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Investigating the Utility of a Mindfulness-Based Intervention with Men on Probation or Parole

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Abstract

Using a mixed-method design of quantitative and qualitative approaches, this study investigated the utility of implementing an adapted version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011) with six men on probation or parole. The researcher integrated a focus on anger management into the eight MBRP sessions and taught mindfulness meditation exercises during a weekly group. Outcome variables of mindfulness, anger, and empathy were measured at baseline and immediately after the intervention. Field violation and parole revocation data were provided by the Missouri Department of Corrections 30 days following completion of the program. The participants' overall experience was also explored through semi-structured interviews at the end of the meditation course. A six stage thematic analysis process revealed 17 themes that were categorized within five distinct categories: (a) meditation practice promoters, (b) meditation practice deterrents, (c) mindfulness skills, (d) self-regulation of thoughts, emotions, and behaviors, and (e) consideration of self and others. Due to a small sample size, the quantitative data obtained through questionnaires, inventories, and correctional system records were reported through descriptive statistics. Although statistical analyses could not be conducted, many self-reported benefits were derived from the participants' experience learning a mindfulness-based intervention. Some, but not all, participants indicated a desire to develop their meditative practices once the on-site meditation groups were no longer available. A summary of the study, the major findings, and results related to the literature are presented. Strengths and limitations of the study, as well as implications for action by correctional system and counseling staff working with the offending population

are discussed. Lastly, recommendations for future research integrating mindfulness-based programs into the treatment plan for offenders are offered.

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Dedication

This dissertation is dedicated to all beings…

May we feel happiness and joy,
May we be healthy and whole,
May we be free from harm and suffering,
May we all love, be loved, and live together in peace.

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CHAPTER ONE

BACKGROUND AND SIGNIFICANCE

Introduction

The expansion of mindfulness-based strategies as a notable healthcare intervention has increased over the past 20 years within medical and behavioral health settings. A prominent definition of mindfulness, given by Kabat-Zinn (2003), is "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment" (p. 145). When mindfulness-based tools are incorporated into counseling programs, instruction is given to help clients develop awareness of thoughts, emotions, or sensations, accept these without judgment, offer an effective way to handle situational triggers (Witkiewitz et al., 2005), and in turn, attenuate maladaptive reactions in response to unpleasant experiences (Bowen & Marlatt, 2009). The effectiveness of mindfulness-based therapies in the treatment of depression, anxiety, substance abuse, and anger and aggression has been demonstrated through a comprehensive review of the literature. When matched against studies on mood, anxiety, and substance use disorders, a smaller emphasis appears to be placed on anger and aggression.

The potential to automatically react with anger and aggression arises when people perceive situations as threatening; for some, violent crimes may be subsequently committed. Because of these risk factors, the researcher was interested in exploring if a mindfulness-based intervention would enable a small group of men on probation or parole to pause, consider alternative views, and respond in a constructive manner. Although meditative practices have been researched within correctional settings, there

appears to be a limited number of studies investigating structured, evidenced-based mindfulness programs with individuals under the supervision of criminal justice authorities; therefore, an adapted version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011) was implemented with a group of six adult males supervised by the Division of Probation and Parole within the Missouri Department of Corrections. According to Witkiewitz and Bowen (2010), the mindfulness practices incorporated within MBRP are designed to increase awareness of aversive experiences and the manner in which people relate to such challenging and difficult situations. Furthermore, individuals may be enabled with skills promoting the use of effective responses rather than ongoing engagement in automatic and habitual reactions and behaviors such as hostility, aggression, and violence (Witkiewitz & Bowen, 2010).

To date, no known studies have been undertaken to examine the specific use of MBRP as an anger management intervention. Although a modified MBRP model may not replace the more traditional therapies used to manage anger and deter aggression, the researcher proposed that mindfulness and acceptance-based techniques be written into the plan of care when working with individuals within the criminal justice system, especially when the treatment is inclusive of exercises designed to cultivate compassion. For the adult male experiencing legal difficulties that stem from anger and aggression, these problems may continue as long as he lacks awareness of how he feels, thinks, perceives events, relates to others, and remains deficient in the skills required to cope effectively with challenging situations. The information herein has been provided to support the significance of this study and stress the importance of providing evidenced-based anger

management services to an at-risk population. Key topics on anger and aggression, the criminal justice system, and mindfulness are introduced.

Anger

Anger, considered a normal human emotion, is felt by approximately one-third of adults on a daily basis (Kassinove & Tafrate, 2006). Numerous theories attempt to explain the origins of anger, but there appears to be a universal consensus that it is a multifaceted entity consisting of physiological, cognitive, phenomenological, and behavioral constructs (Wright, Day, & Howells, 2009). Raymond Novaco (1994), a leader in anger research, offered a prominent conceptualization of anger. According to Novaco, anger is "a negative, tumultuous emotion, subjectively experienced as an arousal state of hostility toward someone or something perceived to be the source of an aversive event" (as cited in Sun, 2008, p. 147). Furthermore, he indicated anger involves three interconnecting factors that impact each other in reaction to external conditions (Novaco, 1994). The three components include cognitions (i.e., thoughts, beliefs, and perceptions), physiological arousal (i.e., stimulation of the sympathetic nervous system), and behavioral reactions (i.e., verbal and physical aggression).

Though anger can be triggered by both internal stimuli and external conditions, and may precede aggression and violence, the experience of anger does not necessarily indicate a person will react aggressively. Anger plays a vital role in the communication of negative feelings so that effective problem-solving and conflict resolution may occur (Novaco, 1975); nevertheless, many individuals conversely express anger through verbal and physical aggression, causing injury to themselves and others. According to Novaco, it is the dysregulation of anger that influences if the emotional experience will lead to

destructive acts of aggression (2007). Such unregulated expression of anger may result in damaging outcomes, including psychological, physical, social, marital, family, financial, occupational, and legal consequences.

The outcome of anger, whether constructive or destructive, can depend on a person's pre-anger state (Deffenbacher, 2011), personal coping strategies (Novaco, 1975), or learned behaviors from past experiences (Clancy, 1996; Geen, 1998). Although the theories of anger are varied (Wright et al., 2009), parallel characteristics related to the genesis of anger and its subsequent progression exist (Howells, 2004). What people do when they are angry is influenced by several factors. These include: the style in which people relate to anger triggering events and situations; their cognitive assessment, thoughts, and beliefs about such triggering events; arousal of their autonomic nervous system; the manner which they subjectively experience anger; personal tendency to behave impulsively, or issue self-restraint, when angered; and individual beliefs regarding the function of anger (Howells, 2004). Reinforcement histories also sway whether the consequences of anger are viewed as gratifying or punitive (Geen, 1998; Kassinove, 2007).

Biological Aspects of Anger

The basic existence of anger and aggression within the human species is not necessarily problematic by itself. A "hard-wired" phenomenon among humans (Novaco, 2007, p. 3), anger is a normally experienced, natural human emotion that maintains both adaptive and maladaptive functions (Novaco, 1975, 1994). This fundamental human emotion aids in the organization and regulation of psychological, interpersonal, and social behaviors such as self-preservation and mastery of goals (Harmon-Jones &

Harmon-Jones, 2007; Novaco, 2007). Anger also serves an adaptive purpose for human survival (Clancy, 1996; Deffenbacher, 2011; Kassinove & Sukhodolsky, 1995). When threats are detected, automatic defensive reactions are generated by activity in the "survival circuits" in the brain leading to a "defensive organismic state" (LeDoux, 2014, p. 2875). Without involvement of conscious thought, the limbic system (the "seat of all emotions") automatically mobilizes the body to fight or flee from real or perceived sources of threat and danger for the purpose of self-preservation (Clancy, 1996, p. 12). This system monitors for environmental dangers and directs subsequent responses to identified threats (Kolts, 2012).

Informally known as the "alarm bell" of the brain (Hanson, 2009, p. 55), the amygdala is an almond-shaped mass of neurons located deep within the brain's limbic system that is activated in response to threatening stimuli. This part of the brain is designed to be on guard for and quickly react to potentially dangerous situations, thereby setting the stage for intense and stressful emotions such as fear, worry, panic, and anger (Hanson, 2009). Once the amygdala is stimulated, subsequent neurological and physiological changes take place. The thalamus signals the brain stem to release the stress hormone norepinephrine which in turn, stimulates sections of the brain where vigilance and responding actions are controlled. The sympathetic nervous system (SNS) readies major organs and muscle groups to prepare either for escape or battle ("flight or fight syndrome"). The hypothalamus, described as the "seat of all aggressive reactions" (Clancy, 1996, p. 13), directs the adrenal glands to discharge stress hormones such as epinephrine (otherwise known as adrenaline) and cortisol (Hanson, 2009). After epinephrine is secreted, the nervous system's response to perceived threats is enhanced

and prolonged (Clancy, 1996). The resulting effect stemming from the activation of all these systems includes weakening of the prefrontal cortex's influence over executive functioning (e.g., identification of goals, formulation of plans, and molding of emotions) (Hanson, 2009). When this occurs, judgment and perception are negatively skewed, paving the way for anger-related problems. What was once essential for primitive survival, the frequent triggering of these neurobiological systems contributes more to chronic stress in today's world than to preservation of the species (Hanson, 2009).

Cognitive Aspects of Anger

Despite the activation of the autonomic central nervous system, it is important to realize that anger responses are not completely dependent on the flight or fight mechanism (Clancy, 1996; Novaco, 1975). Regardless of instinctual and primitive mechanisms, the ability to regulate emotions and make informed choices separates humans from other animals with smaller and less complex brains (Harmon-Jones & Harmon-Jones, 2007). Anger expression has a cognitive component that allows individuals to evaluate choices before responding to challenging situations (Clancy, 1996). It is the cognitive processing style and the coping strategies of the individual that determines what the reaction to perceived threats will be, ranging from mild frustration to destructive violence.

Several factors influence how anger organizes the human mind. These include attention, felt emotional experience, thinking and reasoning, imagery and fantasy, motivation, and behavior (Kolts, 2012). Described by Kolts (2012), attention is narrowed to focus on potentially threatening situations in the environment. Because anger biases attention, a loss of cognitive flexibility and rational perspective can occur when

examining perceived threats. Angry thoughts that automatically arise can be associated with feeling endangered. Reasoning is lost, rumination occurs, and troubling mental images play out like a movie scene, perpetuating the experience and escalation of anger. The mind activates the body for action and anger prompts an attack on the observed source of danger. This chain of events leads to anger-related behaviors such as resentment, withholding affection, criticism, and physical aggression. All of these behavioral outcomes, stemming from a basic, inherent drive to defend against perceived threats, have the potential to cause harm to self and others.

According to cognitive theorists, the manner in which individuals appraise and evaluate situations contributes to the subsequent emotion (Harmon-Jones & Harmon-Jones, 2007). In contrast, the cognitive neo-associative model proposes negative affect is generated when achievement of an identified goal is thwarted (Berkowitz, 1989). Negative affect then inspires angry feelings followed by a cognitive evaluation of how to respond (Berkowitz, 1990). Regardless of the conflicting theories, anger arousal produces anxiety and distress for individuals (Novaco, 1997) and is a fundamental component to many, but not all, types of violence (Wright et al., 2009). Violence erupts in an effort to establish a sense of control but paradoxically, the person is actually placed into a mode of dyscontrol (Novaco, 1997).

For individuals who form maladaptive beliefs and develop rigid behavioral patterns, their ability to fully engage in anger management treatment is blocked when such interventions are warranted (Novaco, 1997). A challenge also occurs when individuals perceive their anger to be caused by someone or something outside of themselves; they may refuse personal responsibility or lack the necessary motivation to

change (Deffenbacher, 1995). When these conditions are present, continued harm toward others is promoted. Individuals indifferent about how their anger impacts others lack empathy: the ability to identify, understand, experience, and relate to another's situation and feelings (Kolts, 2012). When empathy breaks down, or is completely absent, the resolution of conflicts is challenging and the act of harming others is likely (Hanson, 2009). The absence of empathy, seen as a precursor to aggression and violence (Day, Mohr, Howells, Gerace, & Lim, 2012), may perpetuate the expression of anger. Because anger is more likely to serve as a signal of aggression among the incarcerated (Kassinove & Tafrate, 2006) and be instrumental in violent crime (Howells, 2004; Novaco, 1994, 1997), it was important to focus research within the criminal justice system.

Anger and Violence within the Criminal Justice System

Although anger does not always lead to harmful behaviors and cannot conclusively predict violence, it has been linked to antisocial activities and is an area of concern for correctional system administration (Howells, 1998). According to the United States' primary source for criminal justice statistics, there were almost 7 million adults under the supervision of adult correctional authorities at year end 2011 (Bureau of Justice Statistics, 2012a). The most recent data released by the Bureau of Justice Statistics (2013a) reported that according to the 2012 National Crime Victimization Survey, the overall violent crime rate increased by 15.5% from 22.6 victimizations per 1,000 persons in 2011 to 26.1 in 2012. Rape, sexual assault, robbery, simple assault, and aggravated assault were among the 6.8 million violent crimes reported. Of the total number of these violent crimes, 86% were due to assaults.

Assault, which ranges in severity from a minor threat to a near deadly event, is the illegal threat or actual physical attack on another person, exclusive of robbery and sexual crimes (Bureau of Justice Statistics, 2013b). When sentenced individuals are identified by their behavior as being "assaultive, predacious, riotous, serious escape risks, or seriously disruptive to the orderly running of an institution" they are classified as requiring maximum custody (U. S. Department of Justice Federal Bureau of Prisons, 2006). This custody level is assigned to prisoners requiring the highest level of security to maintain maximum control and ensure ultimate supervision (U. S. Department of Justice Federal Bureau of Prisons, 2006). Among inmates classified as high security, the rate of assaults involving serious physical injury or threat of serious injury on other inmates was 7.5 per 5,000 inmates, compared to 0.95 for all the security levels (i.e., minimum, low, medium, high, and administrative) combined (Federal Bureau of Prisons, 2009).

Since the criminal justice environment can be taxing, inmates having difficulty adjusting to life in prison react maladaptively (Porporino & Zamble, 1984) and have greater levels of anger compared to non-offenders (Spielberger et al., 1991). Outcomes of a longitudinal study on coping behaviors in prison inmates indicated the frequency of anger increased during the earlier periods of incarceration and remained steady approximately one year later (Zamble & Porporino, 1988). It was theorized that the inmates' experience of anger was triggered and sustained by the everyday stressful events that occur while living in prison (Zamble & Porporino, 1988). It has also been suggested that offenders experience anger and resentment as a defense against being controlled by others (Porporino & Zamble, 1984). A false sense of control and power exist among

violent offenders who have developed beliefs that anger and aggression serve a useful function (Novaco, 1997). Moreover, those prisoners with greater anger expectancies are expected to violate institutional rules more frequently (Porporino & Zamble, 1984). In order to neutralize these challenges, Novaco (1997) recommended presenting anger control treatment to offenders as a vehicle to increase their personal sense of mastery and empowerment in their lives.

Taking all the aforementioned factors into consideration, it is understandable why anger management is one of the most frequently offered types of rehabilitation treatment within correctional settings (Howells et al., 2005). Moreover, it is clear why anger control therapy is the most common form of group work conducted in correctional facilities (Howells et al., 2005; Morgan, Winterowd, & Ferrell, 1999). As a result, it is vital that treatment options for anger management and violence prevention be explored to not only benefit the individual, but those within their immediate environment and in the larger correctional and societal systems.

Anger Management within Corrections

Anger management models that incorporate a cognitive-behavioral approach are the most widespread models used in forensic settings (Walker & Bright, 2009). Cognitive-Behavioral Therapy (CBT) is a psychotherapeutic modality designed to identify and modify an individual's faulty beliefs and dysfunctional thoughts in order to positively influence the person's feelings and behaviors. Core components include: increasing insight and personal awareness of anger, triggers, and behavior (Deffenbacher, 2011); learning arousal reduction techniques and relaxation strategies (Deffenbacher, 2011; Wright et al., 2009); enhancing coping skills to modify behavior and improve

communication (Deffenbacher, 2011; Wright et al., 2009); and understanding, challenging, and modifying dysfunctional cognitions and irrational beliefs (Deffenbacher, 2011; Walker & Bright, 2009; Wright et al., 2009). As demonstrated through a rigorous meta-analytic review (Butler, Chapman, Forman, & Beck, 2006), examples of cognitive-behavioral interventions that yielded large effect sizes included treatments for adults with unipolar depression (0.82), generalized anxiety disorder (1.26) panic disorder with or without agoraphobia (0.91), obsessive-compulsive disorder (1.86), and post-traumatic stress disorders (1.70). When specifically examining the effect of CBT on anger, including violent offenders, a medium effect size of 0.70 was found versus those in untreated control groups. Seventy-six percent of those who received no treatment for the reduction of anger fared worse than the average recipient of CBT.

Despite that past research suggests CBT-based interventions for anger problems are effective (Beck & Fernandez, 1998; Wright et al, 2009), limitations are recognized when reviewing anger management strategies offered within the criminal justice system. Fehrer (2002) indicated CBT strategies may not consistently work when individuals hastily react before employing alternative courses of action. This is attributed to the notion that the individual has already experienced an emotional reaction, and therefore, the opportunity to choose an alternative response is bypassed (Wright et al., 2009). Another drawback is that cognitive-behavioral interventions are effective when participants are introspective and insightful, but if these characteristics are absent, the CBT approach does not offer strategies to counteract this limitation (Wright et al., 2009).

Regardless of the frequency that anger management programs utilizing a CBT model is taught, a shortage of group therapy studies appears to exist within the

correctional system. Past research have demonstrated the effectiveness of anger management in the general population, but the literature is restricted concerning outcomes of anger management therapy with high-risk offenders (Howells et al., 2005; Novaco, 1997) and the efficacy of prison-based anger management groups in reducing felonious behavior (Ireland, 2004). An additional challenge to effective anger management treatment for those who attend therapy in correctional facilities is a lack of standardized treatment, and, when treatment is offered, it is primarily administered by personnel who do not have mental health professional backgrounds (Vannoy & Hoyt, 2004). Even if mental health professionals are involved, problematic anger and violent behaviors are difficult to treat when working with offenders who lack treatment engagement, have entrenched personality traits, and maintain beliefs that anger is empowering (Novaco, 1997).

Evidence exists in the literature validating the utility of treating anger using a variety of evidenced-based practice but mental health professionals, however, have not reached an agreement identifying the most effective method to treat anger (Saini, 2009). Research is expanding and suggests various approaches are effective in managing anger problems, but Wright et al. (2009) cautioned these results should not suggest novel treatment approaches for anger problems are unnecessary. These researchers advocated for the continued development of new interventions to address the distinct needs of individuals in offending populations. For example, if offenders are expected to effectively cope with problematic situations, treatment programs should be offered within the first two months of their imprisonment term (Zamble & Porporino, 1990). Such programs should help offenders learn how to skillfully and persistently identify, select,

and implement alternate and effective coping strategies, including cognitive reevaluation and negotiation skills (Zamble & Porporino, 1990). Beck and Fernandez (1998) recommended the ideal study should examine the effectiveness of anger management outside the laboratory setting and within the natural environment. Therefore, conducting research within a criminal justice setting afforded this opportunity by exploring the utility of a mindfulness-based intervention with six men on probation or parole.

Mindfulness

Buddhism originated approximately 2,500 years ago when Siddhartha Gautama became known as the Buddha, or the "awakened one," after his enlightenment. Enlightenment, defined as "nothing more or less than seeing things as they are rather than as we wish or believe them to be" (Hagen, 1999, p. 2), allowed the Buddha to experience the liberation of mind needed to offer a path to reduce human suffering. According to Buddhist teaching, human suffering simply originates from grasping for what is pleasurable and avoiding what is not. When a person attempts to evade what is displeasing, a counterproductive approach of coping with taxing situations is set in motion, aggravating the original conflict. The Buddha taught that humans could transcend suffering by acknowledging its existence and openly accepting the inevitability of change. At the core of Buddhist psychology, mindfulness is a mechanism that allows a person to observe how the mind generates suffering in each passing moment (Siegel et al., 2009). Because Buddhist psychology teaches the reduction of suffering (Weiss, 2009), its application in medical and behavioral healthcare practices is being critically examined. Within the past two decades, the application of mindfulness as a counseling intervention has gained significant popularity in modern cultures including the United

States, United Kingdom, and Australia. The proliferation of literature on mindfulness-based psychotherapeutic techniques correlates with the expansion of mindfulness-oriented practice in counseling settings.

Mindfulness meditation skills are taught to clients allowing them to nonjudgmentally observe arising feelings, thoughts, and physiological sensations while avoiding becoming entrenched in the content. When practiced, mindfulness permits individuals to acutely examine themselves and pay attention to their own experiences as if looking through the eyes of an unbiased observer (Kabat-Zinn, 1990). Through this process, experiences of life are allowed to openly rise and fall in a non-judgmental manner without attempting to force change. In doing so, the ability to see with clearer perception manifests and past conditioning no longer obscures awareness (Shapiro & Carlson, 2009). Individuals practicing mindfulness may reduce hypervigilance, increase wise awareness, and sidestep habitual reactions that previously contributed to ongoing sources of suffering (Hanson, 2009). Because people's perception can influence their interpretation of reality, it is important for individuals to intentionally and mindfully acknowledge what is happening in the present moment without judgment or reaction. Through the cultivation of mindfulness and conscious awareness, individuals may be offered unique instruments to enhance insight, prompt informed and effective responses to stress, reduce irrational anger and violence, and ultimately, restore health and well-being.

Potential Effect of Mindfulness Meditation on Anger

The chain of events leading to harmful behaviors usually begins with the occurrence of an event that is perceived as unsatisfactory in the observer's mind,

followed by uncomfortable emotion experienced in tandem with a physical sensation, along with negative thoughts of the triggering situation. This sequence can initiate a behavioral reaction to react aggressively, resulting in destructive outcomes. Despite there being a typically ubiquitous order, some individuals lack awareness of their feelings and the manner in which anger is expressed (Deffenbacher, 1995), therefore, sustaining ongoing pain and suffering. When meditation is regularly practiced, however, the flight-or-fight response is calmed and regions of the brain responsible for attention, compassion, and empathy are strengthened (Hanson, 2009).

The role of empathy as an inhibitor of anger has been supported through research (Day et al., 2012). In Buddhist psychology, empathy originates from a deep understanding that there is no distinct "self" that is separate from others (Morgan & Morgan, 2005). When the interrelatedness of everyone is recognized, the capacity to be empathetic toward others is advanced (Hanson, 2009). Through the practice of mindfulness, empathy is deepened and compassion is developed as the individual's sense of separateness from the world is diminished (Fulton, 2005; Hanson, 2009). The meditative exercise "metta," an attitude of wishing happiness and extending empathic concern for others, may be a remedy for destructive mental states (Morgan & Morgan, 2005). Metta meditation, also known as loving-kindness meditation, is designed for the cultivation of love, geniality, compassion, and care for oneself and others. When the intentional cultivation of compassion is practiced, the *insula*, a part of the human brain that reads internal body states and supports empathy, is strengthened (Hanson, 2009). Hofman, Grossman, and Hinton (2011) reviewed the literature on loving-kindness meditation, leading to their conclusion that this meditative practice has the potential to

reduce negative affect states. Furthermore, these authors indicated that metta is contrary to destructive emotions such as anger and hate. If mindfulness-based skills give rise to the development of empathy and the cultivation of compassion, and, therefore, hamper irrational anger and destructive violence, then this practice should be considered for at-risk individuals within correctional settings.

Problem Statement

Individuals who consistently practice mindfulness may be given the tools to pause, engage in present-moment awareness, examine the situation nonjudgmentally, and employ the skills necessary to wisely respond. When this occurs, automatic and reactionary behaviors, such as anger and aggression, may be circumvented. When compared to interventions for mood, anxiety, and substance use disorders, there appears to be an unequal focus on mindfulness and its application within anger management therapies. This is evidenced by the subject of "anger" being referenced only on two unrelated pages in Germer, Siegel, and Fulton's book, *Mindfulness and Psychotherapy* (2013). Considering the practice of mindfulness meditation is believed to amplify awareness, enhance compassion, cultivate empathy, interrupt habitual patterns of harmful thoughts and behaviors, and promote wise and skillful action in response to stressful situations, the researcher investigated if a mindfulness-based psychotherapeutic program was a supportive intervention for a small sample of men on probation or parole.

Of the 7 million adults managed by correctional authorities, approximately 69% (n=4,814,200) were adult offenders under community supervision compared to those held in prison or jail (Bureau of Justice Statistics, 2012b). Probation and parole are two distinct forms of supervision provided in community settings by correctional authorities.

Probation is defined as a "court-ordered period of correctional supervision in the community, generally as an alternative to incarceration," while parole is regarded as a "period of conditional supervised release in the community following a prison term" (Bureau of Justice Statistics, 2012b, p. 2). Bearing in mind the prevalence of anger-related problems within the criminal justice system, as well as considering the majority of offenders are supervised in community settings on probation or parole, outcomes of this study may contribute to the future development of alternate and effective programs for a large and at-risk population. The study of anger management, mindfulness-based therapies, and interventions for offenders may be augmented as a result of this research.

Purpose

The purpose of this research was to investigate the utility of a modified version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011) with six adult males on probation or parole. Data was collected on the variables of anger experience and expression, empathy-related constructs, mindfulness skills, and institutional offending. The overall experience of the men who attended the meditation-based program was also explored through semi-structured interviews. Developed by Witkiewitz, Marlatt, and Walker (2005), MBRP is a cognitive-behavioral paradigm for substance use disorders incorporating mindfulness-based skills with Marlatt's cognitive-behavioral relapse prevention program (Marlatt & Gordon, 1985). The MBRP intervention for substance use disorders centers on the function of mindfulness as a helpful tool for managing high-risk situations that represent a threat to sobriety (Witkiewitz et al., 2005). Bowen et al. (2011) incorporated conventional relapse prevention strategies with mindfulness meditation exercises

resulting in the development of *Mindfulness-Based Relapse Prevention (MBRP) for Addictive Behaviors*. MBRP is an 8-week aftercare group program aimed at the prevention and management of relapse for addictive behaviors. Clients are educated on the use of mindfulness strategies when experiencing psychological/physiological reactions associated with withdrawal, as well when cravings and urges to use substances occur. The MBRP program designed by Bowen et al. teaches individuals how to sharpen awareness of their personal triggers, unhealthy patterns, and automatic reactions that typically occur while in the midst of a challenging and uncomfortable situation. Going further, individuals are taught to pause, observe, consider their options, and then wisely respond to whatever is occurring in the moment. Ideally, these techniques free clients from being locked into harmful patterns associated with relapse to addictive and destructive behaviors.

Parallels exist when comparing the pattern of addictive behaviors seen among individuals experiencing substance use problems with those having anger-related difficulties. For example, the shaping and maintenance of substance use, abuse, and dependence occurs through the methods of positive and negative reinforcement (Capuzzi & Stauffer, 2012). These same operant conditioning principles also provide an explanation for the etiology of anger and aggression (Salzinger, 1995). Additionally, the experience and expression of anger can become tangled in an addictive cycle involving crisis orientation, compulsive craving, irrational thought processes, acting out behaviors for tension reduction and gratification of needs, denial, and moral deterioration (Tsytsarev & Grodnitzky, 1995). When mindfulness training is given, this associative learning loop affiliated with addictions may be weakened for triggered individuals who

pause, allow the moment, investigate the experience, observe what is happening (Brewer, 2013), and then wisely respond to the situation. If consistently practiced, mindfulness awareness techniques can disrupt the automaticity of habitual reactions (Brewer, 2013). Taking into account all of these similarities, an investigation was conducted to explore the outcome of offering a modified version of the MBRP model to individuals who may be at risk for anger-related problems due to a history of correctional system involvement.

Research Questions

The following research questions were addressed:

1. What changes occurred in anger expression among six adult males on probation or parole who practiced mindfulness meditation?
2. What changes occurred in empathy among six adult males on probation or parole who practiced mindfulness-based meditation?
3. What changes occurred in mindfulness skills among six adult males on probation or parole who practiced mindfulness-based meditation?
4. What changes occurred in field violations and probation/parole revocations for six adult males on probation or parole who practiced mindfulness-based meditation?
5. What was the ability of six adult males on probation or parole practicing mindfulness-based meditation to genuinely report beneficial changes?
6. What was the overall experience of attending a mindfulness-based meditation course for six adult males on probation or parole?

Significance of the Study

When individuals mindlessly interpret other people, events, physiological reactions, and situations as threatening, hostility automatically arises, leading to the

potential for physical aggression and violent crimes. Education and guidance was provided to six men on probation or parole with the goal of helping them develop the skills needed to increase present moment awareness of emotions, thoughts, and sensations, experience these without judgment, and in the end, exchange automatic reactive behaviors with wise and healthy responses. It is important to highlight that metta, or loving-kindness meditation, is included in Bowen et al.'s (2011) Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP) protocol. Because metta meditative practice is incorporated in MBRP, adapting MBRP as an anger management procedure was further supported. When mindfulness is paired with compassion, individuals can develop a clear and gentle awareness of the thoughts, actions, and events that form their experiences (Brach, 2003). When this transpires, individuals are awakened from a "trance" as they become more aware of the motivations behind, and consequences of, their behaviors that affect themselves and others (Brach, 2003). When practiced concurrently, the "two wings" of mindfulness and compassion enable individuals to step out of the trap of habitual reactions in order to obtain the clarity, balance, presence, and freedom needed to make effective choices in life (Brach, 2003). Not only did conducting research within the criminal justice system offer the opportunity to directly work with individuals at risk, it is expected that this study adds to the literature by investigating the utility of anger management strategies incorporating a mindfulness-based approach inclusive of a compassion-building exercise.

Delimitations

In order to examine the utility of an adapted version of MBRP as an anger management intervention for individuals within the correctional system, the study was

conducted inclusively with adult males on probation or parole. Participants were recruited from an outpatient treatment facility in St. Louis, Missouri where services are offered such as substance abuse education programs, cognitive and life skills training, and psychoeducational groups. All individuals who enrolled in the study were concurrently under the supervision of the Missouri Department of Corrections-Division of Probation and Parole.

With the approval of the Institutional Review Board at the University of Missouri-St. Louis, the State of Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation Research Committee, adult males over the age of 18 years interested in participating in this study were enlisted from Gateway Foundation-Corrections "Free and Clean Program" located in St. Louis, Missouri. Eligible participants were required to read and write in order to complete questionnaires and basic homework assignments. In order to minimize attrition, any individual who was expected to be discharged from Gateway Foundation-Corrections and released from probation or parole within four months from the beginning of the recruitment phase did not meet eligibility requirements. To help control for threats to internal validity, individuals who actively engaged in mindfulness meditation practices were not eligible to participate in the study.

Conclusion

Due to a deficiency of skillful coping mechanisms among offenders, coupled with unsuccessful rehabilitation efforts offered while incarcerated, criminal justice researchers have advocated for increased implementation of treatment programs that target changing behavior (Zamble & Porporino, 1990). Choice Theory (Glasser, 1998) posits that human

behavior is motivated by, but not limited to, the need to belong, be accepted, make choices, be recognized, and achieve. Extending consideration of the underlying factors that motivates behavior to individuals within the correctional system, the multifactor offender readiness model (MORM; Ward et al., 2004) suggests that the attitude, beliefs, cognitive thinking style, and skills of the individual, along with contextual factors such as availability of programs, resources, and external support, impact an offender's willingness to engage in treatment. Few studies exist on treatment refusal with correctional populations; however, an offender's decision to engage in treatment can be related to their knowledge and beliefs about treatment, viewpoint of priorities, perception of correctional system staff's attitudes, and opinions regarding the location of services (Mann, Webster, Wakeling, & Keylock, 2013). In general, offenders have higher needs for recognition and when their efforts are acknowledged, motivation levels may increase (Mottern, 2007). In support of these factors, it is crucial that individualized protocols be developed and offered to those in need. This objective is even more evident when taking into account the impact that poorly controlled anger, aggression, and violence have on individuals, society, and the criminal justice system.

For these reasons, the present study investigated the utility of a customized version of Mindfulness-Based Relapse Prevention for Addictive Disorders (Bowen et al., 2011) as an alternative treatment program with six men on probation or parole who self-selected to participate. The researcher was interested in the overall experiences of the men who attended the course, and if participation in the revised MBRP protocol would lead to changes in mindfulness skills and empathy-related constructs leading to a reduction in the intensity and expression of anger, as well as institutional offending.

Although the quantitative data could not be analyzed to test for statistically significant changes due to the small sample size, based upon an analysis of the qualitative data, the participants described enhanced mindfulness skills, consideration for self and others, and self-regulation of thoughts, emotions, and behaviors.

As previously mentioned, violent offenders have developed beliefs that anger and aggression are functional by bestowing a false sense of control and power (Novaco, 1997). Viktor Frankl (1992) conversely emphasized a belief in the freedom and power of the individual to choose one's attitude in the face of suffering. In support of Frankl's position, at-risk individuals may be offered the space to pause, take refuge, and enhance their ability to make wise and skillful choices through the application of mindfulness. When consistently employed, mindfulness practices appear to align with the goal of counseling centering on the human ability to enhance the overall quality of life and actualize full potential.

CHAPTER TWO

REVIEW OF LITERATURE

Overview

This study investigated the experiences of six men on probation or parole who participated in an adapted version of Mindfulness-Based Relapse Prevention for Addictive Disorders (MBRP; Bowen et al., 2011). The researcher collected data in terms of anger experience and expression, empathy-related constructs, mindfulness skills, and field violations and parole/probation revocation. The overall experience of the men who attended the meditation-based program was also explored. A comprehensive literature review has been completed. Theories of anger and aggression, including the conceptualization of anger from the Buddhist perspective, are incorporated within this chapter. In addition, a discussion of treatment modalities targeting aggressive and violent behaviors is included. Also offered is a description of the origins of human suffering, including the use of Buddhist-influenced mindfulness practice as a means to alleviate suffering. Emphasis is placed on the various mindfulness-based therapeutic programs and interventions offered within medical and behavioral healthcare settings. This special focus includes a broad examination of past research where the utility of mindfulness-based interventions for the treatment of depression, anxiety, substance use, and anger and aggression were investigated. Because this dissertation research specifically involved adult males on parole and/or probation, a synopsis on the use of mindfulness-based therapy with the correctional population is given. It is anticipated that outcomes of this dissertation research will contribute to the growing body of literature by investigating an

alternate anger management program, especially for use within the correctional setting, as well as build upon mindfulness as a strategy for behavioral health problems.

Anger and Aggression

Anger and aggression are universal human conditions. The experience of anger regularly occurs in daily life and varies in frequency, intensity, and duration among individuals (Kassinove & Eckhardt, 1995; Kassinove & Sukhodolsky, 1995; Kolts, 2012). Medical illness, emotional difficulty, familial stress, assault, and murder are only some of the outcomes linked to mismanaged anger and uncontrolled aggression (Kassinove & Sukhodolsky, 1995). Although these ubiquitous consequences are part of today's culture, the experience of anger and act of aggression are not specific to modern civilization. Twenty-five thousand year old archeological data provide evidence that human ancestors were aggressive and violent (DeWall & Anderson, 2011). Moving closer to recent periods, parallels can be drawn between spectators marveling at violent behavior within ancient Roman gladiator arenas and contemporary society's witnessing of aggression through modern media (DeWall & Anderson, 2011).

Many theoretical views exist that attempt to define and explain anger and aggression. Regardless of the model shaping a researcher's conceptualization, the experiences of anger and aggression are familiar to those in the general public. Most laypeople are acquainted with the physical and behavioral indicators of anger and aggression ranging from clenched fists to angry stares, yelling and screaming, hitting, breaking and throwing objects, and assaulting others. Although anger is commonly confused with aggression because both terms are used interchangeably (Kassinove, 2007), this discrepancy is not limited to those individuals outside academic and

professional groups. Because reaching a consensus regarding a universal definition within the scientific community has been difficult (Robbins, 2000; Rubin, 1986), various definitions of anger and aggression will be reviewed in order to distinguish these interrelated, yet independent terms. A discussion of anger and aggression from the perspective of Buddhism will also be included since this dissertation research integrates Buddhist-influenced mindfulness skills as a potential therapeutic strategy for managing anger.

Anger

Even though numerous theories exist, an overlap of cognitive, affective, and physiological characteristics (Eckhardt & Deffenbacher, 1995) are noted when considering the overall constellation of anger. Novaco (1975) summarized anger as an intense emotional reaction to confrontation involving cognitive factors and involuntary nervous system responses. In the presence of challenging circumstances, anger arousal impacts human behavior and serves numerous purposes. It can energize (intensify responses when provoked) and disrupt (interfere with task performance when agitated) behavior. The arousal of anger also offers expressive (communicates negative feelings), defensive (fuels attack responses), and instigating (incites aggressive actions) functions.

Berkowitz (1993) suggested anger may not have any specific objective or goal, nor does it necessarily benefit or serve any helpful purpose for the individual. He essentially believed anger originates from the combination of automatic physiological and involuntary motor reactions with thoughts and memories occurring in response to unpleasant events. Unlike Berkowitz, Kassinove and Sukhodolsky (1995) considered

anger to be a label for a transient state that has goal-directed and reinforcing properties. They defined anger as:

> a negative, phenomenological (or internal) feeling state associated with specific cognitive and perceptual distortions and deficiencies (e.g., misappraisals, errors, and attributions of blame, injustice, preventability, and/or intentionality), subjective labeling, physiological changes, and action tendencies to engage in socially constructed and reinforced organized behavioral scripts. (Kassinove & Sukhodolsky, 1995, p. 7)

Anger has also been described as "the elicitation of one or more aggression plans by the combination of threat appraisal and coping processes" (Rubin, 1986, p. 116). In other words, adaptive functioning often occurs as instinctive coping strategies when the appraiser vigilantly detects potential threats. As a person's threat level increases, there is an associated rise in arousal, movement, irritability, and stress leading to the likelihood that coping responses will address any evaluated physical danger and psychic threat (Rubin, 1986).

Kassinove (2007), a leading scholar in the field of anger studies, later defined anger as an emotion consisting of observable motor behaviors, changes in the biophysiology of the body, and cognitive processes; however, he warned potential dilemmas exist with this definition. Defining anger as an emotion linked to motor behavior may lead some to conclude anger is the basis for aggression. Conversely, describing anger as a construct, which would simply be understood through individuals self-reporting their own internal cognitions, leads to research measurement concerns

since introspection and verbal reports cannot be relied upon to accurately reflect what others are privately thinking.

According to Novaco (1975), anger arousal can simply be experienced as a reactive state of irritation. Because of this, individuals can learn to use their experience of anger as a discriminative cue that serves as a gauge in stressful and provocative situations. Therefore, the purpose of anger management therapy is not to eliminate anger but rather, to help clients become more aware of their anger experience, decrease the intensity of anger arousal, improve discrimination when recognizing danger, and become competent in their ability to respond successfully to threats and provocations.

Aggression

Although anger arousal has been said to have useful purposes, (Kassinove & Sukhodolsky, 1995; Novaco, 1975), anger is typically considered to be a negative emotion and experience (Harmon-Jones & Harmon-Jones, 2007; Kassinove & Eckhardt, 1995) due to its association with aggression. There are theorists who presume anger underlies and precedes aggressive behavior, although some suggest aggression escalates and preserves anger (Cavell & Malcom, 2007). In contrast, others believe anger and aggression can occur independently and separately from each other (Cavell & Malcom, 2007; Kassinove & Sukhodolsky, 1995; Novaco, 1975). Rubin (1986) identified a variety of opinions among theoreticians ranging from (a) aggression *is* explicitly part of anger, (b) aggression *may or may not* be part of anger, and (c) aggression is *not* part of anger.

As a coping strategy, aggressive reactions can occur when an individual's appraisal of threat is high (Rubin, 1986). Clancy (1996) identified three types of

aggressive reactions. The first type, known as the fight or flight syndrome, is based upon the basic human instinct to survive in the face of fear or pain. The fight–flight and stress responses, first described by Cannon (1929) and Selye (1976), are stimulated when an individual perceives situations as taxing, threatening, or dangerous. When a person judges a threat to be in the environment, the central nervous system automatically mobilizes the body to either attack or run from the perceived source of harm. Although the fight or flight response cannot be altered, interpretations of incoming external stimuli can be consciously analyzed and changed (Clancy, 1996).

Defensive aggression, which also assists in self-preservation, is the second type of aggression reaction (Clancy, 1996). This reaction involves using higher level thought processes to quickly evaluate options when deciding how to respond to incoming stimuli that are perceived to be dangerous or potentially life-threatening. Although this type of aggression is a healthy and necessary reaction to real threats, it becomes problematic when a pattern of verbal and/or physical aggression emerges if there is no reasonable justification for such responses. As an antidote, false interpretations of external stimuli should be confronted and subsequently replaced with rational-based evaluations. In so doing, more constructive response choices can occur (Clancy, 1996).

Irritable aggression is the third and final type of aggressive reaction described by Clancy (1996). This aggressive reaction affects certain parts of a person's daily level of functioning. Irritable aggressive reactions are triggered by non-life-threatening, unpleasant situations such as heavy traffic, car troubles, losing keys, disagreements with others, or being given last minute, large work assignments. Because this type of

aggressive reaction affects emotions, cognitions, and behaviors, irritable aggression is emphasized in anger management-relapse prevention skills training (Clancy, 1996).

Because differing perspectives on anger and aggression exist, reviewing the literature does not result in locating one absolute, universal definition. Kassinove and Eckhardt (1995) concurred with Berkowitz (1994) who stated, "any real close and thorough examination of the psychological research into the origins of anger and emotional aggression must leave the thoughtful reader somewhat dissatisfied" (p. 35). For the purpose of this review, if anger is presented as a "normal, healthy emotion that is, at times, expressed inappropriately" (Clancy, 1996, p. 9), and inappropriate anger expression is defined by the occurrence of aggressive reaction without just cause, then anger may be distinguished from aggression.

Anger and Aggression from the Perspective of Buddhism

The aforementioned descriptions of anger were taken from various psychological viewpoints. Because this study incorporates Buddhist-influenced mindfulness skills as a psychotherapeutic intervention for anger management, a theoretical understanding of anger from the Buddhist perspective is also included. In Buddhist teachings, the origin of human suffering is linked to the "three poisons" known as *ignorance* (e.g., delusion, false view, lack of understanding of the true nature of all things), *attachment* (e.g., greed, desire, clinging, pulling, craving, grasping), and *aversion* (e.g., resisting, opposing, pushing, revulsion, intolerance, anger). Ignorance, the basis for attachment and aversion, refers to the false belief that a separate sense of self exists from others and the world (Low, 2000). In other words, ignorance is preserving the illusion of a permanent and unchanging "self" while remaining blindly unaware of the interrelatedness and

interconnectedness of all things. When people attempt to fight off any threat to their belief of the existence of a fixed and separate sense of self, anger is experienced (Low, 2000). Individuals lacking a clear understanding about the true, impermanent nature and interdependence of all things are at risk for suffering in their lives (Low, 2000). People who cling to those things considered pleasant (i.e., attachment), and resist those considered unpleasant (i.e., aversion), experience frustration and agitation because controlling such conditions is strictly outside their ability. Specifically, anger is generated when the threat of "things not being the way we want them to be" occurs (Kolts, 2012, 9. 41). Thich Nhat Hanh (2001), a Zen master and peace activist, stated that a person is consumed by anger, bitterness, complaint, and blame because he or she is suffering. He wrote, "As long as these poisons are still in our heart, happiness cannot be possible"
(2001, p. 2).

Comparably, the Dalai Lama declared unhappiness and anger develop from a discontented and dissatisfied mind (Dalai Lama & Cutler, 1998). Because anger destroys peace of mind and interferes with the cultivation of compassion, he considered it to be one of the "greatest evils" (Dalai Lama & Cutler, 1998, p. 248). When strong and pervasive, anger restricts the brain's ability to remain calm, stay focused, exercise sound judgment, and make informed decisions (Dalai Lama & Cutler, 1998). Although the Dali Lama acknowledged anger, when inspired by compassion and responsibility, may motivate positive action, he recognized anger has the potential to foster negative feelings, fuel hatred, and generate destructive outcomes. Rather than suppressing or repeatedly expressing anger as corrective measures, the Dalai Lama encouraged others to practice

patience and tolerance as remedies to destructive anger (Dalai Lama & Cutler, 1998). Similar to the Dalai Lama, Thich Nhat Hahn (2001) indicated concentration, insight, compassion, and mindfulness counteract such problems and are extinguishers of the fire of anger.

In a translation of his core lessons, the Buddha stated, "angry talk really is painful. The result might crash down on you" (Wallis, 2004). In teaching this, the Buddha argued against living an angry and aggression filled life, as unrest, mental trouble, illness, and abandonment from others might follow (Wallis, 2004). Acting out impulsively in reaction to unwelcome conditions, as demonstrated in some cases of intense anger and aggression, can have damaging consequences. A fundamental philosophy of Buddhism is to not cause harm to self and others. Mindfulness provides a foundation for this teaching in that its practice nurtures the human capacity to relate honestly and non-judgmentally to what is happening in the present moment (Chodron, 2002). When individuals meet undesirable experiences with a receptive and compassionate mindset, angry reactivity can be replaced with a wise response.

