors explained that the self-regulation model of mindfulness illuminates that people are constantly engaged in comparing what is in the present moment to what they desire (Carver & Scheier, 1981, 1990; Miller, Galanter, & Pribraum, 1960; Powers, 1973). In turn, people’s conscious and subconscious energies are dedicated to eliminating discrepancy (Carver & Scheier, 1990). They add that noticing discrepancies typically

triggers negative affect such as anxiety or frustration, motivating action to close the gap between one's current and desired states. When the discrepancy is reduced, mental well-being ensues until another discrepancy is detected. When the gap cannot be closed (especially in the case of central or important desires), people tend to dwell or ruminate on the discrepancy, thus deepening negative affect (Martin & Tesser, 1989; Nolen-Hoeksema, 1991; Pyszczynski & Greenberg; 1987; Teasdale & Bernard, 1993). This process of monitoring and ruminating on discrepancies and trying to close the gap tends to occur consciously and unconsciously on an ongoing basis.

Mindfulness approaches teach people to bring these and other cognitive processes (with their associated feelings) into consciousness and reframe them as transient mental events rather than reflections of the self or necessarily accurate reflections on reality (Bishop et al., 2004). For example, a person in a state of mindfulness would recognize thoughts that he or she is less than another person or not enough in some way are simply thoughts. As a result, the person will be better able to detach from the thought and allow it to pass rather than become engaged in action to correct the perceived deficiency. Several researchers speculated that the success of mindfulness for reducing rumination is why mindfulness training has been associated with reduced risk of relapse in recurrent major depression (Teasdale et al., 2000) and reduced cognitive vulnerability to generalized anxiety disorder (Roemer & Orsillo, 2002).

Research has found that long-term mindfulness meditation practice promotes executive functioning (e.g., planning, organizing, strategizing, paying attention to and remembering details, and managing time and space) and the ability to sustain attention (Zeidan et al., 2010). Mindful awareness is a form of intra-personal attunement that leads to better understanding of the self and can also positively affect physical health, and

relationships with others (Siegel, 2007). Siegel (2009) explained that with consistent practice of mindful awareness, one will be likely to develop certain mindfulness traits that eventually occur naturally within the individual, such as acting with awareness by attuning to one's sensory experience and being less reactive due to enhanced emotional self-regulation.

Another outcome of repeated mindfulness practice is development of the self-as-observer. It follows that although feelings and thoughts will arise and subside, the individual will no longer be hostage to them, blindly carrying out their dictates. Another mindfulness trait that develops through practice is the capacity to articulate the internal workings of one's nonlinear mind—the right hemisphere, whose contents exist in rich images and often defy expression.

Hanh (1999) elaborated that the guiding premise of mindfulness practice is the belief that cultivation of present-moment, nonjudgmental awareness focuses the mind to notice better, understand, and integrate one's perceptions of self and environment. Such practice is said to bring forth insight into one's cognitions or mental formations that may be positive or negative in nature, while at the same time providing an avenue to observe rather than react to one's thoughts and emotions, ultimately providing peace of mind.

Mindfulness has been associated with facilitating a more adaptive, flexible response to the environment in contrast to the more rigid, reflexive patterns of reactivity that result from being overly identified with one's current experience (Shapiro et al., 2006). Gaining the freedom to stop, observe, forgo interpretation and instead to accept one's moment-to-moment experiences means learning to see the present situation as it is in the moment and to respond accordingly. The resulting calmer, clearer mental space is similar to Deikman's (1982) discussion of the *observing self*.

Siegel (2009) asserted, “mindful awareness has been demonstrated to alter brain function, mental activity, and interpersonal relationships toward well-being” (p. 137). Mindfulness has been shown to improve an individual’s health and well-being (Rock & Page, 2009) by contributing to body regulation (Siegel, 2009) and increased immune function (Siegel, 2007). It can be used to treat and prevent depression and to improve patterns of thinking and shape one’s activities, promoting the neuroplasticity central to change and growth (Bishop et al., 2004). Mindfulness also has been recognized as helping people develop insight, intuition, and to modulate their fear. All of these outcomes together help enhance the individual’s emotional balance, patience, wisdom, non-reactivity, and response flexibility.

Moreover, “direct application of mindfulness skills teaches people how to become more reflective” (Siegel, 2007, p. 15). As people turn inward, they become more attuned to themselves and develop greater self-understanding (Siegel, 2007, 2009), leading to attuned communication with others. They gain an internal sense of belonging an inner sense of well-being, increased empathy towards others, and more enjoyment of life. Kindness and love also make them feel good, thus, further enhancing their sense of well-being. The net result is that people can experience life more fully, rather than simply operating as dictated by their schemas on automatic pilot.

Mindfulness also has been shown to be effective in treating various medical and mental problems, such as anxiety and depression (Baer, 2003; Hofmann, Sawyer, Witt, & Oh, 2010). In particular, its incorporation in cognitive-behavioral interventions has improved long-term outcomes of those treatments (Glück & Maercker, 2011).

**Summary.** Mindfulness refers to attending to one’s sensory experiences, emotions, and thoughts in the here-and-now with the aim of living life more fully and

having more choice about one's responses (Rock, 2009). Mindfulness has been associated with improvements in mental, physical, and emotional health and well-being as well as improved interpersonal relationships. Although not explicitly stated in the literature, given the improved self-awareness, it is likely to assume that greater personal effectiveness also may result from mindfulness.

### **Mindfulness Training**

Mindfulness training has been offered in various ways. The following sections describe three common ways it has been taught to others: mindfulness-based stress reduction (Kabat-Zinn, 1990), mindfulness coaching (Collard & Walsh, 2008; Hall, 2013), and brief mindfulness training (Harnett et al., 2010; Jain et al., 2007; Kingston et al., 2007; Tang et al., 2007; Zeidan et al., 2010).

**Dialectical behavior therapy.** A therapeutic approach that relies upon mindfulness is dialectical behavior therapy, which is a modification of traditional cognitive behavioral therapy, specifically designed for the treatment of chronically suicidal and self-injurious individuals with borderline personality disorder (Koerner & Linehan, 2012). Various approaches are used in dialectical behavior therapy, including individual psychotherapy and group skills training as well as mindfulness and relaxation training. Mindfulness is implicated in this type of therapy in that clinicians support patients in accepting (rather than struggling with) uncomfortable thoughts, feelings, and behaviors. Once patients accept their thoughts and experiences, change and gradual transformation become possible. Accordingly, the term *dialectics* is used to suggest the balance between acceptance and change as well as the development of coping skills, meaning specific behavioral techniques used to combat the disabling symptoms of mental illness.

**Mindfulness-based stress reduction.** MBSR is a specific type of mindfulness practice that was founded by Jon Kabat-Zinn in 1979 at the University of Massachusetts's School of Medicine (Chang et al., 2004; Tacon, McComb, Caldera, & Randolph, 2003). Kabat-Zinn created the program to teach patients how to relieve stress, pain, and illness (Shapiro, Schwartz, & Bonner, 1998). In 1998, MBSR was practiced only in the United States. However, within 5 years, 242 MBSR programs were being taught in North America and in different parts of the world (Proulx, 2003). Interest in MBSR training is continuing to grow.

Many aspects of MBSR are derived from Theravada Buddhism. For example, the seven attitudes that form the foundation of MBSR (e.g., non-judgment, patience, having a “beginner’s” mind of seeing everything as if for the first time, trust in oneself, non-striving, acceptance, not censoring one’s thoughts) are adaptations of the awakening systems described in Buddhism (Kabat-Zinn, 1990). MBSR also refers frequently to Buddhism’s four noble truths, which include (a) life means suffering, (b) attachment is the origin of suffering, (c) cessation of suffering is attainable, and (d) the Buddhist path leads to the cessation of suffering. The MBSR intervention involves eight 2.5-hour sessions, with one session offered per week. According to Kabat-Zinn (1990) and Shapiro et al. (1998), this is the schedule students in the MBSR courses follow:

1. Sitting meditation, which involves focus on the breath while observing ones’ bodily sensations, emotions, and thoughts.
2. Body scan, which involves focus on the different parts of the body including all sensations felt from head to toes.
3. Hatha yoga, which involves strengthening the body and focusing the mind through different stretches and postures while practicing being conscious of one’s breath.

4. A 3-minute breathing space, which involves a “mini-meditation” focusing on breath, body and the present moment. Between sessions, participants are advised to practice mindfulness for 45 minutes daily.

Practicing mindfulness allows the individual to observe perceptions and sensations as well as mental, emotional, and physical states with a certain level of detachment and non-judgment (Tacon et al., 2003). Many healthcare professionals have trained under Kabat-Zinn and have applied his techniques to specific health problems. The results of these studies have demonstrated its effectiveness with reducing stress (Bishop, 2002; Chang et al., 2004; Kabat-Zinn, 1998; Shapiro et al., 1998; Speca, Carlson, Goddey, & Angen, 2000); pain (Chang et al., 2004; Kabat-Zinn, Lipworth, & Burney, 1985; Kabat-Zinn, Lipworth, Burney, & Sellers, 1987; Shapiro et al., 1998); panic, anxiety, and depression (Chang et al., 2004; Kabat-Zinn et al., 1992; Shapiro et al., 1998); and binge eating (Kristeller & Hallett, 1999). It also has been suggested that MBSR improves people’s feelings toward themselves and their lives, increases their compassion toward themselves and others, increases their sense of control over their lives, fosters a positive state of mind, fosters greater insight, and promotes relaxation (Chang et al., 2004; Shapiro et al., 1998). Physiological effects have included lowered blood pressure, heart rate, and pulse (Shapiro et al., 1998). Because mindfulness meditation has been shown to have so many benefits mentally, emotionally, and physically, it would be highly beneficial to integrate it with other types of treatment settings and modalities (Proulx, 2003).

Criticisms of MBSR are that there is a lack of diagnostic assessments according to standardized diagnostic criteria published in the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (American Psychiatric Association, 2013).

Additionally, the widespread practice of studying non-clinical populations such as college students have limited the applicability of research findings and its clinical effectiveness with meditation practices (Kabat-Zinn et al., 1992). Proulx (2003) reviewed 19 quantitative studies on the effects of mindfulness programs and added that although MBSR seems to help individuals suffering from chronic conditions, more studies need to be done on its effectiveness with clinical patients, in reducing costs, and for promoting better health. More research also needs to be done on the longevity of the effects. These studies need to include larger, randomized, empirical studies with control groups. Until such studies are done, it would be premature to claim that mindfulness programs improve health to the extent that people do not seek medical attention as often, especially for chronic conditions. Cohen-Katz, Wiley, Capuano, and Baker (2005) also pointed out that participants might experience restlessness as well as emotional and physical pain during the MBSR intervention. Despite the criticisms of MBSR, sufficient evidence of its benefits is available to merit further research on its effects on depressive symptoms.