Therapies for Anger and Aggression

It has been established that dysregulated anger and uncontrolled aggression have a widespread impact on individuals, others, and the human society as a whole. Whether an individual self-recognizes a problem exists or the person is recommended or mandated by a third party to obtain help, it is critical that empirically tested, valid, and effective services be offered. Heyman and Smith-Slep (2007) summarized various therapies targeting aggressive and violent behaviors into five main categories: (a) behavioral, (b)

cognitive or cognitive-behavioral, (c) insight/psychoanalytic, (d) multicomponent approaches, and (e) family therapy.

Falling within the cognitive or cognitive-behavioral classification, anger management is a treatment modality commonly offered to aggressive individuals (Heyman & Smith-Slep, 2007). Some of the available interventions within the anger management grouping include stress inoculation therapy, cognitive restructuring, and assertiveness, problem-solving, relaxation, and social skills training. According to Heyman and Smith-Slep (2007), Raymond Novaco's anger control treatment (1975, 1983) stands out among all anger management programs. They cited Novaco's anger control as a multi-focused therapy, incorporating cognitive and behavioral techniques, with a concentration on the frequency, intensity, and triggers for anger. Other core components of Novaco's model include: development of an anger provocation hierarchy; regulating physiological stimulation through the use of progressive muscle and breathing-focused relaxation skills and guided imagery exercises; cognitive restructuring; coping, assertiveness, and communication skills building; and practicing newly learned anger coping strategies in response to the individual's personal anger provocation hierarchies (Heyman & Smith-Slep, 2007).

From the onset of anger management programs, the effectiveness of cognitive-behavioral based strategies have been supported through several studies (Olatunji, Lohr, & Bushman, 2007). Beck and Fernandez (1998) examined 50 studies (N = 1,640) of anger management therapy using cognitive-behavioral strategies. Those individuals in CBT groups were found to experience a 76% improvement in reducing anger when compared to those who did not receive any treatment (d = 0.70). Four additional

published meta-analytic reviews indicated cognitive-behavioral influenced anger treatment produced medium effect sizes: *d*=0.64 (Edmondson & Conger, 1996); *d*=0.67 (Sukhodolsky, Kassinove, & Gorman, 2004); *d*=0.68 (Del Vecchio & O'Leary, 2004); and *d*=0.71(DiGuseppe & Tafrate, 2003).

Despite the aforementioned findings regarding the effectiveness of CBT-based interventions for anger problems, several limitations were noted. Although there is meager research on anger problems when compared to the research on mood and anxiety disorders (Kulesza & Copeland, 2009), several studies exist that can be collectively reviewed through published meta-analyses. While these meta-analyses have indicated anger management interventions are effective, the most commonly cited articles (i.e., Beck & Fernandez, 1998 and Edmondson & Conger, 1996) do not seem to follow conventional review standards safeguarding against poorly conducted reviews (Walker & Bright, 2009). An example includes the Edmondson and Conger (1996) meta-analyses where almost half of the 18 studies reviewed were actually led by the same author; seven of the 18 studies involved individual treatment modalities ranging from 1 to 15 sessions; six of the 18 studies did not report length of sessions, while the remaining 12 studies ranged in length from two-30 minute sessions to 10 hours over the course of eight visits (Walker & Bright, 2009). Additionally, the Beck and Fernandez (1998) meta-analyses reviewed studies where nearly half of the participants were elementary- and college-age students or "normal" volunteers; half of the examined studies relied solely on self-reporting measures; and most studies included small sample sizes or did not produce effect sizes over 1 (Walker & Bright, 2009).

An additional limitation regarding the effectiveness of CBT-based interventions for anger treatment is that of the 50 studies reviewed by Beck and Fernandez (1998), only 26% included participants sampled from populations described as "inmates," "juvenile delinquents," or "forensic patients." Typical subjects in past CBT research have been students (Walker & Bright, 2009) which can minimize the generalization of the results to other populations. Another limitation is the number of adults supervised by state and federal corrections systems who are required to participate in anger management programs is unknown (Vannoy & Hoyt, 2004). When the violent offender population is studied, case studies are utilized rather than conducting actual experimental research within the institutional setting (Novaco, 1997). Other concerns regarding anger management programs for offenders include: the possibility of treatment resistance related to poor insight and mandated participation (Wright et al., 2009); diverse treatment needs and lack of readiness (Day et al., 2009); and poor evidence to support the ubiquitous use of anger management in correctional settings (Walker & Bright, 2009). Regardless of the demonstrated effectiveness of CBT for the treatment of anger, and considering the previously identified limitations, it is recognized that ongoing research is needed to inform the development of enhanced therapeutic programs offering evidenced-based interventions in response to the multifaceted determinants of anger and aggression (Heyman & Smith-Slep, 2007).

One element that should be excluded from any anger treatment program is the cathartic expression of anger. Catharsis, a word of Greek origin meaning purging or cleansing, takes place through the release of pent up anger and aggression by means of verbal or physical acts (Olatunji, Lohr, & Bushman, 2007). A wide misconception,

venting pent-up hostility does not reduce anger or prevent subsequent aggression and therefore, is not a viable treatment intervention (Olatunji et al., 2007).

A study conducted by Bushman (2002) examined catharsis theory by researching if anger was diffused more effectively through the processes of rumination or distraction. According to Bushman, catharsis theory suggests those who ruminate when angered should have lower levels of anger and aggression compared to those who are either distracted or not engaged in any goal-oriented action. Bushman recruited college students ($N = 600$) who were triggered to anger after being informed essays they had written were criticized by another participant. Next, the students were randomly assigned to distraction, rumination, or control groups. Individuals in the distraction and rumination groups were instructed to hit a punching bag as long, hard, and as many times as they desired, while those in the control group sat quietly. While hitting the punch bag, participants in the distraction group were instructed to concurrently think of becoming physically healthy as they viewed a photo of a same-sex athlete. Those in the rumination group were told to consider the person who critiqued their essay while viewing a picture of a same-sex person identified as being the critic (in reality, there was no real reviewer of the essays). Anger was measured using a mood form containing 15 adjectives for hostility (e.g., annoyed, furious, angry). Aggression was measured by allowing the students to sound aversive noises through headphones toward the person who allegedly criticized their essay.

Outcomes of the study indicated angry participants, who were allowed to hit a punching bag while thinking of the target of their anger and subsequently permitted to deliver loud noises to the same people who angered them, were angrier (F [2, 594] =

5.23, $p < .01$) and more aggressive (F [2, 594] = 5.03, $p < .01$) than the participants assigned to the comparison and control conditions. Bushman contradicted catharsis theory by concluding that rumination appears to increase anger and aggression, rather than dispelling it, and taking no action is overall more effective than venting when angry.

Olatunji et al. (2007) identified numerous research studies examining the validity of catharsis theory. Venting exercises ranging from pounding nails (Hornberger, 1959), giving negative ratings on evaluation forms (Goldman, Keck, & O'Learly, 1969), participation in physically aggressive sporting events (Patterson, 1974; Russell, 1981, 1983), and verbally expressing hostility toward former employers (Ebbesen, Duncan, & Konecni, 1975) resulted in either an increase in hostility and/or promotion of subsequent aggression. Although individuals may report feeling a reduction in tension and physiological arousal upon venting pent up anger, it is not effective in situations where the target is in a position of power, or when anger is inappropriately displaced on a safe person or inanimate object (Olatunji et al., 2007).

A similar standpoint regarding the cathartic expression of anger is also held by those outside clinical and research environments. Thubten Chodron, an American Buddhist nun, recognized therapists often encourage clients to "let their anger out" (Chodron, p. 5, 2008) or conversely, question if the Buddha advocated for the suppression of anger. She pointed out when anger is repressed, unresolved anger is masked and patience is not practiced. On the contrary, pounding inanimate objects or screaming in isolation as a means to express anger does not resolve frustration and hostility. According to Chodron, not only does venting anger serve a temporary and limited purpose, it contributes to the formation of unhealthy habits. Rather than avoiding

its existence or acting out when upset, Chodron emphasized the importance of recognizing and dissolving anger through meditative practices that cultivate patience, awareness, acceptance, and kindness. With increased wisdom and clarity of mind, situations that typically trigger anger may be perceived differently. When such a shift in perspective occurs, the escalation of angry reactivity is sidestepped allowing the individual to respond with wisdom, tolerance, and compassion.

Although research exists that contradicts the catharsis theory of anger and collectively challenges the role of "venting" as an effective strategy for the reduction of anger and aggression, the outcome of Bushman's study (2002) suggested that rumination additionally plays a role in the elevation of anger and aggression. According to Borders, Earleywine, and Jajodia (2010), rumination is defined as "repetitive, uncontrollable thoughts about negative internal or external experiences" (p. 28). An examination of past research suggested that rumination intensifies anger and hostility, may exacerbate physiological arousal, trigger more aggression when individuals perceive they are being provoked, and stir up memories of past experiences that may elicit new anger incidents (Borders et al., 2010; Wright et al., 2009). Teasdale (1999) proposed that mindfulness techniques may disrupt patterns of rumination through the non-judgmental observation of thoughts. By means of mindful awareness, individuals are offered the space to divert their focus on more skillful responses and, therefore, be more effective in the present moment (Baer, 2003). This was examined by Borders et al. (2010) who evaluated the relationship between mindfulness, rumination, and aggression. Their research supported the idea that mindfulness may diminish rumination and in doing so, lessen aggressive behaviors.

Overview of Mindfulness

Before focusing on the development, incorporation, and utility of mindfulness-based psychotherapeutic programs in various healthcare settings**,** a review will first be offered to explain the origin of Buddhism and its role in mindfulness. Additionally, the concept and alleviation of suffering from a Buddhist perspective vis-à-vis mindfulness will be described, as well as the general practice of mindfulness skills. In order to introduce the concept of mindfulness, and its effect on the alleviation of suffering for medical and mental health consumers, it is important to briefly provide a historical account of this term.

Buddhism

Buddhism originated approximately 2,500 years ago in an attempt to reduce human suffering after Siddhartha Gautama attained enlightenment and became the Buddha (Gach, 2009; Harvey, 1990). The word "Buddha" is derived from the Sanskrit root "budh" which is interpreted as "to awaken" (Gach, 2009, p. 5) and is a descriptive title meaning "Enlightened One" (Harvey, 1990, p. 1). Although Siddhartha Gautama is seen as the founder of Buddhism, the emphasis of Buddhism is not on the person, but rather on the wisdom teachings of the Buddha and the awakening that his lessons offer (Harvey, 1990).

Prince Siddhartha Gautama was born approximately 560 B.C.E. in a kingdom between what is now known as India and Nepal (Gach, 2009). In an effort to ensure Siddhartha would succeed him one day as ruler, his father sheltered him within the lavishness of the palace walls, and controlled the environment when he ventured outside, in order to protect him from reality of human suffering (Gach, 2009; Harvey, 1990). This

proved to be unsuccessful as Siddhartha inevitably came in contact with sickness, aging, and death. As his curiosity grew regarding these human conditions, he left his family at the age of 29 and ventured into the world to search for the meaning of life. After years of study, investigation, contemplation, and meditation, he finally achieved enlightenment at the age of 35 while sitting under a Bodhi tree (Harvey, 1990). With the mental clarity that occurred as a result of being enlightened, the Buddha described the origin of suffering and the path for its alleviation.

Suffering

Human beings do not want to be helplessly bound by feelings of confusion, fear, uncertainty, and discontent (Hagen, 1999). Despite a basic desire to avoid discomfort and be free from pain, the human condition is prone to suffering. Suffering can arise when humans experience physical sickness, chronic pain, emotional distress, grief, aging, and dying.

Humans will be "perpetually disappointed by a changing and unsatisfactory world" if never-ending fulfillment is expected (Harvey, 1990, p. 53). Going further, the experience of suffering is intensified and exacerbated when the cause of suffering is seen as permanent and immovable. The universal human phenomena of attempting to bring about happiness by resisting things we do not want, or clinging to things we desire, is an ill-advised method to lessen discomfort and end suffering.

It is commonly known that medical practitioners have examined the sources of disease and prevention of illness. Mental health providers ranging from psychiatrists, psychologists, professional counselors, marriage and family therapists, clinical social workers, and human service practitioners are in helping relationships with those suffering

with emotional distress. Theories and interventions utilized by various mental health professionals are diverse and widespread, but regardless of the heterogeneity of these practitioners, they share the objective of remediating problems and helping clients feel better through the therapeutic relationship. Suffering can be assuaged when counseling interventions successfully help individuals change the way they relate to their identified problems (Germer, 2005a). In order for true relief from suffering to occur, it is important for individuals to recognize that their situation is not "uniquely personal, unchangeable, or generalized to all aspects of life" and "no matter what the situation, one has the freedom to choose how to perceive and understand it" (Yahne & Miller, 1999, p. 225).

Miller and Thoresen (1999) defined suffering as a "form of unhealth" (p. 4) and is a general reason people seek help. Furthermore, they proposed that, if health is to be viewed more than the mere absence of disease, it is the duty of healthcare professionals to look beyond the limited task of generally identifying and abolishing disease and illness and consider the larger duty of improving the richness and quality of life. Humans have a desire to escape from the pain of suffering and, if avoided, they miss a great learning opportunity that it affords (Rubin, 1996). It is further asserted when people go through a process of understanding and accepting painful situations, suffering can greatly enhance lives (Rubin, 1996). Through the process of working through suffering, people can expect "greater knowledge, openness, sensitivity, compassion, and passion" (Rubin, 1996, p. 91) to be delivered. Bearing in mind this proclamation, mindfulness-based interventions are warranted, considering mindfulness affects positive change, augments healing, and empowers the individual.

The medical model's conceptualization of suffering considers it to be a symptom of an underlying disease, psychological arrest or injury, or distorted beliefs, thoughts, or behaviors that have been learned. As a result, treatment is prescribed to reduce the symptoms by attending to source of the disorder (Cottone, 2012; Fulton, 2009). This traditional model of suffering contrasts with the Buddhist formulation where there is no escape from the impermanence in life. Suffering is viewed as originating from attempts to capture and maintain what is pleasing and rejecting and avoiding what is displeasing. Siegel, Germer, and Olendzki (2009) indicated that many mental health practitioners prematurely focus on solving an individual's problem and, therefore, sidestep the importance of self-understanding and acceptance. These researchers emphasized that, when humans attempt to evade problems through "change-seeking activity" (p. 19), emotional and behavioral distress is inadvertently intensified.

Counseling professionals should be alert to the risk of causing unintentional harm when the sole focus is on resolving a client's problem, but if correctly utilized, mindful awareness can be considered a "strategic correction to some modern treatment trends" (Siegel et al., 2009, pp. 18-19). Incorporating a few tenets of Buddhist philosophy, where suffering is seen to arise from one's pulling and pushing, individuals can reinterpret the concept of suffering from an oppressive condition into an illuminating experience. When such a shift in perspective occurs, a possible antidote for suffering is set in motion. Because of this, it is advocated that mindfulness-based interventions be incorporated into treatment programs. By practicing nonjudgmental awareness and acceptance of what is happening in the present moment of their experience, individuals are offered the ability to

sidestep symptom management and ultimately be released from unhealthy habitual patterns.

Alleviation of Suffering

After his enlightenment, the Buddha said, "I teach one thing and one thing only, suffering and the end of suffering" (Gach, 2009, p. 77). In the first sermon after his enlightenment, the Buddha described Four Noble Truths that serve as the foundation of Buddhism and represent the basic principles to mitigate suffering. The Four Noble Truths are as follows (Pandita, 1997, p. 9):

1. Truth of suffering.
2. Truth of the origin of suffering.
3. Truth of the cessation of suffering.
4. Truth of the way leading to the cessation of suffering.

The First Noble Truth is where the Buddha introduces the universal phenomenon of suffering or "dukkha." Dukkha refers to "all those things which are unpleasant, imperfect, and which we would like to be otherwise" (Harvey, 1990, p. 48). The Buddha's Second Noble Truth, the arising of suffering, involves "not getting what one wants, having to cope with what one does not want, and confusion about conflicting desires" (Olendzki, 2005, p. 290). Plainly stated, suffering is manifested when humans crave and cling to what is pleasurable (i.e., desiring permanence), while avoiding and rejecting things considered unpleasant. At the source of afflictions, craving and desire are typically nearby (Hagen, 1999).

This leads to the Third Noble Truth where the Buddha taught all that begins, eventually ends (Hagen, 1999). By shifting expectations of how things *should* be in life,

to simply noticing how things *are* in life, the Buddha suggests we can be liberated from suffering (Hagen, 1999). If human suffering derives from craving or rejecting, then it may be lessened when attachments to rigid outcomes are loosened. Herein lies the key to how mindfulness strategies, such as non-judgmental acknowledgement and open acceptance, contribute to the attenuation of suffering. Lastly, the Buddha's Fourth Noble Truth offers liberation from suffering by following eight guidelines for ethical, moral, and mental development (Segall, 2003) known as the Noble Eightfold Path. The Eightfold Path includes discourses on (a) right view, (b) right intention, (c) right speech, (d) right action, (e) right livelihood, (f) right effort, (g) right mindfulness, and (h) right meditation (Hagen, 1999, p. 53).

Harvey (1990) described the Four Noble Truths as being comparable to certain aspects associated with the practice of medicine where doctors (a) diagnose an illness, (b) identify the origin of the disease, (c) make a prognosis by determining if it is treatable, and (d) develop a treatment plan for the cure. In this respect, with mindfulness being at the core of Buddhism, the Buddha offers a strategy for the diagnosis and treatment of suffering and therefore, corresponds with the role of a healthcare practitioner who identifies a problem and offers a curative remedy (Olendzki, 2005). Although this medical model paradigm may not appeal to counseling professionals preferring to emphasize the human potential, as opposed to focusing on the pathological features of the individual, it is important to point out that nonjudgmental acceptance and mindfulness practice are seen in both Buddhist traditions and humanistic counseling (Dryden & Still, 2006). This is further made evident when considering humanistic counselors already model the basic tenets of mindfulness when accepting and non-critical responses are

offered to clients through the act of unconditional positive regard. Mindfulness-based practices present an option for audiences looking for empirically supported interventions, underpinned by Buddhist philosophy, where acceptance of thoughts, feelings, and behaviors is emphasized rather than the diagnosis and alleviation of pathology (Dryden & Still, 2006). Whether the counseling professional is already aligned with the humanistic movement, or for those desiring to shift their theoretical model away from the dehumanization of symptom management, employing mindfulness-based interventions into practice presents the opportunity to help individuals attain their goals and achieve their full potential.

Mindfulness Practice

The Buddha taught feelings, thoughts, and perceptions are known as they arise, as they linger, and as they come to an end (Bodhi, 2002). Mindfulness, a "tool for observing how the mind creates suffering moment by moment" (Siegel et al., 2009, p. 26), allows individuals to carefully pay attention with thoughtful regard to what is happening in the present experience. Mindfulness includes both formal and informal practices (Germer, 2013). Meditation, a *formal* practice, is not to be confused with *informal* practices of integrating mindfulness skills into daily life. Formal meditation involves training the mind to sustain attention as the practitioner observes and learns how the mind operates (Germer, 2013). This type of mediation is typically associated with sitting in a fixed posture for an extended period of time while focusing on the breath, a mantra, or sounds in the environment as they develop and fade. As the mind wanders and gets caught up in its content, the meditator gently notices and then returns awareness to the object of meditation (Germer, 2013).

In contrast, informal mindfulness practice involves directing attention in everyday life to any event, emotion, sensation, or action while simply being aware and noting the present moment experience. Examples include labeling feelings, noticing sounds, or being aware of physical sensations and smells while brushing teeth, walking, eating, or washing dishes. Regardless of formal meditation or informal mindfulness practices, a misconception is that these exercises should be suggested to clients to induce a state of relaxation for the mind and body (Germer, 2013). Although of benefit, mindfulness is not about relaxing or creating an alternate mind state, but is the disciplined process of exploring how the mind works and developing the ability to receive our experiences in an open, compassionate, and nonjudgmental way (Germer, 2013).

An operational definition of mindfulness is "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment" (Kabat-Zinn, 2003, p. 145). Shapiro and Carlson (2009) defined mindfulness as a "knowing and experiencing of life as it arises and passes...a way of relating to all experiences in an open, receptive way...freedom from grasping and from wanting anything to be different. It simply knows and accepts" (p. 5). Although problems are inherent in life, humans experience contentment when believed to be in command of stressful situations. When people, however, view their efforts as ineffective for dealing with pressures in life, then depression, anxiety, fear, anger, and feelings of helplessness will ensue (Kabat-Zinn, 1990). When problematic conditions arise beyond the immediate control of an individual, the impetus for frustration, anxiety, and despair is set in motion. The impact of stress can be exacerbated when people attempt to avoid reality by engaging in mind-altering substances or pleasure-seeking

behaviors. This avoidance compounds the reality of the actual problem and is a counterproductive approach of coping with stressful conditions.

Although there is no panacea that will solve all of life's problems, consciously "learning to work with the very stress and pain" that we encounter can promote greater health and well-being (Kabat-Zinn, 1990, p. 2). With the integration of mindfulness and acceptance-based interventions in counseling practice, individuals may awaken to the freedom that is offered by being with and accepting whatever is happening during each transient moment of their lives. When this approach is taken, people are granted "a wider, more generous, more enlightened perspective" (Chodron, 1997, p. 16) advancing their capacity to actualize healthier outcomes through authentic living.

Mindfulness-Based Therapeutic Programs

The funding for the research and publication of studies on mindfulness, as well as its use in the treatment of mental health conditions, is growing significantly (Kabat-Zinn, 2003). Considering the growing popularity of incorporating mindfulness skills into healthcare services, and increased empirical research studying the effectiveness of mindfulness-based interventions in mental health settings, this rapidly expanding area of practice will be reviewed. Abridged descriptions of therapeutic modalities embracing mindfulness strategies are also incorporated including Mindfulness-Based Stress Reduction (Kabat-Zinn, 1990), Mindfulness-Based Cognitive Therapy (Segal, Williams, &Teasdale, 2002), Dialectical Behavior Therapy (Linehan, 1993a), Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999), and Mindfulness-Based Relapse Prevention for Addictive Behaviors (Bowen, Chawla, & Marlatt, 2011).

Mindfulness-Based Stress Reduction

Kabat-Zinn was a leader in bringing mindfulness into the healthcare setting when he developed the mindfulness-based stress reduction (MBSR) program. The founding director of the Stress Reduction Clinic and Professor of Medicine Emeritus at the University of Massachusetts Medical School, he is known for using mindfulness techniques with individuals struggling with chronic pain and stress-related disorders. Developed in 1979, MBSR is an 8 to 10 week program where 30-35 participants meet weekly for 2-3 hours and one eight hour day for instruction on meditation, yoga, body scanning, and mindfulness techniques (Baer, 2003; Kabat-Zinn, 1990; Praissman, 2008; Shapiro & Carlson, 2009).

Mindfulness, a method to deeply investigate oneself through the process of paying attention, is established "by assuming the stance of an impartial witness to your own experience" (Kabat-Zinn, 1990, p. 33). The cultivation of mindfulness strategies through "moment-to-moment awareness" (Kabat-Zinn, 1990, p.11) consequently allows people to recognize that painful conditions are fleeting, which can lead to a greater sense of control over their lives and ultimately lessen, if not alleviate, suffering. Shapiro, Astin, Bishop, and Cordova (2005) summarized the main principles of MBSR as helping participants to develop a nonjudgmental awareness of emotions, cognitions, and sensations in the present moment, to abandon any ruminations about the past or fears of the future and therefore, to increase understanding of their individually conditioned dysfunctional reactions to stress. Ultimately, the goal of generating healthier adaptive coping strategies may be achieved through the act of fully accepting whatever is happening in the here and now. Kabat-Zinn (2003) indicated with the success of MBSR supporting its reason for

development, the model was further developed and expanded into a full range of training programs that are incorporated into environments where medical illnesses and psychological issues are of primary concern.

Mindfulness-Based Cognitive Therapy

After the publication of Kabat-Zinn's (1990) book *Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Overcome Pain, Stress and Illness* and research outcomes citing the efficacy of mindfulness-based stress reduction (MBSR), the interest in this alternative treatment was piqued in healthcare professionals, and variations of MBSR for the treatment of mental health disorders soon emerged (Shapiro & Carlson, 2009). A group intervention known as mindfulness-based cognitive therapy (MBCT) arose out of the need for an effective treatment approach aimed at preventing relapse for people diagnosed with a major depressive episode (Segal, Williams, &Teasdale, 2002; Teasdale, Segal, & Williams, 2000). Traditional principles of cognitive therapy are designed to help clients recognize how negative thoughts and beliefs can contribute to and foster depression, and, if challenged by disputing and correcting these distorted cognitions, the clients' mood can be elevated. MBCT offered an alternative method for managing depression.

Similar to basic cognitive strategies, participants are encouraged to develop awareness of their own negative thought patterns. Rather than focusing on refuting the thoughts, MBCT invites clients to allow these thoughts to come and to go and when seen as an impermanent situation, the thoughts will arise and fall of their own accord and, therefore, bypass the escalation of negative thoughts into ruminative patterns. Additionally, the person is taught that a depressed mood leads to depressed thoughts and

consequently, leads to the belief that these thoughts represent reality. They are encouraged to see these thoughts as fleeting cognitions separate from themselves that are not necessarily true representations or validations of reality (Baer, 2003; Shapiro & Carlson, 2009). Clients are taught that "thoughts are not facts" (Germer, 2005b, p. 125) and instead of attempting to debate them away through conventional cognitive-behavioral techniques, they are encouraged to observe them as they arise and maintain a state of present moment awareness as they fall away. Empirical research conducted by Teasdale et al. (2000) describes MBCT as a valid therapy for the prevention of relapse in people diagnosed with recurrent depression and further suggests mindfulness-based interventions are of therapeutic value.

Dialectical Behavior Therapy

Dialectical Behavior Therapy (DBT) blends mindfulness-based practices with modern psychological treatments by integrating the concepts of acceptance and change (Linehan, 1993a). DBT is a comprehensive treatment program consisting of individual therapy and year-long weekly group sessions designed for the treatment of borderline personality disorder (BPD) involving the mindfulness skills of non-judgmentally observing thoughts, emotions, and sensations as they occur (Linehan, 1993a). An integral characteristic of this therapy emphasizes dialectics or the balance and synthesis of opposing forces. In DBT, skills training is offered to correct maladaptive behavioral skills that are typical for individuals diagnosed with BPD. Linehan (1993a) identified the general goal of skills training in DBT is "to learn and refine skills in changing behavioral, emotional, and thinking patterns associated with problems in living that are causing misery and distress" (p. 144).

Although DBT encompasses behavioral interventions for distress tolerance, emotion regulation, and interpersonal effectiveness, core mindfulness skills are relevant to all other DBT skills and are woven throughout the treatment module. Mindfulness is fundamental in DBT as this skill allows clients to accept and tolerate strong emotions when confronting dysfunctional habits or managing distressing situations. In DBT, the client is taught to nonjudgmentally observe self and others while maintaining awareness of the current situation, be effective in the present moment, let go of worries for the past and future, and, therefore, change dysfunctional responses in order to enhance the quality of life (Rizvi, Welch, & Dimidjian, 2009). Since its introduction, the validity and efficacy of DBT in the treatment of borderline personality disorder is empirically demonstrated through a large collection of studies (Shapiro & Carlson, 2009).

Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) springs from Relational Frame Theory (RFT) that attempts to explain all human language and cognition; therefore, the foundation of ACT is based upon how people define and prolong their troubles through the human process of knowing and language (Hayes, Strosahl, & Wilson, 1999). Fletcher and Hayes (2005) pointed out suffering is manifested through the processes of comparing, evaluating, and explaining as people interface with the world through the filter of language. Derived from this background, ACT is seen as a contextual therapy as it "attempts to alter the social/verbal context rather than the form or content of clinical relevant behavior" (Hayes et al., 1999, p. 19).

Similar to other theories previously described where mood is influenced by negative thoughts and people attempt to alter states of mind by refuting negative

cognitions, ACT also supports the belief that people attempt to manage their lives through the use of language. A core difference for ACT is rather than altering the mood through debating dysfunctional thoughts, ACT places emphasis on the nonjudgmental observation and acceptance of thoughts as they are in the present moment while changing behaviors in the service of chosen values (Fletcher & Hayes, 2005; Shapiro & Carlson, 2009).

An ACT term, cognitive fusion, suggests that people see thoughts as truths that govern emotions and behaviors. Through the process of cognitive defusion, clients are taught techniques to see thoughts for what they are, not what they say they are, and in so doing, the believability of the thoughts is diminished (Fletcher & Hayes, 2005). An aim of ACT is to help clients see thoughts, feelings, and behaviors as entities separate from the actual person experiencing them (Baer, 2003; Shapiro & Carlson, 2009) such that the thought "I'm a failure" becomes "I'm having the thought that I'm a failure" (Shapiro & Carlson, 2009, pp. 56-57). ACT fosters a nonjudgmental acceptance of what the person is experiencing, seeing these thoughts as passing events and, therefore, freeing the individual from the attachment to and influence of language (Fletcher & Hayes, 2005; Shapiro & Carlson, 2009). As a result, the person can achieve increased "psychological flexibility" (Fletcher & Hayes, 2005, p. 319) contributing to the quest for a meaningful life. Fletcher and Hayes (2005) summarized a growing number of studies demonstrating the effectiveness of ACT for the treatment of depression, substance abuse, psychosis, and anxiety, including improved functioning among individuals treated in medical settings.

Mindfulness-Based Relapse Prevention

Bowen, Chawla, and Marlatt (2011) integrated conventional relapse prevention strategies with core components of MBSR (Kabat-Zinn, 1990) and MBCT (Teasdale et al., 2000) resulting in Mindfulness-Based Relapse Prevention for Addictive Behaviors. Mindfulness-Based Relapse Prevention (MBRP) is an eight-week group therapy aimed at the prevention and management of relapse for addictive behaviors. A main objective of MBRP is to reinforce sobriety maintenance and consolidate recovery goals for clients continuing therapy in an outpatient aftercare program after finishing initial treatment for substance abuse and addiction. This group intervention trains clients how to sharpen awareness of their personal triggers, unhealthy patterns, and automatic reactions in the service of urges and cravings. In addition, individuals are taught to pause, observe, consider their options, and then respond wisely to whatever is occurring in the moment. Ideally, these techniques free clients from being locked into harmful patterns associated with relapse to addictive behaviors.

A hallmark of MBRP is to help clients develop the ability to non-judgmentally notice the rising and falling of cravings and urges and therefore, releasing them from automatically reacting as they occur. Clients are offered the space to bypass their habitual pattern of immediately satisfying triggers through a process called “urge surfing” (Bowen et al., 2011, p. 66). Coaching clients on the urge surfing technique offers them a strategy to mindfully notice that a craving or urge will rise and fall like an ocean wave, resulting in the newfound knowledge that a choice exists to stay fully present until the cravings and urges subside versus immediately reacting at their onset. Mindfulness-Based Relapse Prevention offers clients a cost-effective alternative to traditional relapse

prevention strategies by fusing established relapse prevention interventions with mindfulness meditation practices (Witkiewitz et al., 2005).

A pilot efficacy trial of MBRP was conducted by the research team at the University of Washington's Addictive Behaviors Research Center (Bowen et al., 2009). One hundred sixty-eight adults were recruited from a public service agency following discharge from either an inpatient or intensive outpatient level of care for substance use disorder. Participants were randomly assigned to an eight-week MBRP course or to a treatment as usual (TAU) condition involving standard outpatient aftercare services such as 12-step meetings and psychoeducation and process groups. Participation in MBRP involved attending group for two hours each week where mindfulness meditation practices were taught and practiced. Between-session assignments included the practice of meditation exercises using audio recordings and completing worksheets and other exercises to identify triggers and increase awareness of individual reactivity patterns in response to challenging situations. Questionnaires measuring affect, craving, substance use, mindfulness, acceptance, meditation practice, and therapeutic alliance were given at baseline, upon completion of the MBRP intervention, and two and four months following MBRP.

When comparing the MBRP participants with the TAU group, the MBRP group reported significant reductions in cravings (Wald χ^2 (7, N = 166) = 37.60, p < .001), greater acceptance (Wald χ^2 (7, N = 163) = 16.25, p =.02), and enhanced ability to respond with awareness (Wald χ^2 (7, N = 165) = 13.03, p =.07). The outcome data also revealed fewer days of reported substance use over the eight-week course (MBRP = 0.1; TAU = 2.6) and two months following treatment (MBRP = 2.1; TAU = 5.4) when

comparing MBRP with the TAU group, respectively. By the end of the four-month follow-up, differences in days of use between the two groups diminished (IRR = 1.11, *p* = .21).

According to research team, the outcomes of this randomized pilot trial were encouraging and supported the initial efficacy of MBRP and the theoretical underpinnings from which it was developed (Bowen et al, 2009; Bowen et al., 2011). Due to the recent release of the clinician's manual, the potential widespread and long-term efficacy of MBRP warrants ongoing examination. This task is sponsored by the developers of MBRP who acknowledged that future research is desired to examine the strengths, limitations, and the potential need to adapt MBRP for specific populations in various settings (Bowen et al., 2011).

Outcomes of Mindfulness-Based Interventions

Up to this point, the concept of mindfulness has been summarized, along with a general overview of the five main treatment programs where mindfulness skills are intentionally incorporated. Because mindfulness-based interventions have improved the health and well-being of individuals, an examination of the empirical literature demonstrating the effectiveness of mindfulness for the treatment of mental health conditions will be presented. Since mindfulness techniques were introduced in healthcare settings for psychiatric conditions, a wealth of research have been conducted examining the empirical validity of implementing this strategy.

Hofmann, Sawyer, Witt, and Oh (2010) conducted a meta-analytic review of 39 quantitative studies to examine the effect of mindfulness-based therapy (MBT) on anxiety and depression on 1,140 adult participants diagnosed with a variety of psychiatric

and medical illnesses including depression, generalized anxiety, and cancer. The majority of the examined studies incorporated measurements of mood and/or anxiety symptoms and utilized Mindfulness-Based Stress Reduction (Kabat-Zinn, 1983) or Mindfulness-Based Cognitive Therapy (Segal et al., 2002) as the delivered intervention. It was hypothesized that anxiety and depression symptoms would be reduced for participants receiving MBT within a psychiatric population, as well as those experiencing depression and anxiety related to a medical condition. They concluded that MBT was moderately effective for improving anxiety (Hedge's $g = 0.63$) and mood (Hedge's $g = 0.59$) symptoms. Large effect sizes were associated with individuals diagnosed with mood and anxiety disorders as they experienced greater symptom reduction in both anxiety (Hedge's $g = 0.97$) and depression (Hedge's $g = 0.95$). These meta-analytic reviewers concluded that MBT yields promising results for individuals within clinical populations experiencing anxiety and depressive symptoms regardless of the symptoms attachment to a primary medical condition.

The utility of mindfulness and acceptance-based approaches is also being examined in the treatment of various mental health issues including eating disorders (Baer, Fischer, & Huss, 2005), relapse prevention in substance abuse and addiction (Appel & Kim-Appel, 2009; Breslin, Zack, & McMain, 2002), trauma-related problems (Follette, Palm, & Pearson, 2006), marriage and family relationships (Gambrel & Keeling, 2010), helping children manage difficult emotions (Goodman & Greenland, 2009), and impact on attentional control, cognitive style, and affect (Chambers, Lo, & Allen, 2008). Furthermore, a review of the literature suggested the application of mindfulness skills is being adopted and investigated in various modalities ranging from

individual and group (Nimmanheminda, 2008), inpatient settings (Didonna, 2009), as well as for people in healthcare settings receiving treatment ranging from cancer to HIV (Campbell, Labelle, Bacon, Faris, & Carlson, 2012; Gayner et al., 2012). For the purpose of this review, studies examining the effect of mindfulness-based interventions on depression, anxiety, substance abuse, anger, and empathy will be described. An additional focus will include a review of mindfulness-based interventions offered within correctional populations.

Mindfulness-Based Therapy and Depression

Teasdale et al. (2000) conducted an initial study to evaluate the effects of mindfulness-based cognitive therapy (MBCT) as a relapse prevention strategy for individuals in remission or recovery from major depression. MBCT teaches individuals to increase awareness of their thoughts and feelings, shift their perception that cognitive and emotional experiences are merely mental events and not indicators of reality, and enabling individuals to change their relationship with depression-related feelings and thoughts. When these successfully occur, it is proposed that the spiraling of negative thinking patterns related to relapse/recurrence may be bypassed. With a sample size of 145 adults in remission or recovery from depression, relapse recurrence to major depression was observed for 60 weeks. Participants were randomly assigned to groups- either treatment as usual (TAU), such as receiving care from an established healthcare provider when a return of symptoms or other difficulties was experienced, or TAU in conjunction with MBCT. The 60-week period began with an eight week MBCT intervention and concluded after follow-up was completed within an additional year. To assess for severity of depressive symptoms, the Hamilton Rate Scaled for Depression

(HRSD) and Beck Depression Inventory (BDI) were used at baseline, after completion of the eight MBCT sessions, and bimonthly during the 52 week follow-up period. Although clients with only two previous episodes of depression did not benefit from MBCT, the primary result of their study indicated 77% (105/137) of individuals with three or more previous episodes of depression experienced noteworthy outcomes. Representing a 44% reduction in relapse to recurrent major depression, there was a 66% relapse rate among the TAU group compared to 37% of those assigned to the experimental group ($h = 0.59$). These researchers concluded that MBCT, either as a stand-alone or adjunctive intervention, may be a cost-effective treatment strategy for relapse prevention among individuals in recovery from recurrent depression.

Ma and Teasdale (2004) continued to study the effect of MBCT on recovered recurrently depressed clients who had experienced at least two or more depressive episodes ($N = 75$) by randomizing participants to either treatment as usual (TAU) or TAU plus MBCT. The outcome of this trial resulted in similar outcomes as the study conducted by Teasdale et al. (2000) and, therefore, replicated previous findings. Relapse was reduced from 78% to 36% in 55 participants with three or more previous episodes. A larger effect size ($h = 0.88$) was noted, however, when their study was compared with Teasdale et al.'s reported medium effect size ($h = 0.59$). For individuals with two or less prior episodes, results were not as strong for those who had later onset of depression and less childhood stressors. Rate of relapse/recurrence was 50% for the MBCT participants compared to 20% in the TAU participants. For this group of two or less, relapse was often associated with a major life event (e.g., marital separation, death of parent, life threatening illness) that triggered the return of a depressive episode. The researchers also

indicated that the participants with two depressive episodes compared to those with three or more came from different base populations. They, therefore, suggested the two groups may have individual treatment needs. It was concluded that MBCT is most effective in preventing relapse related to internally provoked depression (rather than environmental antecedents). MBCT appears to offer a promising intervention to reduce relapse/recurrence in clients diagnosed with recurrent major depressive disorder whose first episode occurred early in life preceded by childhood adversity.

Continuing to examine the effects of mindfulness on depressive disorders, Beckerman and Corbett (2010) published a case study demonstrating the applicability of integrating mindfulness-based skills training with cognitive therapy within individual practice for relapse prevention of depression. Prior to undergoing this specific treatment strategy, the client experienced numerous relapses of depressive episodes for several years despite involvement in psychodynamically oriented psychotherapy and psychopharmacology. Symptomatology was assessed using DSM-IV criteria, the Hamilton Rating Scale for depression (HAM-D), and the client's self-report. Using components of MBCT of meditation, deep breathing, nonjudgmental observation and awareness, and attentional control, the client was able to avoid engagement in a negative ruminative thought pattern that typically led back to depression. After achieving stability for a year, the client voluntarily decided to end therapy. It was noted that he continued to maintain stabilization of mood when his status was obtained almost two years later. Although the client reportedly continued to take antidepressant medications post individual treatment, Beckerman and Corbett suggested that mindfulness practice played a contributing role in the client's relapse prevention process. These researchers

acknowledged the limitation of a single subject review but, nevertheless, advocated for the integration of mindfulness practice with cognitive therapy for people with considerable histories of depressive episodes (i.e., three or more relapses or recurrences).

Mindfulness-Based Therapy and Anxiety

Kocovski, Fleming, and Rector (2009) studied the effectiveness of Mindfulness and Acceptance-Based Group Therapy (MAGT) for social anxiety disorder. Forty-two participants diagnosed with social anxiety disorder were enrolled in an open trial of MAGT, primarily based on ACT and incorporating mindfulness from Mindfulness-Based Cognitive Therapy (MBCT). Nine questionnaires measuring social anxiety, mindfulness and acceptance, depression, and rumination were completed over four measurement periods: baseline, six weeks, 12 weeks post treatment, and a three month follow-up session. Of the initial 42, 29 participants completed treatment with outcomes of the study showing significant reductions in social anxiety (d = 1.09 to 1.17); depression (d = .79); and ruminations (d = 1.05), with considerable increases in mindfulness (d = .71 to .81) and acceptance (d = 1.17). Kocovski et al. (2009) supported the use of MAGT in the treatment of social anxiety disorder and concluded it is a practical intervention for clients with this diagnosis.

To further inspect how mindfulness skills may be a viable intervention for anxiety disorders, one group researched whether MBCT is effective as an adjunct to psychopharmacology in people diagnosed with panic disorder. Kim et al. (2010) recruited 23 individuals from CHA University School of Medicine in Korea for participation in an eight week MBCT program. The MCBT manual was translated into Korean to preserve the integrity of the treatment. Anxiety assessment instruments,

namely The Hamilton Anxiety Rating Scale (HAM-A), Beck Anxiety Inventory (BAI), and Panic Disorder Severity Scale (PDSS), were used to measure the participants' anxiety at baseline and again at 8 weeks after completion of the MBCT program. Three psychiatrists with three years of specialized MBCT education and training led the 90 minute weekly group therapy sessions. After completing the eight week MCBT group program that included homework assignments using an audio recording, results indicated that MBCT significantly reduced anxiety. According to a pairwise comparison, results were statistically significant as evidenced by a decrease in the HAM-A and PDSS scores at the 2nd, 4th, and 8th week measurement period when compared to baseline scores (HAM-A, $p < 0.01$; PDSS, $p < 0.01$). Furthermore, 65% ($n = 23$) of the patients no longer met diagnostic criteria for panic disorder at one-year follow-up. Outcomes such as these led the research team to conclude that MBCT, when concurrently provided to individuals diagnosed with panic disorder, is an effective addition to the psychopharmacological treatment protocol. Kim et al. advised future studies should include a better research design with a larger number of participants.

According to the *Diagnostic and Statistical Manual of Mental Disorders*, 5th edition (American Psychiatric Association, 2013), a common symptom of Obsessive-Compulsive Disorder (OCD), another anxiety disorder, is recurrent, persistent, and intrusive thoughts. The effect of mindfulness-based therapy as a treatment intervention for people experiencing obsessive-intrusive thoughts was examined by Wilkinson-Tough, Bocci, Thorne, and Herlihy (2010). Emphasizing daily practice, interventions began with a relaxation control technique and concluded with six mindfulness-based sessions developed from descriptions taken out of the Dialectical Behavioral Therapy (DBT) skills

training manual (Linehan, 1993b). Falling below clinical levels on the Yale-Brown Obsessive-Compulsive Scale, all participants ($N = 3$) exhibited reductions in obsessions at the end of therapy as evidenced by scores ranging between 8 to13. Feedback was collected after therapy to obtain each participant's experience of the mindfulness-based intervention. Results indicated mindfulness skills enhanced awareness, observation, acceptance, and non-reaction to thoughts. Conversely, participants identified limitations of the mindfulness-based therapy including difficulty finding time to begin and finish detailed exercises, and feeling overwhelmed after becoming increasingly aware of the impact of OCD. Wilkinson-Tough et al. (2010) suggested mindfulness may be helpful for people experiencing unwanted and intrusive thoughts associated with Obsessive-Compulsive Disorder, but acknowledged the small sample size of their study was a limitation and recommended that future research include a larger number of research participants.

Roemer, Orsillo, and Salters-Pedneault (2008) developed a model termed Acceptance-Based Behavior Therapy (ABBT) for the treatment of generalized anxiety disorder (GAD). Acceptance-Based Behavior Therapy was built upon cognitive behavioral strategies and techniques taken from Acceptance and Commitment Therapy (ACT), Dialectical Behavior Therapy (DBT), and Mindfulness-Based Cognitive Therapy (MBCT). The protocol focused on increasing awareness of anxiety responses, emotions, and how judgment and avoidance play a role in the intensification of distress. Random assignment was conducted to place 31 participants in immediate ($n = 15$) or delayed ($n = 16$) treatment groups. Participants received instruction on mindfulness practices for 16 individual sessions lasting 60 to 90 minutes each. In addition, they practiced informal

and formal mindfulness exercises on a daily basis and completed written exercises. Seven measures were administered to assess for anxiety, worry, depression, quality of life, avoidance, and mindfulness. Effect sizes ranged from medium to large at all measurement periods: posttreatment (d = 0.57 - 2.97); 3-month follow-up (d = 0.71 – 2.83); and 9-month follow-up (d = 0.69 – 2.34). At the post-treatment, 78% (n =18) of the participants who completed treatment (N = 23) did not exhibit diagnostic criteria for GAD. Despite providing initial support that ABBT may offer for the treatment of GAD, it was recommended that future research include a comparison to an active treatment group and examine the mechanisms of change influencing the results observed in their study.

Because the Mindfulness-Based Stress Reduction (MBSR) program has been efficacious in reducing symptoms of stress, depression, and anxiety, Goldin and Gross (2010) examined the effect MBSR had on altering emotional reactivity and regulating negative self-beliefs in people diagnosed with social anxiety disorder. While reacting to negative self-beliefs and attempting to regulate negative emotions using breath-focused and distraction-focused attention techniques, 16 adults were examined at baseline using a clinical diagnostic interview, online behavioral questionnaires measuring social anxiety, depression, rumination, state anxiety, and self-esteem, and completion of magnetic resonance (MR) scanning, After finishing two months of MBSR training, 14 subjects returned to complete the same assessments administered at pretest, including another functional MR. Results yielded: improvement in self-esteem; reduction in anxiety, depression, and negative emotional reactivity; decreased amygdala activity and increased activity in brain regions associated with attention. Although the researchers suggested

MBSR training in clients diagnosed with social anxiety disorder may reduce emotional reactivity and enhance emotion regulation, several limitations were noted. For example, they acknowledged their research design was missing a control active comparison clinical intervention group. Additionally, breath-focused attention at the nostrils was the only mindfulness practice within their examination. Because of this, results cannot be generalized to other forms of mindfulness attention practice such as those focusing on sound, taste, and other bodily sensations. Future studies were recommended to incorporate mindfulness-based questionnaires to assess for changes in mindfulness skills from baseline to post-intervention.

Mindfulness-Based Therapy and Substance Use

Empirically-based research incorporating mindfulness-based interventions for the treatment of substance use disorders is becoming prevalent in clinical and academic environments. Considered a leader in field of addictions, G. Alan Marlatt was instrumental in bringing mindfulness-based practices into the research setting as evidenced by the numerous publications to which he contributed in the decade prior to his death in 2011 (Marlatt, 2002; Marlatt et al., 2004; Leigh, Bowen, & Marlatt, 2005; Witkiewitz et al., 2005; Witkiewitz, Marlatt, & Walker, 2006; Bowen et al., 2006; Bowen, Witkiewitz, Dillworth, & Marlatt, 2007; Ostafin & Marlatt, 2008; Zgierska et al., 2009; Bowen et al., 2009; Bowen & Marlatt, 2009; Collins et al., 2009; Brewer, Bowen, Smith, Marlatt, & Potenza, 2010; Bowen et al., 2011; Wupperman et al., 2012). Because the primary intervention used in this dissertation research study will be based upon Mindfulness-Based Relapse Prevention (Bowen et al., 2011; Witkewitz et al., 2005), a

review of the literature focusing on the development and outcomes of this program will be specifically emphasized.

Marlatt's interest in meditation and Buddhist psychology grew in the 1970s and 1980s (Bowen et al., 2011; Marlatt, 2002). After attending a 10-day meditation retreat, Marlatt reported coming to the realization that mindfulness meditation may be an effective practice for individuals managing urges and cravings associated with addictions. Years later, he was approached by a psychologist at a minimum-security jail in Seattle, Washington who requested that Marlatt conduct research examining the effects of a Vipassana meditation (VM) course on alcohol and drug use among inmates. This request evolved in a grant supported research study that represented the first step in assessing the efficacy of VM as a treatment intervention for substance use (Bowen et al., 2006).

Nine gender-segregated 10-day meditation courses were conducted over a 15 month period to evaluate the effectiveness of VM on reducing substance use, and its associated difficulties, upon release from the incarcerated setting. Individuals who volunteered to participate in the VM course were compared to those in the treatment-as-usual (TAU) population (e.g., mental health services, substance abuse education and treatment, case management, vocational programs). Self-report assessments given at baseline, three month, and six month follow-up measured the following: (a) drinking and drug use; (b) impulse control, social responsibility, and intrapersonal consequences; (c) perceptions of control; (d) thought suppression; (e) severity of psychiatric symptoms; and (f) optimism.

At baseline, 305 inmates completed assessments (VM = 63; TAU = 242), while only 173 finished post course evaluations (VM = 57; TAU = 116). At the three month

measurement, 87 remained (VM = 29; TAU = 51), and at the final assessment period six months following release from jail, ten additional participants dropped out (VM = 27; TAU = 51). Systematic attrition biases were examined, but no statistically significant differences ($\alpha = .05$) were found between participants who completed the first three assessments with those who dropped out of the study.

For individuals who participated in the Vipassana meditation course, results at the three month follow-up indicated there were statistically significant reductions in mean use of alcohol (64.83 to 8.38 drinks per peak week), crack cocaine (29% to 10% days used), and marijuana (28% to 3% days used). When regression weights were examined, a statistically significant relationship was found between participation in the VM course and outcomes at the three month measurement period on psychiatric symptoms ($\beta = -.17$, $p < .05$), drinking locus of control ($\beta = -.21$, $p < .05$), and optimism ($\beta = .23$, $p < .05$).

Although results from Bowen et al.'s (2006) study offered initial support for using VM in correctional settings as a substance use disorder treatment, several limitations were noted. The lack of random assignment limited the researchers' ability to conclude it was the VM intervention, and no other variables, that influenced the outcomes. Another limitation relates to the absence of questionnaires assessing for adherence and mindfulness. Incorporating assessments of these types could help determine if the inmates correctly understood and accurately practiced the meditation techniques. Lastly, a 10-day residential VM course may restrict others from participating due to inability commit to an intensive schedule where sitting for long periods of time in silence represents a challenge. Despite these limitations, results of this study suggested that mindfulness-based interventions may be a clinically useful approach for the treatment of

substance use and mental health conditions. In line with the researchers' future recommendations, a parallel program incorporating mindfulness-based practices for the treatment of addictive behavior (Witkiewitz et al., 2005; Witkiewitz et al., 2006) was offered based upon Mindfulness-Based Stress Reduction (Kabat-Zinn, 1982) and Mindfulness-Based Cognitive Therapy for depression (Segal et al., 2002).

An investigation was conducted by Bowen and Marlatt (2009) to determine the effects of mindfulness on smoking-related urges and behaviors. Of the 123 participants, 61 received brief mindfulness-based instructions while the remaining members were advised to cope with urges in the same manner they normally would. Those in the mindfulness group were taught to nonjudgmentally pay attention to and accept sensations, thoughts, and urges to smoke without attempting to alter or eliminate them. Additionally, they were asked to "ride" (Bowen & Marlatt, 2009, p. 668) the urge like waves, rather than strongly resisting or surrendering to the desire to use. Although results did not demonstrate a statistically significant difference on measures of urges, participants in the mindfulness group experienced a 26% decrease in number of cigarettes smoked per day in the seven day follow-up period compared to only an 11% decrease for those in the control group. Even though this study did not provide evidence for differences of urges or negative affect, it was suggested that smoking behavior may be altered when individuals are given brief instruction on the mindfulness-based skills. The authors suggest the use of acceptance and mindfulness-based strategies attenuate maladaptive reactions in response to unpleasant experiences. Rather than focusing on the strength of urges as assessed by their study, Bowen and Marlatt suggested future studies

measure responses to urges, as well as include the assessment of responses to urges as a mediator of the effect of mindfulness practices on habitual behaviors.

Although research outcomes suggest mindfulness is a mechanism of change leading to the reduction of symptoms clinical populations, the factors contributing to increased mindfulness are not well known (Bowen & Kurz, 2012). Using data collected from a pilot efficacy trial of an eight week MBRP program (Bowen et al., 2009), Bowen and Kurz (2012) conducted a secondary analysis in order to investigate the factors leadings to increased mindfulness among those who completed the course (N = 93). They also focused their examination on the relationship between increased mindfulness skills and the influence of the therapeutic alliance, as well as the time spent practicing mindfulness exercises between the MBRP weekly sessions. The self-report questionnaires used to measure therapeutic alliance and mindfulness skills were the Working Alliance Inventory-Short Form (WAI-S) and the Five Facet Mindfulness Questionnaire (FFMQ), respectively. In order to assess engagement in meditation practice, participants self-identified the average length of time and frequency spent practicing meditation exercises each week. This information was collected after four weeks of participating in MBRP and again at the end of the eight week program.

Among the discovered outcomes of this study, there was a statistically significant relationship between increased mindfulness at end of the MBRP course and amount of time dedicated for meditation practice between-sessions ($\beta = .338$, $t\ (30) = 2.23$, $p = .033$). This same result was not revealed at the two month ($\beta = .327$, $t\ (26) = 1.94$, $p = .065$) and four month ($\beta = .233$, $t\ (28) = 1.43$, $p = .164$) follow-up measurement periods. Client's perception of the therapeutic alliance was a statistically significant predictor of

enhanced mindfulness only at post course and the two month follow-up. Future researchers are recommended to further review the influence of meditation practice and therapeutic alliance on increasing mindfulness, along with examining other variables that may increase mindfulness and contribute to the long-term maintenance of mindfulness skills acquired through mindfulness-based treatment programs.

A study conducted by Grow, Collins, Harrop, and Marlatt (2015) examined the relationship between treatment enactment (i.e., home practice) and alcohol and other drug use and craving with participants involved in a mindfulness-based relapse prevention course. Assessing substance use, alcohol and drug cravings, and home mindfulness practice, 93 adult participants who had received Mindfulness-Based Relapse Prevention training in a previous study were measured at baseline, post-intervention, and at 2- and 4-month follow-up periods.

Over the course of the study, the participants increased the time they spent practicing mindfulness at home. Outcomes of the study demonstrated that although treatment gains faded at the 2- and 4-month follow-ups once the participants returned to routine aftercare services that did not include mindfulness-based interventions, increased home practice was associated with statistically significantly reductions in substance use cravings ($\chi 2$ [5, N = 92] = 86.92, $p < .001$) and alcohol and other drug use ($\chi 2$ [5, N = 93] = 57.25, $p < .001$). These researchers suggested that building mindfulness practice into daily life plays an important role in recovery following MBRP treatment. Grow et al. recommended that MBRP instructors target post-treatment decline with ongoing mindfulness practice groups to promote a sense of community and prolong the effects of MBRP treatment.

Mindfulness-Based Therapy and Anger and Aggression

Described by Wupperman et al. (2012), behavioral dysregulation is "characterized by difficulty inhibiting harmful behavior (e.g., substance abuse, aggression, binge eating), which can lead to marked impairments in social, physical, and occupational functioning" (p. 50). Deficiencies in traits associated with mindfulness, such as awareness, attention, and acceptance of the present moment, play a part in the various mental health and substance use disorders that are impacted by behavioral dysregulation (Wupperman et al., 2012). Encouragingly, a body of research has been recognized examining the inverse effects of mindfulness on negative emotions, binge eating, substance abuse, gambling, self-injury, impulsivity, interpersonal conflict, and aggression (Wupperman et al., 2012).

Because of the demonstrated effectiveness of mindfulness on a variety of disorders underpinned by dysregulated behaviors, a pilot study was designed by Wupperman et al. (2012) to treat alcohol use and aggression in women. A new therapy titled Mindfulness and Modification Therapy (MMT) was offered to 14 women who met criteria for alcohol abuse and were recently arrested for violence toward a partner or adult household member. Since this therapy model emphasizes the therapeutic relationship within individual sessions or small groups of 10 or less that may be individualized for the client based upon need, and includes a special focus on behavioral dysregulation, MMT is distinct from Mindfulness-Based Relapse Prevention. Referral sources included substance abuse treatment centers, probation offices, and family courts. Each woman voluntarily attended an initial 90-minute individual therapy session followed by one hour session for the next 11 weeks. Interventions designed to build mindfulness-related skills aimed at enhancing the ability to experience and tolerate negative emotions, thoughts,

and urges included formal and informal daily meditation exercises. Participants were given CDs containing guided meditations for home practice. They were also asked to document their experiences on a daily log. The Timeline Follow-Back Assessment Method (TLFB) was given at baseline, during each weekly individual session, and at posttreatment to assess drinking, drug, use, and physical aggression. Screens for alcohol and drugs were given weekly using breath analyzers and urine analysis. Thirteen of the 14 participants completed all 12 sessions.

Comparing the four weeks preceding treatment to the final four sessions, large effect sizes were noted for the number of days engaged in drinking ($r = 0.62$), average number of drinks ingested per day ($r = 0.63$), and days of drug use ($r = 0.63$). In the four weeks prior to the program, 13 of 14 (93%) women admitted to having at least one episode of aggression, but by the end stages of treatment, a statistically significant reduction was observed as no participant self-reported being physically aggressive during the final four weeks of treatment ($r = .68$). Using surveys given at the conclusion of treatment, the women evaluated the treatment as being very helpful and actually desired for it to be longer. Outcomes of this study supported the efficacy of mindfulness-based skills with people experiencing behavioral dysregulation including substance use and violence. It also supports the ability to engage individuals, who otherwise may be considered difficult, in a therapy involving mindfulness meditative practices and considerable homework assignments. Recommendations for future studies should incorporate reports from collateral sources and not rely on self-report alone when assessing aggression and chemical use.

Not only do aggressive behaviors impact those within the criminal justice system, it interferes with the ability of people with development disabilities to integrate into community living environments. Because of this barrier, a mindfulness-based self-control intervention for aggression was developed for use with an adult male diagnosed with mental retardation and mental illness (Singh, Wahler, Adkins, & Meyers, 2003). These researchers stated psychotropic and behavioral interventions are not generally successful in reducing psychiatric institutional recidivism rates for people with developmental disabilities. Through the process of increasing awareness of what was occurring within the internal and external environment, they suggested a single intervention mindfulness strategy could help a 27-year old male regulate his verbal and physical aggression.

From childhood to adult years, "James" had a history of admissions to institutions, psychiatric hospitals, foster care, and group homes. It was soon known that he had a pattern of aggressive behavior and was refused placement in community group homes until he was able to remain in a psychiatric facility without exhibiting aggressive behavior for six months. When he was referred to Singh et al. (2003) for alternate treatment, "James" had seriously injured a group home peer. Historical data from the previous 12 months were collected from James' medical records and behavior reports. Themes identified from these data were used to identify targets for the intervention phase. Such target variables included occurrence of verbal and physical aggression, circumstances triggering aggression, occurrences when self-control was demonstrated, frequency of emergency use of psychiatric medications to reduce agitation, incidences of

using physical restraints, injuries to others, and number of occasions when James was able to engage in social and physical activities with others.

After baseline observations were made, James was taught a single mindfulness meditative technique targeting increased awareness of internal and external stimuli. When encountering aversive triggers having the potential to lead to an aggressive reaction, James was taught to divert attention from these stimuli to an emotionally neutral part of his body. Termed *Soles of the Feet,* this procedure provides instruction on stopping, observing emotions and thoughts without reacting, focusing the mind on a part of the body (i.e., the soles of his feet), relaxing, and deciding how to respond to the aversive trigger once clarity of mind is attained. Supervised role-play and practice sessions were given to James twice daily for 30 minutes. After five days of receiving this instruction, he was assigned home practice sessions for an additional week before he was informed to begin use of the technique. A 12-month treatment phase was followed by another year of subsequent observations.

Reductions in the mean number of occurrences of incidents, aggression, emergency medication use, restraints, and injuries to others were observed during the treatment phase. Increases in self-control and social and physical integration activities were also seen. All changes were maintained through the 12-month follow-up period. Additional outcomes include discontinuation of medication for aggressive behaviors, change in psychiatric diagnosis, and eventual discharge into a community group home where he met criteria for placement. The researchers concluded the mindfulness-meditative technique practiced by James led to significant changes in his behavior. They suggested James' high motivation level, along with positive changes in his caregivers'

attitudes toward him as he displayed self-control, may have contributed to the results. Acknowledging the limitations of a solitary, uncontrolled case study, Singh et al. (2003) encouraged future studies to replicate similar investigations using an experimental design.

According to Devilly, Sorbello, Eccleston, and Ward (2005), when individuals act as peer educators, motivation increases, self-esteem and confidence improves, and empowerment occurs. This seems to correlate with a later study of Singh et al. (2011) who continued to describe the same 27 year-old male diagnosed with mental illness and an intellectual disability. As previously cited, James was taught to successfully manage his aggression by using mindfulness-based meditation exercises. Of his own volition, this enthusiastic young adult successfully taught the same skills to his peers in the community following completion of his training (Singh et al., 2011). Examining the factors motivating James' endorsement of mindfulness to his peers was beyond the scope of Singh et al.'s study; however, their research suggested that individuals who have been previously trained can effectively teach, motivate, and encourage others as they learn to self-manage maladaptive behaviors.

Continuing to examine the effects of *Meditation on the Soles of the Feet*, Sing, Lancioni, Winton , et al. (2007) used a multiple-baseline across-participants design. Three adult males from an inpatient psychiatric unit with severe and chronic mental illness were referred to anger management treatment due to a pattern of aggressive behaviors that interfered with community placement. Between the participants, diagnoses included schizoaffective disorder, major depression with psychotic systems, antisocial and borderline personality disorders, and history of polysubstance abuse.

Interventions and target variables used in this study were similar to those implemented in Singh et al., (2003). Each participant practiced the *Meditation on the Soles of the Feet* mindfulness meditation technique no less than twice each day. They were also encouraged to implement it when experiencing a situation triggering a possible aggressive reaction. The intervention phase continued until each participant's treatment team decided he no longer represented a risk of harm and was believed to have developed the self-control required to integrate back into the community. At discharge, the participants were encouraged to continue practicing *Meditation on the Soles of the Feet* to further consolidate gains made through meditation.

Follow-up data were gathered during one month each year over a four year period. Data collected showed that as training in mindfulness continued, reductions in verbal and physical aggression were observed. It was also noticed that changes for verbal aggression did not occur as quickly as for physical aggression. These positive effects were maintained over the four year follow-up period with insignificant incidents of verbal aggression and no episodes of physical aggression reported during community placement. Outcomes of this longitudinal study provided support for the use of mindfulness meditation as an effective technique for individuals managing their own aggressive behavior.

A similar follow-up study to examine the effectiveness of *Meditation on the Soles of the Feet* with adolescents diagnosed with conduct disorder (Singh, Lancioni, Singh-Joy, et al., 2007). An adolescent female and two adolescent males at risk of school expulsion due to aggressive behavior were trained on the same mindfulness technique. Target variables included physical aggression, bullying, fire setting, cruelty to animals,

and noncompliance with requests or instructions. Data, collected two weeks prior and throughout the treatment phase, were taken from school records, teachers, and self-reports. An adolescent therapist individually scheduled twelve 15-minute sessions over the course of four weeks. The first session interviewed the participants to assess their level of motivation and willingness to learn and practice a mindfulness skills designed to regulate aggressive behavior. During the second session, *Meditation on the Soles of the Feet* was taught to each adolescent who were encouraged to practice the technique until it became a skill to be used automatically in situations that evoked verbal or physical aggression. Over the course of 10 additional sessions, the participants' use of the mindfulness exercise was discussed and practiced *in vivo*. Thereafter, 15-minute sessions occurred each month over a 25 week period.

Follow-up results obtained during an academic year indicated that aggressive and bullying behavior, although not eliminated, were reduced to a more tolerable level per the expectations of the school administration. Although no changes occurred during the initial training period for one participant, fire setting was reduced by 52% during the 25 week practice sessions. Marginal reductions in cruelty to animals were noted in one male (18%) with very minimal changes in compliance for the female participant (4%). The therapist's report indicated the adolescents' practice of mindfulness become more regular when the outcomes of the technique were more noticeable. Such benefits included increased control, improved sleep, and decreased impulsivity. Although these results were promising, the researchers acknowledged several limitations. The fear of being expelled from school may have prompted the adolescents to participate in an effort to avoid punishment, making generalizability of the results difficult. Incorporating

objective data to measure outcomes, in addition to the use of self-reports, is recommended. Lastly, the ability to extrapolate results from a nonrandomized study without strong control conditions using a small, nonrandomized sample is restricted. Nevertheless, outcomes of this study encouraged ongoing research of mindfulness as a self-regulating, aggression management skill for individuals motivated to participate in their own mental health recovery.

A mixed method procedure was conducted by Wongtongkam, Ward, Day, and Winefield (2014) in order to examine the effects on a mindfulness meditation intervention, based upon the Mindfulness-Based Stress Reduction (MBSR) program, on reducing anger and violence among technical college students in Thailand. Following implementation of the mindfulness-based intervention, the STAXI-2 was administered at one and three months to the experimental group (n = 40) and a no-intervention comparison group of students (n = 56). In addition to administering the STAXI-2, semi-structured interviews were concurrently conducted with the experimental group at the post-intervention measurement periods. Participants were asked to describe their reactions to the mindfulness-based intervention, including any benefits, strengths, and weaknesses. Although results of their quantitative study did not reveal any statistically significant reductions in self-reported anger within subjects, the qualitative data derived from face-to-face interviews with the intervention group suggested the participants developed enhanced self-awareness and self-regulation skills. Participants also described changes related to interactions with friends and family. One theme, behavioral change, related to a reduction in aggressive behavior. The treatment intervention group reported involvement in the mindfulness meditation course helped reduce verbal and physical

aggression. Participants described not being as easily annoyed or prone to anger. They also reported developing new ways of managing anger such as shifting their perspective, not engaging in arguments, and removing themselves from sources of frustration. The researchers concluded by stating that although positive outcomes resulted from participating in the mindfulness-based intervention, more rigorous research is needed, especially through experimental designs, if evidenced-based data is to be established.

Mindfulness-Based Therapy and Empathy

No published studies were located examining the effect of mindfulness-based interventions on empathy building among individuals under the supervision of the correctional system. There also appears to be a lack of qualitative studies investigating the experience of completing mindfulness training and the impact it has on empathy and compassion. When such a study was identified, participants were recruited from among healthcare professionals. A mixed-method approach was adopted by Hopkins and Proeve (2013) who taught mindfulness to 11 trainee psychologists via an eight-week mindfulness-based cognitive therapy program. Dimensions of empathy were measured using the Interpersonal Reactivity Index (IRI) and through analysis of semi-structured interviews.

Quantitative results revealed no significant changes from pre-test to post-course to follow-up evaluation for any of the IRI subscales with the exception of the *fantasy* subscale, which showed statistically significant decreases (X^2_F [df = 2] = 9.27, p < .01). According to Hopkins and Proeve (2013), this finding suggests the participants were less likely to imagine the experiences of others, which is consistent with the mindfulness practice of attending to one's own immediate experience. Analysis of the qualitative data

in this study suggested that mindfulness training may indirectly impact empathy and for that reason, constructs of empathy may be less likely to be accurately quantitatively measured. Rather than enhancing empathic experience, mindfulness skill building may improve the ability to demonstrate empathy. As an example, the trainee psychologists placed more attention on the present moment experience with the client rather than focusing on their own performance anxiety or feelings of discomfort during the work of therapy. In essence, the training seemed to foster the development of meaningful presence. The researchers concluded that additional research is recommended in order to explore the relationship between mindfulness-based skill building training and therapist effectiveness.

A quantitative study was also identified that evaluated the impact of meditation on empathy and compassion on an adolescent minority group. Edwards, Adams, Waldo, Hadfield, and Biegel (2014) conducted a pilot study examining the effects of Mindfulness-Based Stress Reduction, adapted for teens, on 20 Latino middle school students. Self-compassion was among the many variables that were examined. Although there were no significant changes in the self-compassion scores prior to entering the groups (pre-pretest) and when starting the groups (pretest), self-compassion scores significantly increased following the MBSR for Teens intervention (mean change = .26, $t = 2.15$, $p < .05$). The researchers recommended that mindfulness-based groups be offered in school to reduce stress, decrease depression and suffering, and enhance well-being and compassion. Additional evidence is desired to demonstrate the efficacy of offering mindfulness-based groups in schools for students and their parents/guardians and other family members.

Using a qualitative approach, Pruitt and McCollum (2010) interviewed five male and two female advanced practice meditators to explore their perspective of how meditation impacts close relationships. Practicing for a minimum of 10 years and acknowledging meditation practice played a significant role in their lives, seven Caucasian long-term practitioners of meditation participated in phone or face-to-face interviews. The interviews focused on the background of each participant's meditative practice, as well as any trait they believed that developed as a result of meditating and how the trait affected their personal relationships. Awareness of emotions and body sensations, disidentification from thoughts and emotions, acceptance of self, others, and situations were among the various meditative traits that emerged from the interviews. Participants also indicated meditation enabled an attitude of acceptance and a willingness to see life as it is without attempting to change the present moment. They reported being more aware and curiously observant of emotions and thoughts instead of being mindlessly dictated by them. In addition to these traits, lovingkindness and compassion for oneself and others was also identified. The participants believed their meditation practices resulted in the development of qualities and traits that positively affected their close relationships such as decreasing reactivity, promoting safety and freedom in relationships, and recognizing the interconnectedness between people.

Despite these promising results, Pruitt and McCollum (2010) indicated that their study is not without limitations. They acknowledged that the qualitative design of their study did not include a focus on controlling for confounding variables such as age, race, education, and socioeconomic status, all which could have contributed to the reported effects. Outcomes of this study suggested that meditation may positively impact

relationships, but qualitative and quantitative studies grounded in systems theory should be conducted in the future to further explore for correlations.

A qualitative study by Bihari and Mullan (2014) also explored changes in relationships among 11 participants who had completed Mindfulness-Based Cognitive Therapy (MBCT) within the previous 3 years. According to the participants' descriptions during semi-structured interviews, "relating mindfully" (p. 49) to their own experience and to their experiences of others led to positive changes in their relationships. The participants reported being more mindfully aware of internal and external triggers and because of this awareness, they were able to pause, focus on the present moment, and mindfully respond rather than automatically reacting. Participants also described the ability to be more empathic by considering the feelings and perspectives of others. Rather than experiencing frustration and becoming argumentative, these changes positively impacted their ability to communicate more effectively and be more intimate with those around them. Bihari and Mullan (2014) recommended that future research expand the concept of mindfulness from the individual psychological orientation to include the interpersonal relational perspective.

Mindfulness-Based Therapy in Correctional Populations

The criminal justice system within America has experienced varying opinions regarding the efficacy of the rehabilitation model, especially when nonconventional methods of rehabilitation, such as meditation, are endorsed (Hawkins, Orme-Johnson, & Durchholz, 2005). Beginning in the late 1970s, support for rehabilitation diminished in preference for a more punitive model (Hawkins et al., 2005). Additionally, those held in an incarcerated environment are exposed to situations where hostility and aggression may

develop (Haney, 2006), thus underscoring the importance of offering programs to minimize rates of reoffending and readmission to correctional institutions (Himelstein, 2011). Because the justice model does not appear to be highly successful in reducing criminal behavior, a review on the use of Transcendental Meditation (TM) in correctional settings was conducted to demonstrate its effectiveness in reducing crime, pathology, and recidivism (Hawkins et al., 2005). Transcendental Meditation is a meditative practice asserted to quiet the mind and enhance awareness and consciousness through the concentrated practice of focusing attention on a single meditative object (Baer, 2003). The form of meditation is assumed to significantly impact the manner in which a person thinks and acts in offender and non-offender populations (Hawkins et al., 2005).

A review of numerous studies conducted within the correctional system support the significance of TM when utilized as an offender rehabilitation intervention (Hawkins et al., 2005; Himelstein, 2011). Such findings include considerable reductions in emotional hostility, physical aggression, cognitive distortion, substance use, violation of rules, and reconviction rates. Improvements were noted in coping ability, emotional stability, self-esteem, sleep and relaxation, and overall quality of life. In conclusion, Hawkins et al. (2005) expected inmates could experience more peace if they routinely engaged in meditative practice, and for those on parole or probation, the recidivism rate would be lower. They cited optimism for the reception of alternate rehabilitation methods and recommended that state and federal systems support the study of meditation techniques within the correctional system.

Qualitative studies exploring the impact that meditation has on the expression and experience of anger among adult males on probation and parole could not be located.

Nevertheless, past investigations involving various populations examined the effect that mindfulness training has on variables such as mood, esteem, anger, hostility, and aggression. Over a four year period, Samuelson, Carmody, Kabat-Zinn, and Bratt (2007) conducted research within six prisons involving 1,350 male and female inmates. Measures on hostility (i.e., Cook and Medley Hostility Scale), mood disturbance (i.e., Profile of Mood States), and self-esteem (i.e., Rosenberg Self-Esteem Scale) were administered before and after implementing the Mindfulness-Based Stress Reduction (MBSR) program. Change scores were calculated and paired *t*-tests were conducted. Statistically significant results on post-test measures were found at all sites, therefore, suggesting that the MBSR program may have reduced hostility ($p = .0001$), improved mood ($p = .0001$), and increased self-esteem ($p = .0001$). Additionally, female inmates reported greater improvements in all scores compared to the men, while improvements were greater for men in pre-release, minimum-security facilities compared to those housed in medium-security settings. Because of these promising outcomes, the researchers recommended that future studies be conducted to further examine the effects of implementing MBSR with individuals who are sentenced to live in correctional settings.

A longitudinal study examined the effects of a 10-day Vipassana meditation (VM) retreat offered in a maximum security prison located in Alabama (Perelman et al., 2012). Vipassana, meaning "insight," is a form of mindfulness meditation where the practitioner observes and accepts the impermanence of thoughts, feelings, and sensations and therefore, achieving evenness and liberation of mind (Perelman et al., 2012). Adult male inmates (N=127) were followed for one year and given self-report assessments at pretest,

posttest, and follow-up measuring mindfulness, anger, mood, and emotional intelligence. Participation in the study was voluntary and not compensated. A total of 60 inmates took part in a secluded 10-day intensive VM retreat where they sequestered in a private setting. The schedule involved mediating for 11 hours each days and strict silence for the first nine days (i.e., no oral, written, or nonverbal communication could occur except for privately scheduled discussions with their teacher). The remaining participants were enrolled in the comparison group where they participated in a less rigorous small group session for 10 weeks. Their curriculum focused on mindfulness, self-awareness, forgiveness, stress management, and building healthy coping skills.

Compared to the comparison group, the VM group exhibited increased mindfulness, enhanced emotional regulation, and reduced mood disturbance. Although neither group differed in respect to situational anger, the rates of institutional violations were lower for both at the end of one year. This team of researchers also studied the long term effects of meditation on behavioral infractions committed by inmates in an Alabama maximum security prison. Although no significant difference was seen when comparing number of infractions committed by the meditation group with an alternative comparison group at the one year follow-up measurement period, the number of infractions across both groups averaged 0.78 compared to their prior infraction rates of 1.3 per year. Some identified limitations of this longitudinal study included lack of randomization, low levels of baseline institutional infractions for both groups, and higher rates of attrition at follow-up. Although methodological limitations were noted in this study, the researchers stated the need for ongoing research is warranted, especially when taking into account that mindfulness-based exercises were included for both groups.

A longitudinal study conducted by Alexander et al. (2003) retrospectively investigated 286 individuals released from prison for up to 59 months. All inmates learned Transcendental Meditation (TM) while incarcerated. The rate of return to prison for a stay of 30 days or more was statistically less (p = .042), representing a proportionate reduction in recidivism of 33% for inmates who practiced TM (32%) compared to a comparison group of inmates from four other prison programs (48%). The TM group also had lower rates of reincarceration due to new convictions (47% lower; p = .045) and warrants for arrest (27% lower; p = .069). According to these researchers, the outcomes of their study suggest involvement in meditation programs may reduce psychopathology, elevate psychological functioning, and therefore, reduce criminal behavior.

An examination of various peer-reviewed journals and dissertations was performed to assess the outcomes of meditation-based models offered within the correctional system (Himelstein, 2011). Programs were categorized into four types: (a) Transcendental Meditation, (b) 10-day Vipassana meditation retreats, (c) Mindfulness-Based Stress Reduction, and (d) mindfulness-based programs for dissertation research. Although Transcendental Meditation was the most studied program type, enhanced psychological well-being, reduction in substance use, and lower rates of recidivism were commonly identified outcomes of all four meditation-based programs. Recommendations for future research included random assignment, inclusion of control group, attention on juveniles, increased focus on Vipassana retreats and mindfulness-based interventions, and adoption of qualitative and mixed methods to survey the personal experience of those within the correctional system.

A qualitative investigation was conducted with 23 incarcerated male adolescents who participated in an adapted 10-session mindfulness-based intervention (Himelstein, Hastings, Shapiro, & Heery, 2012). Semi-structured interviews occurred directly after the final group session. From among the various results, increases in emotional, behavioral, and cognitive regulation were reported. Participants described how the mindfulness-based treatment helped regulate their experience of anger. Examples included practicing exercises to defuse anger, enhanced self-control, and improved ability to avoid physical altercations.

Pilot studies conducted with incarcerated individuals for substance abuse treatment are sparse and those implementing mindfulness-based interventions are even more scarce (Lee, Bowen, & An-Fu, 2011). Considering this identified limitation, research was conducted to investigate the effects of Mindfulness-Based Relapse Prevention (MBRP) on a sample of adult males within a South Taiwanese drug treatment center who were being held for one year sentences due to drug related charges (Lee et al., 2011). Twenty-four participants were randomly assigned to either the MBRP program (n = 10) or a treatment-as-usual (TAU) group (n = 14) where substance use education was the provided intervention. Although all individuals were users of substances in the past, all reported that they had not taken illicit drugs for at least six months. A 1½ hour MBRP group was offered weekly for 10 sessions. The first four weeks emphasized relapse prevention topics (e.g., risk situations, automatic pilot, coping with craving), and the final six weeks concentrated on mindfulness-based skills (e.g., meditation, awareness of body sensations, letting go of feelings and thoughts). Demographic and drug use information was collected at baseline. Measures were also given at pre- and post-

treatment to assess for positive and negative aspects of drug use and frequency of drug use (Drug Use Identification Disorders Test-Extended) and drug-refusal self-efficacy (Drug Avoidance Self-Efficacy Scale). Using the Beck Depression Inventory-II, and only with the MBRP group, depressive symptoms were assessed weekly beginning at session two.

A MANOVA was used to examine differences between the TAU and MBRP groups at baseline and after the 10-session MBRP group intervention. When comparing individuals in the MBRP sessions with those in the TAU at baseline, the MBRP group used substances less frequently before incarceration and had higher negative expectancies of substance use. Because of baseline differences in the frequency of drug use between the TAU and MBRP groups, the effect of drug use frequency was controlled through a MANOVA analysis at post-course.

A post-course comparison of the MBRP and TAU groups identified a statistically significant effect on negative outcome expectancies of drug use ($F_{1,16} = 8.12$, $p < 0.05$). Within group comparisons revealed significant differences in drug-refusal self-efficacy for both the MBRP ($t = -5.22$, $p < 0.01$) and TAU ($t = -3.29$, $p < 0.05$) groups when comparing pre- and post-session scores. Within group differences also revealed that the MBRP group experienced significant changes in negative aspects of drug use ($t = 2.46$, $p < 0.05$) between the pre- and post-measurement periods, but no significant change was found for the TAU group ($t = -1.66$, $p > 0.01$). For those in MBRP, a *post hoc* comparison showed that depressive symptomatology gradually decreased by the end of the 10-week sessions ($F_{(1,9)} = 110.40$, $p < 0.05$). Between groups results from baseline to post-intervention did not, however, reveal significant changes in positive substance use

expectancies or drug avoidance self-efficacy. The small sample size, lack of follow-up over longer periods to assess changes over time, and the absence of female participants were identified limitations.

Despite these, this cross-cultural study added to the literature by supporting the treatment of substance abuse using MBRP within incarcerated populations. Involving larger sample sizes, inclusion of craving-related and social cognitive factors to examine the mechanisms of MBRP, and longer-term follow-up measuring the impact of MBRP on recidivism and other-related variables were recommendations for future research.

Conclusion

Considering the numerous studies reviewed here, the utilization of mindfulness-based therapy is an efficacious intervention for use within medical and behavioral healthcare, as well as in correctional settings. Based upon the core components and outcomes of mindfulness, it has much to offer professionals and consumers within counseling and correctional fields alike. The joining of modern healthcare and mindfulness-based therapies is a rapidly emerging practice and the growing literature suggests this is a movement that warrants diligent attention and study. It has been acknowledged that programs combining yogic practices and meditation are low-risk and low-cost adjuncts to the treatment of medical illnesses and behavioral problems, as well as in the rehabilitation of individuals within the correctional population (Brown & Gerbarg, 2005). In order to enhance engagement, Brown and Gerbarg (2005) recommended that programs offer access to skilled instructors, promote daily practice, and provide weekly aftercare and support group sessions.

It was expected that an adapted version of *Mindfulness Based Relapse Prevention for Addictive Behaviors* would be a worthwhile method of managing the cognitive and behavioral factors of anger and ultimately, increasing the ability to break conditioned reactions of verbal hostility and physical aggression when anger is evoked. Conducting research involving men who are linked to the criminal justice system not only provided such an occasion to intervene with at-risk individuals supervised by correctional authorities, it also offered the potential to valuably contribute to the literature by examining the use of Mindfulness Based Relapse Prevention as a viable anger management program. This may equip offenders with mindfulness skills that, when effectively used, lessen resistance and suffering, promote awareness and acceptance, increase empathy and compassion, and enhance confidence and self-efficacy as each anger-provoking situation is successfully mastered. The transformation offered through the practice of mindfulness allows individuals to "to lead a peaceful, balanced, and loving life, all the while working for the benefit of others" (Siegel et al., 2009, p. 33).

It is conventional for counselors to focus on the background and historical influences underlying an individual's presenting problem. Additionally, processing a person's distress as he or she expresses concern about future-oriented events is not out of the ordinary within the context of the helping relationship. Based upon this review of the literature, it appears when mindfulness is brought into the human services milieu by concentrating on the immediate experiences of the person, the individual's ability to develop insight, genuinely connect, and wisely respond in the present is magnified. A central quandary shared by healthcare professionals is, "How can I help the patient to be more accepting and aware of his or her experience in the present moment?" (Siegel et al.,

2009, p. 24). By offering individuals the opportunity to nonjudgmentally notice and observe the fleeting nature of their experiences, the choice to constructively engage in healthier responses is bolstered and in turn, negative habitual patterns are broken, emotions are regulated, ambitions are realized, and overall health and well-being is achieved.

CHAPTER THREE

METHODOLOGY

Research Design

This study incorporated a mixed-method design of quantitative and qualitative approaches to investigate the experiences of adult males on probation or parole after attending a mindfulness meditation course. Six men participated in the Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen et al., 2011) program that was adapted by the researcher who integrated a focus on anger management into the eight sessions. Participants over the age of 18 years were voluntarily recruited from Gateway Foundation-Corrections "Free and Clean Program" located in St. Louis, Missouri. The researcher was interested in exploring the overall experiences of the men who attended the course, and if participation in the adapted MBRP protocol resulted in changes in mindfulness skills, empathy-related constructs, anger expression and experience, and field violations and parole revocations. Due to methodological limitations, statistical analyses could not be conducted; however, many benefits were self-reported by the participants during interviews that were held at the end of the study.

Prior to beginning the eight session meditation course and immediately after completing the program, a demographic information sheet and four questionnaires assessing anger experience and expression, mindfulness, empathy, and social desirability/impression management were completed by each participant. A semi-structured interview was included at the end of the eight-week MBRP program to collect data regarding the participants' experiences attending the course and practicing mindfulness-based meditation. Data related to post-treatment violations occurring 30

days after concluding the meditation course was provided by the Research and Evaluation Unit at the Missouri Department of Corrections.

Modification of Initial Research Design

The study was originally designed as a between groups, randomized experimental study. Participants would be randomly assigned to attend an 8-week version of Mindfulness-Based Relapse Prevention (MBRP) for Addictive Behaviors adapted for anger management plus treatment as usual (TAU) or to a TAU-only comparison group. All participants would continue to receive TAU services typically offered to parolees and probationers enrolled in Gateway Foundation-Corrections "Free and Clean Program" (e.g., substance abuse education programming, psychoeducational groups, life skills and cognitive skills training, etc.), but those within the experimental group would additionally receive the MBRP treatment. Four measures would be administered to establish baseline data: (a) the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), (b) the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983), (c) the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), and (d) the Paulhus Deception Scale (PDS; Paulhus, 1998). The same four measures would be given to the experimental and comparison groups upon immediate completion of the 8-week MBRP anger management program (post-test). Field violations and parole revocation data would also be collected from the Missouri Department of Corrections Research and Evaluation Unit 30days following completion of the meditation course. It was hypothesized that adult males on probation or parole who complete MBRP adapted as an anger management treatment protocol would experience less anger and more empathy, develop more mindfulness skills, and commit fewer

occurrences of institutional offending when compared to those in the treatment-as-usual (TAU) comparison group. Due to the small number of registered participants, an early occurrence of attrition, and the high likelihood that ongoing recruitment efforts would not result in a larger pool, the study was modified by using a descriptive design, as well as adding a qualitative research component.

Rationale for Modification of Design

After meeting with Gateway Foundation-Corrections leadership and staff to describe and promote the study, the researcher was given access to meet with parolees and probationers enrolled in group counseling and education classes in Gateway's "Free and Clean" program. The researcher attended 32 group sessions over a two-week period to introduce the study, describe potential compensation, disseminate recruitment flyers (Appendix A), encourage participation, and answer questions. Four registration sessions were offered so all eligible participants could self-select a date that was convenient for their schedules. During each registration session, the purpose of the study was formally described in detail, informed consents were obtained, and pre-test questionnaires were administered.

From among a census of 292 men enrolled in the "Free and Clean" program at the time recruitment efforts began, only 23 individuals registered for the study. Despite the small number, the researcher proceeded with randomly assigning participants to the experimental (n=12) and control groups (n=11). The researcher attempted to meet with all participants the week following the registration sessions to deliver a letter (Appendix B) notifying them of which group they were assigned and providing them a written schedule of research activities. A $5 gift card was also awarded to each participant as

compensation for completing the registration session. The researcher appeared before nine group counseling (GC) and/or group education (GE) sessions during this "notification" week. The date and time the researcher was on-site was based upon the date/time given by each registered participant who indicated when they would be available to receive the notification. Because early in the week several individuals were not present as they previously indicated, the researcher's on-site presence was increased in order to improve the chance of locating the participants. Regardless of this increased effort, two of the 12 participants assigned to the experimental group, and four of the 11 participants assigned to the control group, were not present during the notification week. The researcher asked the primary counselor of each participant to deliver the notification letters to these men. The Probation and/or Probation Officers were also encouraged to offer reminders and support involvement.

Interventions of the researcher to engage Gateway Foundation and Missouri Department of Corrections' staff and clients included notification letters, reminder memos (Appendix C), compensation and incentives, face-to-face conversations, on-site interactions, and staff appreciation. Despite these initiatives, attrition was experienced among the experimental group between the registration period and before the first group session as follows:

- One participant obtained employment before the first session and informed his primary counselor he would not attend the course.
- One participant was admitted to an inpatient facility due to confidential health issues and his first date of attendance could not be predicted.

- Three participants were not present for the first session despite directly being given notification letters the previous week. Upon inquiry, their location was unknown by staff.
- Two participants were absent during the notification week. Upon inquiry, their location was unknown by staff despite being expected to attend treatment as usual at Gateway. One of these two, however, appeared for his routine group at Gateway. He was informed he had been randomly selected to attend the MBRP program and agreed to begin. Once the session began, he was observed to repeatedly close his eyes during the first hour and then exited the session and never returned. After two weeks of collaborating with the primary counselor of the other participant who was absent during the notification week, the participant never appeared.

Four mindfulness group sessions were initially offered each week to accommodate a large number of participants in the experimental group; however, due to the small number of registered participants, only two weekly MBRP sessions were needed after random assignment was completed. The date and time correlated with the participants' typical treatment plan schedule at Gateway for consistency, familiarity, and convenience. The first of the eight weekly sessions were held on September 22, 2014 and September 23, 2014. A portable CD player, batteries, and a two-disc CD set of guided meditation were given to each participant. Snacks and refreshments were also distributed as compensation at the end of each group session. At the end of the first week of conducting the meditation group sessions, only five of the 12 participants assigned to the experimental group attended the full 2 ½ hour session.

Attempting to conduct a second recruitment and intervention period following completion of the first round was not validated by Gateway Foundations-Corrections staff. Various staff indicated that enrolling a larger number in order to obtain statistical significance was not likely to occur related to a pattern of lower attendance during the period of time between the holidays and end of the winter season. This assumption was corroborated by the Clinical Director who assumed that, even if another series was offered, the researcher could consistently expect a small number of individuals to register followed by an unreliable rate of attendance. Additional factors with the potential to hinder the successful implementation of an experimental design with this population became clearly evident after the study actively began. These included:

1. Lack of consistent attendance from clients despite being mandated to attend Gateway Foundation-Corrections.
2. Lack of motivation and treatment engagement from clients.
3. Scheduling limitations (e.g., clients may not have consistent transportation; clients may require more intensive treatment and be removed; clients may obtain employment and are not able to attend as scheduled; clients may be periodically removal from group due to need for random drug testing, interruption due to meeting with a Probation or Parole Officer and/or Gateway counseling staff).
4. Clients may experience chronic mental health and substance abuse issues that interfere with attendance, focus, attention, and participation.
5. Clients may violate terms of their probation or parole, or reoffend, leading to confinement in jail/prison.