**Mindfulness-based coaching.** Some coaching and meditation practitioners have observed the natural linkages between the two practices. For example, Liz Hall (2013), author of *Mindful Coaching*, describes how coaches may use mindfulness in working with clients on various issues such as work-life balance, stress management, decision-making, coping with ambiguity, dealing with crises, employee engagement, heightening focus and clarity, communication, increasing presence, improved listening.

Collard and Walsh (2008) also discussed the use of mindfulness in coaching. They explained that the focus in this type of coaching is to encourage and support clients' attention to their senses and the development of nonjudgmental observation of their here-



and-now experiences. They stressed that clients must regularly practice the tools taught by the coach for mindfulness to develop and produce the intended effects.

Collard and McMahon's (2012) model of mindfulness-based cognitive coaching involves examining the physiology, emotions, and cognitions triggered by a situation and then deliberately (mindfully) choosing one's actions. The aim of their approach is to identify underlying beliefs, automatic negative thoughts, and cognitive distortions and to assess the impact of these on the individual's emotions, behaviors, and physiology. This is followed by behavioral experiments wherein the client is encouraged, through a collaborative process with the coach, to create positive, self-enhancing thoughts and to try new behaviors. Mindfulness practices, including breath work, reflection exercises, meditation, reading, and further behavioral experiments are assigned to clients to be completed between sessions.

Despite the apparently growing use of mindfulness in coaching, empirical research is lacking on this particular approach to coaching. The research that was found as part of this literature review was located in dissertations on the topic (e.g., Topp, 2006) and discussions in trade journals (e.g., McMahon & Collard, 2009). This lack of literature reveals a direction for continued research.

**Brief mindfulness training.** Most mindfulness trainings require participants to invest substantial amounts of time and discipline, such as MBSR (Kabat-Zinn, 1990), which requires an 8-week commitment for attending classes and regularly practicing the techniques. Similarly, Compton and Becker (1983) demonstrated that a learning period of about 1 year is normal in Zen meditation and that expectations for positive effects to manifest earlier are unrealistic. Having such a long waiting period to experience results can make it difficult for some individuals to begin or sustain a practice. These

requirements and limitations of meditation practice can dissuade many interested individuals from pursuing the practice. In such cases, it is helpful to have an option for brief mindfulness meditation training. Although no formal definition exists for brief mindfulness meditation training, it appears that the generally accepted definition is a training that involves less time than the Kabat-Zinn's (1982) traditional MBSR program, which requires eight 2.5 hour sessions over the course of 8 weeks, plus daily practice of the techniques learned.

*Designs.* Brief mindfulness training designs vary, although most incorporate practices from Kabat-Zinn (1982), Hanh (1999), and other mindfulness meditation leaders. For example, Glück and Maerck's (2011) study of web-based brief mindfulness training intervention, the training was self-guided without personal contact. The training consisted of audio files, a flash animated exercise and written text. In the first module, participants listened to an audio file with guided mindfulness exercises while being shown a neutral background-picture of pebbles on a white ground. Techniques included awareness of body sensations; attention to breath and acceptance of upcoming emotions, consistent with exercises suggested by Kabat-Zinn (1990) and Hanh (1999). In the second module, participants were shown a blue sky. A cloud moved slowly across the sky, when pressing the spacebar once. They were instructed to practice the techniques learned in Module 1 and when being disturbed by distressing thoughts, feelings or sensations, to label these cues non-judgmentally (e.g. when feeling angry, to acknowledge it by simply labeling the internal image with "anger") and imagine placing them on the cloud, watching it wandering out of sight. Participants were instructed to press the key in full awareness, also being a marker to focus again on their breath or body

sensations. This exercise was designed to support affect labeling and letting go, and was adapted from dialectic behavioral therapy (Linehan, 1993).

In Jain et al.'s (2007) study of brief mindfulness training, the researchers designed an intervention based on the MBSR program developed by Kabat-Zinn (1982). Jain et al. modified the length of the original program, in that their intervention consisted of four 1.5-hr sessions, compared with the eight 2.5-hr sessions specified in MBSR. The duration of the intervention was shortened from the original MBSR length due to students' time constrictions because of final exams and subsequent holiday break. The length of each session was shortened from the original MBSR program due to student feedback that the lengthy daily practice requirements would be too difficult to fit into their current class schedules.

Nevertheless, Jain et al.'s (2007) intervention incorporated the formal techniques utilized in MBSR, such as body scan meditation, in which the individual focuses attention on each part of his or her body to notice sensations that arise; sitting meditation, where the individual focuses non-judgmental awareness on whatever arises moment by moment; Hatha yoga, where the individual practices gentle stretching while maintaining attention on subtle movements in the body while being mindful of breath; walking meditation, where one practices walking slowly, with awareness; and loving-kindness meditation, where one focuses attention on feelings of caring and love for one's self and others to cultivate compassionate awareness and action in everyday life. As a result, the intervention integrated cognitive components (such as selective attention skills to focus on one's thoughts and emotions, as well as bodily sensations and environmental sounds), somatic components (such as Hatha yoga techniques), and empathic/spiritual components (such as loving-kindness meditations) to provide a participant with techniques to focus

interpersonally as well as intrapersonally and transpersonally, consistent with Shapiro and Schwartz (2000). Participants also were given tapes and manuals, homework assignments, and didactic material on mindfulness to facilitate practice and reflection at home.

**Outcomes.** Short mindfulness trainings lasting from a couple of days up to 4 weeks also have been reported effective in terms of increased mindfulness and distress reduction (Harnett et al., 2010; Jain et al., 2007; Kingston et al., 2007; Tang et al., 2007; Zeidan et al., 2010). Carmody and Baer (2009) concluded based on their examination of the length of MBSR classes that shortened versions of mindfulness trainings are equally effective as full-length classes.

Jain et al. (2007) conducted a randomized controlled trial to examine the effects of a 1-month mindfulness meditation versus somatic relaxation training as compared to a control group in 83 students reporting distress. Hierarchical linear modeling revealed that both meditation and relaxation groups experienced significant decreases in distress as well as increases in positive mood states over time, compared with the control group ( $p < .05$  in all cases). There were no significant differences between meditation and relaxation on distress and positive mood states over time. Effect sizes for distress were large for both meditation and relaxation (Cohen's  $d = 1.36$  and  $.91$ , respectively), whereas the meditation group showed a larger effect size for positive states of mind than relaxation (Cohen's  $d = .71$  and  $.25$ , respectively). The meditation group also demonstrated significant pre post decreases in both distractive and ruminative thoughts/behaviors compared with the control group ( $p < .04$  in all cases; Cohen's  $d = .57$  for rumination and  $.25$  for distraction for the meditation group), with mediation models suggesting that mindfulness meditation's effects on reducing distress were partially

mediated by reducing rumination. The researchers concluded that, compared with a no-treatment control, brief training in mindfulness meditation or somatic relaxation reduces distress and improves positive mood states. Furthermore, they concluded that mindfulness meditation may be specific in its ability to reduce distractive and ruminative thoughts and behaviors, and this ability may provide a unique mechanism by which mindfulness meditation reduces distress.

For example, Zeidan et al. (2010) examined whether brief meditation training affects cognition and mood when compared to an active control group. After four sessions of either meditation training or listening to a recorded book, participants with no prior meditation experience were assessed with measures of mood, verbal fluency, visual coding, and working memory. Both interventions were effective at improving mood but only brief meditation training reduced fatigue, anxiety, and increased mindfulness. Moreover, brief mindfulness training significantly improved visuo-spatial processing, working memory, and executive functioning. Zeidan et al.'s findings suggest that 4 days of meditation training can enhance the ability to sustain attention; benefits that have previously been reported with long-term meditators.

Glück and Maercker (2011) examined the effects of a web-based intervention incorporating mindfulness techniques. The researchers recruited 50 adults who were experiencing different distress levels (excluding those with indication of psychotic or suicidal ideation) through e-mail. After screening them online, 49 were randomized into an immediate 2-weeks-treatment group (N = 28) or a waitlist-control group (N = 21), starting with a 2-week delay. Distress, perceived stress, mindfulness, and mood and emotion regulation were measured at pre-, post- and 3-month follow-up. Based on the results, the researchers concluded that mindfulness could be taught online and may

improve distress, perceived stress and negative affect for regular users. It is important to note, however, that their results showed trends rather than significant improvements in the data.

**Summary.** Mindfulness training has been shown to be effective in cultivating various mindfulness practices and outcomes described in the previous section. The gold standard of mindfulness training is Kabat-Zinn's (1982) MBSR. However, scholars question the strength of the empirical evidence basis for its efficacy and the individual parties often question the time commitment required to participate. Mindfulness-based coaching has begun to be adopted and has shown some promise in cultivating individuals' capacity for mindfulness; however, research is lacking on mindfulness-based coaching and the costs of one-on-one coaching may be prohibitive for some individuals. The final offering examined in this section was brief mindfulness training, which holds promise both in terms of its efficacy and its reduced cost and time requirements for participants.

### **Conclusion**

Mindfulness is a mental practice aimed at helping individuals live life more fully, have more choice about their responses, and improve their mental, physical, and emotional health and well-being (Bishop et al., 2004; Shapiro et al., 2006).

Reflecting on the literature examined, it is reasonable to hypothesize that brief mindfulness-based training could be effective for enhancing emotional and physical well-being, improving relationships, and cultivating mindfulness practices. The next chapter describes the procedures used in the study.

## **Chapter 3**

### **Methods**

The purpose of this study was to examine the impacts of brief mindfulness training. Four research questions were examined:

1. What are the impacts of brief mindfulness training on mindful awareness?
2. What are the impacts of brief mindfulness training on physical well-being?
3. What are the impacts of brief mindfulness training on emotional well-being?
4. What are the impacts of brief mindfulness training on relationship quality?

This chapter describes the methods used in the present study. The research design is described first, followed by a description of the procedures used for sampling, treatment, measurement, and data analysis.

#### **Research Design**

This study used a mixed method field experiment design. In these types of studies, both quantitative and qualitative data are gathered and analyzed to assess the constructs or variables being examined (Creswell, 2014). The experimental condition or treatment is applied in a natural setting (the field) and participants are divided into a control and treatment group in order to assess the effect of the treatment applied (Robson, 2002).

#### **Sampling**

Convenience sampling was used to identify a population and recruit a sample for the study. In November 2013, the researcher met with the university provost to describe the project and request permission to conduct the research in the department of physical therapy at the school. The provost, university's institutional review board chair, and program director granted permission to conduct the study.