Despite all the aforementioned planning and efforts made to increase the likelihood of implementing a successful study, as well as taking into account the barriers previously described, the research design required modification. Instead of testing hypotheses through a pretest-posttest experimental design, descriptive statistics were used to describe the primary features of the data collected and summarize the information in a meaningful way. Data were collected through the same questionnaires included in the original design (i.e., Research Participant Demographic Information Questionnaire, the State-Trait Anger Expression Inventory-2 [anger expression], the Interpersonal Reactivity Index [empathy], the Five Facet Mindfulness Questionnaire [mindfulness skills], the Paulhus Deception Scales [social desirability/impression management], and Institutional Offending [field violations and parole/probation revocation data]). In addition to changing from a between-group randomized control study to a descriptive explanatory study where data were collected only from the participants involved in the MBRP program, a qualitative element was inserted by conducting interviews after the final session of the MBRP course. The modification was approved by the Principal Investigator's dissertation research committee and the Institutional Review Board at the University of Missouri-St. Louis.

Human Subjects Assurance

Prior to the initiation of this study, the Principal Investigator obtained approval from the Office of Research Administration Institutional Review Board at the University of Missouri-St. Louis (Appendix D). The Principal Investigator also obtained approval from the State of Missouri Department of Mental Health, Missouri Department of Corrections, and Gateway Foundation. Approval for conducting research with human subjects was also given by the Professional Review Committee at the State of Missouri

Department of Mental Health (Appendix E), the Planning, Research, and Evaluation Unit at the Missouri Department of Corrections (Appendix F), and the Research Committee at Gateway Foundation (Appendix G). This study was conducted per the research protocols and policies at the University of Missouri-St. Louis, the State of Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation. All human subjects were treated in accordance with the American Counseling Association's code of ethics.

State of Missouri Department of Mental Health

Because the principal investigator was not affiliated with the State of Missouri Department of Mental Health (MDMH), and because the MDMH provides funding to Gateway Foundation-Corrections, approval to conduct this research was required from the MDMH's Professional Review Committee via the "Application for Research with Clients" (Appendix H). Pursuant to Missouri Revised Statutes 630.194, the Principal Investigator was required to submit a "Research in Progress–Regular Review" form every six months for the duration of the research (Appendix I). The 6-month progress reviews were monitored by the office of Laine Young-Walker, M.D., Professional Review Committee Chairperson. When the research project was completed, the Principal Investigator was required to submit a final report of the research. Approval was given by Laine Young-Walker, M.D.

Missouri Department of Corrections

According to the Missouri Department of Corrections (MODOC) website, various programs are governed by the Board of Probation and Parole with the Division of

Probation and Parole. Among these services, "field services" are included and are described as follows:

> Field services encompass the supervision of probationers in the community assigned to the division by the courts, offenders released under supervision by the Parole Board and offenders from other states through the Interstate Compact.
>
> In order to reduce recidivism, field probation and parole officers continuously assess and evaluate offenders assigned to them, and supervise the offenders at a level consistent with their risk to reoffend. The probation and parole officer effectively balances treatment and supervision strategies necessary to manage offender risk with the needs and interests of victims and communities.
>
> This supervision process consists of a number of critical activities including:
>
> - Accurate and ongoing assessment of offender risk and need;
> - Development of effective supervision and treatment plans;
> - Restorative justice practices;
> - Use of appropriate sanctions and strategies to minimize risk and maximize the potential for successful outcomes (Missouri Department of Corrections, 2013)

Missouri Department of Corrections Probation and Parole Officers maintain offices at Gateway Foundation-Corrections. The officers are specifically assigned to provide supervision to parolees and probationers while admitted to Gateway Foundation's "Free and Clean" program. Once the parolees and probationers are discharged from Gateway Foundation-Corrections, supervision resumes under the auspices of regularly assigned field service Probation or Parole Officers who are stationed in the community. Because

the principal investigator was not affiliated with the MODOC, and because the research participants were under the supervision of the MODOC's Division of Probation and Parole, approval to conduct this research was required from the MODOC's "Planning, Research, and Evaluation Unit." The MODOC application process involved adherence to their Department Manual "D1-6 Research and Evaluation" (Appendix J) and completion of a "Transfer Agreement for Research Purposes" (Appendix K). Approval was given by David Oldfield, Director of Research and Evaluation at the MODOC.

Gateway Foundation

According to the organization's website, "Gateway Foundation, a trusted non-profit leader providing drug treatment and alcohol treatment in correctional treatment settings since 1968, currently operates treatment programs for men, women, adolescents, special needs, and dual diagnosis clients involved in the criminal justice system" (Gateway Foundation Corrections, 2014). For services offered to individuals linked to the criminal justice system, Gateway's Community Corrections programs include "intensive and supportive outpatient counseling, re-entry/transition programs, and more highly structured day reporting centers" (Gateway Foundation Corrections, 2014). Since the principal investigator was not affiliated with Gateway Foundation, and because the research participants received treatment services at Gateway Foundation-Corrections in St. Louis, Missouri, approval to conduct this research was required from Gateway Foundation's Research Committee in accordance with the Gateway Foundation "Research Policy: Document Number PS 111" (Appendix L). Additionally, because the principal investigator was not employed by Gateway Foundation-Corrections, the researcher was designated as an intern in order to gain on-site access and privileges for

the purpose of this research study. Approval was given by the Research Committee at Gateway Foundation.

Participants and Setting

Recruitment, data collection, and the weekly group MBRP sessions occurred on-site at Gateway Foundation-Corrections in St. Louis, Missouri. This location was selected to provide a familiar environment in an effort to enhance the participants' level of comfort and maximize the likelihood of attendance. A pool of eligible participants was formed from probationers and parolees who were admitted to Gateway Foundation-Corrections "Free and Clean" program. Although all individuals admitted to the "Free and Clean" program are mandated by the Missouri Department of Corrections (MODOC) to attend outpatient substance abuse counseling services, involvement in the MBRP program was considered voluntary; however, Gateway Foundation-Corrections allowed any participant who attended the weekly MBRP class to receive credit for a group education session in lieu of attending one other required weekly on-site group education session. Because the MODOC requires individuals who are mandated to attend an anger management program receive treatment from a MODOC approved provider, this research study was not considered a substitute, nor did it meet the MODOC's expectations for a mandatory anger management course. Any individual mandated to complete a MODOC anger management course was, nevertheless, allowed to participate in this study if they desired.

According to Pankow and Knight (2012), because substance abuse treatment within community settings is built around constructive peer interactions within group sessions, the treatment milieu will be negatively impacted if there are resistant members

with negative attitudes. It has also been suggested that fuller engagement in treatment and reductions in recidivism can occur when offender rehabilitation programs consider the individual needs of the offender (Ward, Day, Howells, & Birgden, 2004). Additionally, offenders are more likely to be motivated when given the choice of alternative treatments (Miller, 1985). In consideration of this information, the researcher expected that inviting voluntary participation would enhance motivation, decrease treatment resistance, and increase engagement and compliance.

All participants communicated in English and were literate in reading and writing. In order to minimize attrition, any individual qualified for discharge from Gateway Foundation-Corrections "Free and Clean" program within four months from the beginning of the recruitment phase, as well as release from probation or parole, did not meet eligibility requirements. To help control for internal validity, individuals were informed that active and/or experienced practitioners of mindfulness meditation were not eligible to participate in the study.

Sample Size

A pool of 100 participants, for the treatment and comparison groups combined, was initially identified as the ideal number required for this study (N=100). This was determined based upon a review of the literature indicating the average effect size for anger management therapy studies was found to be 0.7 (Beck & Fernandez, 1998). Taking into consideration the effect size of 0.7 for anger management studies, Vannoy and Hoyt (2004) indicated 52 participants (n = 26 experimental group; n = 26 control group) are needed to obtain a statistical power of .80 at a two-tailed significance level of .05. The researcher's objective for this study was to include 100 participants in order to

deal with absence or dropout that might occur. It was understood, however, that a sample size of 50 in the experimental group was not an ideal number to conduct group therapy. In order to make the group size more manageable, the researcher planned to form multiple experimental groups to conduct the MBRP training with each group on a weekly basis. According to the developers of the clinician's guide for MBRP for addictive behaviors, the MBRP program has been facilitated for groups with 18 participants (Bowen et al., 2011) and therefore, $n \leq 18$ per group is feasible. Nevertheless, a small number of participants registered and attrition occurred early in the study and therefore, power and statistical significance could not be achieved. Because of these limitations, modifying the original design of the research as described earlier in this chapter was necessary. In the end, a core group of six participants attended the modified MBRP course, completed both the pre- and post-test questionnaires, and participated in the interviewing process at the end of the program.

Procedure

The researcher frequently met with Gateway Foundation-Correction's leadership staff in advance of initiating recruitment to coordinate the terms of the study. Once the research was approved by all applicable parties, and the logistics of implementing the research at Gateway was completed, the researcher attended a regularly scheduled weekly treatment team meeting approximately one week before recruitment efforts began. The researcher encouraged Gateway-Foundation-Corrections "Free and Clean" leadership to invite all applicable clinical staff and the Missouri Department of Corrections Parole and Probation Officers who maintain offices on-site to attend. The purpose of this meeting was to orient staff to the details of the research and to engage their support. The

researcher provided copies of the recruitment flyer to the Assistant Director of the "Free and Clean" program so she could disseminate the information to the clinical and correctional system staff in advance of the team meeting.

After meeting with Gateway Foundation-Corrections staff, the researcher returned the following week to begin recruitment efforts. Thirty-two counseling and educational group sessions were attended over a two-week period by the researcher. A recruitment flyer was disseminated to all potential participants during these times to introduce the study and identify the dates, times, and on-site group room location where interested individuals could appear for the forthcoming registration sessions. The week after the promotion of the research was completed, the researcher offered four on-site registration sessions. A total of 23 individuals were in attendance to sign the "Informed Consent for Participation in Research Activities" form and the "HIPAA Authorization Form" (Appendices M & N). The informed consent and HIPAA authorization forms were read aloud by the principal investigator to the participants. This provided an opportunity to review all aspects of the consent form including, but not limited to, a description of the study, what each participant may expect, and limits of confidentiality. Incorporated within the informed consent, risks and benefits associated with this study were identified, including a description of the efforts that would be made to reduce risk, minimize discomfort, and prevent harm to participants. The investigator encouraged all participants to ask questions and discuss concerns before written consent was obtained. Involvement in the research study was considered voluntary and participants were advised they may choose not to participate in this research study or to withdraw consent at any time. Participants were informed they would not be penalized in any way should

they choose not to participate or to withdraw. Per the requirement of Gateway Foundation's Research Committee, a copy of every signed consent form was given to Gateway Foundation-Corrections for placement in each individual's clinical record.

All individuals who signed the consent forms also completed questionnaires during the registration meetings (pre-test measurement period). These included a "Research Participant Demographic Information Questionnaire" (Appendix O), the State-Trait Anger Expression Inventory-2 (Appendix P), the Interpersonal Reactivity Index (Appendix Q), the Five Facet Mindfulness Questionnaire (Appendix R), and the Paulhus Deception Scales (Appendix S). Rather than identifying each participant's name, all questionnaires included an individually assigned code. The principal investigator maintained a confidential copy of a key that was used to link the assigned code with the identity of the participant in order to remove pre-test data for those who did not complete the research. Confidentiality was maintained in accordance with State/Federal/ethical guidelines, as well as in accordance with the policies of the University of Missouri-St. Louis, State of Missouri Department of Mental Health, Missouri Department of Corrections, and Gateway Foundation. The researcher kept all data and personally identifiable information private, locked in a secure area, and used the information only for the purpose of this study. The Principal Investigator will destroy all questionnaires 12 months after completing data analysis, and will retain all signed consent documents for at least three years past the conclusion of the research activity.

After all consent forms and pre-test questionnaires were completed during the registration sessions, participants were randomly assigned to either the experimental or comparison group. The week following the registration sessions, the Principal

Investigator returned to Gateway Foundation-Corrections to provide notification letters informing each individual which research group he was assigned. Each participant was given a $5 gift card to a fast food restaurant as compensation for completing the registration session. The week following the notification period, the MBRP group sessions began. Two separate MBRP sessions were offered each week for a total of eight weeks. At the request of Gateway Foundation-Corrections, a weekly record identifying the group topic and the individuals in attendance was submitted to the agency's office manager.

At the eighth MBRP session, six participants remained. These individuals completed four post-test measures: State-Trait Anger Expression Inventory-2; Interpersonal Reactivity Index; Five Facet Mindfulness Questionnaire; and the Paulhus Deception Scales. As mentioned in the "Rationale for Modification of Design" section, the design was later modified because a small number of participants remained due to low enrollment and subsequent attrition. Once approval to modify the study was granted by the researcher's dissertation committee and the Institutional Review Board at the University of Missouri-St. Louis, a second informed consent to conduct audio recorded interviews was obtained from the remaining course participants (Appendix T). At the conclusion of the MBRP course, five of the six participants attended group interviews. The sixth participant was not able to join the group interview due to his employment schedule and required an individual meeting. Thirty days following the final session, the Missouri Department of Corrections Research and Evaluation Unit provided a condensed listing of correctional system involvement on the six participants who attended the MBRP course, including field violations and parole revocation data. Before the research

design was modified, participants placed in the comparison group were informed that those desiring to attend the MBRP course would be given the opportunity to do so at the end of the study; however, no interest was expressed after the eight-week program concluded.

Data Collection Methods

After consents were signed, a demographic questionnaire was given to all participants at the pre-test collection period. In addition, four measures were administered to establish baseline data. These included the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983), the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), and the Paulhus Deception Scale (PDS; Paulhus, 1998). The same measures were given to all participants after the 8-week MBRP course ended. Field violation and parole revocation data was also collected from the Missouri Department of Corrections.

Research Participant Demographic Information Questionnaire

A "Research Participant Demographic Information Questionnaire" was administered prior to beginning the first MBRP session. Demographic information collected included (a) age, (b) race/ethnicity, (c) sexual orientation, (d) relationship status, (e) employment status, (f) education level, (g) religiosity/religion preference, and (h) history of criminal offenses.

State-Trait Anger Expression Inventory-2

For the purpose of this study, anger was measured by the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). Spielberger (1999) defined state

anger as a "psychobiological emotional state or condition marked by subjective feelings that vary in intensity from mild irritation or annoyance to intense fury and rage" (p. 1). Trait anger is defined as "individual differences in the disposition to perceive a wide range of situations as annoying or frustrating and by the tendency to respond to such situations with elevations in state anger" (Spielberger, 1999, p. 1).

As described in the professional manual (Spielberger, 1999, pp. 4 & 6), the STAXI-2 consists of a 57 item, 4-point Likert-type scale on which individuals report on their experience and expression of anger over three sections: (a) *How I Feel Right Now* (15 items); (b) *How I Generally Feel* (10 items); and (c) *How I Generally React When Angry or Furious* (32 items). For the first section (i.e., State Anger items), respondents select the answer that best describes their present feelings ranging from *Not at all* (1) to *Very much so* (4). For the second section (i.e., Trait Anger items), respondents mark the answer that best describes how they generally feel. Possible answers range from *Almost never* (1) to *Almost always* (4). On the third section (i.e., Anger Expression and Anger Control items), respondents choose an answer to indicate how often they generally react or behave when feeling angry or furious. The possible range of answers is the same as those available in the *How I Generally Feel* section.

The STAXI-2 has six scales, five subscales, and an Anger Expression Index (Spielberger, 1999). The six scales are: (a) State Anger (*S-Ang*) which measures the current intensity of angry feelings as well as the extent to which an individual feels like expressing anger at a particular time; (b) Trait Anger (*T-Ang*) which measures how often angry feelings are experienced over time; (c) Anger Expression-Out (*AX-O*) which measures how often anger is expressed outwardly in verbally or physically aggressive

behavior; (d) Anger Expression-In (*AX-I)* which measures how often anger is experienced but not expressed and/or is suppressed; (e) Anger Control-Out (*AC*-O) which measures how often a person controls the outward expression of anger; and (f) Anger Control-In (*AC-I*) which measures how often an individual attempts to control anger by calming down.

Within the State Anger scale, the three subscales are: (a) Feeling Angry (*S-Ang/*F) which measures the current intensity of angry feelings; (b) Feel Like Expressing Anger Verbally (*S-Ang/V*) which measures the intensity of the angry feelings the individual is currently experiencing related to the verbal expression of anger; and (c) Feel Like Expressing Anger Physically (*S-Ang/*P) which measures the intensity of the angry feelings the individual is currently experiencing related to the physical expression of anger (Spielberger, 1999). Scores on the State Anger scale can range from 15 (*low*) to 60 (*high*) and the scores on each of State Anger scale's subscales can range from 5 (*low*) to 20 (*high*).

Within the Trait Anger scale (Spielberger, 1999), the two subscales are Anger Temperament (*T-Ang/*T) which measures the disposition to experience anger without specifically being provoked, and Anger Reaction (*T-Ang/R*) which measures the frequency that angry feelings are experienced in situations that involve frustration and/or negative evaluations. Scores on the Trait Anger scale can range from 10 (*low*) to 40 (*high*) and the scores on the two subscales of the Trait Anger scale can range from 4 (*low*) to 16 (*high*).

For the Anger Expression-Out, Anger Expression-In, Anger Control-Out, and Anger Control-In scales, the scores on each can range from 8 (*low*) to 32 (*high*). Based

on the scores of these four scales, the Anger Expression Index (*AX Index)* is an overall measure of the expression and control of anger and is computed using the following formula: *AX Index* = *AX-O* + *AX-I* – (*AC-O* + *AC-I*) + 48 (Spielberger, 1999, p. 5). The possible scores on the Anger Expression Index score range from 0 (*low)* to 96 (*high*).

Per the STAXI-2 professional manual (Spielberger, 1999), it is appropriate to use *T*-scores for the purposes of research. *T*-scores, which are standardized to have a mean of 50 and a standard deviation of 10, can provide information comparing an individual's score with the scores of participants in the sample. Individuals whose *T*-score is 65 or higher on a STAXI-2 scale/subscale may experience interpersonal relationship problems and/or be prone to developing a physical illness or psychological disorder (Spielberger, 1999). Additionally, an individual with two or more *T*-scores in the range of 60 to 64 may be at risk.

Two normative samples for the STAXI-2 comprised of 276 hospitalized psychiatric patients and 1,644 adults labeled as "normal" (Speilberger, 1999, p. 9). Internal consistency reliability for the STAXI-2 ranges from .73 to .95 for the scales and .73 to .93 for the subscales (Freeman & Klecker, 2003). According to the professional manual (Spielberger, 1999), high alpha coefficients for internal reliability for all subscales were found (.84 or higher) except for the Trait Anger Scale/Angry Reaction (0.73 for males and 0.76 for females) for those adults in the "normal" sample. Research supporting the concurrent validity of the original STAXI *T-Anger* scale in comparison to the Hostility and Overt Hostility scales of the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & MicKinley, 1967) and the Buss-Durkee Hostility Inventory (BDHI; Buss & Durkee, 1957) have been conducted (Spielberger, 1999).

According to the STAXI-2 manual (Spielberger, 1999), significant correlations of the STAXI *T-Anger* scale with the MMPI scales and BDHI were found across samples of males and females recruited from undergraduate college student and Navy recruits (*N*=550), therefore, providing evidence to support the concurrent validity of the *T-Anger* scale as a measure of anger and hostility. An even stronger correlation was observed with the BDHI regarding the concepts of anger and hostility. Spielberger (1999) also indicated correlations of the STAXI *S-Anger* and *T-Anger* scales have been found with the Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) in a large sample of college students (*N*=879). Past research reported correlations between the STAXI and the State-Trait Personality Inventory (STPI; Spielberger, 1979), therefore, supporting the convergent and divergent validity of the STAXI Anger Expression scales (Spielberger, 1999).

Interpersonal Reactivity Index

In this study, empathy was measured using the Interpersonal Reactivity Index (Davis, 1980, 1983). The Interpersonal Reactivity Index (IRI) is a 28-item self-report measure consisting of four 7-item subscales, each tapping a separate facet of the overall concept of empathy: *fantasy, perspective-taking*, *empathic concern*, and *personal distress* (Davis, 1980, 1983). Empathy, considered a regulator of aggression, is "the ability to feel the experiences or to adopt the viewpoint of another" (Peterson & Flanders, 2005, p. 136). Davis (1983) broadly defined empathy as the "reactions of one individual to the observed experiences of another" (p. 113). The IRI was not developed in an effort to offer an overall or global measure of empathy but rather, was designed to provide continuous measures of empathy-related constructs as they occur in normal populations

(Appendix U). Each of the 28 items on this self-report questionnaire was answered by selecting the appropriate letter on the scale (A, B, C, D, or E) to indicate how well it describes the individual. Responses range between A "*does not describe me well*" to E "*describes me very well*." After responses were given, a 0 – 4 item response format was used to generate a potential range from 0 (*low*) to 28 (*high*) for each subscale.

Taken directly from Davis (1983, p. 117), the Fantasy scale measures the "tendency to transpose oneself into the feelings and actions of fictitious characters in books, movies, and plays" (Davis, 1983, p. 117). A sample item is "After seeing a play or a movie, I have felt as though I were one of the characters." The Perspective-Taking scale measures the "tendency to spontaneously adopt the point of view of others." An example item is "When I'm upset at someone, I usually try to 'put myself in his shoes' for a while." The Empathic Concern scale measures the "tendency to experience feelings of warmth, compassion, and concern for other people" (Davis, 1983, p. 117). One example is "Other people's misfortunes do not usually disturb me a great deal." Lastly, the Personal Distress scale measures self-oriented "feelings of personal unease and discomfort in reaction to the emotions of others" (Davis, 1983, p. 117). An example item is "I tend to lose control during emergencies." Because the multidimensional IRI provides separate scores for the four distinct but correlated empathy scales, Davis does not recommend the use of composite scores. When using the IRI with individuals within the correctional system, many researchers focus on the affective (*empathic concern*) and cognitive (*perspective* taking) aspects of empathy because the *fantasy* subscale may not be relevant to interpersonal conflict and offending (Lauterbach & Hosser, 2007). For the

purposes of the present study, however, all four IRI subscales will be administered and scored.

Undergraduates at the University of Texas at Austin were recruited to assess the reliability of the measure. Internal reliabilities for all four scales ranges between .71 to .77 and satisfactory test-retest reliabilities ranges from .62 to .77 (Davis, 1980, 1983). The IRI has also been shown to correlate with other measures of empathy, therefore, supporting the measure's construct validity (Davis, 1980, 1983). Davis stated, as with practically all other empathy measures, sex differences exist for each scale, with females scoring significantly higher than males on all of the subscale (Davis, 1983). Furthermore, Davis (1983) reported the IRI was divergent with intelligence as measured by WAIS Vocabulary and SAT Verbal scores. Several studies identified by Gilet, Mella, Studer, Gruhn, and Labouvie-Vief (2013) have subsequently supported the convergent and discriminant validity of the IRI subscales. The Interpersonal Reactivity Index is freely available for all non-commercial uses, and permission to use and reproduce it in any way necessary for that purpose was granted by the developer of the IRI, Mark Davis, PhD (Appendix V).

Five Facet Mindfulness Questionnaire

Mindfulness was measured using the 39-item, multidimensional Five Facet Mindfulness Questionnaire (Baer et al., 2006). Baer et al. designed the Five Facet Mindfulness Questionnaire (FFMQ) using a factor analysis on a dataset that included five independently designed mindfulness questionnaires. Five factors affiliated with aspects of mindfulness were identified as a result of their study. These five factors include

observing, describing, acting with awareness, nonjudging of inner experience, and nonreactivity to inner experience (Baer et al., 2008).

Observing (8 items) involves attending or noticing internal and external experiences such as emotions, cognitions, sensations, sounds, smells, and sights. An example item is "I pay attention to how my emotions affect my thoughts and behavior." Describing (8 items) denotes noting or mentally labeling internal experiences with words. An example item is "I'm good at finding words to describe my feelings." Acting with Awareness (8 items) involves attending to present moment activities without behaving mechanically or automatically reacting. An example item is "I find it difficult to stay focused on what's happening in the present." Nonjudging of Inner Experience (8 items) refers to the ability to refrain from evaluating one's cognitions, feelings, and sensations. An example item is "I criticize myself for having irrational or inappropriate emotions." Lastly, Nonreactivity to Inner Experience (7 items) is the inclination to allow emotions and thoughts to arrive and dissipate without becoming involved or overwhelmed by them. An example item is "I perceive my feelings and emotions without having to react to them." Individuals were asked to rate each statement using a 5-point Likert-type scale from 1 (*never or very* rarely true) to 5 (very often or always true) that best described their experience with various elements associated with mindfulness. Facet scores are computed by summing the scores on each individual item, with higher scores indicating higher mindfulness skills. Except for the Nonreactivity to Inner Experience facet, which ranges from 7 to 35, the possible range of scores for all facets is 8 to 40 (Baer et al., 2008).

Bear et al. (2008) assessed the construct validity of the FFMQ with four samples of participants. These samples included meditators, demographically similar non-meditators, non-meditating individuals recruited from the general community, and undergraduate students. Results of the study found evidence of adequate to good internal consistency (α = .75 to .91) for the five factors and regression and mediation analyses indicated that four of the five facets (not *Observing*) were significant predictors of psychological well-being. Because the FFMQ is available in the public domain and not copyrighted, permission to reproduce the questionnaire for research purposes was not required (Simmons & Lehmann, 2013).

Paulhus Deception Scales

When subjects participating in the MBRP for anger management are selected from the criminal justice population, the likelihood exists inmates will desire to appear in a "good light" to gain privileges, obtain compensation for participation, curry favor from parole and probation boards, etc. Additionally, it has been argued that the STAXI is an instrument subject to socially desirable "fake" responding but when the STAXI is used in conjunction with institutional offending data and behavioral evidence, it is a useful assessment tool (Mela et al., 2008). As previously stated, this study included a review of the participants' institutional offenses at one-month follow-up and in so doing, incorporated this recommendation. To further assess for socially desirable responses, McEwan, Davis, MacKenzie, and Mullen (2009) recommended using the Paulhus Deception Scales (Paulhus, 1998) when conducting research in forensic settings.

The Paulhus Deception Scales (formerly known as The Balanced Inventory of Desirable Responding; Paulhus, 1984), concerned with attempts to appear morally and

socially acceptable, was administered at pre- and posttest to examine the tendency to reply in a manner that would be viewed favorably by others. The Paulhus Deception Scales (PDS) is a standardized and validated 40-item self-report instrument comprised of two subscales, each rated on a 5-point Likert-type scale ranging from 1 (*not true*) to 5 (*very true*). Scores can range from 0 (*low*) to 20 (*high*) for each of the two subscales. *Impression Management* (IM; 20 items) measures the tendency to intentionally provide false responses in an effort to impress others, otherwise known as "faking or lying" (Paulhus, 1998, p. 9). An example item is "I have never dropped litter on the street." *Self-Deceptive Enhancement* (SDE; 20 items) assesses the ability to provide honest, but exaggerated self-descriptions. The SDE scale may also reflect lack of insight and an unconscious bias toward favorable self-portrayal that is analogous to narcissism. An example item is "I am very confident of my judgments." Paulhus (1991) reported internal consistency reliability coefficients ranging from .68 to .80 for the Self-Deception scale and from .75 to .86 for the Impression Management scale.

In order to interpret the PDS, raw scores are converted into *T*-scores for both the IM and SDE scales. A respondent's scores can be compared to the norms of the general population and/or prison entrants. For the purpose of this study, prison entrant norms were used when converting raw scores into *T*-scores. Regardless of which population norms are used, *T*-scores below 30 or above 70 warrants the attention of those administering the PDS (Paulhus, 1998). When conducting a profile analysis after administering the PDS, there are four basic scale score combinations that can be considered. The PDS manual offers interpretation guidelines for each of the combinations of scale scores: (a) IM low, SDE low; (b) IM high, SDE low; (c) IM low,

SDE high; and (d) IM high, SDE high. Although scale scores may be described as high or low, it is ideal to consider the PDS scores as being continuous since the likelihood increases for respondents to favorably present themselves as the PDS scores also increase (Paulhus, 1998). The PDS user's manual (Paulhus, 1998) provides an extensive and comprehensive summary of numerous empirical studies supporting the structural, convergent, and discriminant validity of the PDS and its subscales.

Individual and Group Interviews

In addition to changing from an experimental design to a descriptive study, the researcher incorporated a qualitative element by adding a group interview after the final session of the MBRP course. Typical quantitative research methods produce numerical data that is analyzed and interpreted using various statistical procedures. Though this process, researchers can learn a great deal of information from the quantitative measurement of individuals involved in a research study; however, the meaning that individuals attribute to their experiences is as critically important (Heppner, Wampold, & Kivlighan, 2008). By changing to a mixed method design where a qualitative component is added, this study offered insight into how the MBRP participants derived meaning from their activities and experiences practicing mindfulness meditation, information that is otherwise inaccessible through quantitative methods alone.

The primary goal of basic qualitative research is to uncover how people make sense of their lives and interpret meanings people construct (Merriam, 2009). Merriam (2009) stated that "qualitative researchers are interested in understanding how people interpret their experience, how they construct their worlds, and what meaning they attribute their experiences" (p.5). The researcher expected this could be accomplished

via a basic qualitative design by incorporating group interview questions after the eighth and final MBRP session. Conducting a group interview has advantages (Heppner, Wampold, & Kivlighan, 2008). First, a group interview is more efficient than attempting to schedule and complete a number of individual interviews. Furthermore, because of the barriers already encountered with a special needs population who had difficulty consistently attending and sustaining active involvement in treatment, it was expected that a group format would increase the chances of successfully conducting the interviews when compared to attempts at scheduling individual interviews with each participant over the course of several weeks. Because rapport was established between the researcher and the participants by the final MBRP group session, the researcher anticipated that the participants provided genuine responses as they shared their experiences within the social context of the group setting.

Qualitative interview questions.

Interviews were added in an effort to obtain full descriptions of each participant's individual perspective and experience practicing mindfulness-based meditative exercises. The men were questioned on whether any benefits were gained from attending the adapted MBRP classes. They were also encouraged to openly express their overall opinion regarding their involvement in a mindfulness-based meditation program. The researcher chose the format of a semi-structured interview in order to promote flexibility while dialoging with the participants. The "Informed Consent for Participation in Research Activities" form was amended to include consent for audio recording the group interview. The participants were given the opportunity to opt out of the audio taped group interview and meet individually with the researcher, but all agreed to be recorded

during the interview. The researcher used a small, discreet digital voice recorder during the interviews to minimize any uneasiness that the respondents might potentially experience while their feedback was recorded. Using an audio recorder is the most commonly used method to record interviews because it "ensures that everything said is preserved for analysis" (Merriam, 2009, p. 109). The participants were encouraged to reply to the interview questions in a manner that was comfortable but when needed, the researcher encouraged the participants to provide additional details and deeper descriptions of their experiences.

The interview was conducted using open-ended questions that were modeled in part after those listed on the "Reflections on the Course Worksheet" incorporated within Session 8 of *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide* (Bowen et al., 2011). The following questions guided the discussion as needed and provided a framework in which to encourage rich descriptions of the participant's experiences after attending the mindfulness-based meditation course:

1. What were your intentions for taking this course?
2. What did you find most valuable about this course? What, if anything, did you learn?
3. What, if anything, has changed for you over the past 8 weeks as a result of your participation?
    a. What about in terms of managing anger and reactive behaviors?
    b. What about in terms of being more mindful in your daily life?
    c. What about in terms of practicing lovingkindness and compassion toward yourself and others?

4. Have other people in your life noticed any changes in you over the past 8 weeks as a result of your participation? If yes, please explain.
5. How often did you practice? What got in the way of practicing more often?
6. Was there anything that got in the way of your learning or growth or that might have improved this course for you?
7. How likely are you to continue engaging in the formal and/or informal mindfulness practice after this course ends?
8. What would you tell others at Gateway about the meditation program?
9. Overall, how important has this program been to you? Please explain.
10. Is there anything else about your experience in this program you want to talk about that I didn't ask?

Field Violations and Parole Revocation Data

Thirty days following the conclusion of the 8-week MBRP program, the Research and Evaluation Unit at the Missouri Department of Corrections (MODOC) provided information identifying if any of the six participants who attended the meditation course committed a violation or offense between the pretest and 30 day follow-up measurement periods. Additional information given by the MODOC included each participant's supervision type (i.e., on probation or parole), history of criminal justice sentences, and prior violations while under the supervision of the MODOC. For the purpose of this study, information related to an individual's history of committing field violations prior to the initiation of this study was limited to 30 days before the MBRP meditation course began. Various categories for violating the conditions of supervision were listed and defined by the MODOC. In addition, violations may also include being issued a citation.

Rather than selecting a main category or specific condition of supervision, the MODOC utilizes a separate reporting system to list the citations where comments are inserted in order to describe the incident.

Intervention

Following the protocol as outlined in *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide* (Bowen et al., 2011), group therapy sessions were adapted for anger management therapy and taught to the participants by the principal investigator. Participants met in a group setting for 2.5 hours per week focusing on the following topics over the course of an eight week program: (a) automatic pilot and relapse; (b) awareness of triggers for anger and aggression; (c) mindfulness in daily life; (d) mindfulness in high-risk situations that trigger anger/aggression; (e) acceptance and skillful action; (f) seeing thoughts as thoughts; (g) self-care and lifestyle balance; and (h) social support and continuing practice. At the beginning of each weekly group session, the researcher encouraged the participants to respect the confidentiality of each group member and not disclose to anyone outside the group any information discussed by other group members during the weekly sessions. During the course of each week's group session, participants were educated on the concept of mindfulness in daily activities, received instruction on the various modalities of meditative practices, and participated in guided meditation sessions.

For the days to follow outside of group, the participants were asked to practice daily mindfulness meditation exercises and subsequently record the outcomes on daily practice worksheets. Handouts and worksheets were modified by the researcher for anger based upon those included in Bowen, Shawla, and Marlatt's MBRP clinician's guide.

MP3s of mindfulness meditation practices used in MBRP were downloaded and copied onto a CD from the "Mindfulness-Based Relapse Prevention Treatment for Addictive Behaviors" website (2013). These included: (a) body scan meditation; (b) SOBER breathing space meditation; (c) urge surfing meditation; (d) sitting, sound, and breath meditations; (e) lovingkindness or "metta" meditation; (f) mindful movement, stretching, or walking meditations; and (g) mountain meditation (Appendix W). Participants were asked to identify high-risk situations triggering anger and aggression, encouraged to practice the mindfulness meditation in response to these triggers, and document the results on the provided worksheets. Permission to disseminate copies of the MBRP handouts/worksheets and mindfulness meditations was given by Sarah Bowen, PhD, first author of *Mindfulness-Based Relapse Prevention for Addictive Behaviors-A Clinician's Guide* (Appendix X).

Compensation

To maximize recruitment and retention, participants were eligible to receive compensation for their involvement. Pizza, chips, and bottled water were given to all individuals who completed the registration process. Serving as additional compensation, $5 gift cards were available. The gift cards did not have a cash value and were only reimbursable at a fast food restaurant chain. For completing each set of questionnaires, participants were given a $5 gift card. Individuals who completed the MBRP program and participated in the interviews received an additional $5 gift card. The researcher initially considered the MBRP anger management program to be successfully completed if no more than two excused absences occur (i.e., 75% attendance rate). This attendance rate mirrored the criterion designed by Vannoy and Hoyt (2004) who indicated that, due to the nature of institutional settings, it is not uncommon for offenders to miss at least one

class. All participants, but one (i.e., Participant 4), were present 87.50% - 100% of the time during the eight-week course. Because Participant 4 attended five of the eight sessions (62.50%), completed all questionnaires, and participated in a recorded group interview, the researcher decided he was eligible to receive full compensation. Certificates of participation were also awarded to each individual who attended the final MBRP session.

All men placed in the meditation sessions additionally received one portable CD player, a set of batteries, and two CDs containing guided meditation exercises. These materials were for daily home practice use during the eight week program. Men assigned to the meditation groups were allowed to keep the CD players and the guided meditation recordings at the end of the eight-week program. To offer additional compensation for participation, refreshments and snacks were available upon completion of each set of questionnaires and at the end of each weekly group session.

Method of Data Analysis

The original proposal of this research was a between-groups, randomized control study using a one–way multivariate analysis of covariance (MANCOVA) to test the study hypotheses. The resulting sample size was small and therefore, hypotheses testing could not be conducted as initially planned because the statistical power needed to detect a meaningful effect was absent. In consideration of these factors, the design was modified using a mixed methods blend of quantitative and qualitative approaches. Instead of using inferential statistics to analyze the data, descriptive statistics such as means, standard deviations, frequencies, and percentages were used to describe the characteristics of the participants, report the scores of the four questionnaires, and summarize the incidents of

institutional offending. The three variables of anger, empathy, and mindfulness were examined by computing the individual's pre/posttest questionnaire scores on mindfulness, empathy constructs, and anger expression and then comparing the individual scores against the published normative means of the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983), and the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Social desirability was assessed using the Paulhus Deception Scale (PDS; Paulhus, 1998). The participant's individual scores and the MBRP group's mean scores for the IRI, FFMQ, and PDS, and the difference of the scores from the normative means, are presented in *Z*-score units within the quantitative results sections in Chapter 4. In addition to listing each participant's individual *T*-score for the STAXI-2 scales and subscales, the MBRP group's mean scores and the difference of the score from the normative means, are presented in *Z*-score units.

Thematic analysis (Braun & Clarke, 2006) was the primary analytic method used to organize and describe the qualitative data. As outlined by Braun and Clarke (2006), a six stage thematic analysis process was followed. Phase 1, "*familiarizing yourself with your data*," involved listening to each recorded interview immediately after the semi-structured interviews occurred. This allowed the researcher to become acquainted with the data while the digital interviews were transcribed by a professional transcriptionist. Although the interviews did not include any identifying information, the transcriptionist was asked to sign a confidentiality agreement prior to being provided the audio files (Appendix Y). After the data were transcribed, the immersion process continued whereby the researcher read each transcription twice in order to increase familiarity with

the data prior to beginning the process of open coding. In addition, the researcher subsequently listened to the recorded interviews while reading the transcribed data. This not only allowed for further immersion to occur, but also provided the opportunity to conduct a quality assurance check so that any error made by the transcriptionist could be identified and corrected.

During this active process of "repeated reading" (Braun & Clarke, 2006, p. 87), potential patterns and ideas started forming in preparation for Phase 2: "*Generating initial codes."* This systematic step involved creating initial codes that represented interesting features of the data. As recommended, each line of the narrative was numbered, single spacing was used for the dialogue, double spaces were inserted between speakers, and the document was formatted so notes could be inserted in the margin during the coding process (Merriam, 2009). According to Merriam (2009), coding is "nothing more than assigning some sort of shorthand designation to various aspects of your data so that you can easily retrieve specifics pieces of the data" (p. 173). Open coding is described as "the analytic process through which concepts are identified and their properties and dimensions are discovered in data" (Strauss & Corbin, 1998, p.101). As each line was reviewed during the open coding process, the researcher thoroughly examined the data after it was broken down into discrete parts (Strauss & Corbin, 1998). Through this method, the researcher was able to search for concepts as similarities and differences in the data were compared (Strauss & Corbin, 1998). Coding was conducted manually allowing for impressions, patterns, and potential themes to be inserted as brief notations in the margins of the transcribed data. Using colored pencils, extracts from the

interviews relevant to the research questions were highlighted and matched to the codes. The initial codes were reviewed and revised until a master codebook was created.

Once the coding process was completed, the researcher proceeded to Phase 3: "*Searching for themes."* In this third step, the scope of the analysis expanded from generating codes to the larger level of searching for overarching themes. As the codes were being analyzed, the researcher reflected on how various codes may integrate into a central theme. The different codes were eventually collated into potential themes and early drafts of thematic maps were forming. Emerging categories, themes, and subthemes were identified as the data was analyzed in preparation of describing the outcomes in the final narrative.

"*Reviewing themes"* is the fourth phase where candidate themes were studied to determine if they worked with respect to their coded extracts, as well as with the entire data set. This step led to the development of thematic map of the different themes. Themes were then defined in Phase 5 labeled "*defining and naming themes."* In this step, the analysis continued with the task of defining and refining the themes to ensure each represented the essence of the data. "*Producing the report"* is Phase 6 and concludes the thematic analysis process. As the name suggests, this phase occurs when a written report of the findings is finally produced after a full set of themes have been named and described per the steps outlined in Phases 1 through 5.

The validity of qualitative research can be enhanced through several procedures (Creswell & Miller, 2000). Although member checking is a frequently used strategy to promote the validity and reliability of a qualitative study (Creswell & Miller, 2000; Merriam, 2009), the investigator was not able to incorporate this procedure due to the

transient nature of the clients at the treatment center and within the correctional system. Three validity procedures, however, were specifically employed to add credibility to this study. These included the use of triangulation between methods (Creswell et al., 2003; Denzin, 1978), inserting thick, rich descriptions of the findings (Creswell & Miller, 2000; Merriam, 2009), and participating in a peer review and debriefing process (Creswell & Miller, 2000; Merriam, 2009).

Methodological triangulation (Creswell et al., 2003) augmented the data analysis process by allowing the researcher to examine any parallels or inconsistencies between the results of the quantitative and qualitative data. The quantitative data were used to complement the qualitative findings and assisted in identifying common themes. Generalizability of the results was accomplished by offering thick descriptions of the data (Ryle, 1949; Geertz, 1973). Incorporating individual quotes, or rich, descriptive slices of a participant's dialogue inserted within the final narrative, should help achieve transferability of the findings.

Researcher reflexivity is another procedure for increasing the validity and reliability of a qualitative study (Creswell & Miller, 2000; Merriam, 2009). The principal investigator reflected on the research process and specifically noted any personal biases, perceptions, assumptions, and beliefs concerning the study that may have shaped the researcher's interpretation (Creswell & Miller, 2000). Peer review or examination was another method used to determine the validity and credibility of a qualitative study (Creswell & Miller, 2000; Merriam, 2009). In accordance with recommendations offered by Creswell & Miller (2000), input was obtained from a peer reviewer. An associate professor in the Department of Behavioral and Community Health at an out of state

university was solicited to challenge assumptions, provide methodological guidance, and offer critical feedback regarding interpretations. The researcher provided copies of the research questions, transcribed interviews, coding books, and thematic mapping analysis outlines to the peer reviewer. After the codes, themes, and major categories were reviewed against each meaning unit and quotes from the transcripts, the peer reviewer held a debriefing meeting with the primary investigator. During this session, the researcher and the peer reviewer compared and contrasted major categories, accompanying themes, and participant convergence among themes. Although no major revisions occurred, the peer reviewer sought clarification on the definition of one theme, proposed renaming another theme, and recommended integrating two comparable themes into one. All suggestions offered by the peer reviewer were accepted and implemented by the researcher.

Funding

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Summary

A mixed-method design of quantitative and qualitative approaches to investigate the experiences of adult males on probation or parole after attending an eight-week mindfulness meditation course was used in this study. Out of a census of 292 men under

the supervision of the Missouri Department of Correction (MODOC) who were concurrently enrolled in Gateway Foundation-Corrections outpatient "Free and Clean" Program in St. Louis, Missouri, 23 individuals voluntarily registered for the study. Initially designed as a between groups, randomized experimental study with pre- and post-test measures, the design was quickly modified after the implementation of the study was launched due to low enrollment, early occurrence of attrition, and feedback from Gateway Corrections' staff suggesting future recruitment efforts would not result in higher enrollment and greater retention. Six adult men eventually participated in and completed an adapted version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen et al., 2011).

The researcher was interested in the overall experiences of the six men who attended an eight session MBRP with a focus on anger management, and if participation in the revised program would lead to changes in mindfulness skills, empathy-related constructs, anger expression, and MODOC field violations and parole revocation occurrences. Quantitative data were collected at baseline and immediately following completion of the eight-session Mindfulness-Based Relapse Prevention for Addictive Behaviors using the following measures: (a) the Five Facet Mindfulness Questionnaire, (b), the Interpersonal Reactivity Index, (c) the State-Trait Anger Expression Inventory-2, and (d) the Paulhus Deception Scales (used to examine for the tendency of offenders to reply in a manner that would be viewed favorably by others). The Research and Evaluation Unit at the MODOC also supplied data identifying if any of the six participants committed a violation or offense between the pretest and 30 day follow-up measurement periods. Statistical analyses could not be conducted due to the small

sample size and therefore, descriptive statistics were used to summarize the characteristics of the participants, the scores of the questionnaires, and the incidents of institutional offending. The qualitative data obtained from interviewing the six participants after the eighth and final session of the MBRP program were analyzed using a thematic analysis process.