Students in Cohort 4 of the doctor of physical therapy program of this regionally accredited institution were invited to participate in the study (see Appendix A). Additionally, the researcher held two 15-minute informational/recruitment sessions to invite students to participate in the study. Each session provided a brief overview of the study, a high-level definition of mindfulness concepts, and participation requirements for members of the control and treatment group. Questions voiced by the students were answered and the researcher distributed slips of paper (see Appendix B) on which the students would confidentially indicate their name, telephone and email address, and interest in participating. Students could indicate interest in participating in (a) the control group, (b) the control group, (c) either group, or (d) no group. A basket was placed at the back of the room for students to discreetly deposit their participation slip. The basket was not in plain view.

The first of these information sessions, held December 6, 2013, was attended by seven students. Five volunteered to be in the treatment group only and the remaining two also were assigned to the treatment group. The second informational meeting was held January 30, 2014, and was attended by 40 students (including the seven from December 6, 2013). Twenty-three additional students volunteered to participate on this date, yielding 30 participants in total. Six of these volunteered to be in the control group only. After assigning participants to their desired groups (for the 13 who indicated a preference), the researcher used a stratified random sampling approach to select eight more participants for the treatment group and nine more participants for the control group. The sampling was stratified to create gender-balanced groups. One of the control participants did not complete a post-test; therefore, the final control group size was 14 participants.



## **Treatment**

The treatment in the present study involved a 4-week workshop that involved 45-minute weekly instruction during which a particular mindfulness practice was taught, followed by a 1-week period for them for daily practice of the 15-minute or less mindfulness exercise they learned. The weekly sessions were designed based on a literature review regarding mindfulness practices, benefits, and current trends in training and practice.

Each session provided participants with an overview of mindfulness research, benefits of mindfulness, concepts and tools of mindfulness, in-session practice, and recommended exercises to practice at home. Appendix C presents the design and homework assignments for each of the four sessions.

Workshops were delivered on Thursday afternoons at 12:30 pm in a university classroom to be as convenient as possible for participants. All sessions were held in 2014 on the following dates: March 13, March 20, April 3, and April 10. The 2-week gap between Sessions 2 and 3 was intentional to accommodate the students' exam and lab schedules.

## **Participant Log**

Participants were asked to complete and submit weekly logs via email by midnight the day before the next session. Participants were asked to record in the logs their daily activities and experiences related to the mindfulness exercises they practiced. No further instructions were given to participants regarding what to record. The purpose of the participant log was to provide insights about what mindfulness practices the participants were doing each day and what they experienced as they did so.

## Variables

Eight variables were measured in this study. Five variables related to mindfulness practices and were measured using Baer et al.'s questionnaire. Additional evidence of these traits were sought through examination of participants' logs:

1. Acting with awareness: being deliberate, focused, and aware in one's actions (Baer et al., 2006).
2. Describe: being able to articulate one's attitudes, feelings, experiences, and bodily sensations (Baer et al., 2006).
3. Non-judgment: being able to unconditionally accept one's self, one's thoughts, and one's emotions (Baer et al., 2006).
4. Non-reactivity: being able to notice one's thoughts and emotions without being overcome by or having to act upon them (Baer et al., 2006).
5. Observe: being able to have sensory awareness of one's environment and the effect of stimuli on one's mind and body (Baer et al., 2006).

Three outcome variables were measured using evidence gathered through examination of participants' logs:

1. Emotional well-being: the state of being emotionally healthy and able to manage one's thoughts, feelings, and behaviors—both by controlling them when necessary and by releasing them when appropriate. Someone who enjoys emotional well-being tends to feel positively about himself or herself and usually has satisfying relationships. He or she tends to keep problems in perspective (American Academy of Family Physicians, 2008).
2. Physical well-being: the state of physical wellness and fitness that includes being physically active, eating healthfully, managing stress, and achieving balance between one's personal and professional life (American Academy of Family Physicians, 2009). Ideally, it also includes the absence of any disease (National Cancer Institute, 2008).
3. Relationship quality: high quality relationships have intimacy (e.g., taking time for each other, listening to each other, openness, honesty, trust), agreement (similarities, mutual goals, only a few quarrels, common activities, harmony, and security), and independence (e.g., autonomy, maintaining individuality, and having and allowing for freedom) (Hassebrauck & Fehr, 2002).

## Measurement

The 55-item survey (see Appendix D) gathered data related to eight categories of questions outlined below. The Five Facet Mindfulness Questionnaire (Baer et al., 2006) was used to measure the five mindfulness variables of acting with awareness, observing experience, describing experience, practicing non-judgment, and practicing non-reactivity. The eight question categories were:

1. Demographics: Four items gathered participants' demographic characteristics, including gender, age, ethnicity, and educational attainment.
2. Previous mindfulness and meditation experience. Three items gathered information about participants' self-reported knowledge and experience level related to meditation and mindfulness. The researcher designed these items. For example, one question asked, "How experienced do you consider yourself to be in some form of regular meditation practice (e.g. guided visualization, qi gong, yoga, other...)?" Participants selected an answer choice of very experienced, somewhat experienced, not very experienced, or not at all experienced.
3. Acting with awareness: Eight items measured the degree to which participants were deliberate, focused, and aware. For example, one item asked for participants to indicate their agreement with "I am easily distracted."
4. Describe: Eight items measured the degree to which participants were able to articulate their attitudes, feelings, experiences, and bodily sensations. For example, one item asked for participants to indicate their agreement with "I'm good at finding words to describe my feelings."
5. Non-judgment: Seven items measured the degree to which participants were able to unconditionally accept themselves, their thoughts, and their emotions. For example, one item that was reverse scored asked for participants to indicate their agreement with "I tell myself I shouldn't be feeling the way I'm feeling."
6. Non-reactivity: Seven items measured the degree to which participants were able to notice their thoughts and emotions without being overcome by or having to act upon them. For example, one item asked for participants to indicate their agreement with "I watch my feelings without getting lost in them."
7. Observe: Eight items measured the degree to which participants were able to have sensory awareness of one's environment and the effect of stimuli on

one's mind and body. For example, one item asked for participants to indicate their agreement with "I notice the smells and aromas of things."

8. Impact of training on mindful awareness, well-being, and relationship quality: Four open-ended questions (one on the pre-test, three on the post-test) were posed to gather any additional data about the impact of the training on participants. For example, Item 54 asked participants to "Describe your current understanding, thoughts or feelings about this situation. What, if anything, has changed in the way you view the situation presently?" These questions were used in the analysis to detect evidence of changes in mindful awareness, physical well-being, emotional well-being, and relationship quality.

Surveys were administered online. Participants were invited by email to complete the online pre-test February 5, 2014. A reminder email was sent 2 days later and the survey was closed February 9. Participants were invited by email to complete the post-test May 6, 2014. A reminder email was sent 2 days later and the survey was closed May 10. All participants completed the pre-test, for a 100% response rate. All but one of the participants completed the post-test, for a 97% response rate.

### **Data Analysis Procedures**

The quantitative survey data were analyzed using the following steps:

1. Frequency distributions were determined for the demographic data.
2. Mean and standard deviations were calculated for each meditation and mindfulness knowledge and experience and mindfulness competencies.
3. Independent samples t-tests were applied to the pre-test data to confirm the similarity of the control and treatment groups in terms of meditation and mindfulness knowledge and experience and mindfulness competencies.
4. Paired t-tests were applied to the post-test data to determine any significant differences for the meditation and mindfulness knowledge and experience and mindfulness competencies within each group.

Content analysis as described by Miles, Huberman, and Saldana (2013) was used to examine the qualitative data. The following steps were followed:

1. Each participant's log and open-ended survey answers were reviewed several times to become familiar with the range and nature of data that emerged.

2. Responses were coded using the following start codes: acting with awareness, describe, non-judgment, non-reactivity, observe, emotional well-being, physical well-being, and relationship quality, using the definitions provided in the Variables section of this chapter.
3. As a final step, the analysis was submitted to review by a second rater who examined the analysis and identified any perceived errors. Eight issues were identified. These were discussed and the analysis was adjusted accordingly. The results reported in chapter 4 reflect the final analysis.

### **Summary**

This study used a mixed method field experiment design. A convenience sample of 29 Doctor of Physical Therapy students from one cohort participated in the study. All participants took a pre/post assessment of meditation and mindfulness knowledge, experience, and competencies. The treatment group additionally participated in a 4-week brief mindfulness training with at-home exercises and journaling homework. Data were subjected to statistical and content analysis. The next chapter reports the results of the study.

## **Chapter 4**

### **Results**

The purpose of this study was to examine the impacts of brief mindfulness training. Four research questions were examined:

1. What are the impacts of brief mindfulness training on mindful awareness?
2. What are the impacts of brief mindfulness training on physical well-being?
3. What are the impacts of brief mindfulness training on emotional well-being?
4. What are the impacts of brief mindfulness training on relationship quality?

This study involved a 4-week workshop which involved 45-minute weekly instruction during which a particular mindfulness practice was taught, followed by a 1-week period for them for daily practice of the 15-minute or less mindfulness exercise they learned. This chapter reports the results. Participant demographics are presented first. Mindfulness survey results are presented next. Findings from the participant logs are then presented.

#### **Participant Demographics**

Nearly two thirds of the participants were male (65.5%) and nearly three quarters (72.4%) were 24 to 34 years old (see Table 1). All but one participant was Caucasian and most (79.3%) had completed some graduate work. Control group participants completed the pre and post assessments, whereas the research group completed the workshop in addition to the pre and post assessments.

**Table 1**  
***Participant Demographics***

	Control N = 14 n (%)	Treatment N = 15 n (%)	Total N = 29
Gender			
Male	11 (78.6%)	8 (53.3%)	19 (65.5%)
Female	3 (21.4%)	7 (46.7%)	10 (34.5%)
Age			
18-24 years old	4 (28.6%)	1 (6.7%)	5 (17.2%)
24-34 years old	8 (57.1%)	13 (86.7%)	21 (72.4%)
35-44 years old	2 (14.3%)	1 (6.7%)	3 (10.3%)
Ethnicity			
White	14 (100%)	14 (93.3%)	28 (92.9%)
Multiracial		1 (6.7%)	1 (7.1%)
Educational attainment			
Bachelor's degree	4 (28.6%)	1 (6.7%)	5 (17.2%)
Some graduate work	9 (64.3%)	14 (93.3%)	23 (79.3%)
Master's or professional degree	1 (7.1%)		1 (7.1%)

### **Comparison of the Groups**

Table 2 presents the descriptive statistics and independent t-test results for the pre-test scores for self-reported mindfulness and meditation experiences as well as degree of mindfulness for the control and treatment groups. The results show that the groups did not significantly differ from each other for any variable. Participants reported having little experience, knowledge, or practice with meditation or mindfulness, given that these scores ranged from 2.00 (SD = 1.13 for the treatment group's mindfulness practice) to 2.33 (SD = 1.29 for the treatment group's meditation experience).

Participants' scores for the mindfulness practices indicated they had some degree of mindfulness. Mean scores ranged from 2.96 (SD = .72 for the control group's acting with awareness) to 3.53 (SD = .70 for the control group's Description competency).