CHAPTER FOUR

RESULTS

Introduction

The purposes of this study were to investigate the utility of implementing an adapted version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011) with six adult males on probation or parole. The researcher integrated an anger management focus into the eight MBRP sessions and taught mindfulness meditation exercises to the participants during each weekly group. Outcome variables included mindfulness skills, anger experience and expression, empathy-related concepts, and institutional offending (i.e., field violations and parole revocations). The three variables of mindfulness, anger, and empathy were measured at baseline and immediately after the intervention using the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006), the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999), and the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983), and the Paulhus Deception Scale (PDS; Paulhus, 1998) (to assess for social desirability, or the tendency to reply in a manner that will be viewed favorably by others). The Research and Evaluation Unit at the Missouri Department of Corrections (MODOC) provided field violation and parole revocation data thirty days following completion of the modified MBRP program. Lastly, the experience of participating in a mindfulness-based program was explored through semi-structured interviews. Although statistical analyses could not computed due to the methodological limitations associated with the study's sample size, quantitative outcomes are presented using descriptive statistics such as percentages, frequencies, means, standard deviations,

and *Z*-scores in response to the study's research questions. Qualitative findings are described within the context of the major clusters of themes that were identified during the data analysis process. A cause-and-effect relationship could not be directly implied due to the absence of hypotheses testing; however, analyses of the qualitative data revealed various benefits associated with attending the mindfulness-based intervention per the participants' self-report.

Characteristics of the Participants

Twenty-three adult males under the supervision of the Missouri Department of Corrections consented to participate in this study from among a census of 292 men enrolled in Gateway Foundation-Corrections' "Free and Clean" program during the recruitment period. Gateway Foundation-Corrections is an outpatient substance abuse treatment agency located in St. Louis, Missouri whose community corrections programs include intensive and supportive outpatient counseling, transition programs, and highly structured day reporting centers offering treatment interventions for offenders (Gateway Foundation Corrections, 2014). After recruitment was completed, 12 participants were assigned to begin the eight session MBRP meditation course. Only six of these 12 were present for the inaugural session. Four were absent without notice, one was hospitalized, and another never began due to obtaining employment. At the end of the first group, five of the six stayed for the entirety of the 2 ½ hour session. By the second session, a participant who attended the first session dropped out due to employment and the participant who left after attending one hour of the first group never returned without giving notice. Two individuals who were absent from the first MBRP session started the program during the second week of groups; however, one of these participants did not

return for subsequent sessions, nor did he provide a reason for leaving the study. Another member unexpectedly dropped out after attending five sessions. This individual was absent from the last two sessions and did not respond to any of the outreach efforts made by his primary counselor at Gateway.

Overall, a core group of six participants attended the MBRP groups, completed the pre- and post-test questionnaires, and participated in the interviewing process at the end of the program. As shown in Table 4.1, the number of MBRP groups attended by these six core participants ranged between 5 and 8 sessions (M = 7.2; SD = 1.2) resulting in 89.6% attendance rate. In addition to attending the MBRP sessions and practicing guided meditative exercises during each class, participants were also encouraged to engage in home practice each week. At the end of each MBRP class, the researcher emphasized the importance of home practice by distributing assignments via various handouts taken from the MBRP's clinician's manual and encouraging the completion of Daily Practice Tracking Sheets (Bowen et al., 2011). Additionally, participants were encouraged to support their home practice by using the CD players and guided meditations given to each at the beginning of the program. Although all reported practicing outside the MBRP groups in some capacity, none of the participants presented at any of the classes with evidence that they had completed the home practice worksheets.

Table 4.1

Participant Attendance during MBRP Course

	MBRP sessions attended	
	(*n*)	%
P1	8	100.0%
P2	7	87.5%
P3	8	100.0%
P4	5	62.5%
P5	7	87.5%
P6	8	100.0%
M	7.2	89.6%

Demographic Characteristics

The age of the six participants ranged from 25 to 50 years with a mean age of 37.50 (*SD* = 8.96). Five of the participants identified their race as African American (83.3%). Five of the six acknowledged their sexual orientation as heterosexual (83.3%) and one participant identified as being gay (16.7%). The highest level of educational involvement was 12 years for one participant (16.7%), three individuals reported attending college but did not finish (50.0%), one reported completing vocational-technical school (16.7%), and another earned an associate degree (16.7%). Three were married (50%), two were single (33.3%), and one reported his status as being in an unmarried relationship (16.7%). Three participants described their employment status as being out of work for more than one year (50%) and four acknowledged a Christian-based religious identity (66.7%). The overall demographic characteristics of the six participants are presented in Table 4.2.

Correctional System Characteristics

According to information provided by The Research and Evaluation Unit at the Missouri Department of Corrections (MODOC), three of the participants were on parole

(50%) and three were on probation (50%) at the time the study occurred. Starting with the first known offense or sentence date, the approximate number of years involved in the State of Missouri Correctional System ranged from 6 to 32 (M = 11.5; SD = 10.3). The number of prior sentences, classified as either open or completed, were 30 (M = 2.0; SD = 1.3). Several offenses may be involved within an individual sentence. Two prior offenses were considered misdemeanors for one participant, but the details of these were labeled as "missing." Between the six participants, two misdemeanors (M = 0.3; SD = 0.8) and 28 felonies (M = 4.7; SD = 2.2) led to 21 distinct incidents of field supervision (M = 3.5; SD = 2.3) between 1982 and 2014 and 13 episodes of incarceration (M = 2.2; SD = 1.9) between 1985 and 2014. Most recently, one individual was released from prison in 2013 while the remaining five participants (83.3%) were released in 2014. From among these five, one person was sentenced in 2014, incarcerated for nearly four months, and subsequently released approximately one month before beginning the first MBRP session. Another individual was resentenced to a Missouri correctional center two weeks after completing the MBRP program. According to the MODOC's Research and Evaluation Unit, this offender was reincarcerated due to a technical violation of supervision conditions, but specific reasons behind the Probation and Parole Board's decision leading to his return to a correctional center was not released. The overall correctional system characteristics of the six participants are presented in Table 4.3.

Table 4.2

Demographic Characteristics

Characteristic	MBRP participants (*N*=6)	
	M	*SD*
Age	37.5	8.96
	(n)	%
Race		
African-American	5	83.3
White	1	16.7
Sexual orientation		
Heterosexual	5	83.3
Gay	1	16.7
Relationship status		
Married	3	50.0
Single	2	33.3
Member of unmarried couple	1	16.7
Highest educational involvement		
Grade 12 or GED	1	16.7
Some college, but did not finish	3	50.0
Completed technical/vocation school	1	16.7
Two-year college degree/A.A./A.S.	1	16.7
Employment status		
Out of work for less than 1 year	1	16.7
Out of work for more than 1 year	3	50.0
Student	1	16.7
Permanently unemployed/disabled	1	16.7
Religious identity		
Christian	4	66.7
Other	1	16.7
No preference/no religious affiliation	1	16.7

Table 4.3

MBRP Participants' Missouri Department of Corrections (MODOC) Characteristics

Characteristic	MBRP participants (*N*=6)	
	M	*SD*
Years involved in the MODOC correctional system	11.5	10.3
	(n)	%
MODOC supervision type		
Probation	3	50.0
Parole	3	50.0
Offense history		
Assault 1st degree-serious physical injury	1	3.3
Burglary 2nd degree	4	13.3
Distribute/deliver/manufacture/produce or attempt to possess with intent to distribute substances	2	6.6
Forgery	1	3.3
Possession of controlled substance except 35 grams or less of marijuana	5	16.7
Property damage 1st degree	1	3.3
Receiving stolen property $150 or more	1	3.3
Robbery 2nd degree	1	3.3
Stealing	3	10.0
Tampering 1st degree with motor vehicle, airplane, motorboat, etc.	1	3.3
Theft/stealing (value of property or service is $500 or more but less than $25,000)	3	10.0
Trafficking in drugs/attempt to traffic 2nd degree	1	3.3
Unlawful possession of a firearm	1	3.3
Unlawful use of a weapon	3	10.0
Missing information (unknown)	2	6.7
Offense type		
Misdemeanor	2	6.7
Felony	28	93.3
Offense status		
Open	15	50.0
Closed	15	50.0
MODOC sentence incidents		
Field supervision (i.e., probation or parole)	21	61.8
Incarcerations	13	38.2

Analysis of Data in Response to Research Questions

Analyses were performed on the data collected in response to the following research questions:

1. What changes occurred in anger expression among six adult males on probation or parole who practiced mindfulness meditation?
2. What changes occurred in empathy among six adult males on probation or parole who practiced mindfulness-based meditation?
3. What changes occurred in mindfulness skills among six adult males on probation or parole who practiced mindfulness-based meditation?
4. What changes occurred in field violations and probation/parole revocations for six adult males on probation or parole who practiced mindfulness-based meditation?
5. What was the ability of six adult males on probation or parole practicing mindfulness-based meditation to genuinely report beneficial changes?
6. What was the overall experience of attending a mindfulness-based meditation course for six adult males on probation or parole?

Descriptive statistics, such as means, standard deviations, frequencies, percentages, and *Z*-scores were used to report the quantitative data. This included identifying the characteristics of the participants, reporting the scores of the four questionnaires, and summarizing the incidents of institutional offending. Robust descriptions of the main themes and relevant excerpts from the in-depth interviews revealed the qualitative findings.

Quantitative Results

Empathy

Constructs of empathy were measured with the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983). IRI scores were calculated for each participant and compared against the published normative means from a sample of 579 males (Davis, 1980). The respective normative means and standard deviations for men are as follows: *fantasy* (15.73, 5.60); *perspective-taking* (16.78, 4.72); *empathic concern* (19.04, 4.21); and *personal distress* (9.46, 4.55). Table 4.4 presents each participant's IRI score before and after the MBRP course, and the difference of the score from the normed mean for men in *z*-score units. Table 4.5 lists the overall group means and standard deviations for the MBRP participants before and after the MBRP course, and the difference of the scores from the normative means for males in *z*-score units.

Table 4.4

Individual Participant IRI and Z-scores for Empathy-Related Constructs before and after MBRP Compared to IRI Norms for Men.

	Fantasy (pre)		Fantasy (post)		Perspective-taking (pre)		Perspective-taking (post)	
	X	*Z*	*X*	*Z*	*X*	*Z*	*X*	*Z*
P1	14.00	-0.31	13.00	-0.49	12.00	-1.01	21.00	0.89
P2	19.00	0.58	15.00	-0.13	21.00	0.89	20.00	0.68
P3	16.00	0.05	14.00	-0.31	17.00	0.05	16.00	-0.17
P4	24.00	1.48	28.00	2.19	16.00	-0.17	14.00	-0.59
P5	21.00	0.94	22.00	1.12	20.00	0.68	22.00	1.11
P6	16.00	0.05	13.00	-0.49	12.00	-1.01	17.00	0.05
	M	*Z*	*M*	*Z*	*M*	*Z*	*M*	*Z*
Norms	15.73	5.60	15.73	5.60	16.78	4.72	16.78	4.72

	Empathic concern (pre)		Empathic concern (post)		Personal distress (pre)		Personal distress (post)	
	X	*Z*	*X*	*Z*	*X*	*Z*	*X*	*Z*
P1	18.00	-0.25	24.00	1.18	6.00	-0.76	10.00	0.12
P2	24.00	1.18	22.00	0.70	4.00	-1.20	10.00	0.12
P3	13.00	-1.43	13.00	-1.43	10.00	0.12	11.00	0.34
P4	17.00	-0.48	23.00	0.94	7.00	-0.54	4.00	-1.20
P5	21.00	0.47	18.00	-0.25	7.00	-0.54	10.00	0.12
P6	17.00	-0.48	18.00	-0.25	15.00	1.22	12.00	0.56
	M	*Z*	*M*	*Z*	*M*	*Z*	*M*	*Z*
Norms	19.04	4.21	19.04	4.21	9.46	4.55	9.46	4.55

Table 4.5

Group Means, Standard Deviations, and Z-scores for Empathy-Related Constructs before and after MBRP Compared to IRI Norms for Men.

	Pre-MBRP			Post-MBRP			IRI norms (men)	
Empathy construct	*M*	*SD*	*Z*	*M*	*SD*	*Z*	*M*	*SD*
Fantasy	18.33	3.72	0.46	17.50	6.16	0.32	15.73	5.60
Perspective-taking	16.33	3.83	-0.10	18.33	3.14	0.33	16.78	4.72
Empathic concern	18.33	3.78	-0.17	19.67	4.13	0.15	19.04	4.21
Personal distress	8.17	3.87	-0.28	9.50	2.81	0.01	9.46	4.55

As Table 4.5 displays, except for the *fantasy* subscale, the means of the MBRP group were slightly below the respective normative means for males before the MBRP course began. After the course concluded, the means for the MBRP group were slightly above the respective means for all four subscales. Figure 4.1 illustrates the mean subscales scores in the MBRP group at baseline and after the MBRP intervention compared to the IRI normative means for men.

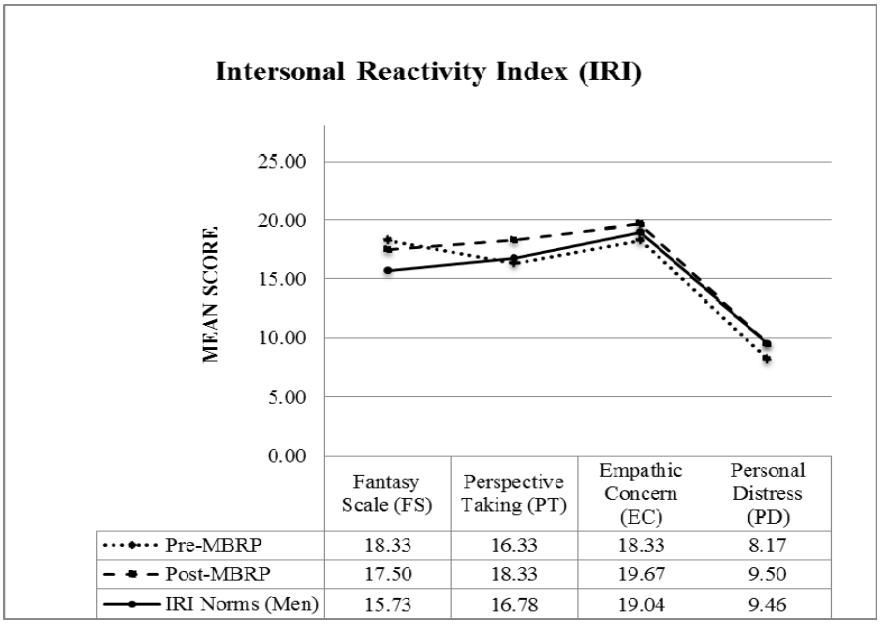


Figure 4.1. Mean subscale scores (IRI) in the MBRP group at baseline and after the MBRP program compared to IRI norms for adult males.

Mindfulness Skills

Mindfulness skills were measured using the 39-item, multidimensional Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). FFMQ scores were computed for each participant and compared against the published normative means for a general community sample of nonmeditators and a sample of individuals who regularly practice meditation (Baer et al., 2008). The

normative mean for the *observing* facet is 24.32 for the community sample and 31.96 for the sample of regular meditators. The normative means for the remaining facets for the nonmeditating community and regular meditators samples respectively are as follows: *describing* (24.63 and 31.84); *acting with awareness* (24.57; 28.08), *nonjudging of inner experience* (23.85; 32.44); and *nonreactivity to inner experience* (19.53; 25.70). Tables 4.6 and 4.7 presents each participant's FFMQ score before and after the MBRP course, and the difference of the score from the normed mean for the community-based nonmeditators and regular meditators in *z*-score units. Tables 4.8 and 4.9 lists the overall group means and standard deviations for the MBRP participants before and after the MBRP course, and the difference of the scores from the normed means for the community-based nonmeditators and regular meditators in *z*-score units.

Table 4.6

Individual Participant FFMQ and Z-scores for each Facet of Mindfulness before and after MBRP Compared to FFMQ Norms of a Community Sample.

	Facet			
	Observing (pre)		Observing (post)	
	X	*Z*	*X*	*Z*
P1	20.00	-0.79	32.00	1.40
P2	29.00	0.86	31.00	1.23
P3	32.00	1.40	30.00	1.04
P4	33.00	1.59	37.00	2.32
P5	23.00	-0.23	28.00	0.67
P6	19.00	-0.96	33.00	1.59
Community	24.32	-	24.32	-
	Describing (pre)		Describing (post)	
	X	*Z*	*X*	*Z*
P1	35.00	1.47	36.00	1.61
P2	25.00	0.06	30.00	0.76
P3	31.00	0.91	30.00	0.76
P4	40.00	2.18	40.00	2.18
P5	31.00	0.91	31.00	0.91
P6	22.00	-0.37	28.00	0.48
Community	24.63	-	24.63	-
	Acting (pre)		Acting (post)	
	X	*Z*	*X*	*Z*
P1	27.00	0.38	32.00	1.13
P2	29.00	0.68	30.00	0.83
P3	28.00	0.52	29.00	0.68
P4	31.00	0.98	25.00	0.07
P5	29.00	0.68	32.00	1.13
P6	21.00	-0.54	27.00	0.38
Community	24.57	-	24.57	-
	Nonjudging (pre)		Nonjudging (post)	
	X	*Z*	*X*	*Z*
P1	24.00	0.02	32.00	1.11
P2	33.00	1.25	20.00	-0.53
P3	18.00	-0.80	21.00	-0.38
P4	8.00	-2.16	24.00	0.02
P5	29.00	0.71	29.00	0.71
P6	20.00	-0.53	21.00	-0.38
Community	23.85	-	23.85	-
	Nonreactivity (pre)		Nonreactivity (post)	
	X	*Z*	*X*	*Z*
P1	21.00	0.30	29.00	1.94
P2	23.00	0.72	25.00	1.12
P3	23.00	0.72	25.00	1.12
P4	24.00	0.92	24.00	0.92
P5	20.00	0.10	23.00	0.72
P6	18.00	-0.32	27.00	1.53
Community	19.53	-	19.53	-

Table 4.7

Individual Participant FFMQ and Z-scores for each Facet of Mindfulness before and after MBRP Compared to FFMQ Norms of a Sample of Regular Meditators.

	Facet			
	Observing (pre)		Observing (post)	
	X	*Z*	*X*	*Z*
P1	20.00	-2.88	32.00	0.01
P2	29.00	-0.70	31.00	-0.22
P3	32.00	0.01	30.00	-0.47
P4	33.00	0.26	37.00	1.22
P5	23.00	-2.14	28.00	-0.95
P6	19.00	-3.11	33.00	0.26
Regular meditators	31.96	-	31.96	-
	Describing (pre)		Describing (post)	
	X	*Z*	*X*	*Z*
P1	35.00	0.60	36.00	0.78
P2	25.00	-1.28	30.00	-0.35
P3	31.00	-0.15	30.00	-0.35
P4	40.00	1.54	40.00	1.54
P5	31.00	-0.15	31.00	-0.15
P6	22.00	-1.86	28.00	-0.72
Regular meditators	31.84	-	31.84	-
	Acting (pre)		Acting (post)	
	X	*Z*	*X*	*Z*
P1	27.00	-0.20	32.00	0.77
P2	29.00	0.19	30.00	0.38
P3	28.00	-0.02	29.00	0.19
P4	31.00	0.58	25.00	-0.60
P5	29.00	0.19	32.00	0.77
P6	21.00	-1.38	27.00	-0.20
Regular meditators	28.08	-	28.08	-
	Nonjudging (pre)		Nonjudging (post)	
	X	*Z*	*X*	*Z*
P1	24.00	-1.50	32.00	-0.08
P2	33.00	0.11	20.00	-2.21
P3	18.00	-2.56	21.00	-2.02
P4	8.00	-4.34	24.00	-1.50
P5	29.00	-0.60	29.00	-0.60
P6	20.00	-2.21	21.00	-2.02
Regular meditators	32.44	-	32.44	-
	Nonreactivity (pre)		Nonreactivity (post)	
	X	*Z*	*X*	*Z*
P1	21.00	-1.17	29.00	0.82
P2	23.00	-0.67	25.00	-0.18
P3	23.00	-0.67	25.00	-0.18
P4	24.00	-0.41	24.00	-0.42
P5	20.00	-1.42	23.00	-0.67
P6	18.00	-1.92	27.00	0.33
Regular meditators	25.70	-	25.70	-

Table 4.8 displays, except for the *nonjudging of inner experience* facet, the means of the MBRP group were within one standard deviation of the respective normative means for the nonmeditators from a community sample before the MBRP course. After the course, the means for the MBRP group were within, or at least one standard deviation above, the respective means for all five mindfulness facets. Figure 4.2 shows mean mindfulness state scores in the MBRP group at baseline and after the MBRP intervention compared to a community sample of nonmeditators.

Table 4.8

Group Means, Standard Deviations, and Z-scores for Mindfulness Facets before and after MBRP Compared to FFMQ Norms of a Community Sample.

	Pre-MBRP			Post-MBRP			Community non-meditators	
Facet	*M*	*SD*	*Z*	*M*	*SD*	*Z*	*M*	*SD*
Observing	26.03	6.13	0.31	31.85	3.07	1.37	24.32	5.48
Describing	30.69	6.53	0.86	32.51	4.55	1.12	24.63	7.06
Acting	27.53	3.45	0.45	29.19	2.77	0.70	24.57	6.57
Nonjudging	22.01	8.85	-0.25	24.52	4.93	0.09	23.85	7.33
Nonreactivity	21.51	2.27	0.41	25.50	2.16	1.22	19.53	4.88

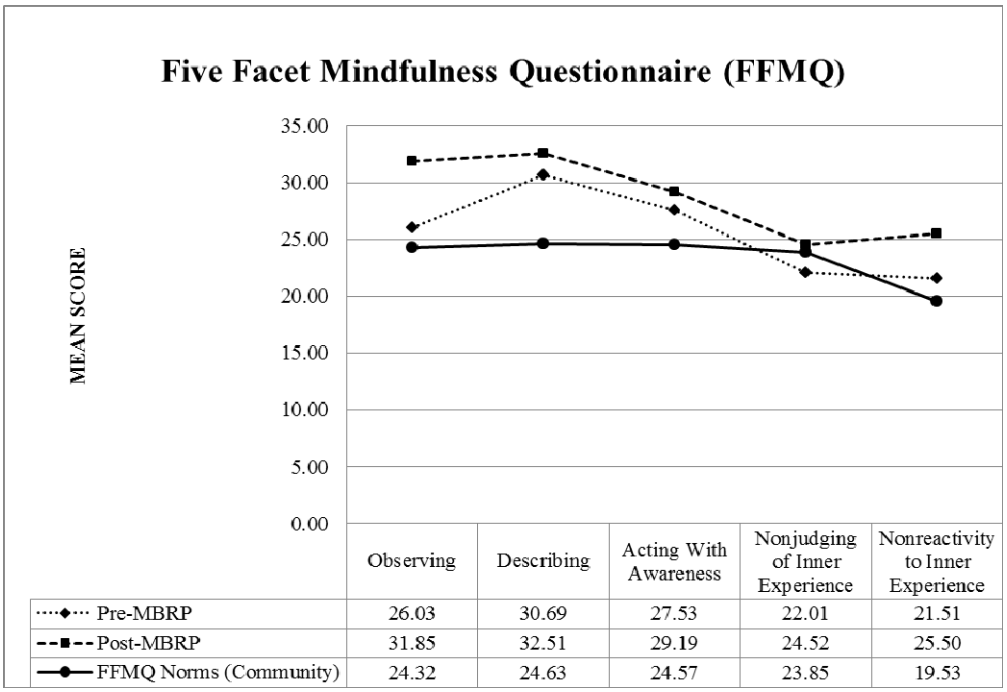


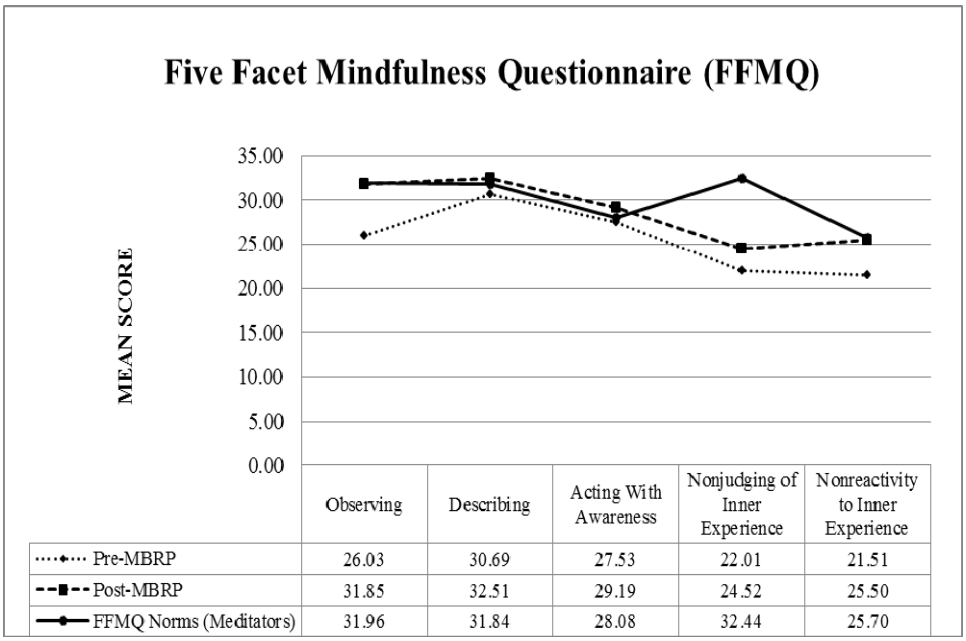
Figure 4.2. Mean mindfulness state scores (FFMQ) in the MBRP group at baseline and after the MBRP program compared to FFMQ norms of a community sample.

As indicated in Table 4.9, the group means for the five mindfulness facets were either slightly under or more than one standard deviation below the corresponding normative means for regular meditators before the MBRP course. After the course, the scores for the MBRP group for all five mindfulness facets varied-scoring within, slightly under, or more than one standard deviation below the respective means for regular meditators. Figure 4.3 illustrates mean mindfulness state scores in the MBRP group at baseline and after the MBRP program compared to the normative means of regular meditators.

Table 4.9

Group Means, Standard Deviations, and Z-scores for Mindfulness Facets before and after MBRP Compared to FFMQ Norms of a Sample of Regular Meditators.

	Pre-MBRP			Post-MBRP			Regular meditators	
Facet	*M*	*SD*	*Z*	*M*	*SD*	*Z*	*M*	*SD*
Observing	26.03	6.13	-1.43	31.85	3.07	-0.03	31.96	4.16
Describing	30.69	6.53	-0.22	32.51	4.55	0.13	31.84	5.30
Acting	27.53	3.45	-0.11	29.19	2.77	0.22	28.08	5.10
Nonjudging	22.01	8.85	-1.85	24.52	4.93	-1.41	32.44	5.63
Nonreactivity	21.51	2.27	-1.04	25.50	2.16	-0.05	25.70	4.01



	Observing	Describing	Acting With Awareness	Nonjudging of Inner Experience	Nonreactivity to Inner Experience
Pre-MBRP	26.03	30.69	27.53	22.01	21.51
Post-MBRP	31.85	32.51	29.19	24.52	25.50
FFMQ Norms (Meditators)	31.96	31.84	28.08	32.44	25.70

Figure 4.3. Mean mindfulness state scores (FFMQ) in the MBRP group at baseline and after the MBRP program compared to FFMQ norms of regular meditators.

Anger Experience and Expression

For this study, anger was assessed using the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). STAXI-2 scores were computed for each participant and compared against the published normative means and standard deviations for normal adult males (Spielberger, 1999). Table 4.10 lists the overall MBRP group means and standard deviations for the STAXI-2 scales/subscales before and after the MBRP course, and the difference of the scores from the normed means and standard deviations for normal adult males in *z*-score units.

Table 4.10

Group Means and Standard Deviations for STAXI-2 Scales and Subscales before and after MBRP Compared to the STAXI-2 Norms for Normal Adult Males in Z-score Units.

	STAXI-2 scales, subscales, and index					
	State anger	Feeling angry	Feel like expressing anger-verbally	Feel like expressing anger-physically	Trait anger	Anger temperament
Pre-MBRP (*M)*	18.33	7.50	5.67	5.17	17.83	6.33
Pre-MBRP (*SD*)	4.50	3.89	1.63	0.41	3.71	2.73
Post-MBRP (*M)*	16.17	6.17	5.00	5.00	16.50	6.50
Post-MBRP (*SD*)	2.86	2.86	0.00	0.00	3.99	3.08
STAXI-2 *(M)*	19.25	7.06	6.39	5.82	18.40	6.38
STAXI-2 *(SD)*	6.89	2.81	2.66	2.13	5.42	2.53
Pre-MBRP (*Z*)	-0.13	0.16	-0.27	-0.31	-0.10	-0.02
Post-MBRP (*Z*)	-0.45	-0.32	-0.52	-0.38	-0.35	0.05

	STAXI-2 scales, subscales, and index					
	Anger reaction	Anger expression-out	Anger expression-in	Anger control-out	Anger control-in	Anger expression index
Pre-MBRP (*M)*	8.33	16.83	16.17	22.17	21.67	37.17
Pre-MBRP (*SD*)	1.75	5.42	4.96	4.17	5.96	15.45
Post-MBRP (*M)*	7.17	14.33	16.17	23.33	25.50	29.67
Post-MBRP (*SD*)	0.41	3.83	4.45	3.88	5.75	15.04
STAXI-2 *(M)*	8.67	15.42	16.35	23.53	22.60	33.68
STAXI-2 *(SD)*	2.61	3.74	3.99	5.01	5.82	13.07
Pre-MBRP (*Z*)	-0.13	0.38	-0.05	-0.27	-0.16	0.27
Post-MBRP (*Z*)	-0.57	-0.29	-0.05	-0.04	0.50	-0.31

As shown in Table 4.10, with few exceptions, the MBRP group scored slightly below the respective normative means in all STAXI-2 scales and subscales at baseline and after the MBRP intervention ended. The overall scores for the study's treatment invention group before and after the mindfulness meditation course reflect a normal distribution of scores when compared to the STAXI-2's normative means and standard deviations for adult males.

When reviewing each participant's STAXI-2 *T*-scores before and after the MBRP intervention, there are, however, individual scores that surpass the normal range. Individuals whose *T*-score is 65 or higher on a STAXI-2 scale/subscale, and/or have two *T*-scores in the range of 60 to 64, may experience interpersonal relationship problems and/or be prone to developing a physical illness or psychological disorder. As shown in Table 4.11, three participants (50%) met both conditions by having at least one *T*-score of 65 or higher, and two or more *T*-scores in the range of 60 to 64, before participating in the MBRP program (i.e., P3, P4, and P6). After attending the mindfulness meditation course, Table 4.11 illustrates that two of these three participants (i.e., P3 and P6) no longer had multiple *T*-scores between 60 and 64. Going further, Participant 6 scored within the normal range in all STAXI-2 scales and subscales with the exception of scoring just slightly above the cutoff for the Anger Control-In (*AC-I*) scale. Participant 3's *T*-scores, however, were within the normal range in all scales and subscales scores after the MBRP course. Only Participant 4 (16.7%) continued to meet the same criteria by having at least one *T*-score above 65 and two or more between 60 and 64 before and after the meditation intervention.

Table 4.11

Individual Participant T-scores for STAXI-2 Scales and Subscales before and after the MBRP program.

	STAXI-2 scales, subscales, and index					
Participant	State anger	Feeling angry	Feel like expressing anger-verbally	Feel like expressing anger-physically	Trait anger	Anger temperament
P1 (pre-MBRP)	46	48	42	40	50	38
P1 (post-MBRP)	44	40	42	40	42	38
P2 (pre-MBRP)	42	40	42	40	40	38
P2 (post-MBRP)	44	40	42	40	42	42
P3 (pre-MBRP)	44	40	42	40	60	52
P3 (post-MBRP)	44	40	42	40	52	58
P4 (pre-MBRP)	58	78	42	42	54	62
P4 (post-MBRP)	54	70	42	42	62	70
P5 (pre-MBRP)	44	40	42	40	42	38
P5 (post-MBRP)	44	40	42	40	42	38
P6 (pre-MBRP)	58	52	60	48	60	64
P6 (post-MBRP)	44	40	42	40	44	48

	STAXI-2 scales, subscales, and index					
Participant	Anger reaction	Anger expression-out	Anger expression-in	Anger control-out	Anger control-in	Anger expression index
P1 (pre-MBRP)	56	40	46	58	62	40
P1 (post-MBRP)	44	44	38	52	66	38
P2 (pre-MBRP)	44	36	46	44	38	52
P2 (post-MBRP)	44	44	48	48	44	52
P3 (pre-MBRP)	60	76	62	38	44	66
P3 (post-MBRP)	48	48	62	42	44	58
P4 (pre-MBRP)	40	72	66	38	56	62
P4 (post-MBRP)	40	68	66	38	50	66
P5 (pre-MBRP)	44	44	34	50	48	44
P5 (post-MBRP)	44	40	46	58	58	40
P6 (pre-MBRP)	46	68	54	38	36	64
P6 (post-MBRP)	44	40	46	44	66	42

Socially Desirable Responding

The Paulhus Deception Scales (PDS) was given before and after the MBRP intervention to assess the tendency to give socially desirable, or purposeful self-enhancing, responses when completing questionnaires, surveys, or interviews (Paulhus, 1998). PDS scores were computed for each participant and compared against the published normative means for prison entrants (Paulhus, 1998). The normative mean and standard deviation for the *Impression Management* (IM) and *Self-Deceptive Enhancement* (SDE) scale respectively is 5.3 (3.6) and 2.2 (2.7). Table 4.12 presents each participant's PDS score before and after the MBRP course, and the difference of the score from the normed mean for prison entrants in *z*-score units. Table 4.13 lists the overall group means and standard deviations for the MBRP participants before and after the meditation classes, as well as the difference of the scores from the normed means for prison entrants in *z*-score units.

Table 4.12

Individual Participant PDS and Z-scores for Socially Desirable Responding before and after MBRP Compared to PDS Norms for Prison Entrants.

	PDS Scale					
	Impression Management		Self-Deceptive Enhancement		Total	
	X	*Z*	*X*	*Z*	*X*	*Z*
P1 (pre-MBRP)	7.0	0.47	4.0	0.67	11.0	1.0
P1 (post-MBRP)	15.0	2.69	5.0	1.04	20.0	3.57
P2 (pre-MBRP)	9.0	1.03	1.0	-0.44	10.0	0.71
P2 (post-MBRP)	9.0	1.03	0.0	-0.81	9.0	0.43
P3 (pre-MBRP)	5.3	-0.01	2.0	-0.07	7.5	-0.01
P3 (post-MBRP)	4.0	-0.36	4.0	0.67	8.0	0.14
P4 (pre-MBRP)	0.0	-1.47	9.0	2.52	9.0	0.43
P4 (post-MBRP)	1.0	-1.19	7.0	1.78	8.0	0.14
P5 (pre-MBRP)	5.0	-0.08	0.0	-0.81	5.0	-0.71
P5 (post-MBRP)	4.0	-0.36	0.0	-0.81	4.0	-1.0
P6 (pre-MBRP)	1.0	-1.19	1.0	-0.44	2.0	-1.57
P6 (post-MBRP)	2.0	-0.92	2.0	-0.07	4.0	-1.0
	M	*SD*	*M*	*SD*	*M*	*SD*
PDS norms (prison entrants)	5.3	3.6	2.2	2.7	7.5	3.5

As shown in Table 4.13, the group means before the MBRP course for the IM and SDE scales, as well as the overall mean for the PDS, were either slightly under or slightly above the normative means for prison entrants. After the course, the MBRP group's IM, SDE, and PDS total scores were all slightly above the respective means for prison entrants.

Table 4.13

Group Means, Standard Deviations, and Z-scores for Socially Desirable Responding before and after MBRP Compared to PDS Norms for Prison Entrants.

	Pre-MBRP			Post-MBRP			PDS norms (prison entrants)	
PDS scales	*M*	*SD*	*Z*	*M*	*SD*	*Z*	*M*	*SD*
Impression Management	4.5	3.5	-0.22	5.8	5.3	0.14	5.3	3.6
Self-Deceptive Enhancement	2.8	3.3	0.22	3.0	2.8	0.30	2.2	2.7
Total	7.4	3.4	-0.03	8.8	5.9	0.37	7.5	3.5

T-scores below 30 or above 70 warrant the attention of those administering the PDS (Paulhus, 1998). As shown in Table 4.14, the *T*-score for Participant 4 was "very much above average" on the *Self-Deceptive Enhancement* (SDE) scale when the PDS was given before the MBRP course began, and Participant 1 scored "very much above average" on the *Impression Management* (IM) scale when the test was administered immediately after the course concluded. Participant 4's combination of scale scores, "IM low, SDE high," was the only profile that appeared to fit within the PDS profile analysis guidelines. Per the PDS user's manual, this combination may be interpreted as follows:

> This profile is associated with narcissistic tendencies. Individuals with this profile may show arrogance, be lacking in self-insight, and may even show anger if confronted, This profile suggests overly positive responses stemming from a trait-like tendency toward overly self-favorable presentation rather than situational demands (Paulhus, 1998, p. 10)

Table 4.14

T-scores for the Impression Management (IM) and Self-Deceptive Enhancement (SDE) Scales before and after the MBRP Course.

	P1		P2		P3		P4		P5		P6	
PDS *T*-scores	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
IM	55	77	60	60	50	46	35	38	49	46	38	41
SDE	57	60	46	42	49	57	75	68	42	42	46	49
Total	60	86	57	54	50	51	54	51	43	40	34	40

When a battery of questionnaires is administered, the PDS can be given to assist in determining whether the test taker is purposely responding in an exaggerated manner in order to impress or sway a particular audience. As a result, cutoff scores exist for the Impression Management (IM) scale that suggests whether a respondent is "faking good" or "faking bad." Table 4.15 shows the IM cutoff scores for invalidity identification (Paulhus, 1998, p. 10) and Table 4.16 lists the research participants' IM scores before and after the MBRP course.

Table 4.15

Impression Management (IM) Cutoff Scores for Invalidity Identification.

	Score	Interpretation
Faking Good	>12	Probably invalid
	>8	May be invalid
Faking Bad	<2	May be invalid
	<1	Probably invalid

Table 4.16

Impression Management (IM) Scores before and after the Meditation Course for Individual Participants.

	P1	P2	P3	P4	P5	P6
Impression Management						
Pre-MBRP	7	9	5	0	5	1
Post-MBRP	15	9	4	1	4	2

Probation and Parole Field Violations

The Research and Evaluation Unit at the Missouri Department of Corrections (MODOC) provided field violation data on each participant 30 days before, during, and 30 days following completion of the MBRP program. Various categories for violating the conditions of supervision were listed and defined by the MODOC. The conditions of supervision that were violated included the following:

1. **Laws -** Obey all laws. Report all arrests to the officer within 48 hours.
2. **Association -** Obtain advance permission from the officer before associating with person(s) convicted of any felony or misdemeanor or anyone currently under supervision.
3. **Drugs -** Do not possess or use any drugs unless medically prescribed.
4. **Reporting/Directives -** Report as directed. Abide by any additional directives given by the officer.
5. **Supervision Strategy -** Enter and successfully complete any assigned supervision program or strategy.

6. **Special Conditions -** These are case specific as directed by the Parole Board or Court. Examples of these conditions are no alcohol, substance abuse treatment, anger management classes, restitution, court costs, community service hours, etc. (Missouri Department of Corrections, 2015)

Five of the participants (83.3%) violated the conditions of their probation or parole immediately before, during, and/or within the month following completion of the MBRP program. Citations issued to participants either thirty days before, during, or thirty days after the MBRP course included testing positive for alcohol and/or illicit substances and being in arrears for paying a fee designed by the State of Missouri to help offset the costs of intervention and support services for offenders. A comprehensive summary of this data is presented in Tables 4.17 through 4.24 by group and individual participant.

As shown in Table 4.17, the number of violations issued per participant before, during, and after the MBRP course ranged from 0 to 2, 0 to 2, and 0 to 4, respectively. When reviewing the total number of violations issued to the MBRP participants as a group, 21.1% of the violations were issued 30 days prior to the meditation course, 36.8% during the eight-week program, and 42.1% were received within the month following the end of the MBRP sessions (see Table 4.17). Based upon the data, a larger number of citations were issued during and 30 days after the MBRP program when compared to the month before the sessions began.

Table 4.17

Number of Field Violations 30 days before, during, and 30 Days after MBRP per Participant

Participant	Thirty Days before MBRP	During MBRP	Thirty Days after MBRP
1	-	-	-
2	-	2	4
3	-	2	1
4	1	-	1
5	1	1	-
6	2	2	2

Table 4.18

Total MODOC Field Violations by Number of Incidents and Types for the MBRP Group

Characteristic		MBRP participants ($N = 6$)	
		(n)	%
Field violation incidents			
	Thirty days before MBRP	4	21.1
	During MBRP	7	36.8
	Thirty days after MBRP	8	42.1
Field violation type (30 days before MBRP)			
	Tested positive for THC	2	50.0
	Association	1	25.0
	Reporting directives	1	25.0
Field violation types (eight weeks during MBRP)			
	Tested positive for alcohol and opiates	1	14.3
	Tested positive for alcohol	1	14.3
	Association	1	14.3
	Drugs	1	14.3
	Laws	1	14.3
	Special conditions	1	14.3
	$180 in arrears on intervention fees	1	14.3
Field violation types (30 days after MBRP)			
	Tested positive for opiates	2	25.0
	Drugs	2	25.0
	Reporting/directives	1	12.5
	Special conditions	1	12.5
	Supervision strategy	1	12.5
	$180 in arrears on intervention fees	1	12.5

Table 4.19

Missouri Department of Corrections' Field Violations: Participant 1

Violations	Participant 1	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	-	-
During MBRP	-	-
Thirty days after MBRP	-	-

Table 4.20

Missouri Department of Corrections' Field Violations: Participant 2

Violations	Participant 2	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	-	-
During MBRP	2	33.3
Thirty days after MBRP	4	66.7
Violation type 30 days before MBRP	-	-
Violation type during MBRP		
Tested positive for alcohol	1	50.0
Special conditions	1	50.0
Violation type 30 days after MBRP		
Drugs	1	25.0
Reporting/directives	1	25.0
Special conditions	1	25.0
Supervision strategy	1	25.0

Table 4.21

Missouri Department of Corrections' Field Violations: Participant 3

Violations	Participant 3	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	-	-
During MBRP	2	66.7
Thirty days after MBRP	1	33.3
Violation type 30 days before MBRP	-	-
Violation type during MBRP		
Tested positive for alcohol and opiates	1	50.0
$180 in arrears on intervention fees	1	50.0
Violation type 30 days after MBRP		
Tested positive for opiates	1	100.0

Table 4.22

Missouri Department of Corrections' Field Violations: Participant 4

Violations	Participant 4	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	1	50.0
During MBRP	-	-
Thirty days after MBRP	1	50.0
Violation type 30 days before MBRP		
Tested positive for THC	1	100.0
Violation type during MBRP	-	-
Violation type 30 days after MBRP		
$180 in arrears on intervention fees	1	100.0

Table 4.23

Missouri Department of Corrections' Field Violations: Participant 5

Violations	Participant 5	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	1	50.0
During MBRP	1	50.0
Thirty days after MBRP	-	-
Violation type 30 days before MBRP		
Tested positive for THC	1	100.0
Violation type during MBRP		
Laws	1	100.0
Violation type 30 days after MBRP	-	-

Table 4.24

Missouri Department of Corrections' Field Violations: Participant 6

Violations	Participant 6	
	(*n*)	%
Violation incidents		
Thirty days before MBRP	2	33.3
During MBRP	2	33.3
Thirty days after MBRP	2	33.3
Violation type 30 days before MBRP		
Association	1	50.0
Reporting directives	1	50.0
Violation type during MBRP		
Association	1	50.0
Drugs	1	50.0
Violation type 30 days after MBRP		
Drugs	1	50.0
Tested positive for opiates	1	50.0

Analysis of the Qualitative Data

Using a semi-structured interview guide, interviews were conducted with the six participants after the eighth and final MBRP group session resulting in approximately three hours of audio-taped dialogue. This process produced a wealth of detailed qualitative data that otherwise would not have been available if data were collected through the use of questionnaires alone. After analyzing all transcripts, 17 themes were uniquely identified for this study by exhibiting convergence among data for three to six participants. These themes were further organized into broader clusters of major categories. Through this iterative process, five major categories were eventually generated in order to organize the thematic aspects of the data. The major categories include the following: (a) meditation practice promoters, (b) meditation practice deterrents, (c) mindfulness skills, (d) self-regulation of thoughts, emotions, and behaviors, and (e) consideration of self and others. Table 4.25 summarizes the qualitative findings of this study and outlines the resulting categorical structure.

Table 4.25

Major Categories, Associated Themes, and Participant Convergence among Themes

Major categories	Meditation practice promoters	Meditation practice deterrents	Mindfulness skills	Self-regulation of thoughts, emotions, and behaviors	Consideration of self and others
Themes	Introduction to meditation (*n*=6)	Commitment and motivation level (*n*=6)	Acceptance (*n*=5)	Anger management/ impulse control (*n*=6)	Kindness (*n*=3)
	Different group experience (*n*=4)	Challenges in daily life (*n*=6)	Mindfulness in daily life (*n*=5)	Problem-solving skills (*n*=6)	Attunement (*n*=3)
	Meditative practice resources (*n*=6)	Misperceptions about meditation (*n*=5)	Awareness of thoughts, emotions, and physical sensations (*n*=6)	Cognitive restructuring (*n*=6)	Other-oriented viewpoint (*n*=5)
	Recognition from others (*n*=5)				
	Endorsing meditation to others (*n*=6)				

Qualitative Findings

Major Category #1: Meditation Practice Promoters

The first major category, *meditation practice promoters*, includes factors influencing enrollment and inspiring meditation practice. Within this category, five themes emerged from the participants' descriptions of their reasons for attending the meditation course, any changes they personally experienced and/or that were noticed by others, factors that supported their meditation practice, and their overall opinion about the program. The five themes are: (a) introduction to meditation, (b) different group experience, (c) meditative practice resources, (d) recognition from others, and (e) endorsing meditation to others.

Introduction to meditation.

All individuals indicated a motivating factor leading to their participation in the study was a desire to acquire information on formal meditative practices. For example, one participant said he had generally heard of meditation during past episodes of being incarcerated, while another who was recently released from prison stated:

> I needed an introduction to it rather than read it and look at it on TV. So when I got the opportunity to get in the class and I didn't have to pay it, I was like I might as well jump at this…That's why when you came around I jumped at it. I jumped at it like it was like God had sent it to me. You know, because I had been wanting it you know? My wife said, 'You finally got in meditation' because I had been wanting it… I'm trying to read up on it, because you know when a person has been doing it for so long they kind of hit you with things that you don't know about. But the way you explained, it was kind of like the entry level. (P1)

Other participants also reported prior awareness of meditation and its possible benefits. To illustrate, one man stated:

> For me it was the fact that you talked about being mindful and paying attention to what's going on around you, as opposed to just zooming through your daily life and it's something that I've looked into in the past. It was about a year or two ago in an AA meeting and it just- right away I was struck by it; just the fact of not being a zombie and just mowing through your daily life, which is easy to do. (P5)

Going further, others reported previous attempts to meditate on their own, but never received formal instruction to ensure they were accurately practicing to maximize the benefits of meditation. One participant indicated, "The mindfulness of it caught my attention, you know 'cause it's something that I was trying to do already. Well, trying to practice and this clarified more of it" (P3). Another individual similarly remarked, "I wanted to learn more about meditating. And learn different techniques for meditating. And I can honestly say that I have" (P2).

Another factor influencing the participants' decision to participate in a meditation-based study included a need to be in a peaceful environment where they can learn to effectively manage stressors and challenges in life. As one individual, who was released from an incarcerated setting just before recruitment for the study began, described:

> Just trying to find a job. Coming to the PO, the family, bills, just generally life…a lot of life obstacles and I was knew I was coming into some more, that they were on the way…That they were knocking on the door, so I'm like let me find something just for me. You know, nobody else. I'm not sharing it, you know, it's

> just something that I can have and a place that I can go to that's just for me. I can block out the world. I can block out the world and it just be peace for a second. I wanted to find some type of peace. You know I had been frustrated about things and I had an uphill battle with things that was going on and I just wanted to find a place where I could relax, where I could get it off my brain and I heard meditation is like the best stress reliever...It came at the right time. It definitely came at the right time and I don't know how I would have took the stress of being released from prison and not having some way to relax my thoughts and come back home and things like that. So it definitely was important to me. It definitely is (P1).

In a similar manner, another individual indicated he joined the study because he was seeking skills to enhance the quality of his life and minimize the risk of relapsing on substances:

> Something that I could use in my everyday lifestyle, you know? Something that would better my chances. Chances to- for one, to stop using drugs, you know? You know find a way that I could recognize my triggers and stuff like of that nature and find a way to deal with them without going back to the using of drugs (P6).

Different group experience.

Being given the chance to alternatively participate in a meditation class as an adjunct to the traditional groups they received appeared to be a much sought after opportunity. Four participants admitted to enrolling in the study because it represented an opportunity to be away from the routine services they were receiving. As one individual explained, he wanted to "do something different" rather than just "sitting in the

groups" at the treatment center. Likewise, others were also looking for a stimulating experience outside the repetitive weekly group counseling sessions. One participant described this desire:

> For me it was a change of pace. You know going to the other class had gotten pretty monotonous. So I thought this would be a good chance and a lot of times in the other class my mind would be somewhere else. You know I'd be meditating on my own- my own life… Sort of daydreaming but just reorganizing and restructuring my own thinking and what I got to do and planning. That's normally what I would do in those classes, and so- Well most of the time, depending on what the topic was. Sometimes I would be engaged in the conversation, but a lot of times I would be daydreaming about other stuff (P2).

Another participant shared a similar opinion of how the regular counseling sessions were not always productive and that the structure of the meditation groups was rewarding in contrast to the routine group experience:

> Sometimes we need some time to sit back and self-reflect instead of just hearing a bunch of idle- because right now that's the way I see it as a lot of idle just chit-chat and just like it's not enough structure so it- and people are feeding off that, you know what I'm saying? I mean I can see people who get motivated off total nonsense. And it's like, 'What did I get from that?'...The change in pace from the redundant you know, free-for-all talks. It was a little more structured, you know, to what some of the things I thought I knew about meditation or, you know, a way of thinking; kind of gave a little bit more structure to it. So, yeah, I really took a lot from that (P3).

One participant highlighted an urgent need for a new treatment experience away from the customary groups that could positively impact his life:

> I didn't have a way out, you know? I couldn't find a way out. I was getting worse and worse, man. I had to find something different, you know? I needed something different outside the Gateway type program, you know? I mean I'm not- I'm not criticizing it because it did help me through some of the situations that I had in my life, but I needed something different, man. Something for myself (P6).

Compared to the customary classes at the treatment center, one participant informed the meditation classes were helpful because the adapted MBRP groups did not solely concentrate on substance use:

> Another good thing about it is, like the other classes, they focus more for drugs. And it's like, when we were in this meditation class, because we didn't really focus just solely on relapse prevention. We kind of went around the gamut of different things. I didn't so much think about doing drugs as much as I normally do when I'm in the other classes. Like I said, we didn't talk solely about not doing drugs in here. As a lot of times we do in those classes, we talk about not doing drugs the whole two and a half hours. And talking about not doing drugs and trying to prevent drugs, that sends your mind right there to thinking about doing drugs. And so I noticed in this meditation class that I didn't seem to fantasize about doing drugs as much as I normally would have if I was in those regular classes…it was helpful because we talked about other things besides drugs, and so us talking about meditation and being mindful and those things, that kept my

mind completely- most of the time, kept my mind completely off of doing drugs, thinking about drugs, you know what I mean? It was very helpful (P2).

Meditative practice resources.

The third theme that emerged from the first major category was meditative practice resources. The resources supported the participants as they learned and developed mindfulness skills. Each of the six participants acknowledged the importance of having continuous access to opportunities and resources if meditation practice is expected to develop and strengthen over time. Per the report of the participants, the meditation groups and practice resources that were made available to them during the study not only seemed to aid in the development of basic meditation skills, several individuals emphasized the importance of ongoing resources if they are to consolidate gains and maintain momentum following completion of an eight session meditation course.

Participants described the benefits of entering into a structured group with an instructor, as well as being provided with meditative practice tools and aftercare resources. Some participants specifically expressed their appreciation for receiving a CD player and a two-disc set of guided meditation exercises. According to the report of these participants, being able to practice meditation outside the group while following guided meditations supported their practice. One participant shared how he took advantage of opportunities to meditate during the day by carrying the CD player and guided meditations in his backpack (P6), while another indicated the CDs were an important resource because they offered him the ability to practice at home (P1). Going further, one of these participants acknowledged the advantage of having an instructor lead the

meditations by stating, “When someone is directing you through it, the voice and everything makes you feel like you can focus a lot better” (P6).

Having on-site access to meditation resources in a structured group setting seemed to be a desired resource for the participants. To illustrate this, one participant’s off-site movement was restricted due to being on house arrest and therefore, limiting his learning opportunities to the counseling center (P5). Another individual reported his meditation practice was derived solely from the weekly MBRP classes. This same participant verbalized a preference for guided meditation exercises and indicated he is more likely to engage in ongoing practice if given access to instructional resources via a structured setting:

> If I do the meditation I started here, I would have to do it in a group setting… it's just easier for me because it's like I'm just going somewhere else just specifically for this. And the meditation part that I like the most is when we gotta listen to whatever, be it you [*the instructor*] or the recording where you just breathe in, and now we're gonna switch the focus to maybe your feet. I just like to follow along. Just catch myself - so I think if I practice it will be in a group setting. It will be meditation classes or groups (P4).

Because the mindfulness-based classes offered during this study were helpful, but time-limited, several participants recommended the agency integrate meditation groups into the treatment plan for all clients. At a minimum, they suggested a meditation group be routinely available as an alternate resource to one of their weekly required classes. Although the researcher provided the participants with a list of meditation resources (e.g., recommended books, online resources, and local meditation groups) during the last

meditation class, one participant verbalized the importance of aftercare if the gains he made during the MBRP program are to be maintained:

> I have to go forward man, I can't- if I take two steps back it might not end up to be two steps, it might end up being seven or eight steps. And I'm not trying to take a step back.
>
> I'm gonna look through them books [*meditation resource list*], and read there and find out, you know, what it has to offer me...I just appreciate you giving me the chance to take your classes. (P6).

Another individual also described a desire for ongoing skill building and after care needs:

> I wish it was a second class, because I would take that… I would take one more… I would definitely take another round, and then we probably would go deeper and get into the second one… Now I'm ready (P1).

Recognition from others.

Recognition from others is another theme illustrating the factors that promoted the participants' meditative practice. Five individuals described external influences that not only reinforced their involvement in the meditation program, but offered admiration, encouragement, and motivation for continued change. These influences ranged from family members to on-site probation/parole officers and counseling staff at Gateway Foundation.

Two of the three married participants pointed out that their wives supported their attempts to practice meditation. For example, "My wife notices the change. She likes it" (P2) and, "She notices when I come home from it [*meditation class*] (P1). One of these

same individuals proudly reported that his children also commented on his new habit of practicing meditation at home, “Daddy had on them headphones again” (P1). Another participant explained how an extended family member observed a positive adjustment in his mood and behavior:

> My mother-in-law, she said she noticed a noticeable difference about me. I don't complain as much, I'm not quick to look agitated, you know. Because she said that because she's known me ever since I was a teenager, and she's like, “I can notice a big change in you. You're not as agitated, you don't complain as much.” You know, so it's like- so she kind of likes it. So she gave me some praise on that, you know (P3).

Another participant also shared how a family member’s recognition of a change in his appearance was affirming:

> Because my sister, like the other day she said, “You're looking good. Gained a little weight. Keep it up.” Like that, you know, she gave me a pat on the back. And you know it made me feel good to know that people are recognizing that I'm becoming a different person (P6).

Not all participants received verbal praise and recognition from family members. One participant, who described a distant relationship with his parents within whose home he lived, received applause from his parole officer regarding his decision to participate in the meditation course:

> The only people I really interact are my mom and dad for the most part. Nobody's really said anything to me about- I don't really interact that much. My P.O. did-

> she gave me a big up for coming to class every day that's I've been here since I've been on house arrest (P5).

Other participants also shared how their assigned probation/parole officers commended their attendance and provided positive feedback:

> My PO, she gave me a lot of praises about this too. She said, "I'm glad you took a second course within this place" and said she liked the reviews that I was getting from it, so she gave me praise too. I shouldn't leave her out of it because she's a tough nut to crack (P3).

In addition to family members and correctional staff, counseling staff also complimented the men on their attempts to change through mindfulness-based meditative practices. One participant proudly informed how his primary counselor at the treatment center noticed a change after he began attending the meditation classes:

> A lot of doors was closing for me and stuff. You know, a lot of things were happening. She was like- you know, "Really proud of you. Standing tall and coming to class smiling and joking with everybody. Keeping everybody uplifted and you're going through hell basically." (P1)

Another participant described several occasions where staff at Gateway Foundation-Corrections recognized a change in his demeanor since enrolling in the course:

> Even my counselor notices. She tells me, says, "Every time I see you now you're singing." Because I come early, most of the time I sit in the hallway right there until they open the doors. And she says, "You're always on time, you sit there and every time I see you you're singing"…I was coming five days a week. Now I'm

> two days a week. Because, you know, the way I present myself now. They see, I mean to where they seeing that I was going down, they see I'm coming back up now. So they're giving me a pat on the back as well…I got something different out of it. And even though I got something different, I didn't have to present it to everybody. They've seen it, they've seen the difference…It became obvious that I wanted something better and I was getting it, too (P6).

Endorsing meditation to others.

A final theme that emerged was endorsing the practice of meditation to others. Participants described how the training they received during the program was shared with various people in their lives, including family members. Moreover, they specifically recommended the benefits of meditation for their peers who are also under the supervision of the Missouri Department of Corrections. In doing so, these experiences suggested the participants developed a positive regard for meditation and that their endorsement to others strengthened their own individual practice.

Several participants mentioned they either plan to involve family members in meditation practice, or have already shared mindfulness-based skills with them. One participant described being comfortable with his wife's limited awareness of his involvement in the course; however, once he became more skilled in the practice of meditation, he intended to educate his wife so their home life may benefit from practicing in unison:

> She knows about it but I really haven't told her fully… because I want to kind of not so much master it but you know, get it where I can teach… I'm kind of planting seeds…and then I'm going to get my wife involved… so we can be on

> the same accord…it's going to be hard for me to stay peaceful and in a peaceful place if I don't bring her with me. Because once she becomes peaceful, then we'll have a peaceful home and you know, it'll [not] feel like I'm cheating her out of something, you know? (P1)

Another individual shared a similar experience with his wife but for him, she began actively using the meditative resources given to the participant the beginning of the MBRP course:

> She's listened to the CDs more than I have. I've actually influenced her to do the meditation. And so every so often she'll- you know when she gets stressed out, she'll put the CD in and she'll get into a quiet place and just do her own little meditating (P2).

For one participant, he explained how he purposely relayed information to his sister so that she could improve her own anger management skills:

> I've gone as far as to try and impart some of this kind of wisdom into somebody else that's angry or just pissed off for whatever reason… like my sister, she was pretty receptive. She's got anger problems. She's trying to let her slow down and kind of take a look at why she's actually getting pissed off (P5).

Moving beyond family members, one participant described how he and his peers within the MBRP program endorsed the benefits of meditation when talking among themselves. He said:

> The few guys who did come, they also saying things about it…We talk to each other after group. And they were sincere about how it's helping them…it seems

like everybody was participating that did come and everybody got something out of it (P1).

Several participants also endorsed the benefits of meditation to other offenders, specifically those registered as clients at Gateway Foundation-Corrections but not enrolled in the study:

I'd tell somebody that you missed out. Something that could have maybe even changed your life. Because like in the sober breathing space, I think everybody should practice that to help keep them out of the dangerous situation. Helping them step back and make better choices in their life…I mean a couple people asked about it too. As we was doing this program, and they asked and I gave a good review and then a couple of them did say, "I should have did it…. I said, "Well, I like that we sit back and get to really focus on treatment. We can talk about treatment, talk about different ways you can go about getting treatment, and your relapse prevention type plan. Or something that can get you out of that mode of like, 'Okay I'm feeling crappy so I'm going to go do this.' " (P2)

Likewise, another participant endorsed that other clients attend meditation classes so they may reap the possible benefits:

I'd tell them it will give you a better insight on, you know, your thought pattern. You know, on how to deal with certain life issues. That's what I would tell them…I would tell them that I was an angry person. You know, I had no direction. And you know I tried something new, and by my participation I learned a way to deal with my stressors, my life, in a different way. You know? And I mean it's something new. You know? And even in the NA book it tells you, you

> have to learn a new lifestyle. You know? You have to find a new way to live. And I would tell them if you apply yourself, you'll learn things about yourself… (P6).

One other participant offered a similar recommendation regarding opportunities to learn mindfulness-based meditation skills:

> I would just tell them that this is something different, other than the regular regimented classes that they're used to going to. And whether you get something out of it or not, it's definitely- you can learn something from being in a class like this. The meditation, just the way that you think about your emotions and thoughts and how they control everything that you do. And I'd convey that to other people…I wouldn't tell them that they're missing out, I'd just tell them it's an opportunity they should take advantage of …I like meditation as a whole and I think it just helps people center themselves with their emotions and their mental state (P5).

Another individual voiced a related opinion. He said that others who are closed to meditation fail to realize that being mindful in daily life is an enlightening experience. He stated, "I think you're cheating yourself and you're pretty much putting a tunnel vision on things. You know you're blotting out- you just seeing what you're seeing and it's a bigger picture" (P3). In a similar manner, another participant indicated meditation can be an informative practice:

> I would just say it's pretty insightful. Get to learn a few things that you might not know about yourself. Get to learn different ways to cope with different situations…You know, everything don't even require your attention or a response (P4).

In describing how the MBRP groups were helpful, a participant acknowledged endorsing the benefits of meditation to his primary counselor and other offenders at Gateway:

> I was telling her [*primary counselor*] like this meditation class is helping me. She was like, "It don't seem like you're going through stuff." I told her that I learned some tools, you know, that I can deal with. And I told a few other guys who was in [*regular*] class with me like, "Ya'll should try it just to see. You might not like it, you might like it. But it's going to give you some tools if you try it, especially when you're going through stress or you're angry…I would tell them to just try it. You know, don't knock it until you try it. Get in a class and just try it. And a few guys were like, "You know what, I'm going to try it." I would say, "Get in there and just try it. That's all you have to do." I really can't say anything else because once they try it they'll see. (P1)

This same individual also promoted meditation practices to his parole officer:

> I talked to my P.O. about it and she asked me, "How is it going for you?" And I was like, "It's helping a lot!" I told her I haven't missed a day…I told her that it's helping me a lot.
>
> And she was like, "Well that's good" and I told her she should probably look into it. (P1)

In summary, *meditation practice promoters* represent the first major category that was identified after analyzing the qualitative data. This category includes factors prompting involvement and motivating the participants' meditative practices. Five themes emerged within this category: (a) introduction to meditation, (b) different group

experience, (c) meditative practice resources, (e) recognition from others, and (f) endorsing meditation to others. These themes encompassed information related to the participants' descriptions of their motives for enrolling in the MBRP program, changes they noticed within themselves and/or that were recognized by others within their environment after they received the intervention, influences supporting their meditation practice, and their general view of the meditation course.

Major Category #2: Meditation Practice Deterrents

The second major category, *meditation practice deterrents*, includes factors hindering engagement and limiting meditation practice. Within this category, three themes emerged from the participants' description of factors interfering with practicing meditation outside the weekly group sessions, as well as their opinion of why other offenders at Gateway Foundation-Corrections did not enroll in the meditation course. The three themes are: (a) commitment and motivation level, (b) challenges in daily life, and (c) misperceptions about meditation.

Commitment and motivation level.

All participants described various dynamics impacting their ability to integrate meditation practices into their daily repertoire. These include infrequent and/or inconsistent practice of formal meditation exercises outside of the structured MBRP classes, not being fully committed or motivated, and an opinion that the weekly classes were too long. They also shared their perception of why more clients at Gateway Foundation-Corrections were not interested in participating in the MBRP course.

Although one participant described himself as a “work in progress,” he admitted he did not fully engage in daily home practice exercises and was not comfortable working toward change:

> When I practice it outside of here, it don't really get too deep…I don't know. I haven't really gave it too much- not effort, but practice outside of here real formally... I'm not going to do nothing that I'm uncomfortable with…I'm still a work in progress. Nothing specifically that changed. Yeah, I'm like generally a laid back kind of person. Like, I don't really get into much. I don't know. Not really much. I'm still working. (P4)

This same participant acknowledged he could have benefitted from practicing more outside the weekly meditation classes, but lacked focus and readiness for change:

> I don't really stay at home and meditate. I did it probably one time…I mean because I can make a little time for a little quick five or ten minute meditation, but it's like I don't. Just always end up getting into something else… But you know being in here, you learn some pretty decent things. But, I don't know, I feel like if you're going to do it, you gotta be ready or committed to doing it, not to just get out of the other group…I probably wouldn't get irritated as much. I probably wouldn't be all over the place, just so antsy. Probably be able to just be more laid back, a little more organized…Just for me personally, I'm just not there yet. (P4)

Likewise, other individuals admitted they didn’t spend a considerable amount of time thinking about meditating due to lack of prior experience:

> I had never really used the sober breathing technique. I probably could have a couple times…I just didn't think about. Didn't cross my mind…This is the first time I've been through something like this, so I don't really think about it. (P5)

Another shared a similar a position:

> I never thought about doing the body scan, you know, until I came in here. You know I don't do it as much as I need to but I found myself doing it like when I'm laying down, you know, and I'll do that before I go to bed. Do a body scan on myself. (P3)

One individual recognized a need to focus and dedicate time for the regular practice of meditation, “Me, it's trying to make time for it. I mean you've got to stop and think, 'Is this a good place or time to do that?’ ” (P2). Another participant elaborated on the importance of making time to consistently practice, in addition to changing his mindset that meditation is a pro re nata intervention used in response to a particular problem:

> It’s just me sitting there just taking the time, like, “Oh, I need to meditate!” You know what I'm saying? And then it was times where I'm like, “Catch the time to break your day to do it.” Mine [*practice schedule*] is normally the first part of the morning or late at night. And it's like during the day, that's when I found it difficult sometimes to just stop my day and do a meditation. That's where I need to be working on, you know? Not to where I've got to be stressed out or I'm about to lay down. (P3)

One other participant also disclosed he could have spent an extended time practicing each day, but expressed a future intention to eventually improve his practice

pattern, “Well, instead of making it five or ten minutes, I wouldn't mind going to 30 and seeing how I feel after 30” (P6).

Some participants stated the stamina of their meditative practice was impacted by low levels of energy and motivation. “When we first started this class I would probably- six or seven times. I was doing it every day; and then lately I- just not as much interaction. I guess me being lazy” (P1). Another participant also described his motivation level:

> I didn't do too many of the informal meditations out in the real world with this class…I didn't do the walking stuff, I didn't do all that…Yeah, I mean laziness, lack of motivation. Just like I'm not really motivated to do anything really. Meditation helps, I mean, you know, whatever you're doing, it just I've been really unmotivated to do anything. (P5)

Several participants offered their view on why their peers at Gateway Foundation-Corrections did not join the study. Similar to the MBRP participants who proclaimed a lack of motivation and/or not being ready for change, they perceived those who did not enroll to also share these qualities:

> I think people are just scared. I just- I mean there's a lot of people that are here that don't really- they don't want all this…They don't want treatment, they don't want change. They don't want stuff like that. Just another class, something different. I mean just I think it didn't appeal to them or they didn't care enough to really want to actually indulge in something like this. (P5)

Another participant expressed a similar belief, “Some people like are content with their routine. Like whatever, I'm going to grow this big [*held hands closely together*]”

(P4). One participant suggested for personal change to occur within the offending population, individuals need to, “Give things a chance. Try to get out your comfort zone. That's what we need to do is start getting out your comfort zone. Start doing something different and see if you might get something out of it (P3).

Even though the weekly 2 ½ hour group session mirrored the same length of time spent in the regular classes offered at Gateway Foundation, some participants perceived the length of the weekly MBRP classes to be too lengthy. Because they were restless or bored, they had difficulty staying focused. One participant described how being fidgety impacted his commitment level:

> Yeah that's just me period; always on the go, antsy, can't sit still. So I, I don't know. I tried it but I didn't give it a whole-hearted effort. Like, I probably could have, but- yeah, I'm just, I'd be all over the place…Restless. Because what I find that early in, I was bored real easily. In the first, like the second time I'm just like, "I don't think I'm gonna be able to do this." It was real, just real slow paced. And it just seemed like it just dragged timing. I don't know, my mind was just somewhere else all the time. (P4)

Another had a similar experience. He expressed a desire for the groups to be shorter in duration and be offered more frequently throughout the week:

> What got me is the length of time we have to sit here in this class; even this class or any other class. I think classes should be shorter. Or there should be more of them throughout the week. Because sitting here for two and a half hours in a classroom, no matter what you're doing, I mean meditation or talking about therapy or talking about treatment, I think it's just too long frankly, to sit still in

> one period. Yeah, for anything, for whatever. Make them an hour, hour and a half. Or maybe 45 minutes and break. (P5)

Challenges in daily life.

Participants described various aspects of their lives that hindered full engagement in meditative practice. These included stressors related to lack of privacy in the living environment, limited support, family conflicts, transportation difficulties, and concentration on meeting basic needs. Dedicating the necessary time to develop mindfulness-meditation skills was challenging due to the various life stressors each faced. For example, one participant was housed in a local community release center. Community release centers offer structured residential program to supervise offenders who are either transitioning from prison to the community or are at risk of revocation from community supervision. The supervision center where this participant was living has the capacity to house 550 offenders. This participant reported an inability to practice meditation in his living environment due to lack of privacy and fear of letting his guard down while surrounded by other offenders:

> I think it's pretty much the environment or- that you're in at the time. You know? Like for instance, the situation I'm in with the [*community release center*] and stuff like that. No, I don't feel comfortable meditating with my eyes closed with six other guys in the room with me…because in past I learned not to trust other criminals and stuff of that nature. Then you got each one of them is doing a separate thing, you know some legal, some not. I try not to involve myself in that…I think it's more because I won't be able to focus like I want to, because the thought pattern will be like, "You need to watch this guy over here." You know,

> but yes, when I get out of that place down there, I mean I'm going to have my own home back. Yes, I'm going to continue practicing. (P6)

Although this same participant was not comfortable practicing in his current living environment, he actively practiced while attending the eight MBRP sessions and attempted to meditate outside the weekly classes using the CD player and guided meditation CDs. These efforts, however, were not without limitations. He relied on public transportation and described restricted attempts to meditate without full privacy while riding a crowded and noisy bus:

> Well every chance I got when I'm going back and forth to work. Because it's a long bus ride, like an hour and 45 minutes, and I try to go to the back of the bus, so you know, the noise and stuff. I mean it wasn't a long period, though. You know like five to twenty minutes or so (P6).

Another participant, who lived in a home with his wife and several children, also lacked a private environment in which to fully focus and practice meditation:

> My family. You know, because it's kind of hard to do when kids doing homework, and they come home at 3:00. So like we get out of meditation class about 1:00, so I probably have like an hour before they get home. So I probably got about an hour or two before they get home. And you know the house is loud up until like 9:00… I would love to do it more. But like I said, my family, when they're at school, when my wife is at work and they're at school, I'm doing it. I'm talking about I light my candles and…I get into it… it's better for me to have just total quiet. (P1)

Many of the participants explained how stress in their lives made it difficult to consistently remain motivated to attend classes, as well as dedicating time for the practice of meditation outside the weekly groups:

> Outside of here is a whole bunch of different things going on. It's a little bit of everything. It's the environment, scheduling, not even really being too committed to it…For me it would just be everyday stuff. Like there's some stuff that I'm still trying to get together…I'm just all over the place. It's like every day trying to get something done and it seems like I'll get something done, and something else will fuck up. So it's like I'm- I just can't catch a break. Just for example, with this whole car situation. I mean, okay, now I got the car but this work, this little job is not really dependable or reliable. So I'm putting myself in the situation now that I have this car and this monthly note. Basic living. It's every day. Just so unpredictable. It's predictable but again, unpredictable. (P4)

As this same participant continued to describe the multiple stressors he encounters, he disclosed there are higher priorities requiring his attention before he would be able to truly consider integrating meditation practice into his life:

> I got way too much other stuff that I need to be doing. I mean it will help me to be chill, but it's like I've got so much fixing to do. It's like I don't even have enough time to just chill. Like, I'll chill when I go to sleep. If I had to put it on a scale [*referring to rating the importance of participating in the meditation course*], probably put it right at a five, and that's only because my personal self and my priorities. So, I'm still getting those together so I can't even sit up here and think and put meditation as a high priority when I got so much other shit that's messed

> up and that I need to prioritize. But I think it's helpful, it will be a good balance; eventually it will be higher up on the scale. But as of right now for me it's right at probably a five. (P4)

Similarly, the aforementioned participant living in the release center also voiced the struggles he faces in life. Because of the stress he encounters, he admitted to purposely disengaging:

> I have to say that I got a lot on my plate right now. And you know, when I'm down there [*community release center*], I just like to just more or less watch TV and sleep. And defocus off all the negative things that are going on around me. You know that's my thought pattern while I'm down there. (P6).

Another example of how life stressors and transportation limitations interfere with making meditation practice a primary focus was shared by another participant:

> A lot of times you can't help you get caught up in what's going to happen tomorrow or a week from now, two weeks from now. I think this class I've been more focused on, 'Alright, today is a good day. So you're going to enjoy today, as long as it lasts.' Like today I was happy I made it here and I'm kind of still basking in that, for me this is a milestone as far as coming down here to Gateway. And at first I really didn't want to come, and it's cold outside I didn't- well I didn't know I was going to have a ride to get here and I really didn't want to catch the bus…And so my friend showed up like he said he would to bring me down here and so that put a smile on my face that I didn't have to catch the bus. (P2)

Without consistent encouragement and reinforcement from healthy support systems, sustaining an active meditation practice was challenging. For example, one

participant could not join his immediate family who lived in the Southwest until he satisfied the conditions of his parole, while another described how conflicts with his father does not inspire success:

> My father, he's not really receptive to information that I bring to him…Me and my dad don't get along very well. So we- there's a lot of arguments between me and him for whatever reason. He drinks a lot so in early in the day we can't really conversate, but later in the day when he drinks, you know, whatever. We can talk and get along fine. But earlier in the day it's just like everything would piss him off and sets him in a bad- like he automatically just doesn't agree with my situation and what's going on. (P5)

Misperceptions about meditation.

Despite receiving an introduction to mindfulness-based meditation, a majority of the participants seemed to misunderstand the general practice of meditation. In addition, some indicated that others may have avoided meditative practices because it was an unfamiliar concept. These ranged from views that meditation should be practiced when time allows or used in response to stress (e.g., erroneous practice beliefs) to having a negative impression or being wary of meditation (e.g., not part of traditional programming/conflicted with religious doctrine). These attitudes and perceptions appeared to interfere with higher enrollment and more frequent practice.

A participant shared a view of formal meditation exercises (e.g., sitting meditation). He seemed to believe that formal meditation can only be fully practiced when an extended amount of free time is available. Because of this perception, he described the convenience of informal meditation exercises:

> I'm going to continue to do it. The informal. It's basically when I can't do the formal. You know, that's kind of when I do that when I don't have time to really, you know, get into it. But yeah I'm going to do it a lot more. (P1)

One participant illustrated a perception that meditation is to be used as a specific coping strategy when directly facing difficult situations in life:

> I don't know, I think meditation- it don't have an age limit, but I think it's more- how do I say, I don't know, it's more of a- I guess- I don't want to say a mature level, but I don't know. I feel like when you have to stop and just meditate, like I've been through some stuff but I haven't been through nothing that's like super dramatic where I just need to stop…I feel like meditation is where you're just taking the time and just really getting away from everything, focusing on just- you're just trying to find some peace I guess…I think it's like a stress management kind of thing, and I'm still dealing with stress the wrong way. (P4)

While another participant was describing his frequency of meditating, he expressed a similar belief that the use of meditation is reserved for coping with taxing situations, and on days of minimally experienced stress, the practice is not warranted:

> Maybe once every other day. You know, what was going on in that particular day, or how many stressful situations I came up against. Some day of course were better than others, where there wasn't really any stressful things going on, you know...Like the days that were really positive days or good days, you know what I'm saying, I guess I didn't really see a need for it [*meditation practice*]. Right then, you just live in the moment basically and enjoy it. (P2)

In the same manner, other participants indicated they did not practice more frequently because there was no need in the absence of stress. “I don't have a lot going on with my life. So the need for meditation really just hasn't really been a big deal for me” (P5), and “Like I said when things are going good, you don't see a need for it. You know. I mean sometimes you do. It all just depends on where you are, what the situation is, how your day is going” (P2). While describing his practice pattern, one other participant explained how he resorted to meditation when he encountered stress:

> We had class once a week so that was definitely a practice. And um, mainly when my- I'd say two or three days out of the week. Unless something comes up, you know, where I have to get in it now. Or you know, because I run to it like that. When I'm going through some things and I need it, I'll pull it out [*guided meditation CD*]. (P1)

Some participants believed meditation was an alien concept for offenders and therefore, they avoided participating:

> Because it was new… and it takes a while for you know, word to spread around and for people to get used to doing it. It was the first time and people didn't know...They didn't know what they were getting into so now you have a few people telling them you know, what's what…I think it's getting around. (P1)

Going further, other offenders possibly shunned involvement because of inaccurately assuming that meditation is a specific type of religion:

> A lot of people don't like different things; it was just too much out their norm to say meditate. They might took it as a religious class or they might took it as something too foreign for them to even try it. (P3)

One participant reported that he initially conceived meditation to be a cognitive exercise used for organizing and planning. After attending the MBRP course, he realized this was an inaccurate perception:

> I realize it what I was doing wasn't really meditating. More so organizing my life in my mind. You know what I'm saying? And so taking this course had showed me different ways of actually meditating. Or at least I block all that stuff out and not organizing my life, but really meditating. (P2)

Another individual, who did not practice formal meditation exercises outside the MBRP group setting and does not intend to after the course, reported making an effort to be more mindful each day. As he talked about this, he acknowledged that what he considered to be meditation practice was not entirely accurate:

> Not formally, but I don't know, like I kind of did it every day where I'm kind of being mindful. I don't think that's gonna go nowhere because it's ever since I've been starting it like I'm just mindful. And every time I think I'm being mindful, I think about this little group. Like, you know, it will just bring me here. I don't even think I'm doing meditation. In my mind it's meditation. (P4)

In summary, *meditation practice deterrents* represent the second major category that was identified after analyzing the qualitative data. This category entails influences affecting the participants' commitment level and restricting their meditative practice outside the weekly groups. Three themes emerged within this category: (a) commitment and motivation level, (b) challenges in daily life, and (c) misperceptions about meditation. These themes encompassed information related to the participants'

descriptions of factors that hindered their meditation practice at home, in addition to their perception of the reasons their peers did not participate in the MBRP course.

Major Category #3: Mindfulness Skills

Participants frequently described enhanced mindfulness skills due to participating in the meditation course. Within the overarching category of *mindfulness skills*, three themes emerged. These are: (a) acceptance, (b) mindfulness in daily life, and (c) awareness of thoughts, emotions, and physical sensations. Participants reported improved ability to let go of things beyond their control, amplified awareness of present-moment activities, and enhanced recognition of thought patterns, emotional responses, and bodily experiences.

Acceptance.

While the participants shared their experiences, five described efforts at accepting what was outside their personal control. In doing so, they were able to commit to actions that enriched their lives. These actions ranged from developing an open attitude, letting go of trying to control troublesome thoughts, recognizing the impermanence of things, and enjoying the present moment as it is without resistance. One participant described how practicing mindfulness allowed him to be more accepting of his current situation, rather than desiring for things to be different. As a result, his cravings decreased and his appreciation increased:

> Just makes me feel like I'm more grateful for the things I have right now… You know not to get- I mean, I want more. But I'm grateful with where I'm at right now, you know? I mean, even though I'm not pleased with the living situation. I still have clothes to put on. I still have something to eat, you know? I'm grateful

> for those things… less wanting things I don't have. It's not wanting the things I know that are not good for me. (P6)

Another shared how the practice of mindfulness instilled comfort resulting from adopting an attitude of openness and acceptance:

> Just being mindful, well it gives me a sense of comfort. Like just being able to accept things that you know you really can't control or change. You just be like, "Well it is what it is." Not like that silly stuff; beating myself up about it or stressing out about it, or trying to fix it…I stopped fighting it, I just let it happen. Just started going with the program, just giving it a shot. Just without any blockages or- I don't feel like I'm coming here today. Let me just go because I know I gotta go. Just changing my attitude about the situation basically. (P4)

Similarly, another individual described benefitting from making room for the reality of his situation, rather than resisting situations beyond his control:

> That's what my thing about acceptance. Because I was fighting being here altogether and it was like, "Why even do that?" 'cause then you get a mind state that you won't get nothing out of it. It can be something beneficial to you so once I start seeing that, it can offer you different things and kind of like don't fight the current, just go with it. You can get a little bit more out of it…At first I was getting angry about money situations or even just coming down here, you know? I don't even get mad about it now, I just take it in stride now and just more accepting of it because, you know, it's all going to come to an end and it's the way you act. You can't control the situation right now but you can control how you are and what are you thinking about and how you're feeling. (P3)

One participant adopted the stance of, “Actually enjoying life as it is…In that moment.” (P1). Likewise, another participant described how an open attitude allowed him to live more fully in the present moment instead of getting caught up in arranging the future:

> From this class I've learned to live in the moment, you know? And not so much planning- still planning for the future, you know, you're hoping that tomorrow comes, but you know just enjoying the moment, you know what I'm saying? And some of my planning is that I can live more in the moment, live for today. (P2)

Through the process of becoming more mindful, a participant cultivated an attitude of acceptance and the ability to let go. Instead of fighting the arising of negative emotions and becoming entrenched in troublesome thoughts, he nonjudgmentally acknowledged their existence and allowed them to run their course:

> You taught us a few ways to bring it back in; because that was my main- that's like out of everything, I go to that. That, “Bring it back, come back, pull it back in, take a deep breath.” And I also go to that, “Letting it go.” Like, don't get discouraged with some of my thoughts because some of the thoughts that I had still come. So I just notice them now and just let them go. I don't sit with it or I don't question myself like, “Why are you thinking like that?” (P1)

Mindfulness in daily life.

A majority of participants acknowledged the value of becoming more mindful in life instead of thoughtlessly rushing through life. They described being more attentive to what was happening in their moment-to-moment experiences. Rather than being on auto-pilot and “zombiefied” while moving through “day to day routines” (P5), participants

reported being able to engage more fully with the here-and-now. These experiences included being more in tune while performing daily routines, more observant of nature, and more aware of present-moment events and surroundings.

One individual explained mindfulness was appealing because it offered him the opportunity to become more insightful. He stated, "The teaching of just being aware what are you doing. Be aware of your surroundings. You know your actions more and just make you look at it a little bit more closely to what are you doing day-to-day" (P3). Another individual also explained how being mindful was enlightening, "It informed me…on different things that I didn't look at. I wasn't seeing it there" (P2). One participant expanded on these experiences:

> I'll catch myself doing it when I'm walking down the street and I'll just kind of slow down and just check out everything from the little kids who just crossed the street or watching them at the park, or the birds, or this car, the noise. Something could have just rolled in the sewer… Just paying attention…Everything is just more mindful. I just pay attention way more…I kind of use it every day. It seems like I catch myself. (P4)

Some participants practiced mindfulness while performing routine activities such as hygiene practices. This was accomplished through the physical senses of touch and smell. Two individuals experienced peace and relaxation from the purposeful application of mindfulness during these daily activities by intentionally paying attention to the sensations of water on the body or enjoying the fragrance of soap. One person shared his attempt at integrating mindfulness into his life by paying more attention while in the shower, "I was trying to set up a schedule and I would only do it when I would like be in

the shower. I just kind of- it would just be my little relaxation time…Just being aware of the water" (P4). Another individual described a similar effort at bringing mindfulness into everyday life, "The bathtub. That's my favorite spot. Just to smell the soap and feel the warm water. You know, it kind puts me in the peace" (P1).

Integrating mindfulness into daily life by intentionally slowing down and enjoying the moment when engaging in the routine practices of walking and eating were also described:

> I'm trying to get more of the informal [*meditation exercises*], that's what I'm normally been doing, the formal meditation. But now I'm trying to do the informal like- like the walking meditation where you can slow things down…Just like the meditation of just eating something instead of just cramming something up my mouth so I can get the full benefit of what it is I'm doing in this moment. I think we're missing out on like little pleasures of life, you know? Or we're so much in a rush to do everything, "I'm just gonna grab something to eat" and just get it in you just to fuel yourself instead of like, "Did I enjoy it? I just ate that. I didn't enjoy it." You know what I'm saying? (P3)

Another participant deliberately exercised his mindfulness skills by being more observant of the natural environment. While practicing mindfulness of daily activities, he noticed and appreciated things that otherwise would have been overlooked:

> I've been looking at a lot of things differently, that I wouldn't have even paid attention to. Because you were saying that auto-pilot, I was trying to stay off that. Now I'm being mindful to just some days I go out on our balcony- we have a balcony - and just watch the trees blow…Or, you know, look at the color of the

> sky. Is it a dark blue today, light blue? You know, things like that, paying attention to just little small things… I'm a lot more observant. (P1)

One participant also described being more mindful and considerate of activities occurring in nature. Because he embraced these moments, he was moved:

> We was in the park one day, and you know, I'm sitting there tripping off a little bug walking across the concrete. It was a little green- it looked like a leaf. And you know, I've never seen- to where I would never even have paid attention. I probably have just crushed it and just moved on. But I sat there and watched it move along, you know. Hop a couple times. I was like, "Wow!" (P6)

Awareness of thoughts, emotions, and physical sensations.

All participants described various aspects of mindfulness meditation practice that informed their knowledge of emotional, cognitive, and physiological reactions, patterns, and/or sensations increased. Ranging from being aware of negative emotions and rambling thoughts to becoming more intimate with their physical body, individuals reported mindfulness-based meditation exercises shined a spotlight on these various experiences. One participant described his experience practicing mindfulness, "It kind of just slowed things down and kind of just- you know, I have more like a fundamental grasp of what the physical reactions and my emotions are doing, whatever is going on" (P5). Another explained how mindfulness enhanced his awareness of the chattering mind, "How your mind jumps from things- like you said, the monkey mind, it helps that" (P2). Another participant added that the meditation course was helpful, not only in regard to increasing awareness of emotions and thoughts, but also learning how they can negatively influence an individual's behavior. He said, "You can learn something from

being in a class like this. The meditation, just the way that you think about your emotions and thoughts and how they control everything that you do." (P3). One participant explained how he was able to not get lost or caught up in his thoughts since attending the classes:

> The thing that I took from it [*the MBRP program*] was just the mindfulness thing. When I say that, it's- you know, I mean it's a situation or doing something and I can catch myself wandering off and I'm able to catch that. As I probably wasn't able before. I probably let my thoughts run away, but I could bring it back. This class helped me be more aware. (P4)

He further explained that skills taught during the course not only enhanced awareness of his thoughts, but also awareness of his body:

> Since this class I've noticed everything. Everything is more mindful… Yeah everything that's simple you just look at it and its way more deep than what it really is…Just take everything into consideration. You just- well I just pay attention to every single little thing. Like just me wiping my face right now. Not just my chin hairs. Like, I'm hot but- I'm aware of that… It's like a nice thought. Like my head just notices everything. I'm mindful of this, but I'll jump into this and I'm mindful that it's like I just…like I peep out of everything. I pay attention to everything. It's just insightful (P4).

Another participant enjoyed meditation exercises that focused on physical sensations as they occurred throughout the body:

> At the time that I am meditating, it makes my body feel like I can feel all the sensations in it. And I'm recognizing, you know, as it moves through my body…I

> kind of like the sitting meditation or the breathing, focusing on the feet, then the legs… the body scan… I can feel it going all through me and I really like that. (P6)

By the same token, one other participant reported how being mindful allows him to notice the movements of his body while walking:

> I do the body scan myself, like when I'm walking. You know I'll go into a meditative state to where I can feel myself walking and it's something I learned here in this class. So every so often I'll just go into a meditative state while I'm walking. (P2)

During the interview, one participant poignantly described the emotional and cognitive reactions he experienced while listening to a peer's story. His peer described a recent situation when he felt targeted while patronizing a store in Ferguson, Missouri. He alleged that a salesperson called the police after incorrectly accusing him of shoplifting; however, he reported cooperating with the authorities and was permitted to leave when no evidence was found to support the salesperson's suspicions. Although the participant questioned if he would have responded in the same calm manner as his peer, he acknowledged that through the practice of mindfulness he was able to recognize he was becoming increasingly irritated as the story was being told. Furthermore, this participant informed he was able to deescalate his emotional reaction and circumvent getting caught up in the storyline of maladaptive thoughts and troublesome images that were occurring in his mind:

> I guess for his story, I was just listening to it, with the whole being accused of stealing things. And with this practice, I don't, I don't even think I would have

> been able to keep as calm as he would have, especially knowing I wasn't in the wrong. I'm saying even with this practice [*meditation*] I was just noticing him telling his story how I kind of dipped off into thinking more into it, thinking like, "What I would have done in the situation?" But, I don't know, it just makes me a little more mindful… I brought it back to just listening instead of putting myself in it…At one point in his story I got irritated. And I was only irritated with just the fact that, the targeting, you know he's trying on pants, you know, sizing them up and she's going to say this man's stealing and here the police are waiting. It just- the whole situation irritated me because I've been there before. It was real quick, I just- slight irritation, wipe it out, got back focus. Because it wasn't really my situation, but I can completely relate. You know I live in Ferguson and it's an everyday thing in some kind of way. Whether it be with the police or random people…it's on guard. (P4)

In summary, *mindfulness skills* represent the third major category identified after the qualitative data were analyzed. This category includes the participants' reports of becoming more mindful after attending the modified MBRP course. Three themes emerged within the *mindfulness skills* category: (a) acceptance, (b) mindfulness in daily life, and (c) awareness of thoughts, emotions, and physical sensations. As described within these three themes, the participants' reported greater ease at letting go of situations outside their personal control, improved present-moment attentiveness, and heightened awareness of thoughts, emotions, and physiological sensations.