**Table 2*****Pre-Test Scores: Control versus Treatment Groups***

Variable	Control <i>n</i> = 14 Mean (SD)	Treatment <i>n</i> = 15 Mean (SD)	t	df	Sig.
Self-reported Experience					
Meditation experience	2.14 (1.10)	2.33 (1.29)	-.426	27	.673
Mindfulness knowledge	2.29 (1.20)	2.27 (0.96)	.047	27	.963
Mindfulness practice	2.14 (1.10)	2.00 (1.13)	.344	27	.733
Mindful Awareness					
Observation	3.12 (0.78)	3.10 (0.60)	.062	24.490	.951
Description	3.53 (0.70)	3.13 (0.79)	1.415	27	.168
Non-judgment	3.21 (0.82)	3.14 (0.76)	.248	27	.806
Non-reactivity	3.26 (0.60)	3.18 (0.48)	.370	27	.714
Acting with Awareness	2.96 (0.72)	3.01 (0.58)	-.219	27	.828

1 = no experience, knowledge, or practice, 3 = some experience, knowledge, or practice, 5 = substantial experience, knowledge, or practice

**Control Group Results**

Table 3 presents the descriptive statistics and results of the paired t-test for the control group to determine whether the members reported or experienced any shifts in their mindfulness and meditation experience or degree of mindfulness. The results show no significant changes for the control participants.

**Table 3*****Pre- versus Post-Test Scores: Control Group***

Variable	Pre-test Mean (SD)	Post-test Mean (SD)	t	df	Sig.
Self-reported Experience					
Meditation experience	2.14 (1.10)	2.29 (1.20)	.806	13	.435
Mindfulness knowledge	2.29 (1.20)	1.71 (0.83)	-1.963	13	.071
Mindfulness practice	2.14 (1.10)	1.71 (0.83)	-1.710	13	.111
Mindful Awareness					
Observation	3.12 (0.78)	3.00 (0.71)	-1.112	13	.286
Description	3.53 (0.70)	3.31 (0.51)	-1.963	13	.071
Non-judgment	3.21 (0.82)	3.05 (0.64)	-1.062	13	.308
Non-reactivity	3.26 (0.60)	3.10 (0.60)	-1.005	13	.333
Acting with Awareness	2.96 (0.72)	2.89 (0.59)	-.617	13	.548

*N* = 14; 1 = little experience, knowledge, or practice, 5 = substantial experience, knowledge, or practice



## Treatment Group Results

Results were generated based on the survey and participant log data for the treatment group regarding their mindfulness experience and practice, mindfulness traits, and other effects. These results are reported in the following sections.

**Mindfulness experience and practice.** Table 4 presents the descriptive statistics and results of the paired t-test for the treatment group to determine whether the members reported or experienced any shifts in their mindfulness and meditation experience or degree of mindfulness. The results show highly significant changes in their self-reported mindfulness and meditation experience ( $p < .01$  for all results). On the pretest, participants reported having little experience (mean scores ranged from 2.00-2.33). On the posttest, participants indicated having some to moderate experience (mean scores ranged from 3.47 to 4.00).

**Table 4**

***Pre- versus Post-Test Self-Reported Experience Scores: Treatment Group***

Variable	Pre-test Mean (SD)	Post-test Mean (SD)	t	df	Sig.
Meditation experience	2.33 (1.29)	3.60 (0.83)	3.199	14	.006**
Mindfulness knowledge	2.27 (0.96)	4.00 (0.00)	6.985	14	.000***
Mindfulness practice	2.00 (1.13)	3.47 (0.92)	4.559	14	.000***

*N* = 15; 1 = no experience, knowledge, or practice, 3 = some experience, knowledge, or practice, 5 = substantial experience, knowledge, or practice; \*\*significant at the .01 level, \*\*\*significant at the .001 level

Treatment group members were asked to submit a participant log each week that documented their use of the mindfulness practices. Table 5 reports the results. All participants submitted a log after Session 1, varying in length from 135 to 1,320 words ( $M = 586$ ,  $SD = 331$ ). Participation over time did diminish: nine participants provided a log for Session 4, varying in length from 317 to 1122 words ( $M = 759$ ,  $SD = 226$ ). Analysis of the participant logs similarly suggested that participants had gained

experience, knowledge, and practice with meditation and mindfulness by the end of the study period. These logs documented participants' practice and experience with the mindfulness exercises. For example, one participant noted in the first week,

I meditated for 1 minute, from 9:00 to 9:01. During this session, I tried to focus on breathing and concentrating on my belly moving in and out as prescribed in the exercise description. I felt able to focus on my breathing for the majority of the session. However, I often kept thinking of the time, as in how long I have been meditating to ensure I go over a minute. I should just go as long as I can and not focus on the minute marker. I did feel calm and comfortable during the exercise.

Another participant described her experience in the last week:

I was walking outside on a path around some gardens . . . because I felt like I wanted to. I noticed the sounds of bees that grew louder as I approached them or as they flew past. I also noticed the sound of a fountain and the distant sound of voices. I was wearing heels, so their sound as I walked was also noticed. I was distracted from listening by noticing the sensation of the sun and the slight breeze against my skin as well as the visual variety and smell of flowers and plants.

**Table 5**

*Treatment Group Participant Logs*

	<i>N</i>	Minimum length (words)	Maximum length (words)	Mean length (words)	SD
Session 1 Log	15	135.00	1320.00	586	331
Session 2 Log	14	264.00	2779.00	1165	704
Session 3 Log	11	35.00	1753.00	685	449
Session 4 Log	9	317.00	1122.00	759	266
Totals		493.00	6712.00	2632	1682

*N* = 15

**Mindful awareness.** On the pretest, participants reported having some degree of mindful awareness (mean scores ranged from 3.01 to 3.18). All scores increased on the posttest (mean scores ranged from 3.29 to 3.71), although the only changes that were significant were for observation, description, and non-judgment. No significant changes

were noted for non-reactivity (mean diff. = .20,  $t(14) = 1.333$ ,  $p = .204$ ) or acting with awareness (mean diff. = .28,  $t(14) = 1.370$ ,  $p = .192$ ). These results are presented in Table 6.

**Table 6**

***Treatment Group Participant Logs: Mindful Awareness***

Variable	Pre-test Mean (SD)	Post-test Mean (SD)	t	df	Sig.
Observation	3.10 (0.60)	3.71 (0.59)	4.158	14	.001***
Description	3.13 (0.79)	3.59 (0.60)	3.179	14	.007**
Non-judgment	3.14 (0.76)	3.48 (0.68)	2.498	14	.026*
Non-reactivity	3.18 (0.48)	3.38 (0.56)	1.333	14	.204
Acting with Awareness	3.01 (0.58)	3.29 (0.56)	1.370	14	.192

$N = 15$ ; 1 = no ability, 3 = some ability, 5 = substantial ability; \*\*significant at the .01 level, \*\*\*significant at the .001 level

Examination of participants' open-ended responses in the post-survey and in their participant logs supported the quantitative findings.

**Observation.** Observation refers to sensory awareness of one's environment and the effect of stimuli on one's mind and body (Baer et al., 2006). The pre- and post-survey as well as the participant logs were examined for evidence of participants' abilities to observe and challenges in exercising this competency. All or nearly all participants' survey responses and participant logs indicated their ability to engage in observation (see Table 7).

**Table 7**

***Reported Impacts of Brief Mindfulness Training on Observation***

Data Source	Able to practice $n$ (%)	Challenges practicing $n$ (%)
Pre-survey	13 (86%)	2 (14%)
Participant Log	14 (93%)	1 (7%)
Post-survey	15 (100%)	0 (0%)

$N = 15$

On the pre-survey, one participant was able to observe himself “working hard for 30 to 45 minutes of lecture, then drifting in and out of focus and getting distracted.” Another stated he “was aware of habit of self-imposed stress, desires insight about the problem to change it.” A participant noted her challenges with observation in saying, “I want to acknowledge things going on around me more while maintaining focus on task at hand.”

In the participant logs, one participant noted an increase in this capacity when playing golf, explaining he had increased focus on his golf swing and internal bodily sensations as he creates and performs the same routine physically and mentally throughout the game. Another participant reported increased observation when in the shower. He described, “I felt my heartbeat slow down, felt the steam from the shower hit my face.” He also shared an increase in observation at other times of the day, for example, the “smell of fresh rain fill my car.” Yet another participant described heightened observation when eating. He explained, “I looked at each fruit, noticed its shape and color, noticed the sounds of utensils, and how quickly food cooled.” One participant noted her continued struggles with observation, noting, “It was difficult to concentrate on landmark names on the skull while noticing shape and location.”

On the post-survey, participants reported what they had gained regarding their ability to observe. One participant explained, “Mood is something I can influence. I have learned there are emotional states more conducive to beneficial studying than self-imposed stress.” Another shared, “Living in the present is more important. I didn’t realize how much of my surroundings I was missing, like the growth of tulips or the budding of a tree in my yard.” A third participant reported, “I have tried to take in more of what I want

to remember during the past few weeks. I notice smaller details in things I have owned for years.”

**Description.** Description refers to the ability of articulating one’s attitudes, feelings, experiences, and bodily sensations (Baer et al., 2006). Importantly, description means being able to depict whatever one is experiencing in the moment. All participants across all three data points exhibited an ability to do this in the participant journals and the post-survey (see Table 8). Even the ability to describe their limits was coded as ability to describe their attitudes and experiences. For example, one participant shared in the pre-survey, “Growing up, I would isolate when upset. In my family, feelings were ridiculous. . . . Love was expressed through actions more than words.”

**Table 8**

***Reported Impacts of Brief Mindfulness Training on Description***

Data Source	Able to practice <i>n</i> (%)	Challenges practicing <i>n</i> (%)
Pre-survey	15 (100%)	0 (0%)
Participant Log	15 (100%)	0 (0%)
Post-survey	15 (100%)	0 (0%)

*N* = 15

In her participant log, one individual described her difficulty relaxing: “I was not able to relax my facial muscles. I was distracted by my studies and feeling hurried. I realized that picturing numbers helps me.” Another participant demonstrated her ability to describe what she experienced on a bike ride. She recounted, “My bike ride was challenging due to safety distractions. I focused on my legs pushing pedals and it still was emotionally calming.” Another described his experience of his bedtime routine: “I focused on the sensation of rubbing my feet together at night in bed before sleep. I felt

myself unwinding as I combined this with breathing. This relaxed my entire body and helped me sleep.”

On the post-survey, participants were able to describe their feelings, which usually involved worry. One participant described her thoughts and feelings about her weight: “I am concerned with my body image and health. My health is poor. I am concerned that I look bad (overweight).” Another participant voiced his worries about work-life balance. He shared, “I’m worried about my first clinical and how to effectively balance school and family.” A third participant described his thoughts and feelings about being rejected for a clinical placement he had wanted. He shared, “Both of us were in shock about the letter. It occurred to us that we would take whatever comes our way instead of stressing about it further.”