Major Category #4: Self-Regulation of Thoughts, Emotions, and Behaviors

The fourth major category involves self-reported improvements in regulating thoughts, feelings, and behaviors. All participants described enhanced ability to manage challenging cognitions, difficult emotions, and harmful actions after participating in the mindfulness-based meditation course. Within the category of *self-regulation of thoughts, emotions, and behaviors*, three themes emerged from the participants' descriptions of the positive changes that occurred. These themes are: (a) anger management/impulse control, (b) problem-solving skills, and (c) cognitive restructuring.

Anger management/impulse control.

Participants frequently described changes in dealing with angry feelings. They also reported transitioning from automatically reacting to effectively responding when faced with challenging situations. One participant explained being less reactive and more cognizant of available options:

> Well I'm able to catch myself, I'll phrase it like that. I guess it's hard for me to- just more react and just off of like instinct. Just kind of instantly. I mean, that was before. But with this little meditation thing, it's easy to kind of just choose your battles. (P4)

Another participant indicated the intensity of angry feelings and the frequency of outbursts have decreased since learning mindfulness skills:

> Since taking the class I don't- normally I do have a temper sometimes. But since taking the class, I've been able to kind of tone it down quite a bit. You know what I'm saying? Stop and think. And before I speak or before I fly off the handle or go off on people. (P2)

This same participant went on to say that his family has also noticed this change:

> She [*wife*] noticed that I don't snap about things as quick as I normally would. You know, normally if something is not right or somebody didn't do something right, or one of the kids not doing what they're supposed to do, I normally just snap. (P2)

Family conflicts were an anger trigger for one participant. He described a situation when he intentionally practiced a specific meditation exercise rather than reacting to his father:

> The last time I used it [*mountain meditation exercise*] it was- moving some furniture from my basement to the second floor of my house. It wasn't working out and my dad's a pain in the ass. Trying to work with him is really difficult and just he really pissed me off and I just didn't say anything but I went and did that mountain meditation. Just cleared me up and I was good to go back…Yeah, it just calmed me down. I think there I could have used the sober breathing exercise but that just- I kind of walked away and did the mountain. (P5)

One participant indicated he is not as easily frustrated when confronted with various stressors in his life:

> Sometimes when I did get stressed, a little frustrated about stuff, I'd sit back and like. "I need to just calm myself and meditate."…I notice I haven't been getting angry. You know what I'm saying? At first, I was getting angry about money situations or even just coming down here, you know? I don't even get mad about it now. I just take it in stride now. (P3)

Another participant reported how practicing meditation allows him to create space to defuse and make healthy choices rather than instantly getting angry and habitually reacting:

> I don't have to be angry if I don't want to be. It's kind of helping me control my feelings and my thoughts. When in the past I thought that I had to react and I don't have to…I would have probably gotten high...I probably would have gotten high or yelled, or you know, anything where I would need a ventilation system. And now, it's- I am the ventilation system. So I don't have to look for anything, I can just back up and get to my zone…When I was angry I didn't know what to do. I was frantic, you know? I would have to smoke a cigarette or walk off or you know. I would have to do something to release it, and then I didn't know why I was having- 'cause I even had thought about that I had anxiety or something because when I would get angry I couldn't… I was really agitated and I couldn't- it took so long to turn it off, you know? So now I can. Give me about five minutes somewhere…I can turn around pretty fast. (P1)

As an example, he reported recently obtaining a job that quickly became annoying to him after he was hired. Instead of making a rash decision to quit just became he was irritated, he described how his meditation practice enabled him to manage his frustration and make a logical choice:

> I would have left [*the job*]. I already know that I would have left. It's [*meditation practice*] just given me a little more strength as far as to stay grounded. Because I would have- like I said, I would have left. I already know I would have left. Just

> for me to take time to think for a second, to bring it back, just makes a lot of difference. (P1)

One individual movingly described a specific event that occurred the day before the interview. In this situation, the participant believed he was profiled by a salesperson in a clothing store because he was an African-American man. He reported being falsely accused of shoplifting. When confronted by the police, he described how he remained composed and cooperative rather than impulsively reacting and strongly resisting as he might have done before attending the meditation classes:

> I have an example that happened yesterday. I was in a store. I was trying on clothes. Well, I was putting them up against me and some lady, evidently she thought I was stealing or something, you know? And when I went out of the store, the police were waiting for me when I came out of the store. And they pulled me over and said- then the lady came out of the store and she said, "You know that he was putting stuff in his front area there." And I explained to her what I was doing, but they still patted me down and everything. You know to where I would get angry [*in the past*] and start saying, "Well man, you ain't gonna be touching all on me man!"…I just went through the process. I know I'm a convicted felon and everything. And instead of getting angry and stuff, you know, like with the situation in Ferguson. You know how that's going right now. And it was Ferguson police…It ended up better than I thought it would. Because, you know, the lady said maybe she had a mistaken identity or on what I was doing. Look, I even showed her that I had money in my pocket and everything…I would have snapped [*in the past*]…Knowing that anger wasn't going to solve anything. Being

> angry and frustrated I'd have probably ended up going to jail when I didn't have to…I just took a deep breath…I took a deep breath and then instead I asked him [*police*], "What do you want? What do you want me to do? You want me to empty out my pockets, or whatever? You know I'll do whatever you need me to do."…In my mind I wanted to really tell the cop make sure you write a police report because I could like sue them for that. But I didn't even do all that. I just gave my driver's license. I don't have any warrants or anything…and then I left. (P6)

Problem-solving skills.

All participants discussed various situations reflecting better problem-solving capabilities. These include shifting perspectives, recognizing choices, practicing effective stress management, and considering potential consequences before acting. One participant reported how taking the meditation classes helped him change the manner in which he views situations, as well as how he reacts in response to them:

> It helped me to get in touch with myself, you know? It helped me to be able to analyze things, things that I'm used to reacting to. Now it taught me how to think before I react…
>
> And while I'm in the meditation my thought process is pure. I can figure out ways to focus on one thing instead of focusing on four or five different things at the time. And then after I resolve that, then I can move on to another…And then when I come out of the meditation I feel like a burden has been lifted off of me at the time. That's no more. I will deal with this now… I keep my focus on what's ahead, not what's left behind…And it makes things- makes things more

> unstressful…to be able to just relax…I know I'm not going to be rid of all stress. But I know I have, I have tools that I can apply now. To rid myself of stressful situations that might progress into me doing something stupid and falling back into my old pattern...And the way you made decisions in the past, you can make different decisions now…You have a choice to make- to choose a better way…You learn to appreciate things more. (P6)

One other participant conveyed a similar decision making benefit of mindfulness practice. He stated, "It gave me a little more stop and pauses. Like some things I can just stop and say, 'No I'm not gonna do.'" (P3). Another participant shared how he considers the extent of situations before choosing how to respond:

> Some stuff just don't really put too much energy into, or really don't require a response or an action. And I don't know, that's when I kind of think like, "Well, I'm just gonna take a deep breath," or "It ain't even worth it."…We could take it there. But I don't know. A little bit more chill, a little more laid back with the meditation. Is it something even worth a reaction? (P4)

To illustrate, he discussed a challenging situation where he was confronted by a hostile acquaintance within his community. Rather than impulsively reacting, he elected to effectively manage the situation:

> I was at an associate's house. And two people had got into it or whatever, and it got kind of heated. And one of the guys had made a comment like, "I don't give a fuck about nobody in this room! I will whoop anybody's ass in this room!" Me, knowing it didn't have nothing to do with me, I still got a little irritated so I had to get up and get out of the room…So I just got out the room because- I could have

> took this some kind of way but it had nothing to do with me. But that statement, I felt like it had everything to do with me. It included everybody at that moment. But I just got up and left out. But normally, I would have like, "Hold on!" you know? Addressed it, but it didn't require it…I noticed that it affected me but with this little stuff that I learned from here, I was able to quickly decipher that it wasn't- it didn't require my attention personally… It's not about me… I just left out the room 'til they finished. (P4)

One participant described how a mindfulness exercise, SOBER Breathing Space, supplements his catalogue of coping strategies. When utilizing this technique, he reported the ability to pause and contemplate choices. Per his description, engaging in this process helped him make healthier choices and minimized his risk of relapse to substance use:

> It's all the breathing space for me. It's the technique that- well you step back and I- before this course I normally would try to do that when I get into bad situations or you know, where the outcome could go either bad or worse. And normally I always like to step back, stop and think about what I'm doing to make sure I don't make a monumental mistake. You know, a mistake that I can't take back. And so I learned about SOBER where you step back, observe, take a deep breath. You know, that was confirmation for me that I was in that right direction, the right area of doing things...That SOBER breathing made me stop and think. Like before, I would go down a dangerous area and I know what it's about. But first I would just sway and go ignore it. Now it's like you're taking a time out, stop and think about what are you about to do, and how will this affect me in the long run. So

> now I'm more aware of that. Well, say there's like, "This is a high crime area. You know what happens here. Don't ignore the signs and warnings." You can pay attention to this or what could be the outcome…it can go south on you real quick. Now it's like you can stop and like, "Before I put myself into this situation I'm going to stop and think."…It helps me manage my own emotions. Keep myself in check, and also helps me as far as like my relapse prevention plan, you know what I'm saying? Part of that- part of my plan is stay mindful of my surroundings and also be mindful of stressful situations, you know what I'm saying? I know that these situations are going to cause me to get myself in trouble then it helps me to avoid those situations. (P2)

Another participant also described how mindfulness-based mediation complimented his relapse prevention skills:

> When I signed up for the meditation class, I had just been released from prison and I hadn't seen my family in four or five months. You know, things were chaotic at home, and I needed it, you know? And then as far as my sobriety goes, I'm clean and I don't have to hold on to the stress. So, you know, maybe that will help somebody else because a lot of the drugs and getting high and everything. It's 'cause people hold onto so much stress and they don't have a ventilation system so a lot of people go to drugs. (P1)

He added that through the practice of meditation, he was able to alter how he approached the pressures and problems he encountered in life:

> I get to bring it all back and I think about it for a second but when it's too much or I haven't figured it out yet, I can just let it go for a second and you know, I can

> relax; I don't have to make a decision right now…and get in the zone; especially when I feel things are being heavy on my heart and my mind and everything. And like it's starting to feel heavy, the pressure and everything I'm like let me go vent, get some of this off me. (P1)

Cognitive restructuring.

Participants described increased insight into their thought patterns and improved ability to regulate negative cognitions. These changes involved recognizing negative thoughts when they occurred, replacing negative thoughts with positive thoughts, and realizing that thoughts are not facts. One participant described how performing a guided meditation exercise helped clear his mind of negative energy:

> I think the sober breathing is good, but I like that mountain meditation. Where you do the mountain and you do all the happy positive things. Like, for whatever reason, it kind of helps clear my mind…It's a peaceful like Zen kind of- it helps like if I have any bad energy or like any bad emotions or bad whatever, just do that. It only takes a couple minutes, but it just helps clear my mind. (P5)

He indicated the meditation groups were important to him because he learned how cognitions and emotions influence physical actions. In addition, he learned that thoughts are not necessarily true representations of reality:

> It's been pretty important. Just kind of gave me a better understanding of the way- I mean, a lot of this information I already know but it's something that I never really think about daily. How your emotions and thoughts really kind of propel everything that you do and me thinking a certain way doesn't make it true or false

> when someone says something or something happens in life. It's pretty much just all the way you react to situations. (P5)

Another participant described replacing harmful thoughts with constructive ones when facing a challenging situation. He also acknowledged how practicing present-moment awareness reminds him to keep an optimistic perspective on life:

> And so that's going to be my purpose for, you know, make it second nature. And it takes practice. If I practice it often enough, then any time something arises where I don't like, or it makes me upset, or anything like that, I can keep myself out of a lot of trouble by practicing it so- I'll better just pull that up out of my mind you know, almost instantly like, "Oh, stop, take a deep breath, think about what you're doing. Think about your consequences"…I just start meditating and thinking, "Okay, take a deep breath. You know this is a bad situation. So the only thing you can do is walk away." And start thinking of something positive…It helps anybody. Get you to stop, think, step back, take a deep breath. And I think any of us need to be reminded of that. Also remind to live in the moment, you know what I'm saying. Notice how good things are right here and right now. (P2)

One individual described how he practiced meditation exercises before bed because it helped quiet his mind by slowing the pace of frenzied thoughts:

> Before I can lay down and try to clear my head, you know I try to get that out of my head; that's why I'm meditating a lot of times before I go to bed. Because I have a problem sleeping a lot of times, so I need that. To sit back and like try to clear your mind so I can go to sleep; because if I don't I will just- all the thoughts and whatever I did during the day is gonna just bombard me sometimes. (P3)

Another participant also explained how mindfulness meditation enhanced the clarity of his thoughts, which in turn improved his ability to evaluate situations and make healthier choices:

> The course has made my thoughts purer, you know? You understand what I'm saying? Because to where the things I was used to doing, I found a way to push them back. To analyze the situation and find something better. Something better for me and for the people around me, you know? (P6)

Although one individual admitted meditation is not a panacea for all troubles in life, he admired its capacity to shine a light on negative thoughts and destructive attitudes so they do not co-opt a person's outlook and decision making abilities:

> It's not a cure-all but I mean it helps me notice where I can easily just take a negative point of view when that negative thought comes around and like just ride with it. But just leave that it's just a thought, you know? I'm responsible for my actions and I'm responsible for the time that I gotta do here. So it's up to me how I'm going to do it and how I'm gonna come at my approach with it. (P3)

Mindfulness meditation helped one participant recognize that his negative thoughts were affecting his mood and attitude. After being employed for only five days, he quickly became frustrated and considering quitting. He described running interference before his thoughts spiraled out of control and he reacted in a manner he might later regret:

> I'm at a job and I don't like it too much and I start having all these thoughts like, "To hell with this job! You know, they're probably just going to use you for about 90 days so they can get caught up on their stock…And then you're driving all the

> way to [*location of job*]. You don't need this. You could find something closer to the house." You know, I start giving myself excuses and rambling on about- and then I say, "Hold on." I found myself rambling…like I was trying to guide my brain to make a decision. You know, I start amping myself up saying certain things. Working myself up. So I say, "Hold on, hold on a second." And I noticed it. I'm like, "Hold on, bring it back." And then I brought it back and I started replacing a lot of those thoughts with positive thoughts. (P1)

In summary, *self-regulation of thoughts, emotions, and behaviors* represent the fourth major category identified after the qualitative data were analyzed. Within this category, three themes emerged from the participants' descriptions of the changes that occurred: (a) anger management/impulse control, (b) problem-solving skills, and (c) cognitive restructuring. This major category is related to the participants' reports of experiencing improved management of difficult thoughts, challenging emotions, and risky behaviors after attending the mindfulness-based meditation sessions.

Major Category #5: Consideration of Self and Others

Consideration of self and others is the final major category derived from the participants' experiences attending the MBRP classes and practicing mindfulness-based meditation. Within this category, the participants described being kinder toward themselves and others, becoming more attuned to the people around them, and considering the perspective of others. The three themes are categorized as (a) kindness, (b) attunement, and (c) other-oriented viewpoint.

Kindness.

A few individuals reported improved self-esteem, decreased self-criticism, and thoughtfulness for other beings. One participant acknowledged becoming more aware and attentive to his present-moment experiences since practicing mindfulness. He indicated he noticed things in life that he probably would have overlooked in the past. For example, he spotted an insect crawling on the ground and instead of carelessly stepping on it; he stopped and became fascinated as he intentionally watched it move across the path. In doing so, he appreciated the insect rather than thoughtlessly killing it. This participant acknowledged that becoming more aware and attentive in life is self-gratifying. He said, “And experiences like that help you feel better about yourself.” (P6). This same individual also described more self-respect and self-worth as a result of participating in the meditation classes:

> I'm gonna tell you like this. I used to hide from mirrors and stuff. And now I can look in the mirror at myself, tell myself, "Look, you're doing fine." I'm telling you man- Even my girl, she used to tell me, "Look, stand in front of the mirror and look at yourself." And I couldn't even do it, man. I couldn't even do it… I was down, I wasn't looking good. I didn't groom myself like I used to. You know, but I can look in the mirror and see the difference. Because I know where I'm going now. You know, I know where I want to go. (P6)

In a likewise manner, another participant described extending more kindness toward himself rather than engaging in self-deprecation:

> …Before the [meditation] class I was doing a lot of, I guess, self-beating up, you know? Saying, “I'm almost 40. You're supposed to have done this by now. Why

didn't you go to college? You screwed up your life!" I start beating myself up about it. But then lately I've been thinking since I've been in the [*meditation*] class like, "But you're still living. And you still have all your limbs and you wake up to fresh air every morning and you have a beautiful family!" and I start looking at the right now. (P1)

An effort at enjoying each moment as it unfolds was also made by another participant. Instead of dwelling on the past or worrying about the future, this participant moved from being frustrated to practicing an act of self-kindness each time he attempted to live more fully in the present moment:

> You know what I'm saying, enjoy today to the fullest. And you know, that's one of my pet peeves. I've always tried to do that but I don't think I've been successful. And so I'm trying to refocus those thoughts and actually make it a reality as far as living today in the moment. Enjoying how I feel right now in this moment. (P2)

Attunement.

Becoming more attuned to others was a product of participating in the MBRP course. Some participants reported increased engagement with significant others and family members. An improved ability to be aware of the feelings of others was also described. One participant shared how he was easily irritated in the past when his children did not do exactly as he expected. His frustration would lead to angry outbursts and arguments with his family. Since practicing meditation, he became more sympathetic by taking the needs of his children into consideration:

> Now I stop and I realize they're teenagers and maybe they need to be talked to. And I'll sit down and I discuss things with them more rationally than loud and

> boisterous, “I'm Dad and you're going to listen to what I'm saying!” More so now, I just stop and take time and talk to them civilly and see if I can get through to them that way. (P2)

Another participant also reported increased attunement with family by being more present and interactive:

> You know instead of just going in and going out and sleeping, eating, watching TV… I've been doing a lot more- and then I talk more. You know? Like I want to know more, asking my daughter how was her day at school. And like, 'What are you doing? What did you do at lunch?' (P1)

One participant described changes in how he interacts with his girlfriend. He explained that prior to the entering the MBRP program he had stopped being courteous and helpful in their relationship. After the course, he shifted toward a more caring approach:

> At a time I was the type of person, very respectful. You know, I'd open the car door for her. You know, I'd let her in the house first, cook dinner. I didn't do any of that stuff. But now that I'm doing it, she recognizes that. (P6)

This same participant described a past situation when he visited his family in a nearby town. He admitted to being angry, defensive, and detached during the visit. In recent times, however, he became more harmonious with family and more affable when talking with people in general:

> You know I used to shut them off, you know what I'm saying? I used to isolate myself. Like before then I used to call them every day and say, “Hello” and everything like that.

> I had this one incident to where I had went to [*local town*]. My sister had a barbeque and I was at my [*drug*] using at that time. And I had went out there and I had the understanding that they were going to criticize me for you know, going back to doing these stupid things that I was doing. It was like- it was before we started the class…I went out there and I had anger built up inside of me. You know, and when I got there they were nice to me. They weren't criticizing me like I had already presumed things were going to be…And then when I got there, and they flipped the script on me and they were different. You know, they were asking me questions and being nice to me. So now in my mind, I don't like you being nice to me. So now I want to get mad because they're being nice to me…I was messed up then man. But now I would go sit and we can talk, you know? I can tell them where I'm at. And not only tell them, they can see it in me…And even when I speak to people, I don't have that frustrating type of a tense body feeling. (P6)

Other-oriented viewpoint.

Developing the ability to consider the perspective of others is the final theme that emerged from a few of the participants' descriptions of changes they experienced after participating in the study. Self-reported changes included being more empathetic to the feelings of others and attempting to understand the factors influencing another person's behavior. For the participants who spoke of these changes, they reported being less critical and not as hurtful to others. As an example, one participant discussed how attempting to practice empathy and adopt the viewpoint of another person helps him be more considerate and patient:

> I step back and put myself in their shoes real briefly just for a split second. “See, okay, well maybe there's two sides to everything.” You know what I'm saying? Other people have feelings and I guess before this class I didn't really consider that other people have feelings. And you know, maybe I've said things in the past that maybe was hurtful to people. And now I think from this class that maybe it's not such a good idea to just fly off the handle. Maybe it's a better idea to stop, think about it before I speak, and then think about how the other person feels. And so that's kind of helped me to not fly off and not hurt people's feelings. (P2)

Another participant also acknowledged the meditative practices helped him to be more empathic and less judgmental:

> That's kind of like helped me with some of my judgment of people, you know? When they're acting out or whatever it's probably something in life that's causing them to do that. So I kind of like think about what's going on- probably something might be going on with that person's life instead of me just getting prone to anger like, “Why the hell did he do that?” or say something like that. But there's got to be something that triggering that. 'Cause at first I didn't stop and think about what could be triggering that person to do that. (P3)

Another participant described a similar effort at considering the feelings of others, as well as taking it a step further by attempting to help others understand the underlying reasons for their emotions and behaviors:

> I mean normally when somebody is angry or pissed off and treating you a certain way, the reason that they're doing it is not the reason that they're mad. You know I

try and talk to them about it, “Maybe you should slow down. Maybe you should think about why you're angry.” (P5)

One participant acknowledged previous difficulty being perceptive of his wife and her feelings but as of late, he was more aware:

I can kind of tell people, you know? I can tell when there's something wrong… a lot more now, and when before I guess I didn't even- I wouldn't notice, but now my wife does notice that…Because you know women, I couldn't really read because they got so many emotions. But I can tell like when she [*wife*] had a bad day at work or was she happy. I'm kind of more in tune with the family. (P1)

This same participant also reported becoming a more sensitive spouse who is mindful of not hurting his wife’s feelings. He described how considers her feelings and averts the escalation of arguments:

When I see that argument is going, it's going to go in a certain direction or- I notice it, I say, “Hold on. Let me back up for a second because I've been at work all day. I'm tired.” I don't want to say anything that's going to hurt her feelings or any of that. Let me relax for a second so I would go into another room, the bathroom or something, and just take deep breaths until I feel the calmness come over me because that's when I know that I'm in the meditation zone. I call it the zone because I'm finally relaxed. You know, my muscles relax, my hands, my face. I know I'm relaxed. (P1)

Even though the aforementioned participant who described being a victim of stereotyping was upset by the incident, he attempted to understand the reasons behind the salesperson’s actions after he was falsely accused of shoplifting:

> I was feeling like, I just wanted to leave you know? I just wanted to get it over with, whatever you're going to do. Because you know in my situation, you know thinking through it, I was kind of feeling at the time like I was being harassed. Because I don't know, I mean maybe this girl had some other situation to where she's seen people like me dressed like- but most the time I'm always dressed nicely, you know? So I don't know if she had a grudge against people, or whatever you know? (P6)

Later in the interview, this same participant admitted to having an uncaring attitude toward others in the past. After joining the meditation group, he developed a friendlier and nonjudgmental attitude toward others:

> Normally I wouldn't even give a shit one way or another. But right now I speak to everybody, man. You know, the lady walking down the street with a cane. I'll speak to her and say, "How are you doing today?" and give her a little smile. If she doesn't want to smile or say hi back, that's alright. I keep moving. (P6)

In conclusion, c*onsideration of self and others* represent the fifth and final major category that was identified after the qualitative data were analyzed. Three themes emerged from the participants' descriptions of the changes that occurred attending the MBRP group sessions and practicing mindfulness-based meditation exercises: (a) kindness, (b) attunement, and (c) other-oriented viewpoint. Within this fifth major category, the participants described their experiences of becoming kinder, in tune, and considerate of self and/or others.

Summary

The study was designed to explore the experiences of adult males on probation or parole in relation to anger experience and expression, mindfulness skills, empathy-based constructs, and field violations and probation/parole revocation after participating in Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011). Following the protocol outlined in the MBRP clinician's manual, but adapted for anger management, the researcher taught mindfulness meditation exercises to six adult men under the supervision of the Missouri Department of Correction's Probation and Parole Board. The participants were recruited from Gateway Foundation-Corrections, a non-profit provider of alcohol and drug treatment for clients involved in the criminal justice system. The six individuals volunteered to join an eight session mindfulness-based meditation program. They also completed pre- and post-test questionnaires and participated in semi-structured interviews after the final MBRP session.

Quantitative data were acquired through questionnaires, inventories, and correctional system records. Variables of mindfulness skills, anger experience and expression, empathy-related concepts, and institutional offending were assessed respectively as follows: Five Facet Mindfulness Questionnaire (FFMQ), the State-Trait Anger Expression Inventory-2 (STAXI-2), the Interpersonal Reactivity Index (IRI), and data provided by the Missouri Department of Corrections' Research and Evaluation Unit. The Paulhus Deception Scale (PDS), a self-report questionnaire, was also given to assess for socially desirable responses. Because the sample size was small, and the statistical power needed to detect a meaningful effect was absent, hypotheses testing could not be

conducted. In light of this, descriptive statistics were used to report the results of the quantitative data. The pre- and posttest questionnaires were scored for each participant according to instructions provided within each inventory's manual. Scores were compared against the published normative means and standard deviations before and after the MBRP course for each individual participant and the overall MBRP group. The difference of the scores from the normed means and standard deviations were presented in *z*-score units.

When comparing the MBRP group's IRI and FFMQ pre-test means with their post-test means, resulting scores suggest slight changes occurred in regard to empathy and mindfulness skills. The STAXI-2's Anger Expression (AX) Index is an overall measure of the expression and control of anger. Although the MBRP group's AX Index score slightly increased between the pre- and post-test measurement period, the MBRP group primarily scored slightly below the respective normative means in all STAXI-2 scales and subscales before and after the mindfulness-based meditation course. When reviewing the collective STAXI-2 scores of the overall MBRP group, the results suggest that as a whole, they were not a group who experienced and/or expressed angry feelings to a degree that interfered with optimal functioning. Results of the PDS varied among the individual participants between the pre- and post-test measurement periods. The cutoff scores for the Impression Management (IM) scale suggested some respondents may have been "faking good" while others were possibly "faking bad." When reviewing the overall number of field violations that occurred among the MBRP group 30 days before, during, and 30 days after the meditation course, the number slightly increased throughout the measurement period.

Qualitative data was generated through semi-structured interviews with the six participants at the end of the MBRP course. Upon analysis of the transcribed data, 17 themes emerged. These themes were categorized within five distinct categories: (a) meditation practice promoters, (b) meditation practice deterrents, (c) mindfulness skills, (d) self-regulation of thoughts, emotions, and behaviors, and (e) consideration of self and others. Although all participants did not consistently practice the recommended daily meditation exercises outside the weekly classes due to low motivation level or being hindered by life challenges, they reported practicing in some capacity. As a result, many benefits were reportedly gained from their experience learning mindfulness-based meditative practices. Some individuals indicated a desire to further develop their meditative practices, while another admitted to not being ready to fully commit to ongoing formal practice once the on-site meditation groups were no longer available.

Within Chapter Five, a summary of the study, the major findings, and results related to the literature will be presented. Strengths and limitations of this study will also be described. Implications for action by correctional system and counseling staff working with the offending population will be discussed. Future recommendations for integrating mindfulness-based programs into the treatment plan for offenders will be offered, as well as a review of resources that need to be available for individuals within the correctional system if they are expected to develop and profit from a strong meditative practice.

CHAPTER FIVE

DISCUSSION

Within this chapter, a summary of the study and its key findings are discussed in relation to the research questions and associated literature. Strengths and limitations of this study are presented. Implications for administrators and clinicians working with individuals supervised by the correctional system are incorporated throughout the discussion. Lastly, recommendations for future studies are offered.

Overview of the Study

Almost 5 million adult offenders are under community supervision by correctional authorities (Bureau of Justice Statistics, 2012b). Because anger can be an indicator of aggression among the incarcerated (Kassinove & Tafrate, 2006) and be experienced when violent crimes are committed (Novaco, 1994, 1997; Howells, 2004), it was important to conduct research within the offending population. Using a mixed-method design of quantitative and qualitative approaches, this study investigated the outcomes of six adult male probationers and parolees who participated in an adapted version of Mindfulness-Based Relapse Prevention for Addictive Behaviors (MBRP; Bowen, Chawla, & Marlatt, 2011). Attention was placed on the experience of anger and assimilated into the eight MBRP group sessions by the researcher. The investigator was interested in the overall experience of the individuals who attended the modified MBRP group sessions, as well as examining their anger experience and expression, mindfulness skills, empathic characteristics, and correctional system offenses. The participants' tendency to reply in a manner that would be viewed favorably by others was also of interest. Because of methodological limitations associated with the study's inadequate

sample size preventing statistical testing, a cause-and effect-relationship is not implied in the following discussion; however, descriptive statistics are used to offer an explanation of the pre- and posttest quantitative data. Despite the inability to test the quantitative data for statistically significant results, outcomes of the qualitative data analyses revealed that the participants gained some benefits after attending a mindfulness-based meditation course. Unexpected findings of the qualitative data also revealed valuable information, especially for future researchers and treatment administrators interested in designing meditation programs involving members of the offending population.

Discussion of Findings

Anger Expression and Experience

For the purposes of this research, anger was quantitatively measured with the State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1999). Slight increases were found in how the group experienced and expressed anger when comparing their overall baseline and post-test STAXI-2 scores. With few exceptions, the group means remained slightly below the respective normative means (i.e., normal adult males) in all STAXI-2 scales and subscales at baseline and after the MBRP course. Although a modest change in scores was made between the pre-test and posttest measurement periods, these results suggest this was a group of individuals who were not experiencing and/or expressing angry feelings to a degree that interfered with optimal functioning before or after the mindfulness-based intervention.

Future studies interested in examining the effects of mindfulness-based meditation programs on the experience and expression of anger should recruit an adequate sample of participants from a pool of offenders with anger-related problems that

impairs functioning and/or impacts key areas in life (e.g., legal, interpersonal, occupational, and physical, etc.). Allowing offenders who are ordered by the court to attend anger management therapy to receive partial credit when participating in research activities involving mindfulness-based intervention for anger-related issues should also be considered as future studies are designed. This would allow empirical data to be collected so that outcomes of mindfulness-based interventions may be compared with traditional anger management therapies and, ideally, further supporting the integration of meditative practices within correctional system treatment protocols.

In contrast to the group means, when reviewing each participant's individual STAXI-2 scores at baseline, three participant's scores were outside the normal range. When conducting research, it is appropriate to use *T*-scores when examining the results of administering the STAXI-2 (Spielberger, 1999). A *T*-score of 65 or higher on any STAXI-2 scale/subscale is indicative of individuals who may experience interpersonal relationship, physical, and/or psychological problems (Spielberger, 1999). Likewise, persons scoring between 60 and 64 on two or more STAXI-2 scales/subscales are at risk for the same difficulties.

Three individuals (P1, P4, and P6) had at least one *T*-score above 65, as well as two or more *T*-scores in the range of 60 and 64, prior to beginning the mindfulness groups. After participating in the MBRP classes, Participant 1 and Participant 6 no longer had multiple *T*-scores between 60 and 64. The *T*-scores for Participant 3 were within the normal range in all STAXI-2 scales/subscales after the meditation course, and with the exception of scoring just slightly above the cutoff for the Anger Control-In scale, Participant 6 scored within the normal range in all scales and subscales as well. Only one

individual, however, continued to have high T-scores before and after the meditation intervention. At posttest, Participant 4 had five *T*-scores above 65 in the following areas: (a) Feeling Angry, (b) Anger Temperament, (c) Anger Expression-Out, (d) Anger Expression-In, and (e) Anger Expression Index.

Reviewing the individual scores of Participants 3 and 6 suggests changes occurred in how they experienced and expressed anger after attending the meditation classes, while the same cannot be stated for Participant 4. Participant 4's consistent elevated STAXI-2 scores may be related to having a lower attendance rate while participating in the MBRP program and spending an inadequate amount of time practicing meditation outside the MBRP group setting. When compared to the other five participants whose rate of attendance ranged from 87.5% - 100%, Participant 4 only attended five of the eight sessions (62.5%). Furthermore, he admitted during the qualitative interviews he could have benefitted from practicing more outside the weekly meditation classes; however, because he reported that he lacked focus and commitment, and had higher priorities that required his attention, he did not fully engage in daily home practice exercises. In addition, Participant 4's Paulhus Deception Scales (PDS) Impression Management (IM) and Self-Deceptive Enhancement (SDE) scale score combination of "IM low, SDE high" appeared to fit within the PDS' interpretive guidelines for IM/SDE scale score combinations. According to the PDS manual (Paulhus, 1998), individuals with this profile may have narcissistic tendencies, exhibit arrogance, lack self-insight, and may possibly show anger when confronted.

It is worth mentioning that the posttest *T*-scores on the Anger Control-In (*AC-I*) scale for both Participant 1 and Participant 6 was 66, representing a change in how often

they attempted to control anger by calming down. This change was more noticeable for Participant 6, whose *AC-I* score increased from 36 to 66 between the pre- and posttest measurement periods. At posttest, Participant 6 also reported a reduction in expressing anger via aggressive behaviors toward objects or people in the environment (Anger Expression-Out). Although typically viewed as a positive strategy, developing internal controls over how anger is experienced and expressed can interfere with an individual's ability to recognize the need to assertively respond and effectively problem-solve when challenging situations occur (Spielberger, 1999). It is possible that Participant 6 expended more energy engaging in mindfulness-based techniques in order to calm down and reduce anger when provoked, but stopped short of executing a full series of effective coping skills (e.g., communication and conflict-resolution strategies). This may be because he was not knowledgeable of constructive solutions for difficult situations, or he believed the primary purpose of mindfulness is to avoid responding to frustrating external demands while calmly sitting with anger until it subsides.

Outcomes resulting from analyzing the transcribed interviews revealed positive changes in how the participants experienced and expressed anger. They described increased self-regulation of thoughts, feelings, and behaviors. Three themes emerged from the participants' descriptions of the changes they experienced. These themes are: (a) anger management/impulse control, (b) problem-solving skills, and (c) cognitive restructuring. All participants reported improved ability to manage challenging situations, difficult emotions, and negative thoughts after participating in the mindfulness-based meditation course. Participants described the ability to respond more effectively by considering options rather than automatically reacting when frustrated and

angry. At times, this involved recognizing that thoughts are not facts and creating space to defuse so they could make healthier choices when irritated. Participants also indicated the intensity of angry feelings have decreased since utilizing mindfulness-based practices. All participants discussed various situations reflecting better problem-solving capabilities that involved shifting their perspective, recognizing available choices, and considering consequences before habitually reacting. Not only did the participants self-report these changes, some indicated other people in their life also noticed a positive difference.

It was not possible to test for statistically significant changes in the present study due to its non-experimental design and small sample size. Because of this limitation, the study's results cannot be matched to the findings of Samuelson et al. (2007) who reported statistically significant reductions in hostility scores among inmates who completed the Mindfulness-Based Stress Reduction course; however, when comparing the present study's pre- and posttest STAXI-2 scores group scores, slight changes in how the MBRP group experienced and expressed anger were revealed. Upon review of the qualitative data, it appears that the MBRP intervention affected how the participants in the present study experienced and expressed anger based upon their self-report during the interviews.

A mixed method procedure conducted by Wongtongkam, Ward, Day, and Winefield (2014) yielded similar results to the present study. Although the quantitative study did not reveal any statistically significant reductions in self-reported anger, the qualitative data suggested that the participants who received a mindfulness meditation intervention developed enhanced self-awareness and self-regulation skills. Additionally, participants described not being as easily annoyed, prone to anger, as well as developing new ways of managing anger such as shifting their perspective, not engaging in

arguments, and removing themselves from sources of frustration. Because the present study did not include experimental and control groups, the results of the STAXI-2 cannot be equally compared to those from Wongtongkam et al.'s research, however, the qualitative results between the two studies suggests mindfulness-based practices influences how anger is experienced and expressed by individuals.

Similarly, a qualitative investigation involving incarcerated male adolescents in an adapted 10-session mindfulness-based intervention was conducted by Himelstein, Hastings, Shapiro, and Heery (2012). Participants described how the mindfulness-based treatment helped regulate their experience of anger. From among the various results, increases in emotional, behavioral, and cognitive regulation were reported. Examples included practicing exercises to defuse anger, enhanced self-control, and improved ability to avoid physical altercations. The qualitative results of Wongtongkam et al.'s and and Himelstein et al.'s studies are comparable to the qualitative data obtained from the present research. All previously cited empirical evidence provides support for the use of mindfulness-based therapeutic programs in the treatment of anger, especially among the correctional population.

Empathy-Related Constructs

For the present study, the overall concept of empathy was quantitatively assessed using the Interpersonal Reactivity Index (IRI; Davis, 1980, 1983). The IRI consists of four individual subscales relating to one specific construct- empathy: (a) *fantasy*, (b) *perspective-taking*, (c) *empathic concern*, and (d) *personal distress*. With the exception of the *fantasy* subscale, the pre-test means of the MBRP group were slightly below the respective normative means for males. After the MBRP course concluded, the means for

the group were slightly above the respective means for all four subscales. As noted earlier, the present study did not include a true experimental design and hypotheses testing could not be conducted. Although it was not possible to detect statistically significant changes, comparing the pre- and posttest scores suggests that changes, although slight, in the empathy-related constructs of *perspective taking*, *empathetic concern*, and *personal distress* occurred after attending the adapted MBRP classes.

Upon reviewing the transcribed interviews, the MBRP participants described increased consideration of self and others. This involved being kinder to oneself and others, being more attuned to people in their environment, and having an enhanced ability to consider the viewpoint of others. Three themes were identified after analyzing the qualitative data: (a) kindness, (b) attunement, and (c) other-oriented viewpoint. Efforts were made to increase awareness by enjoying each moment as it unfolded without judgment. Decreased self-judgment and self-criticism resulted from attempting to live more fully in the present rather than dwelling on the past or worrying about the future. Self-described changes not only included enhanced recognition of the feelings of others, but also considering the possible factors influencing the feelings and behaviors of others. Additionally, increased engagement with family members and significant others was reported. Findings in studies conducted by Pruitt and McCollum (2010) and Bihari and Mullan (2014) are similar to the outcomes described by the present study's participants who reported less impulsivity/reactivity, improved present moment awareness, increased consideration for self and others, and being more engaged with others.

As previously cited, a study conducted by Hopkins and Proeve (2013) involved teaching mindfulness to trainee psychologists. Statistically significant decreases in the

IRI's *fantasy* subscale scores between baseline and follow-up was observed, while no other subscales showed any statistically significant change. The pretest and posttest IRI results of the present study cannot be directly compared to the research of Hopkins and Proeve due to the absence of statistical testing, however, the MBRP groups' mean *fantasy* score (measuring the tendency to imagine oneself in fictional situations) also decreased. Consistent with Hopkins and Proeve's outcome, a decrease in the *fantasy* subscale score may suggest that the MBRP participants' mindfulness practice increased their focus on their own immediate experience rather than imagining the fictional experiences of others. Additionally, the *fantasy* subscale may not be relevant to interpersonal conflict and offending (Lauterbach & Hosser, 2007) when administered with individuals within the correctional system. Bearing this in mind, a potential explanation behind the MBRP group's pre- and posttest score on the *fantasy* subscale is offered and should be considered when reflecting on the findings.

Despite the outcome of the quantitative data, the participants in Hopkins and Proeve's study verbally described changes in the *perspective taking* dimension of empathy during their interviews. In comparison, the MBRP participants' *perspective taking* score (measuring the ability to adopt the viewpoint of others) slightly increased at the measurement period following the intervention. When comparing the IRI posttest results, the absence of a statistically significant change in perspective taking may be attributed to mental health professionals being more likely to adopt the perspective of others at baseline due to client-centered training (Hopkins & Proeve, 2013), whereas the *perspective taking* score of individuals within the criminal justice system may increase after attending a mindfulness based meditation program with a focus on compassion

building exercises. Although the population from which the present study's MBRP participants were recruited is not analogous to the trainee psychologists in Hopkins & Proeve's study, similar outcomes of mindfulness training on dimensions of empathy are noted. For example, the MBRP group also reported taking into consideration the perspective of others, as well as becoming more engaged and attuned with the people around them. Similar to the trainee psychologists, practicing mindfulness meditation improved some of the MBRP participant's ability to attend to the immediate experience per their self-report. This allowed the MBRP participants to live more fully in the present and in doing so, self-criticism and self-judgment lessened.

Edwards, Adams, Waldo, Hadfield, and Biegel (2014) conducted a study examining the effect that an adapted version of Mindfulness-Based Stress Reduction (MBSR) has on self-compassion among Latino middle school students. Although there were no significant changes in the self-compassion scores prior to entering the groups and when starting the groups, self-compassion scores significantly increased following the MBSR intervention. A change in self-compassion was also reported in the present study. Although no quantitative measures were used to specifically assess self-compassion, some MBRP participants described being kinder to themselves during the semi-structured interviews.

In summary, slight changes in the scores of the empathy-related constructs of *perspective taking*, *empathetic concern*, and *personal distress* occurred at post-test after participants completed the MBRP course. Participants also reported becoming more considerate of self and others, and more engaged with family members and significant others. Also known as loving-kindness meditation, metta is a meditative practice

designed to cultivate love, compassion, and care for oneself and others. It has been cited that wishing happiness and extending empathic concern for others may counter negative mental states (Morgan & Morgan, 2005) and destructive emotions (Hofman, Grossman, & Hinton, 2011). Furthermore, research in neuroscience indicated the *insula*, part of the brain that supports empathy, is strengthened when compassion is intentionally practiced (Hanson, 2009). Although the present study's pre- and posttest IRI scores cannot be analyzed through statistical testing, the researcher questions if the slight changes in the three subscales were based upon the study's incorporation of metta meditation as outlined in the MBRP treatment protocol. Because loving-kindness (or metta) meditation is employed to increase care and compassion for oneself, it is possible that the participants' report of increased self-kindness stemmed from intentionally practicing this meditative technique during the MBRP classes. Future research may further investigate the direct effects of practicing loving-kindness meditation on enhancing empathy and compassion for self and others. Such a study should include individuals under the supervision of the correctional system, especially if violent offenses are related to being marginalized in society and feeling separate from others.

Mindfulness Skills

Mindfulness skills were assessed in the present study using the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). The five factors include (a) observing, (b) describing, (c) acting with awareness, (d) nonjudging of inner experience, and (e) nonreactivity to inner experience. FFMQ scores were computed for each MBRP participant and compared against the published

normative means for a general community sample of nonmeditators and a sample of individuals who regularly practice meditation.

As previously indicated, hypotheses testing could not be conducted in the present study due to very small sample size and lack of statistical power. Although statistically significant changes could not be confirmed, a comparison of the pre- and posttest scores suggests the MBRP group's mindfulness skills slightly increased after participating in the mindfulness meditation course. The pretest means of the MBRP group were within one standard deviation of the respective normative means for nonmeditators from a community sample, except for the *nonjudging of inner experience* facet (which was slightly under). After the course, the means for the MBRP group were within, or at least one standard deviation above, the respective means for all five mindfulness facets. This suggests that a change in mindfulness-based skills occurred after attending the MBRP program, especially for the observing, describing, nonjudging of inner experience, and nonreactivity to inner experience facets.

The MBRP group baseline means for the five mindfulness facets were either slightly under or more than one standard deviation below the corresponding normative means when measured against regular meditators. After the course, the scores for the MBRP group for all five mindfulness facets varied scoring within, slightly under, or more than one standard deviation below the respective means for regular meditators. It is not surprising that even though minor changes in scores occurred after attending the meditation course, the MBRP group is not as skilled in the five areas of mindfulness when compared to experienced meditators who regularly practice.

Qualitative data outcomes are consistent with the quantitative results. Analysis of the transcribed interviews revealed that participants frequently described enhanced mindfulness skills at the end of the MBRP course. Three themes emerged from the participants' description of changes resulting from implementing mindfulness skills in their lives as follows: (a) acceptance, (b) mindfulness in daily life, and (c) awareness of thoughts, emotions, and physical sensations. Improved ability to let go of things outside their control, increased attention to present-moment activities, and heightened awareness of thought patterns, emotional responses, and bodily experiences were described by the MBRP participants during the semi-structured interviews. These findings are consistent with past research that examined the effect of meditation practice on the various facets of mindfulness. Experimental groups in these studies exhibited increased mindfulness and enhanced emotional regulation (Perelman et al., 2012) and greater acceptance and improved ability to respond with awareness (Bowen et al., 2009). Awareness of body sensations and emotions within the present moment, disidentification from emotions and thoughts, and acceptance of situations, oneself, and others were among the meditative traits described in a qualitative study by Pruitt and McCollum (2010).