***Non-judgment.*** Non-judgment involves unconditionally accepting oneself, one’s thoughts, and one’s emotions (Baer et al., 2006). Only one participant (7%) exhibited success with this practice in the pre-survey, compared to 12 (80%) in the participant logs and 14 (93%) on the post-survey (see Table 9). On the pre-survey one participant openly shared that he had “trouble concentrating and focusing thoughts when studying subject matter not interesting to me.” This comment was not accompanied by any ideas about what he “should” be doing instead.

**Table 9**

***Reported Impacts of Brief Mindfulness Training on Non-judgment***

Data Source	Able to practice <i>n</i> (%)	Challenges practicing <i>n</i> (%)
Pre-survey	2 (14%)	13 (86%)
Participant Log	12 (80%)	3 (21%)
Post-survey	14 (93%)	1 (7%)

*N* = 15

In contrast, another participant exhibited critical self-judgment on the pre-survey in saying that she had a “hard time eating well and exercising. That makes me feel lazy, like I don’t have willpower. I don’t feel pretty, I hate clothes shopping, I look bad in everything.” Another participant noted on the pre-survey that “biased feelings and ‘irrational’ responses cause me discomfort.”

In the participant log, one participant shared, “I am distracted by negatively critiquing aspects of my appearance and I’m not able to redirect my focus.” This same participant also shared, “I judged a thought as inappropriate and tried to fix my attention elsewhere. I noticed that this is my usual response when I judge something as inappropriate.” Other participants described success with non-judgment. One participant explained, “After I do a body scan, I am aware of sensations that are usually uncomfortable. I was aware of them, but I didn’t judge or get annoyed by them.” Another participant shared, “I was distracted by an unusual guy on the train. I kept thinking about a difficult conversation I had with my brother. This exercise made me feel empowered.”

On the post-survey, a participant who was having challenges with non-judgment expressed, “I am complaining about what I think is an ideal (body image) and I’m not appreciating what I have now.” A participant who had more mastery of this competency noted, “I realize it’s okay to have my own thoughts. I know better now what to do with them when they interfere with my focus.” Another participant shared, “After journaling and talking with my family about my feelings, I realize I can’t make them want to have a close relationship with me.”

***Non-reactivity.*** Non-reactivity involves noticing one’s thoughts and emotions without being overcome by or having to act upon them (Baer et al., 2006). Although the quantitative survey results did not show a significant increase in this capability, evidence

of greater ability was suggested in participants' open-ended responses. On the pre-survey, no one indicated an ability to be nonreactive, compared to 11 participants (73%) indicating this ability in the participant logs and 12 participants (80%) on the post-survey (see Table 10).

**Table 10**

***Reported Impacts of Brief Mindfulness Training on Non-reactivity***

Data Source	Able to practice <i>n</i> (%)	Challenges practicing <i>n</i> (%)
Pre-survey	0 (0%)	15 (100%)
Participant Log	11 (73%)	4 (27%)
Post-survey	12 (80%)	3 (20%)

*N* = 15

On the pre-survey, one participant reported that he was easily annoyed or bothered by certain individuals and wanted to overcome that. In the participant log, one individual noted, "I had high anxiety during an exam. The breathing exercise helped to calm my nerves, control my thoughts, relax, and refocus my thoughts." Another participant shared, "the technician poked a nerve repeatedly when I was donating blood. The mindfulness practice I used calmed me down and helped me control my thoughts. I felt less angered and in greater control of the situation." Yet another participant shared, "I was nervous about giving a presentation and I was distracted by noise on the train. I focused on finding and feeling areas of tension and then breathing into it until the intensity decreased and my anxiety reduced."

Participants' responses on the post-survey similarly provided evidence of non-reactivity. One participant shared, "It helped me better manage a heavy school load and deal with a lack family support system. I realized I can make effort but realize I can't change them." Another participant demonstrated non-reactivity in his ability to resist



feelings of overwhelm in the event of obstacles. He shared, “I received a rejection letter, but my feelings have now changed. I now view my situation with open mindset instead of allowing stress to overwhelm me. I let things play out now.” Another participant noted, “I now recognize that when a thought comes to my mind, I can dismiss it before it consumes my full attention.”

*Acting with awareness.* Acting with awareness refers to being deliberate, focused, and aware (Baer et al., 2006). Like the previous capability, the quantitative survey results did not show a significant increase in this area. However, greater ability was suggested in participants’ open-ended responses. On the pre-survey, 7 participants (47%) indicated an ability to act with awareness, compared to 11 participants (73%) in the participant log, and 12 participants (80%) in the post-survey (see Table 11).

**Table 11**

***Reported Impacts of Brief Mindfulness Training on Acting with Awareness***

Data Source	Able to practice <i>n</i> (%)	Challenges practicing <i>n</i> (%)
Pre-survey	7 (47%)	8 (53%)
Participant Log	11 (73%)	4 (27%)
Post-survey	12 (80%)	3 (20%)

*N* = 15

On the pretest, one participant exhibited her ability to act with awareness is saying, “I focus on giving my full attention to the patient. It is important that they will learn to trust me.” Another participant noted challenges with this competency by saying, “I want to know how to stay focused in long sessions of lecture. I want to retain information rather than get bored or overwhelmed by information.” Another shared, “I struggle to maximize time, [it’s] hard for me to finish tasks since I am easily distracted.”

One participant noted in her participant journal, “I found it easy to focus and create a little zone for myself. I recognized that any distractions came from my own mind.” Another participant noted he had improved ability to focus. Yet another participant reported her experiences during a meal at a restaurant: “I paid attention to others around me, the rich textures and tastes of food, and the sounds of a passing car.” One participant who continued having challenges with this competency noted in her participant journal that it was “hard to focus on eating, I am easily distracted by thoughts of factories, bugs, and smells.”

Data from the post-survey indicated participants’ abilities to act with awareness. One participant shared, “I learned about being in the present and enjoying what is around me at the moment. I take that into consideration with family.” Another participant expressed, “I am thinking about how to pay better attention to people versus getting distracted by my own thoughts.”

**Physical well-being.** Physical well-being refers to the state of physical wellness and fitness that includes being physically active, eating healthfully, managing stress, and achieving balance between one’s personal and professional life (American Academy of Family Physicians, 2009). Ideally, it also includes the absence of any disease (National Cancer Institute, 2008). Fourteen of the 15 participants noted improvements in physical well-being (see Table 12). One participant described the impact on his sleep: “I found a deep relaxation. The alarm in the morning was a rude intrusion.” Another participant noted, “I felt more relaxed. My head and neck felt lighter. I fell asleep faster and woke up easier than normal.”

**Table 12*****Summary of Reported Impacts of Brief Mindfulness Training on Physical Well-being***

Impact	n	%
Improved Physical Well-being	14	93%
Decreased Physical Well-being	5	33%

*N* = 15

Five of the 15 participants reported decreased physical well-being over the course of study. Two explained that the heightened awareness of their physical sensations triggered unpleasant physical and mental reactions. One shared,

I didn't enjoy [eating an apple] as much as I thought I would. Paying attention to the way it felt in my mouth, the bolus that traveled down my throat, and the gurglings of my stomach in digestion, all kind of grossed me out.

Another commented, "I don't think I was able to brush [my teeth] as long as I normally do because I noticed the toothpaste foam more which gave me a gagging reflex sooner [than usual]." Two participants noted that mindful awareness undermined tasks they had mastered and perform unconsciously. One explained, "paying mindful attention to shooting hoops ruined my accuracy. Some things are best left on 'automatic.'" Another shared,

I did a really good job through the first 3-4 holes [of golf] in addressing each shot the same way, and visualizing/concentrating on my body in space. However, after a bad shot on the 4<sup>th</sup> hole, I started to get out of my routine for awhile and all kinds of bad golf started to take place. It took a lot of effort to regain the reins.

The remaining participant simply commented that practicing mindfulness simply was taxing. She reflected, "I couldn't focus on my breathing. When I was done I felt tired and I don't feel like I had a great experience." In summary, more participants noted improved rather than decreased physical well-being.

**Emotional well-being.** Emotional well-being refers to the state of being emotionally healthy and able to manage one's thoughts, feelings, and behaviors—both by

controlling them when necessary and by releasing them when appropriate. Someone who enjoys emotional well-being tends to feel positively about himself or herself and usually has satisfying relationships. He or she tends to keep problems in perspective (American Academy of Family Physicians, 2008).

Eleven participants (73%) reported improved emotional well-being (see Table 13). Participants noted feeling more calm and less stressed. One participant reported in his log, “I felt more calm and present, and less agitated after the breathing exercises.” On the post-survey, this participant elaborated on how this affects his productivity: “I felt much more calm, able to study more effectively, positively influenced mood, directed it towards a state I know I perform better in.” Another participant shared, “I am now able to calm my nerves and thoughts, lower my anxiety, and refresh my thoughts when stressed.”

**Table 13**

***Summary of Reported Impacts of Brief Mindfulness Training on Emotional Well-being***

Impact	n	%
Improved Emotional Well-being	11	73%
Decreased Emotional Well-being	12	80%

*N* = 15

Twelve participants (80%) noted more negative feelings arising as mindful awareness increased, such as repulsion about bodily experiences (e.g., chewing) or an increase in anxiety and tension. One participant shared in his participant journal,

I would start to count my breaths in and out, and my mind would constantly start thinking about how annoying the sound was. I was able to bring my focus back to my breathing, but it would soon [wander] off again. I didn't find it to be very helpful, as the distraction made me frustrated.

Another noted,

I was easily distracted by the things I needed to do in the morning and the need to go to sleep. I found the exercise frustrating since I couldn't focus. I planned to do

10 minutes, but I stopped short. I tried refocusing on my breaths, but that did not work. I kept thinking about the things I needed to do the next morning and the need to go to sleep. It made me anxious primarily due to time constraints.

**Relationship quality.** High quality relationships have intimacy (e.g., taking time for each other, listening to each other, openness, honesty, trust), agreement (similarities, mutual goals, only a few quarrels, common activities, harmony, and security), and independence (e.g., autonomy, maintaining individuality, and having and allowing for freedom) (Hassebrauck & Fehr, 2002). Evidence of this trait was sought through examination of participants' logs.

Seven participants (47%) noted improvement in the quality of their relationships, largely due to their increased presence and attention (see Table 14). One participant noted, "I've tried to spend more time with classmates and build stronger relationships with those I'm around." Another reported being "more open to how my thoughts and perceptions impact my relationships." Yet another reported, "I read a story to my boys and tried to stay focused on what was going on and taking in the moment. It gave me greater sense of love for my family. I have more gratitude lately." No participants indicated a decreased in their relationships.

**Table 14**

***Summary of Reported Impacts of Brief Mindfulness Training on Relationship Quality***

Impact	n	%
Improved Relationship Quality	7	47%
Decreased Relationship Quality	0	0%

*N* = 15

**Summary**

The study sample of 29 individuals was comprised primarily of Caucasian men aged 24 to 34 years old. These individuals were split into a control group (*n* = 14), which

only received a pre and post assessment, and a treatment group (n = 15), which received a pre-assessment, brief mindfulness training, and a post-assessment. Statistical analysis of the pre-test results showed that the control and treatment groups were statistically similar. The control group exhibited no significant changes in mindfulness experience, knowledge, practices, or abilities over the study period.

The treatment group exhibited significant changes in their self-reported mindfulness and meditation experience as well as in their degree of mindful awareness. Qualitative analysis of participant logs and open-ended survey questions also showed evidence of improved mindful awareness, physical well-being, emotional well-being, and relationship quality. The next chapter provides a discussion of the results.

## Chapter 5

### Discussion

The purpose of this study was to examine the impacts of brief mindfulness training. Four research questions were examined:

1. What are the impacts of brief mindfulness training on mindful awareness?
2. What are the impacts of brief mindfulness training on physical well-being?
3. What are the impacts of brief mindfulness training on emotional well-being?
4. What are the impacts of brief mindfulness training on relationship quality?

This chapter discusses the results. Conclusions are presented first, followed by recommendations. Limitations of the study are then acknowledged and suggestions for continued research are offered.

### Conclusions

Conclusions were drawn and implication deduced for each of the research questions in this study. These are described in the sections below.

**Impacts on mindful awareness.** The treatment group in the present study exhibited significant changes in their self-reported mindfulness and meditation experience as well as in their mindfulness traits of observation, description, and non-judgment. Qualitative analysis additionally showed evidence of improved non-reactivity and acting with awareness.

These findings are consistent with past research, which found that mindfulness training promotes executive functioning (e.g., planning, organizing, strategizing, paying attention to and remembering details, and managing time and space) and the ability to sustain attention (Zeidan et al., 2010), attuning to one's sensory experience, being less reactive and more emotionally self-regulated (Siegel, 2009). Other research on brief

mindfulness training concluded that mindfulness helps reduce participants' distress (Harnett et al., 2010; Jain et al., 2007; Kingston et al., 2007; Tang et al., 2007; Zeidan et al., 2010), improved mood, and reduced fatigue and anxiety (Zeidan et al., 2010).

The consistency of the present findings with past literature is important because it confirms the growing base of evidence for the efficacy of brief mindfulness training. This is encouraging, because the lengthier, more time intensive traditional forms of mindfulness training can preclude involvement of certain populations, such as people with many time commitments (e.g., busy professionals, students). Even the present design, which involved only one 45-minute presentation a week for 4 weeks and less than 15 minutes of daily practice was too time intensive for these participants who were busy students struggling to balance school and family commitments. Researchers and trainers are encouraged to continue to experiment with various designs for brief mindfulness training and how they might specifically target development of the five mindfulness practices.

**Impacts on physical well-being.** Qualitative analysis of the participant logs and post-survey results showed evidence of improved physical well-being for the most part: 14 (93%) noted improvements, such as better sleep or more relaxation, although 5 (33%) simultaneously indicated some diminishment in physical well-being. Some few cases, however, participants acknowledged that automaticity produced better results. This was the case for one participant who noted his accuracy in basketball decreased as mindful awareness increased.

These findings are consistent with past literature, which indicated that mindful awareness positively affects physical health (Siegel, 2007, 2009) and improves an individual's health and well-being (Rock & Page, 2009) by contributing to body



regulation (Siegel, 2009) and increased immune function (Siegel, 2007). Mindfulness also has been shown to be effective in treating various medical problems (Baer, 2003; Hofmann et al., 2010).

The findings of the present study suggest that mindfulness may be helpful at times but offer no benefit or adverse outcomes in other situations. Similarly, Brumme and Dane (2014) concluded based on their study of workplace mindfulness that certain situations or people benefit more from mind wandering than from mindful awareness.

Recommendations and suggestions for research based on these results are discussed later in this chapter.

**Impacts on emotional well-being.** Participants reported a mixture of improved ( $n = 11$ ) and diminished ( $n = 12$ ) emotional well-being as a result of mindfulness practice. Improvements included feeling calmer, more present, and less stressed. Mindfulness also intensified participants' awareness of unpleasant emotional stimuli, such as repulsion about the feeling of food "swishing" around one's mouth one chewed, increased awareness of anxiety and tension, and realization of one's dislike for doing laundry. This last participant explained that she used to let her mind wander while doing this activity, which allowed the time (and activity) to pass quickly.

These findings are consistent with past literature, which indicated that mindful awareness enhances emotional self-regulation (Siegel, 2007, 2009), peace of mind (Hanh, 1999) and improves an individual's health and well-being (Rock & Page, 2009). Mindfulness also has been shown to be effective in treating various mental problems (Baer, 2003; Hofmann et al., 2010).

The findings of the present study suggest that mindfulness may not be a panacea and that 100% mindfulness may not be an ideal state to achieve. For example, Brumme

and Dane (2014) concluded based on their study of workplace mindfulness that there are times when mindfulness is helpful and times when (or certain people for whom) mindfulness can be an impediment. Clarifying these exceptions lead to recommendations and suggestions for research that are discussed later in this chapter.

**Impacts on relationships.** Nearly half the participants reported having improved relationships as a result of their practice of mindful awareness. Participants explained this outcome was achieved due to their increased presence with and attention to others. These benefits, in turn, reportedly extended the participants' personal and professional boundaries. Similarly, past research has noted similar effects associated with mindful awareness and personal attunement (Siegel, 2007). Siegel (2009) elaborated that mindful awareness can deepen one's empathy for others as well as one's own self-understanding, leading to attuned communication with others. These findings suggest that brief mindfulness training may be beneficial in family, work, or community situations where high-quality interpersonal relationships are particularly desired or important.

It follows that brief mindfulness training may be particularly valuable for healthcare professionals, given the objective of their profession to help patients reach and maintain a state of health (Gantz 1990; Gottlieb & Rowat 1987; Jewell, 1994; McCormack, 2003; Schlotfeldt, 1972), often through self-care behaviors. These findings are particularly valuable, given that many healthcare professionals are reported to neglect their own health and self-care (Han et al., 2011; Miller & Alpert, 2008; Oldenburg, 2010; Tariman, 2007). Practical and research recommendations related to these findings are discussed in greater detail later in this chapter.

## **Recommendations**

Several recommendations for trainers are offered. First, the present study indicated that the brief mindfulness training design was effective in cultivating mindfulness traits of observation, description, non-reactivity, non-judgment, and acting with awareness as well as helping to enhance participants' physical and emotional well-being and quality of relationships. Therefore, it is recommended that brief mindfulness training continue to be offered so that more individuals, particularly those with limited time, may take advantage of it.

Second, despite the benefits of mindfulness training and cultivating mindfulness demonstrated in this study, it is important to set trainees' expectations that mindfulness may not be beneficial for every individual or every situation and that it might reduce one's effectiveness in certain tasks or heighten one's negative emotions. For example, in the present study, 5 participants reported decreased physical well-being and 12 participants reported decreased emotional well-being.

Third, it would be beneficial to continue to experiment with training designs. Some participants verbally shared that they could not even complete all the activities suggested in the brief approach in the present study and only 73% submitted Session Log 3 and only 60% submitted Session Log 4 due to time constraints. Thus, it would be helpful to design and implement various designs that feature differing levels of involvement and commitment. As trainers do so, they are advised to incorporate feedback loops to help uncover those design elements that were beneficial, those that were not, and what the outcomes of the activities were.

Fourth, incorporating flexibility in the design may allow for participants with differing preferences and with varying levels of experience and availability to participate.

For example, some people might like focused attention activities but dislike mindful listening activities. Participants should be encouraged to keep trying new mindfulness exercises, even if they have had a negative experience with one or more activities. Some participants in the study reported feeling repulsed after mindful eating or being unable to brush their teeth as long due to a gag reflex being triggered earlier when mindfully engaging in their usual grooming routines. These experiences suggest that different activities will be suitable for different individuals.

Fifth, despite the need for flexibility, it is important to keep in mind that students, especially those who are in greatest need of mindfulness (i.e., those who are very busy), may need a great degree of structure and guidance to begin and sustain a mindfulness practice. It may be helpful to build in reminders about activities to practice, as well as other forms of structure, so that trainees are supported in developing a habit of mindfulness practice (P. Black, 2014). Structures may include reminders, instituting accountability, and encouraging them to create a routine of practicing at the same time and same place and having consistent assigned exercises. Regardless of the specific design, trainers are advised to use proven approaches and techniques for teaching and cultivating mindfulness (Hanh, 1999; Kabat-Zinn, 1990) to promote training effectiveness.

Sixth, participants should understand that mindfulness is not a panacea: As one participant noted, mindfulness awareness could change her awareness about her relationships with her family members, but it could not change her family members. Therefore, it might be helpful to also create specific mindfulness exercises to support trainees in dealing with specific challenges.

## **Limitations**

Several limitations affecting the present study are important to acknowledge. First, the participants were experiencing a particularly difficult and challenging time of their school year at the time of the study. As a result, they reported having difficulty being consistent. This constraint (and the study findings) also may be true of individuals in other professions characterized by workload demands or expectations for responsiveness. However, the present findings thus might not reflect the experiences of those who are more prepared to begin a new self-care or mindfulness practice.

Participants were not randomly assigned to the control and treatment groups. Instead, participants were asked to indicate their preference to be in the control or treatment group and then the researcher used a stratified random sampling approach to assign them based on their preference and attempts to create a gender balance across the groups. Thus, it is possible that the participants who expressed interest in the treatment group were biased toward exhibiting improvements, due to an interest in “helping” the researcher, a desire to experience benefits, or an interest in mindfulness. Future studies should utilize a pure random assignment to avoid this limitation.

Some participants did not engage with the activities consistently and some others were inconsistent in maintaining and submitting the logs across the study period. For example, participant logs were not submitted with 100% compliance, and individual session logs ranged from 35 words to 2779 words, indicating wide variance in the amount of journaling completed by participants. Additionally, some participants noted in their logs that they did not complete the exercises due to time constraints. Furthermore, whereas all 15 participants submitted the first session log, 14 (93%) submitted the second

log, 11 (73%) submitted the third log, and 9 (60%) submitted the fourth log. Therefore, these results may not reflect others' experiences or outcomes resulting from the training.

Although seven participants (47%) reported improved quality in their relationships, it is important to acknowledge that their reported experiences were with individuals (family, friends, colleagues) they already knew and with whom they had generally positive relationships. Impacts on relationships with new contacts or on strained relationships may vary.

### **Suggestions for Continued Research**

Several suggestions for research are offered based on the present study findings. First, it is important to select a larger and more diverse sample to confirm the results. In particular, it would be helpful to conduct the study with individuals who represent varying characteristics with regard to their (a) experience with and knowledge of mindfulness, (b) time pressures, and (c) interest in cultivating mindfulness. This type of study will provide insights about who might benefit most from brief mindfulness training. This research might additionally clarify how various populations may benefit from this training.

A second suggestion is to test various brief mindfulness training designs. Designs should vary in terms of homework requirements (e.g., for participant logs), practice requirements, and lecture attendance. This type of study would clarify the impact of various design elements, such as clarifying which activities develop which mindfulness competencies and the amount of practice needed to raise these scores. It may additionally help clarify which exercises are best suited to which goals (e.g., when body scan is most helpful, when mindful observation is most helpful, which exercises are universally helpful).

A third suggestion is to more deeply examine impacts of brief mindfulness training for specific issues, such as developing new relationships, improving difficult relationships, and improving athletic or other task performance, among others. This line of research may generate targeted tools that would lead to specific applications.

### **Summary**

In the midst of the complexities and pressures endemic to the contemporary world, mindfulness can help individuals live life more fully, have more choice about their responses, and improve their mental, physical, and emotional health and well-being. The present mixed method study examined the impacts of brief mindfulness training on cultivation of mindfulness traits, physical and emotional well-being, and relationship quality.

Twenty-nine graduate students enrolled in a health practitioner program were organized into a control (n = 14) and treatment (n = 15) group. All participants took a pre- and post-survey that measured their mindfulness traits, physical and emotional well-being, and relationship quality. The treatment group participated in a 4-week workshop that involved 45-minute weekly instruction during which a particular mindfulness practice was taught, followed by a 1-week period for them for daily practice of the 15-minute mindfulness exercise they learned.

The control group exhibited no significant changes in mindfulness experience, knowledge, practices, or abilities over the study period. The treatment group exhibited significant changes in their self-reported mindfulness and meditation experience and mindfulness traits of observation, description, and non-judgment. Qualitative analysis additionally showed evidence of improved non-reactivity, acting with awareness, emotional well-being, physical well-being, and relationship quality.

The results of the present study are encouraging, emphasizing the value of brief designs for cultivating mindfulness training. Continued practice and research in this area is expected to introduce more and more people to the benefits of mindfulness, enabling them to experience the benefits of more personally attuned and aware living.



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## Appendix A: Study Invitation

2 December 2013

Dear students of DPT cohort IV:

As a fellow graduate student, I am inviting you to take part in a Pepperdine University Master of Science in Organization Development (MSOD) research project. Before you decide to participate, it is important that you understand why the project is being performed and what it will involve. Please take the time to read the following information carefully. Please feel free to contact me if there is anything that is not clear or if you need more information.

The purpose of this project is to pilot a self-directed coaching practice for healthcare practitioners specifically designed to increase insight and mindfulness.

Participants will attend a series of four (4) short workshops spread out at the rate of one workshop per week. Each workshop will last 45 minutes. Each workshop will include research about insight and mindfulness, exercises to increase insight and mindfulness, and instructions for self-directed practice between sessions.

Participant involvement includes the following:

- Attend a total of four (4) weekly 45-minute workshops
- Engage in brief insight and mindfulness practices in and between workshops
- Take a pre- and post-assessment
- Record and submit an activity log

Your identity and your responses will remain confidential. The investigator and the members of the investigator's committee will review the aggregate data.

Your participation in this project is voluntary. Declining to participate will not adversely affect your relationship with [the university]. It is up to you to decide whether or not to take part in this research. If you decide to take part in this project, you are free to withdraw at any time without giving a reason. You are free to not answer any question or questions if you choose. This will not affect the relationship you have with me.

If you have questions about this study you may contact Dr. Terri Egan, my faculty advisor at Pepperdine University. She can be reached at [contact information].

Thank you for considering participating in this research project.

Sincerely,

Jodi K. Nielsen  
[contact information]



**Appendix B: Participation Slip**

<input type="checkbox"/> I volunteer to participate in the research workshop	<input type="checkbox"/> I volunteer to participate in the research control group (pre- and post- assessment only)	<input type="checkbox"/> I volunteer to participate in either the research workshop or the control group
Name: _____	Name: _____	Name: _____
Email: _____	Email: _____	Email: _____
Cell No: _____	Cell No: _____	Cell No: _____

## Appendix C: Workshop Design and Homework Assignments

### Session I: Introduction and Foundations of Mindfulness

Time (min)	Slides	Content	Notes
5	1-6	Setting the Stage <ul style="list-style-type: none"> <li>Impact of distractions &amp; mental overload</li> <li>Discussion: is it impacting you? How?</li> </ul>	
12	7-11	Mindfulness: Brief Introduction <ul style="list-style-type: none"> <li>Mindfulness defined</li> <li>Current trends</li> <li>Research</li> </ul>	
2	12-13	Workshop Overview <ul style="list-style-type: none"> <li>What sessions will cover</li> <li>Today's agenda</li> </ul>	
10	14-18	Foundations of Mindfulness <ul style="list-style-type: none"> <li>Mini-exercise: one minute focus</li> <li>Beginner's Mind</li> <li>Brain science: understanding neuroplasticity</li> </ul>	
7	19-21	Insight Principle #1: Quiet the Mind <ul style="list-style-type: none"> <li>Brain puzzle</li> <li>Impasse to insight: noisy brain inhibits ability to recognize insight</li> </ul>	
2	22	Mindfulness / Insight skill practice: one minute breathing	
7	23-27	Review tools, resources, homework	
	Homework	Mindfulness Exercise: "One Minute Breathing": start with one minute; work up to 10 minutes  Log: record answers to log questions	

### Session 1 Exercise Description

#### One Minute Breathing

This exercise can be done anywhere, any time. All you have to do is focus on your breathing for just one minute. Naturally your mind will try and wander, but just try to just focus on the rise and fall of your breath and let thoughts go as they arise.

1. Find a comfortable position either lying on your back or sitting. If you are sitting down, make sure that you keep your back straight and release the tension in your shoulders. Let them drop.
2. Close your eyes.
3. Focus your attention on your breathing. Simply pay attention to what it feels like in your body to slowly breathe in and out.

4. Now bring your attention to your belly. Feel your belly rise and expand every time you breathe in. Feel your belly fall every time you breathe out.
5. Continue to focus your attention on the full experience of breathing. Immerse yourself completely in this experience. Imagine you are "riding the waves" of your own breathing.
6. Anytime that you notice your mind has wandered away from your breath (it likely will and this is completely normal!), simply notice what it was that took your attention away and then gently bring your attention back to the present moment - your breathing.
7. Continue as long as you would like!

Remember, it is normal for your mind to wander during this exercise. That's what it does. Don't get discouraged. Instead, at times like this, it may be useful to think of mindfulness in this way: If your mind wanders away from the breath a thousand times, mindfulness is about bringing your attention back to the present moment a thousand and one times.

#### Sources

<http://www.pocketmindfulness.com/6-mindfulness-exercises-you-can-try-today/>  
<http://ptsd.about.com/od/selfhelp/ht/mindfulexe2.htm>

## Session II: Attitudes that Cultivate Mindfulness

Time (min)	Slides	Content	Notes
9	1-5	Check-in discussion <ul style="list-style-type: none"> <li>• How was your experience?</li> <li>• Helpful mindfulness practice hints</li> </ul>	
10	6-9	Brain Science <ul style="list-style-type: none"> <li>• Experience shapes the brain; negativity bias</li> <li>• Positive experience rewires the brain <ul style="list-style-type: none"> <li>○ Skill practice: HEAP exercise</li> </ul> </li> </ul>	
9	10-14	Attitudes Cultivate Mindfulness <ul style="list-style-type: none"> <li>• Patience, letting go, non-judging, generosity</li> </ul>	
7	15-17	Benefits of Mindfulness <ul style="list-style-type: none"> <li>• Mindfulness and compassion</li> <li>• Brain, physiological, psychological benefits</li> </ul>	
5	18-19	Insight Principle #2: Attitude Matters <ul style="list-style-type: none"> <li>• Correlation between emotional states and insight</li> <li>• Exercise: Mindful Eating</li> </ul>	
5	20-23	Review tools, resources, homework	
	Homework	Mindfulness Exercise: “Fully experience a Regular Routine”  Log: record answers to log questions	

**Session 2 Exercise Description****Fully Experience a Regular Routine**

Take a regular routine that you don't think much about and make it a mindful one. For example, when you clean your house, pay attention to every detail of cleaning. Be mindful of what you are doing. Watch and feel the motion of sweeping the floor or scrubbing the dishes. Be in the moment, aware and present. Don't simply clean on auto-pilot as you usually would.

Source: <http://www.pocketmindfulness.com/6-mindfulness-exercises-you-can-try-today/>

**Mindful Eating**

Next time you eat some fruit or vegetables, try this mindful eating approach:

1. Smell the food as you raise it on your fork or spoon.
2. See the shape of the food and analyse its intricate design as you bring it closer to your mouth.
3. Place the food slowly on your tongue and chew it slowly.
4. Let the food tangle with your tongue. Feel each texture with the sensors on your tongue, gums and teeth.

5. Visualize the process the food went through before getting to your plate; the seed, the rainfall, the nurture, the harvesting.
6. Chew at least seven times before swallowing.
7. Feel the food sink down your throat and make its way down into your stomach.
8. And finally rest in the awareness of this blessing for a moment before taking the next mouthful.

Eating is intimately connected to mindfulness, well at least healthy eating is anyway. This is because vegetables, fruits and meats come from nature, the very source of our own being. We, like every other living organism, are part of a beautifully interconnected world, and at the root of mindfulness is having a heightened awareness of this connectivity, a compulsion to nurture it, and being there in the moment to witness its beauty.

Because of the abundance of food we have and how regularly we eat, mostly we take eating for granted, seldom appreciating its importance to our existence and the beauty of the food we consume. So, I think it's about time we all ate a mindful meal and really connected with this source of life. In a similar fashion to concentrating on the breath, we are going to concentrate on our meal.

Source: <http://www.pocketmindfulness.com/mindful-eating-the-best-meal-youve-had-in-years/#comment-583>

## Session III: Mindfulness versus Mindlessness

Time (min)	Slides	Content	Notes
5	1-2	Opening Exercise and Debrief <ul style="list-style-type: none"> <li>Begin with one minute of mindful breathing</li> </ul>	
13	3-6	Mindfulness Key Points <ul style="list-style-type: none"> <li>Living in the present moment</li> <li>Awake, aware</li> <li>Heartfulness</li> </ul>	
20	7-10	Mindful vs. Mindless (Dr. Langer model) <ul style="list-style-type: none"> <li>Research on the power of possibility</li> </ul> <p>Affect on Others?</p> <ul style="list-style-type: none"> <li>Is mindfulness visible to others? <ul style="list-style-type: none"> <li>Impact on relationships with people, animals?</li> <li>Importance of paying attention, being engaged</li> </ul> </li> </ul>	
5	12-13	Exercise & Discussion: Mindful Observation <ul style="list-style-type: none"> <li>Engaged vs. mindless observation</li> </ul>	
2	14	Review tools, resources, homework	
Homework		Mindfulness Exercise: <ol style="list-style-type: none"> <li>“Mindful Observation”</li> <li>“Body Scan”</li> </ol> <p>Log: record answers to log questions</p>	

**Session 3 Exercise Description****Mindful Observation** (modified from its original version):

Pick something that is within your sight, preferably a natural organism such as a flower or insect, and focus on watching it for one minute. Following Dr. Ellen Langer's guidance about mindfulness as engagement, notice 5 new things about the object or organism. Observe with a mindset of openness and curiosity versus one of certainty (I know this, I've seen this before).

Try not to think of anything else. Simply observe that object in all its glory for one full minute.

**Body Scan**

- Lie down on your back in a comfortable place, such as on a foam pad on the floor or on your bed (but remember that for this use, you are aiming to stay awake, not fall asleep). Make sure that you will be warm enough. You might want to cover yourself with a blanket or do it in a sleeping bag if the room is cold.
- Allow your eyes to gently close.
- Feel the rising and falling of your belly with each inbreath and outbreath.

4. Take a few moments to feel your body as a “whole,” from head to toe, the “envelope” of your skin, the sensations associated with touch in the places you are in contact with the floor or the bed.
  5. Bring your attention to the toes of the left foot. As you direct your attention to them, see if you can “direct,” or channel, your breathing to them as well, so that it feels as if you are breathing in to your toes and out from your toes. It may take a while for you to get the hang of this. It may help to just imagine your breath traveling down the body from your nose into the lungs and then continuing through the abdomen and down the left leg all the way to the toes and then back again and out through your nose.
  6. Allow yourself to feel any and all sensations from your toes, perhaps distinguishing between them and watching the flux of sensations in this region. If you don’t feel anything at the moment, that is fine too. Just allow yourself to feel “not feeling anything.”
  7. When you are ready to leave the toes and move on, take a deeper, more intentional breath in all the way down to the toes and, on the outbreath, allow them to “dissolve” in your “minds eye.” Stay with your breathing for a few breaths at least, and then move on in turn to the soul of the foot, the heel, the top of the foot, and in the ankle, continuing to breathe in to and out from each region as you observe the sensations that you are experiencing, and then letting go of it and moving on.
  8. Bring your mind back to the breath and to the region you are focusing on each time you notice that your attention has wandered off.
  9. Continue to move slowly up your left leg and through the rest of your body as you maintain the focus on the breath and on the feeling of the particular regions as you come to them, breathe with them, and let go of them.
  10. After you have “scanned” the whole body, spend a few minutes being aware of a sense of the body as a whole, and of the breath flowing freely in and out of the body.
- You can adjust the time spent in this practice by using larger chunks of your body to become aware of or spending shorter or longer time with each part.

## Session IV: Mindful Listening

Time (min)	Slides	Content	Notes
3	1-2	Opening Exercise and Debrief <ul style="list-style-type: none"> <li>Begin with one minute of mindful breathing</li> </ul>	
8	3-7	Brain Science: Narrative (default) vs. Direct Experience Network <ul style="list-style-type: none"> <li>Importance of switching focus</li> <li>Meditation helps train / shape the brain</li> </ul> Exercise: switching circuits <ul style="list-style-type: none"> <li>Insight “teaser” – inhibition theory</li> </ul>	
12	8-12	Insight Principles #3: Inhibition theory <ul style="list-style-type: none"> <li>Ability to stop thinking something is central to creativity</li> </ul> Insight Principle #4: Downtime / mind-wandering <ul style="list-style-type: none"> <li>Break from effortful attention improves performance with insight problem solving</li> </ul>	
35	13-18	Mindful Listening: principles and practice <ul style="list-style-type: none"> <li>IAA model of Mindfulness: intention, attention, attitude</li> </ul> Exercise: <ul style="list-style-type: none"> <li>Large and small group discussions</li> <li>Reflection questions and debrief</li> </ul> General principles of mindful listening practice <ul style="list-style-type: none"> <li>Promise of listening</li> </ul>	
2	19-23	Review tools, resources, homework	
	Homework	Mindfulness Exercise: “Mindful Listening”  Log: record answers to log questions Additional log questions included for final day.	

**Session 4 Exercise Description****Mindful Listening**

1. Find a comfortable position either lying on your back or sitting. If you are sitting down, make sure that you keep your back straight and release the tension in your shoulders (let them drop).
2. Close your eyes.
3. Begin by focusing your attention on your breathing. Simply pay attention to what it feels like in your body to slowly breathe in and out. Spend a few minutes focusing your attention on the full experience of breathing. Immerse yourself completely in this experience. Imagine you are "riding the waves" of your own breathing.



4. Once you have spent some time focusing on your breathing, shift your awareness to your ears. Then, allow this awareness to expand from your ears and become aware of and open to all the sounds in your environment.
5. Practice simply being open to all sounds where ever they arise. Do not go searching for sounds or holding on to the experience of certain sounds. Instead, just practice having an expansive awareness of all the sounds around you -- sounds that are close, sounds that are far away, sounds that are soft, and sounds that are loud.
6. Practice connecting with the sounds. Notice if you are labeling the sounds that you hear (for example, the "tick-tock" I hear is from the clock on my wall). If you are labeling the sounds you hear, recognize this and then recommit to connecting with the experience of hearing and the quality of the sound (for example, how loud it is or how long it lasts).
7. Anytime that you notice that you are getting distracted by a thought (this is completely normal), notice what took you away from the present moment and bring your attention back to the sounds in your environment.
8. After a few minutes, shift your attention back to your breathing. When you are ready, open your eyes.

Note: You may also choose to do this exercise by listening to a piece of music you like for several minutes. Practice connecting with the experience of hearing, and the quality of the sound...how loud it is, how long it lasts, etc.

Source: <http://ptsd.about.com/od/selfhelp/ht/mindsounds.htm>

## Appendix D: Survey

Welcome to the Mindfulness and Insight Questionnaire! This assessment is part of a larger research study conducted in conjunction with my Master's thesis project at Pepperdine University.

Your responses will be kept confidential. Please respond to each question openly and honestly.

You may save your answers if you do not complete the survey all at once. You may also go back and change any responses before completing and submitting the finished survey. If you have any questions, please contact my advisor, Dr. Terri Egan, at [contact information].

Thank you in advance for your participation!

### Demographics

1. What is your gender?

- Male
- Female

2. What is your age?

- Under 18 years
- 18 to 24 years
- 25 to 34 years
- 35 to 44 years
- 45 to 55 years
- 55 to 64 years
- 65 or older

3. Please specify your ethnicity.

- American Indian or Alaskan Native
- Asian
- Black or African-American
- Latino or Hispanic
- Native Hawaiian or other Pacific Islander
- White/Caucasian
- From multiple races
- Other (please specify)
- Choose not to reply

4. What is the highest level of education you have completed?

- High school graduate, diploma or the equivalent (for example: GED)
- Some college, but did not finish
- Four-year college degree / B.A. / B.S.
- Some graduate work
- Completed Masters or professional degree
- Completed advanced graduate work or Ph.D.

5. How experienced do you consider yourself to be in some form of regular meditation practice (e.g. guided visualization, qi gong, yoga, other...)?

- Very experienced
- Somewhat experienced
- Not very experienced
- Not at all experienced

6. Regarding mindfulness principles, how knowledgeable do you consider yourself to be:

- Very knowledgeable
- Somewhat knowledgeable
- Not very knowledgeable
- These concepts are brand new to me

7. Regarding mindfulness practice, how experienced do you consider yourself to be:

- Very experienced
- Somewhat experienced
- Not very experienced
- Not at all experienced

#### 5-Facet Mindfulness Questionnaire

Please rate each of the following statements using the scale provided. Choose the option 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
8. When I'm walking, I deliberately notice the sensations of my body moving.					
9. When I'm walking, I deliberately notice the sensations of my body moving.					
10. I'm good at finding words to describe my feelings.					
11. I criticize myself for having irrational or inappropriate emotions.					
12. I perceive my feelings and emotions without having to react to them.					
13. When I do things, my mind wanders off and I'm easily distracted.					
14. When I take a shower or bath, I stay alert to the sensations of water on my body.					
15. I can easily put my beliefs, opinions, and expectations into words.					
16. I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.					
17. I watch my feelings without getting lost in them					
18. I tell myself I shouldn't be feeling the way I'm feeling.					
19. I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.					
20. It's hard for me to find the words to describe what I'm thinking.					
21. I am easily distracted.					
22. I believe some of my thoughts are abnormal or bad and I shouldn't think that way.					
23. I pay attention to sensations, such as the wind in my hair or sun on my face.					
24. I have trouble thinking of the right words to express how I feel about things.					

25. I make judgments about whether my thoughts are good or bad.					
30. I find it difficult to stay focused on what's happening in the present.					
31. When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.					
32. I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.					
33. In difficult situations, I can pause without immediately reacting.					
34. When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.					
35. It seems I am "running on automatic" without much awareness of what I'm doing.					
36. When I have distressing thoughts or images, I feel calm soon after.					
37. I tell myself that I shouldn't be thinking the way I'm thinking.					
38. I notice the smells and aromas of things.					
39. Even when I'm feeling terribly upset, I can find a way to put it into words.					
40. I rush through activities without being really attentive to them.					
41. When I have distressing thoughts or images I am able to just notice them without reacting.					
42. I think some of my emotions are bad or inappropriate and I shouldn't feel them.					
43. I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.					
44. My natural tendency is to put my experiences into words.					
45. When I have distressing thoughts or images, I just notice them and let them go.					
46. I do jobs or tasks automatically without being aware of what I'm doing.					
47. When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.					
48. I pay attention to how my emotions affect my thoughts and behavior.					
49. I can usually describe how I feel at the moment in considerable detail.					
50. I find myself doing things without paying attention.					
51. I disapprove of myself when I have irrational ideas.					

52. Consider a specific challenge, problem or situation (personal or professional) about which you would like to gain more insight. Describe the challenge. What is it? Why is it important for you to have more insight around this situation? Please be descriptive and provide as much detail as possible. (Pre-test only)

53. Briefly describe in as much detail as possible the personal or professional situation you have been considering during the last eight weeks or so. (Post-test only)

54. Describe your current understanding, thoughts or feelings about this situation. What, if anything, has changed in the way you view the situation presently? (Post-test only)

55. When, or at what point(s), did you notice this understanding occurred? What contributed to your understanding about the situation? (Post-test only)