In summary, the present study's participants self-reported changes in mindfulness skills. These included having a more accepting attitude, letting negative thoughts pass rather than believing the content, acknowledging the impermanence of things, and attempting to be with life in the present moment just as it is rather than desiring it to be different. These results are in line with fundamental philosophy that mindfulness-based practices strengthens nonjudgmental awareness and acceptance of what is happening in the present moment (e.g., thoughts, emotions, sensations, events in the environment).

When a mindful and accepting presence is practiced and nurtured, individuals can nonjudgmentally observe the transitory nature of their experience, and ideally, transform destructive reactions into wise responses.

Institutional Offending

All participants informed that various benefits were derived from attending the meditation course during the semi-structured interviews, but these benefits may not outweigh the risk of violating the terms of correctional system supervision. The Research and Evaluation Unit at the Missouri Department of Corrections (MODOC) provided information related to an individual's history of committing field violations prior to, during, and 30 days after the final MBRP session. Five of the participants (83.3%) violated the conditions of their probation or parole 30 days before, during, and/or within the month following the conclusion of the meditation class. When comparing the four citations (21.1%) given during the month preceding the MBRP course, an increase was observed over time. Seven citations (36.8%) were issued while the MBRP classes were in session and eight (42.1%) were received 30 days after the MBRP program ended. The total number of violations issued to any individual during this same time period ranged from 0 to six. Participant 6 was resentenced to a Missouri correctional center two weeks after completing the MBRP program. According to the MODOC's Research and Evaluation Unit, this offender was reincarcerated due to a technical violation of supervision conditions, but specific reasons behind the Probation and Parole Board's decision leading to his return to a correctional center was not released.

Even though no specific conclusion can be made why the number of field violations steadily increased during and after the present study, the larger number of

violations at the 30 day follow-up period contrasts with longitudinal outcomes reported by Perelman et al. (2012) who examined the long term effects of meditation on behavioral infractions. Although no statistically significant change was observed by Perelman et al. when comparing the number of infractions committed by the meditation group with an alternative comparison group at the one year follow-up measurement period, the number of infractions across both groups averaged 0.78 compared to their prior infraction rates of 1.3 per year. An earlier longitudinal study conducted by Alexander et al. (2003) reported the rate of return to prison for a stay of 30 days or more was statistically less for the inmates who practiced Transcendental Meditation (TM) while in prison compared to those who did not. Lower rates of reincarceration due to new convictions and warrants for arrest were also observed among the TM group.

Despite that the findings of Perelman et al., and Alexander et al. who suggested reduced criminal behavior may be attributed to participation in meditation programs, the present study's data cannot be equally compared due to lack of statistical testing, smaller sample size, different population types, and shorter follow-up period. It is noteworthy to mention that the fatal shooting of 18-year-old Michael Brown by a White police officer in Ferguson, Missouri occurred the month before the MBRP classes began. The death of this young African American male, which immediately received national attention, ignited violent protests due to concerns the incident was related to racial profiling by law enforcement officials. The intensity of these events occurred during the recruitment and intervention phases of the study. It is reasonable to consider that these events impacted the number of violations that were issued during and immediately after the MBRP course ended. For example, if law enforcement/corrections personnel and African American

offenders became more vigilant, tense, and provocative in the wake of civil unrest, the number of negative interactions may have intensified, thus, resulting in the observed increase in citations, violations, and parole revocation.

Despite the demographic information collected during this study, very little is known about the overall history and personality traits of the MBRP participants. For example, Participant 6 had the longest history of MODOC involvement starting in 1982. He also received a total of six field violations across all time periods for the present study. Consequently, he was resentenced to a MODOC correctional center two weeks after completing the MBRP program due to a technical violation of supervision conditions. Although Participant 6's field violations ranged from associating with persons currently under MODOC supervision without permission, possessing or using drugs, and not reporting as directed, the specific reason behind the Probation and Parole Board's decision leading to his return to a correctional center was not released. Participant 6 may be a high risk individual, but without eligibility criteria to screen for individuals at risk for committing field violations and/or recidivism, no assumptions can be made. As a result, the present study's data on institutional offending may be skewed if high risk offenders participate alongside lower risk offenders in a small size study.

It is important to mention that the data provided by the MODOC is not without limitations. According to a research analyst at the MODOC's Research and Evaluation Unit, on occasion an anomaly in the data exists (which is cross-referenced and verified by the MODOC when a potential discrepancy is detected and called into question). These anomalies are attributed to a variety of reasons including possible data entry errors, translation of data records that are shared between the State Courts, the Department of

Corrections, and other agencies, not having access to Probation and Parole Board decisions, and the date associated with a violation may be the report date, not the actual date that a violation occurred. Due to the possibility of an unknown discrepancy within the institutional offending data, and the various methodological limitations of the present study that will be discussed later in this chapter, drawing any sort of conclusion on whether the MBRP group impacted the number of issued violations would be speculative at best.

Socially Desirable Responses

As mentioned in Chapter 3, the likelihood exists for participants who are recruited from the criminal justice population to present themselves in a "good light." This may be done in order to obtain compensation for participation, gain privileges, or seek approval from parole and probation boards. To assess for socially desirable responses, the Paulhus Deception Scales (PDS; Paulhus, 1998) was administered to the participants at baseline and immediately following completion of the MBRP course. The PDS includes the Self-Deceptive Enhancement (SDE) and Impression Management (IM) scales. The SDE measures the ability to give honest, but exaggerated self-descriptions, and reflects a lack of insight and an unconscious bias toward favorable self-portrayal, while the IM assesses the tendency to deliberately give fake or false answers in an effort to impress others.

A *T*-score below 30 or above 70 merits the attention PDS administrators (Paulhus, 1998). Participant 4's *T*-score was 77 on the SDE scale before the MBRP course began. This "very much above average" score suggests over confidence and concealment of weaknesses. Participant 1's post-test *T*-score of 75 on the IM scale is suggestive of deception and faking. In addition to examining extreme *T*-scores, cutoff scores exist

specifically for the Impression Management (IM) scale. The IM cutoff scores for invalidity identification can help inform if a respondent is "faking good" or "faking bad." The upper IM cut off scores for "faking good" are >8 (may be invalid) and >12 (probably invalid), and the lower IM cut-offs for "faking bad" are <2 (may be invalid) and <1(probably invalid).

Fifty percent of the protocols were in question at pre-test and again at the post-test measurement period. Participant 3 and Participant 5 were the only participants whose pre and post PDS IM results did not yield a score beyond the cutoff. Participant 2's IM consistently scored 9 before and after the MBRP course. This IM score is suggestive of "faking good" and that his responses may be invalid. Participant 6's pre-test IM score of 1 suggested he was "faking bad" and that his responses may be invalid; however, he no longer met criteria for invalidity identification at the post-test measurement period. Although Participant 1's IM score before the intervention was outside the invalidity cutoff, his high post-test IM score of 15 suggests an enhanced self-presentation. This change in IM score may be related to this participant being recently released from prison the month before recruitment efforts began. It is reasonable to consider that his responses, resulting in a very high IM score, may have been influenced by the desire to present himself in a good light in order to appear rehabilitated and, therefore, impress others. When reviewing these results, however, PDS scores should be cautiously interpreted and high scores should not automatically be viewed as invalid or indicative of "faking" (Paulhus, 1998). For example, high IM scores may also be influenced by a respondent's carelessness, acquiescence, confusion, or maladjustment (Paulhus, 1998).

Participant 4's pre-test IM score of 0 is suggestive of "faking bad" and that his responses were probably invalid. Participant 4' post-test score of 1 continued to suggest he was "faking bad." Additionally, according to the PDS user's manual there are four basic scale score combinations that can be considered when conducting a profile analysis. Participant 4's scale score combination of "IM low, SDE high" was the only participant who appeared to fit within the PDS' interpretive guidelines:

> This profile is associated with narcissistic tendencies. Individuals with this profile may show arrogance, be lacking in self-insight, and may even show anger if confronted, This profile suggests overly positive responses stemming from a trait-like tendency toward overly self-favorable presentation rather than situational demands (Paulhus, 1998, p. 10)

These results should be considered when reviewing Participant 4's pre- and posttest STAXI-2 scores, who continued to meet the same criteria by having a *T*-score of 65 or higher on a STAXI-2 scale/subscale, and/or have two *T*-scores in the range of 60 to 64. Individuals with these scores may experience interpersonal relationship problems and/or be prone to developing a physical illness or psychological disorder (Spielberger, 1999). Despite this possibility, conclusions cannot be made because of another limitation of the present study. This involves having very restricted information regarding the participants history, including if any were diagnosed with a mental health disorder. Future studies may consider collecting data on the participants' past and present psychiatric disorders. Having mental health diagnostic information may allow for psychopathology to be considered as a potential confounding variable when the quantitative data are analyzed.

The developer of the questionnaire advised that the PDS is not intended to be solely used when making administrative or clinical decisions and other sources of relevant information, such as interviews and adjunct records and files, should be utilized before conclusions are hastily made (Paulhus, 1998). Although this present study attempted to assess for socially desirable responding, it is possible that some participants intentionally attempted to present themselves in a certain light hoping to influence the opinions and decisions of clinical and correctional staff. Conversely, consideration should to be given to the confidential nature of the present study. Because the participants were informed that data collected during the research would not reveal their identity and their responses would have no effect on probation or parole, they may have genuinely responded. The researcher believes rapport was established with the participants and their responses were genuine during the semi-structured interviews, however, the mixed results of the PDS are somewhat incompatible with this assumption. The investigator cannot overlook the possibility that the descriptions given during the interviews may have been influenced by what the participants believed the researcher wanted to hear. On the other hand, the investigator has to keep in mind that because rapport was established, the participants may have been more comfortable providing the interviewer with richer data. Future research with offenders might include administering the PDS only at baseline so those individuals scoring above the impression management cutoff can be screened out. Although this may reduce the number of potential participants who may benefit from mindfulness-based interventions, socially desirable responding would be less likely to confound the study outcomes.

Unexpected Findings Related to the Participants' Overall Experience

Up to this point, the discussion has focused on outcomes related to research questions specifically posed around anger expression and experience, empathy, mindfulness, institutional offending, and socially desirable responding. A final research question, however, sought to explore the overall experience of attending a mindfulness-based meditation course for adult males on probation or parole. Answers to this question were obtained directly from the qualitative data. Several themes emerged as the transcribed interviews were analyzed, many of which were not anticipated by the researcher. These included reasons for participating in the mindfulness-based study, factors supporting and inspiring meditative practice, and endorsement of meditation to other people. In contrast, the participants' descriptions also revealed influences affecting course engagement and interfering with consistent practice outside the weekly sessions. The various themes were organized within two overarching categories: (a) meditation practice promoters and (b) meditation practice deterrents.

Meditation Practice Promoters

Meditation practice promoters include factors influencing enrollment and motivating meditation practice. The themes categorized under *meditation practice promoters* are: (a) introduction to meditation, (b) different group experience, (c) meditative practice resources, (d) recognition from others, and (e) endorsing meditation to others. The participants described the reasons behind their decision to enlist in the mindfulness-based study and the influences encouraging their education of meditation. Being given access to mindfulness-based meditation classes and various meditative resources, such as a CD player and compact discs containing guided meditations,

supported the participants as they learned and developed mindfulness skills. They informed their experience learning mindfulness-based interventions led to beneficial changes recognized by others, which seemed to act as positive reinforcement for continued participation. Because several participants had positive experiences learning mindfulness-based meditation, they consequently reported that they recommended meditative practices to others.

All participants described various reasons for self-electing to participate in the study. These included a desire to obtain more information about meditation and its techniques, as well as its possible benefits. Some admitted they enrolled because they wanted a novel and more satisfying treatment experience outside the groups they routinely received. Other participants in the present study also reported losing interest in the standard groups because they considered them to be monotonous and unstructured, or were becoming frustrated when other offenders did not productively contribute to the therapeutic process. Based upon the self-report of the participants, it seems several were motivated because they desired a unique approach, were ready for a change, and/or were seeking positive treatment outcomes. The participants' report seems to be consistent with past research indicating the treatment environment will be negatively impacted if there are resistant members with negative attitudes (Pankow & Knight, 2012). Additionally, elevations in motivation levels and treatment engagement may occur when rehabilitation services consider the individual needs of the offender (Ward, Day, Howells, & Birgden, 2004) and offenders are given the choice of alternate programs (Miller, 1985).

Based on an analysis of the transcribed interviews, having access to meditation practice resources and ongoing learning opportunities was noteworthy for the

participants. The availability of weekly groups and skill building resources offered an introduction to basic mindfulness meditation exercises; however, aftercare classes were not available at the treatment center once the MBRP course ended. The feedback given by the participants emphasized the importance of providing home practice tools, as well as offering meditation groups and follow-up sessions at the location where offenders are required to attend treatment. The reported needs of the MBRP participants are consistent with recommendations of Brown and Gerbarg (2005) who indicated if treatment compliance is to be enhanced, individuals participating in meditation programs need to be offer skilled instructors, weekly aftercare, and support group sessions.

Some participants indicated their decision to enroll in the study and learn meditation techniques led to positive changes. Going further, they stated other people in their environment noticed their endeavor. Receiving recognition and praise from influential people in the lives of the participants seemed to positively reinforce ongoing involvement. This finding is in accord with the position that human behavior is motivated by the need to be acknowledged and recognized (Glasser, 1998; Mottern, 2007). The majority of participants indicated various people within their immediate environment offered admiration, encouragement, and motivation for continued change. This suggests recognition from others was influential in promoting and reinforcing meditative practice.

Several participants had positive experiences learning mindfulness-based meditation and consequently recommended meditative practices to others. Participants mentioned they plan to, or already have, involved family members in mindfulness-based practices. Participants also recommended that other offenders take advantage of

opportunities to learn mindfulness skills as they are offered. These commendations suggest the participants' training on mindfulness meditation was helpful and that their endorsement of the skills to other people encouraged their own individual practice. Although no known studies exist investigating the experience of offenders providing peer education in mindfulness-based meditation, Singh et al. (2011) indicated that individuals who have received mindfulness training are able, in turn, to effectively teach, motivate, and inspire others as they learn to manage harmful behaviors. The findings of Singh et al. relates to the present study because the MBRP participants may have inadvertently assumed the role of a peer coach. When individuals act as peer educators, however, motivation, empowerment, self-esteem, and confidence all improve (Devilly, Sorbello, Eccleston, & Ward, 2005). The present study did not delve into exploring the exact reasons underlying the MBRP participants' promotion of meditation to others, but it could be a subject worthy of future research.

Meditation Practice Deterrents

Ward et al.'s multifactor offender readiness model (MORM; 2004) posits that the attitude, beliefs, cognitive thinking style, and skills of the offender, along with contextual factors such as availability of programs, resources, and external support, can diminish treatment engagement levels. This comprehensive theory of offender treatment readiness seems to fit within the *meditation practice deterrents* category of the present study. Meditation practice deterrents involve factors limiting engagement in the course and interfering with meditative practices. From the MBRP participants' descriptions, three emergent themes were organized within this category: (a) commitment and motivation level, (b) challenges in daily life, and (c) misperceptions about meditation.

The participants described positive benefits resulting from participating in the MBRP classes. They also verbalized understanding the advantages of dedicating time to strengthen meditation practice outside of weekly sessions. Despite this feedback, fully integrating skill building exercises into their daily routine did not occur. Some acknowledged inconsistent home practice of meditation, while others admitted to not spending a lot of time thinking about meditating because they lacked prior experience. Others disclosed they were not being ready to change or fully motivated to practice outside the MBRP groups. Even though the same amount of time is required in the standard groups at Gateway Corrections, it was the opinion of some participants that the 2 ½ hour MBRP group sessions were too long for them to maintain interest and focus.

Even though they received education on mindfulness-based meditation during the MBRP course, the participants did not seem to fully grasp the overall concept. Examples include implying that meditation can only truly be practiced when the stress in their lives diminishes or living situations change. Some also viewed meditation as a specific coping strategy that is used when difficulties in life arise. In addition to the inert attitudes and misperceptions of meditation impacting enrollment and interfering with regular practice, dealing with external stressors also got in the way of committing to daily practice outside the core MBRP groups. Various challenges included lack of privacy in the living environment, inadequate support, family conflicts, and transportation limitations. A reason treatment may be refused by offenders is because it is not considered to be the individual's most important priority (Mann, Webster, Wakeling, & Keylock, 2013). In light of this, a comparison can be made to the participants in the present study who had competing priorities such as obtaining employment, paying bills, and integrating back

into the mainstream community. It is not surprising that meeting basic needs was of greater importance to the participants than dedicating time each day to meditate and complete daily home practice worksheets.

Treatment refusal research with the correctional population (Mann et al., 2013) can be linked to the outcomes of the present study. Mann et al. indicated an offender's lack of knowledge about the evidenced-based research supporting the effectiveness of treatment is a deterrent, but, if given access to such information, the view on treatment would be more open. This is similar to the present study because the MBRP participants believed other offenders did not enroll due to the foreign concept of meditation and as a result, they stayed away. Also, lack of prior experience meditating got in the way of fully engaging with treatment. The researcher questions if the present study's small sample size was similarly influenced because Gateway's clients avoided enrollment due to mistrust of meditative practices. Future research might explore if there is a relationship between offenders' perceptions of meditation and their treatment engagement.

In addition, offenders in Mann et al.'s (2013) study believed that prison employees did not have faith in the effectiveness of treatment; therefore, the offenders refrained from treatment. Although the clinical and correctional staff where the MBRP classes were held supported the recruitment interventions of the primary researcher and praised the individuals who participated, the extent of the efforts made behind the scenes to persuade clients to join the study is not known. If minimal to modest efforts were made, the researcher wonders if more clients would have enrolled if staff had routinely and emphatically promoted the study before and during the recruitment period. Future research might explore the potential barriers of promoting external research, as well

examining if the staff's view on meditation directly influences the treatment engagement of offenders. Additionally, future investigators may consider increasing the amount of time spent engaging staff and soliciting their input as studies are designed, recruitment efforts are scheduled, and treatment interventions are implemented. In doing so, this heightened effort may work through identified barriers, elevate the investment of staff, and improve the recruitment and retention of participants.

Because the intervention phase of this study ended and no mindfulness-based therapy groups at the research site exist, the participants will not have easy access to aftercare services should they desire. Considering many participants had difficulty practicing outside the structured group setting because of low motivation or dealing with life challenges, it does not seem likely they will maintain a daily active practice after the final MBRP session. Because building mindfulness practice into daily life plays an important role in recovery following MBRP treatment, instructors are encouraged to counter post-treatment decline with ongoing mindfulness practice groups (Grow, Collins, Harrop, & Marlatt, 2015). When mindfulness-based aftercare is offered to those who received MBRP treatment, a sense of community will be nurtured and the effects of MBRP will be extended (Grow et al., 2015). If follow-up meditation practice sessions were available for the offenders in the present study, additional training could help increase their knowledge and practice of meditation, as well as create a supportive network of mindfulness meditation practitioners within a structured setting that otherwise would not be available. This seems particularly important for a group who described difficulty practicing offsite due to low motivation, or not being able to incorporate

meditation into their daily lives because of higher priorities in life outside the treatment setting.

The MBRP participants also shared their perspective on why the enrollment numbers were not larger when recruitment for the meditation course was open to their peers at Gateway Foundation-Corrections. Similar to the participants' own self-reported reasons, several believed more offenders at Gateway Foundation-Corrections did not enlist because they lacked motivation, were complacent with the routine regimen, had inaccurate perceptions of meditation (e.g., conflicted with their personal religious beliefs), and/or were not ready for personal change. In addition to the participants' reported opinions why their peers did not express interest, the researcher also wonders if racial and cultural factors influenced the offenders' decision to not participate in the study.

As mentioned earlier, the civil unrest in Ferguson, Missouri occurred immediately before and during the recruitment and intervention phases of the study. Although the exact census of African-American male offenders admitted to the treatment agency where the recruitment and intervention took place is not known, the researcher observed a large population of African-American clients during the time spent on-site conducting the study. Because the researcher, a White doctoral candidate, attempted to recruit from a large pool of individuals who are members of a racial and ethnic minority group soon after the shooting, protests, and riots occurred in Ferguson, Missouri, possible factors such as mistrust and distrust, social class and cultural differences, and perceptions of racial discordance may have interfered with enrollment and treatment readiness. These issues are important and should not be ignored, especially by healthcare providers and

future researchers who need to consider the social context, as well as the multifaceted layers of relevant historical and cultural information, when working with members of an ethnic or racial minority.

Limitations of the Study

This study offered promising findings, but there are several limitations that should be recognized. As previously noted, the present study was initially designed to be a between groups, randomized experiment. Due to the small number of registered participants, an early occurrence of attrition and noncompliance, and the high probability that future recruitment efforts would not result in a larger pool, modifying the original design was necessary. In the end, a group of six participants attended the MBRP sessions, completed the pre- and post-test questionnaires, and participated in the interviewing process at the end of the program.

The first limitation pertains to the removal of the experimental design and inability to randomly assign participants to a control group because of attrition and small sample size. Not being able to randomly assign an adequate number of participants to an experimental and control group limits generalization of the results to other members of the correctional population. Attempts were made to increase enrollment and retention rates by meeting with eligible participants over a two week period prior to registration. This was conducted in order to increase familiarity with the researcher, introduce the topic of mindfulness, and provide an overview of the study. Compensation, such as gift cards, food and beverages, and a portable compact disc player with guided meditation CDs, were also offered by the researcher to increase enrollment and minimize loss. Furthermore, Gateway Foundation-Corrections allowed any participant who attended the

weekly MBRP class to receive credit for a group session in lieu of attending one other required weekly on-site "group education" session. Although this allowance functioned as an additional incentive, it conversely limited the number of participants who may have potentially been recruited from "group counseling" sessions.

Additionally, individuals qualified for discharge from Gateway Foundation-Corrections "Free and Clean" program within four months from the beginning of the recruitment phase, as well as release from probation or parole, were not eligible to participate. Despite these efforts at controlling for threats to internal validity, low enrollment and mortality occurred. In the absence of intrinsic motivation, potential participants may have perceived that the incentives offered after completing the various aspects of the study did not outweigh the benefits of remaining in the traditional groups where they could attend discreetly without changing their routine or having to actively engage in experiential skill building exercises. Being asked to complete a large battery of pre- and posttest questionnaires may have been overwhelming to potential participants and contributed to their decision to not enroll. Other factors that may have impacted enrollment and retention include illnesses, scheduling conflicts, being transferred to another treatment agency or correctional offices, violating conditions of their parole leading to confinement in jail or prison, and having a general disinterest in the meditation program.

The second limitation of the present study is the fact that testing for statistical significance could not be accomplished due to inadequate power related to the very small sample size. No statistically significant conclusions could be made suggesting a true cause-and-effect relationship exists between the MBRP intervention and the posttest

results, and the findings of the qualitative data cannot be generalized to larger populations. Repeated administration of the same measures within a one group design represents the third limitation of the study. If the participants became sensitized to the topics of anger, empathy, and mindfulness because these variables were measured at baseline, their attitudes and behaviors may have been influenced by the pretest. Changes in post-course scores may be due to administering the pre-tests and not the treatment. Because enrollment was completely voluntary and no one was coerced into participating, individuals who self-selected to participate may have been more invested in making personal changes at baseline. If this was true, the results may be biased.

Although participants self-reported benefits of receiving the mindfulness-based treatment intervention, it is unclear what factors actually influenced change. Not being able to more clearly identify the operative mechanisms of change, or control for extraneous variables that may have impacted outcomes, represents additional limitations of the study. In addition to implementing mindfulness training via the eight-session MBRP protocol, other factors may have influenced the outcomes of the self-report questionnaires and semi-structured interviews. These factors include, but are not limited to, various experiential skill building exercises, didactic teaching method, group dynamics, therapeutic relationship with the MBRP facilitator, and a possible desire to be in the favor of others.

Not incorporating follow-up measurements with the participants beyond the data collected immediately following the final MBRP class is another limitation of the study. The design would have been strengthened if a 30 day follow-up interview was conducted to explore ongoing benefits and if mindfulness was practiced over time. Lastly, the

investigator was not able to conduct member checking to promote the validity and reliability of the qualitative data. Due to institutional limitations, such as the transient nature of substance abusing offenders, it was not feasible to share the findings with each individual participant in order to accomplish the task of respondent validation.

Despite the aforementioned limitations, it is anticipated that researchers who are interested in conducting similar studies involving participants from the correctional system can derive valuable information from the present study's methodological challenges. As future studies are designed, investigators should take these limitations into consideration when conducting research with the offending population and explore opportunities to overcome such obstacles.

Strengths of the Study

The previous section focused primarily on the limitations of this study, but it is important to point out that the present study was strong in several areas. Attempting to control for threats to validity by collecting data at the same time, expecting participants to mature at the same rate, employing reliable measures, and assessing for social desirability responding, all represent additional strengths of this study. A review of the literature suggested most studies on anger management are not conducted using incarcerated individuals (Beck & Fernandez, 1998), therefore, an additional strength of this study relates to recruiting participants from within the criminal justice system rather than adult males from the general community. The present study also incorporated pre- and posttest measurement periods allowing the investigator to look at individual results of specific participants and the overall group. As previously mentioned, hypotheses testing could not be conducted due the sample size and lack of statistical power, therefore, no specific

conclusions could be made based only on pretest-posttest gain scores. Because of this, semi-structured interviews were added to the study. In doing so, additional data were collected and interpreted using valid qualitative analytic methods.

Although the small sample size of the present study is considered a limitation for analysis of the quantitative data, it conversely strengthened the qualitative component. The present study's small group membership allowed for more individualized focus to be placed on the participants, therefore, creating the opportunity for the researcher to establish rapport. Therapeutic alliance is believed to have developed between the MBRP group facilitator and the participants. Because of this positive interaction, the researcher believes the participants were more open and genuine as they participated in the interviews. The positive relationship that existed between the researcher and the participants allowed intimate information to be gathered that otherwise could not be collected through quantitative methods alone. Adding the unique voices of the participants, combined with reporting pretest-posttest changes via descriptive statistics, strengthens the study.

In order to increase the volume of recruits possessing higher levels of motivation, mandated participation was not a condition of this study. Although this was mentioned in the limitations section, the decision to only accept voluntary participation conversely strengthened the study. None of the participants in the present study were mandated by the Missouri Department of Corrections to attend an anger management program, but if they were, the MBRP classes were not considered a viable substitute. Although probation and parole officers, as well as Gateway Foundation-Corrections staff, were able to recommend that the probationers and parolees participate in this study, this research

depended solely on individuals who volunteered to attend and complete the MBRP intervention. Voluntary participation is supported by Black et al. (2011) who suggested anger management treatment may be more influential among individuals who acknowledge that anger contributes to criminal behavior. In addition, the developers of MBRP acknowledge court mandated treatment can "detract from the honesty, openness, and nonjudgmental stance that MBRP is designed to cultivate and model" (Bowen et al., 2011, p. 16).

Recommendations for Future Research

The present study investigated the utility of implementing an adapted version of the mindfulness-based relapse prevention (MBRP; Bowen et al., 2011) program with six adult males on probation or parole. It is important to note that MBRP is an innovative treatment approach for individuals in recovery from addictive behaviors. Because past empirical research has demonstrated the efficacy of mindfulness-based stress reduction (MBSR; Kabat-Zinn, 1990) in treating a variety of populations dealing with medical illnesses and psychological issues, the present study was conducted to examine the feasibility of extending the core components of MBRP beyond the field of addictions. The principal investigator was interested in exploring the effects of a modified version of MBRP on the constructs of anger, empathy, and mindfulness. Considering the limitations of the present study, it is important that future research be conducted to establish the efficacy of mindfulness training as a therapeutic program for offenders, as well as the utility of MBRP to improve self-regulation of emotional, cognitive, and physical responses regardless of the diagnosis or population.

The first recommendation involves replication of this study using advanced quantitative methods. A larger sample is needed to increase power and test for statistically significant effects. The power of the study would further increase if a large sample of participants were randomly assigned to experimental and control groups. Including a randomly controlled design with pretest-posttest observations would allow researchers to compare any observed differences between MBRP participants and treatment as usual participants. If statistically significant results were observed, adding a 30 day and/or 3-month follow-up measurement period would allow for examination of sustained effects.

The participants in the present study did not have prior involvement in mindfulness-based meditation programs; therefore, their knowledge was limited to the information received during the MBRP classes. For those participants who self-described benefitting from attending the MBRP program and desired advancing their meditation practice once the classes ended, no follow-up meditation groups were available on-site at the treatment center. Because of this, future research should investigate the differences between novice participants who complete a time limited mindfulness-based course and have immediate access to ongoing practice groups compared to those who do not have aftercare resources. Outcomes may provide evidence to program administrators that follow-up should be available if the initial benefits of brief mindfulness training are to be sustained. Such aftercare sessions should also offer continued education to dispel inaccurate practice beliefs by expanding on the broad utility of meditation. Examples include emphasizing that the primary goal of mindfulness practice is development of nonjudgmental awareness (not relaxation), or educating participants that mindfulness-

based meditation can be practiced without conflicting with religious beliefs. It is vital that counseling agencies offering time-limited mindfulness-based programs have aftercare meditation practice resources readily available, or make appropriate referrals when needed, to advance the gains made by their clients and minimize risk of relapse.

Although the participants in the present study were concurrently receiving substance abuse services in an outpatient setting, the primary focus was not on the use of MBRP as a relapse prevention intervention. Some participants indicated, however, that because the main focus of the meditation course was not on addictions, it nevertheless was helpful in that area. They also indicated they enrolled in the course because they desired novel treatment approaches outside the standard groups they received. Future research using advanced quantitative methods should be undertaken to evaluate the effectiveness of MBRP, compared to traditional programs, with offenders receiving drug and alcohol treatment in outpatient correctional treatment settings. Going further, the use of qualitative methods should further explore the opinions of offenders who participate in mindfulness-based programs. Conducting interviews with individuals who received MBRP might elicit important feedback that can be taken to program developers of clinical services. This information could potentially be used to individualize care plans, add empirically supported adjunct services, and improve treatment engagement.

Miscellaneous recommendations for future research centers on the group format, attendance rates, and home practice patterns. Specifically, investigating the advantages and disadvantages of offering an open group format versus the current MBRP closed format design. In addition to studying the group format as an independent variable, future research may also examine how attendance impacts the development of

mindfulness-based skills (i.e., consistent attendance versus irregular attendance). Examining between-group mindfulness meditation practices, including completion of daily home practice worksheets, is another direction for future studies. The participants in the present study practiced meditation exercises during the on-site MBRP sessions. Some reported making an effort to formally practice outside the weekly classes using the guided meditation CDs, while others periodically brought a mindful presence as they attended to daily activities. Regardless of the practice patterns of the participants, no one completed the worksheets or daily practice tracking forms despite being giving copies and encouraging completion after each MBRP session. Although the benefits of home practice was emphasized, and conversations regarding reasons for not practicing more frequently were delicately approached by the MBRP facilitator, it was crucial to not blame or judge the participants (Bowen et al., 2011). More research is needed to determine if statistically significant changes in self-regulation depend on the frequency and length of time meditation is practiced between the weekly classes. Future studies might investigate home practice patterns and its association with psychological well-being. Inherent within all these recommendations include assessing the offenders' level of motivation and readiness to change. Researchers who have access to this type of data may gain insight into the factors influencing treatment fidelity and responsivity. Having empirically supported evidence available as mindfulness-based rehabilitation programs for offenders are developed and implemented may serve to enhance treatment engagement, improve treatment effectiveness, and consequently reduce recidivism.

As previously stated, the fatal shooting of an African-American male by a White police officer in Ferguson, Missouri occurred earlier in the same month when recruitment

efforts began. Because the majority of the participants in the present study were African-American offenders (83.3%), they occasionally commented on the incident during some of the MBRP classes. As described in Chapter 4 during the semi-structured interviews, one participant discussed a recent situation when he felt targeted and profiled while patronizing a store in Ferguson, Missouri. When confronted by the police, he described how he cooperated rather than strongly reacting as he might have done before attending the MBRP classes. It was beyond the scope of the present study to examine the negative effect racism has on the lives of African American offenders; however, this topic deserves greater attention. Considering the significance of this timely topic, future studies should examine the effects that mindfulness skills training have on the overall health and well-being of individuals who lives are impacted by racism.

Conclusion

Past research has offered empirical support for the use of mindfulness-based programs in the treatment of various medical and psychological conditions. Considering the impact that lack of compassion, poorly managed anger, and violence have on individuals, society, and the criminal justice system, it is critical that effective protocols be developed and offered to those in need. Because clinical staff and criminal justice officials are charged with this responsibility, it is reasonable to believe that mindfulness-based therapies can help achieve this objective.

Although several limitations exist within the present study and future research needs to be conducted, the qualitative findings support past investigations suggesting mindfulness training may be helpful when working with individuals requiring improved self-regulation skills. The methodological challenges that occurred during the

recruitment and intervention phases of the present study may offer insight for future researchers interested in examining the effects of incorporating mindfulness-based programs as an adjunct treatment approach for individuals receiving services within the criminal justice system. Nontraditional methods, such as mindfulness meditation training, may be offered to transform behaviors that are incompatible with the conduct expected of individuals in offender rehabilitation programs. More work is needed to explore the potential benefits of building mindfulness-based services into the correctional system's treatment catalog. It is anticipated that through the voices of the participants, this study contributed valuable information to the literature, as well as to the fields of counseling and correctional treatment, by investigating the utility of a mindfulness-based intervention with men on probation or parole. Regardless, if no other outcome results from this study beyond planting a seed that may later flower within the lives of these six men, then the researcher considers this study to be successful.

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APPENDIX A

Research Study Recruitment Flyer

WHO: Male clients at Gateway Foundation-Corrections (aged 18 years and older)

WHERE: 1430 Olive Street, Suite 300, St. Louis, Missouri

BY: Reggie Holt, Ph.D. Candidate
University of Missouri-St. Louis, Department of Counseling & Family Therapy

WHAT: Mindfulness is the intentional focus of attention on emotions, thoughts and sensations as they occur in the moment. Mindfulness-based meditation exercises will be taught to help individuals develop the ability to stop, observe, and experience what is happening in their lives without judgment, or automatically reacting to personal triggers in a negative or harmful manner.

WHY: When mindfulness is practiced, people are given the space to accept and effectively respond to whatever is happening in the moment. This may lead to greater health and well-being, and ideally, a more fulfilling life. A primary purpose of this study is to look at the effects of an eight-week mindfulness meditation course for *managing anger. Developing mindfulness skills, increasing compassion, and reducing offending behaviors will also be examined.

INVOLVEMENT:

- Signing consent & authorization forms
- Completing two packets of questionnaires (one before the start of the course; one at the end of the course)
- Two groups will be formed:
  - One-half of all participants will be placed by chance in each group
  - Both groups will continue to attend all recommended services at Gateway Foundation
  - One group, however, will attend a 2 ½ hour class each week for a total of eight weekly sessions:
    - This weekly group will be led by Reggie Holt
    - Attending this weekly session will be in place of attending one other group education session you usually attend during the week at Gateway Foundation
    - Men placed in the weekly meditation group will be educated on mindfulness-meditation practices & be asked to practice meditation exercises in-between the weekly sessions

ELIGIBILITY: In order to participate in the study, you cannot be:

- Eligible for discharge from Gateway Foundation and release from parole and/or probation in 2014
- An experienced practitioner of mindfulness meditation

POSSIBLE COMPENSATION:

- Chance to win $5 gift cards reimbursable at a local fast food restaurant
- A personal CD player and two CDs containing guided meditation exercises
- Light snacks after each weekly group session

WHEN: To sign-up for this study, please attend a 2 ½ hour registration session on one of the dates listed below. During this session, each participant will review and sign consent forms and complete a set of questionnaires. Pizza will be available for individuals who complete the registration process.

1. Monday, September 8, 2014 at 09:00am - 11:30am (Group Room E)
2. Monday, September 8, 2014 at 6:00pm - 8:30pm (Group Room E)
3. Wednesday, September 10, 2014 at 1:00pm - 3:30pm (Group Room E)
4. Friday, September 12, 2014 at 09:00am - 11:30am (Group Room E)

If by chance you are selected to participate in the meditation course, you acknowledge your willingness to attend the eight weekly sessions on the same day of the week and same time of the day as the registration session you chose above.

To obtain more information, please call (314) 643-9370 to leave a confidential message

**Please note, this research study will not be considered a substitute for mandatory anger management training if you are required by the Missouri Department of Corrections to attend an anger management course.*

APPENDIX B

Notification Letters to Experimental and Control Groups

CONFIDENTIAL

Date

To: PARTICIPANT NAME (MO DOC #_____)

Mr. _____,

Thank you for your participation in the research project "Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole." This letter serves as notification that **you have been randomly selected to participate in the eight-week meditation course!** As a helpful reminder, the group education sessions will be held at Gateway Foundation-Corrections in Group Room E on the following dates and times:

1. **Monday, September 22, 2014 at 09:00am - 11:30am (Group Room E)**
2. **Monday, September 29, 2014 at 09:00am - 11:30am (Group Room E)**
3. **Monday, October 6 , 2014 at 09:00am - 11:30am (Group Room E)**
4. **Monday, October 13, 2014 at 09:00am - 11:30am (Group Room E)**
5. **Monday, October 20, 2014 at 09:00am - 11:30am (Group Room E)**
6. **Monday, October 27, 2014 at 09:00am - 11:30am (Group Room E)**
7. **Monday, November 3, 2014 at 09:00am - 11:30am (Group Room E)**
8. **Monday, November 10, 2014 at 09:00am - 11:30am (Group Room E)**
   The final set of questionnaires will be given during the 8th group session

Included within this letter is a $5 gift card awarded to you for completing the registration session last week. Additional compensation will include snacks at the end of each weekly group session. For successfully completing the 8-session program, you will also be eligible to receive another $5 gift card and be allowed to keep the portable CD player and two-disc CD set that will be distributed during the first group session on Monday, September 22. For completing the final set of questionnaires on November 10, you will be eligible to receive another $5 gift card, as well as pizza at the end of the 8th group session. Again, thank you for your interest in this project and I look forward to working with you!

Sincerely,

Reginald (Reggie) W. Holt, PhD Candidate
University of Missouri-St. Louis/Department of Counseling & Family Therapy

cc: Gateway Foundation-Corrections
(Name), MO DOC Probation/Parole Officer

CONFIDENTIAL

Date

To: PARTICIPANT'S NAME (MO DOC #_____)

Mr. _____,

Thank you for your participation in the research project "Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole." This letter serves as notification that **you have been randomly selected to participate in the eight-week meditation course!** As a helpful reminder, the group education sessions will be held at Gateway Foundation-Corrections in Group Room E on the following dates and times:

- **Wednesday, September 24, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, October 1, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, October 8 , 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, October 15, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, October 22, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, October 29, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, November 5, 2014 at 01:00pm - 3:30pm (Group Room E)**
- **Wednesday, November 12, 2014 at 01:00pm - 3:30pm (Group Room E)**
  The final set of questionnaires will be given during the 8th group session

Included within this letter is a $5 gift card awarded to you for completing the registration session last week. Additional compensation will include snacks at the end of each weekly group session. For successfully completing the 8-session program, you will also be eligible to receive another $5 gift card and be allowed to keep the portable CD player and two-disc CD set that will be distributed during the first group session on Wednesday, September 24. For completing the final set of questionnaires on November 12, you will be eligible to receive another $5 gift card, as well as pizza at the end of the 8th group session. Again, thank you for your interest in this project and I look forward to working with you!

Sincerely,

Reginald (Reggie) W. Holt, PhD Candidate
University of Missouri-St. Louis/Department of Counseling & Family Therapy

cc: Gateway Foundation-Corrections
(Name), MO DOC Probation/Parole Officer

CONFIDENTIAL

Date

To: PARTICIPANT NAME (DOC ID# _____)

Mr. _____,

Thank you for your participation in the research project "Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole." This letter serves as notification that you were **not** randomly selected to participate in the eight-week meditation program. Although you will not be included in the meditation course, you are expected to continue attending all the usual group education sessions as scheduled each week by Gateway Foundation-Corrections.

Please recognize that your ongoing participation is a very important part of this study. As a friendly reminder, your next involvement includes completion of a final set of questionnaires. Please return to Group Room E on the following date and time to complete this step:

Monday, November 17, 2014 at 09:00am – 11:30am (Group Room E)

(OR)

Monday, November 17, 2014 at 06:00pm – 8:30pm (Group Room E)

For completing this last set of questionnaires on **November 17**, you will be eligible to receive another $5 gift card, as well as pizza at the end of the questionnaire session.

Included within this letter is a $5 gift card awarded to you for completing the registration session and the first set of questionnaires last week. Again, thank you for your interest in this project and I look forward to seeing you again on ***Monday, November 17 at 9:00am (OR) 6:00pm*** to complete the remaining questionnaires.

Sincerely,

Reginald (Reggie) W. Holt, PhD Candidate
University of Missouri-St. Louis
Department of Counseling & Family Therapy

cc: Gateway Foundation-Corrections
(Name), MO DOC Probation/Parole Officer

APPENDIX C

Research Study Reminder Memo to Gateway Foundation-Corrections

Department of Counseling and Family Therapy
One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
Fax: 314-516-5784

September 4, 2014

(Name of Gateway Clinical Staff),

Greetings! I want to thank you for your patience over the past two weeks as I introduced myself and my research study to the clients during your group counseling sessions. Your interest and involvement contributes to the potential success of this endeavor. I am optimistic the meditation course will be of benefit to the clients at Gateway Foundation-Corrections.

As a helpful reminder, the registration/sign-up sessions for the study will be held in Group Room E on the following dates/times:

- Monday, September 8, 2014 at 09:00am - 11:30am (Group Room E)
- Monday, September 8, 2014 at 6:00pm - 8:30pm (Group Room E)
- Wednesday, September 10, 2014 at 1:00pm - 3:30pm (Group Room E)
- Friday, September 12, 2014 at 09:00am - 11:30am (Group Room E)

I will return to the group counseling sessions on Tuesday (September 16) and Thursday (September 18) at 9am, 1pm, and 6pm to notify each registered participant which group they have been randomly assigned (i.e., to either my weekly meditation class or continue a weekly group education class as usual at Gateway). A notification letter will be given outlining each participant's involvement for the remainder of the study.

For those assigned to the eight week medication course, they will attend one weekly 2 ½ hour session each week starting September 22 through November 14 (total of 8 weeks). The participants will attend the weekly meditation class on one of the following days/times based upon the day of the week/time of the day they attended the registration/sign-up session.

- Mondays at 9:00am – 11:30am (Group Room E)
- Mondays at 6:00pm – 8:30pm (Group Room E)
- Wednesdays at 1:00pm - 3:30pm (Group Room E)
- Fridays at 9:00am – 11:30am (Group Room E)

After the 8th session occurs, all registered participants from both groups (i.e., experimental and comparison/control) will complete a final set of questionnaires in Group Room E.

During each registration/questionnaire session, and throughout the weekly meditation classes, I ask for your help in maintaining an environment with minimal disruption. I will place a sign on the door of Group Room E asking that no one disturb the class while questionnaires are being completed and meditation practices are in session. Maintaining a learning environment where participants can focus without interruption is critical to their success, as well as the success of my research. I thank you in advance for your assistance during these times. If you have any questions, please do not hesitate to contact me at any time. I can be reached at (314) 643-9370.

Best Regards,

Reggie Holt, PhD Candidate, MA, LPC, NCC, MAC
cc: Steve Doherty and Lori Carr

APPENDIX D

University of Missouri-St. Louis

Office of Research Administration IRB Approval Letter

Office of Research Administration
One University Boulevard
St. Louis, Missouri 63121-4499
Telephone: 314-516-5899
Fax: 314-516-6759
E-mail: ora@umsl.edu

DATE:	June 26, 2014
TO:	Reginald Holt
FROM:	University of Missouri-St. Louis IRB
PROJECT TITLE:	[604708-2] Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole.
REFERENCE #:	
SUBMISSION TYPE:	Amendment/Modification
ACTION:	APPROVED
APPROVAL DATE:	June 26, 2014
EXPIRATION DATE:	June 26, 2015
REVIEW TYPE:	Full Committee Review

This proposal was approved by the University of Missouri-St. Louis IRB for a period of one year starting from the date listed above. The University of Missouri-St. Louis IRB must be notified in writing prior to major changes in the approved protocol. Examples of major changes are the addition of research sites or research instruments.

An annual report must be filed with the committee. This report should indicate the starting date of the project and the number of subjects since the start of project, or since last annual report.

Any consent or assent forms must be signed in duplicate and a copy provided to the subject. The principal investigator is required to retain the other copy of the signed consent form for at least three years following the completion of the research activity and the forms must be available for inspection if there is an official review of the UM-St. Louis human subjects research proceedings by the U.S. Department of Health and Human Services Office for Protection from Research Risks.

This action is officially recorded in the minutes of the committee.

If you have any questions, please contact Carl Bassi at 314-516-6029 or bassi@umsl.edu. Please include your project title and reference number in all correspondence with this committee.

APPENDIX E

State of Missouri-Department of Mental Health

Approval Letter for Research with Clients

STATE OF MISSOURI
DEPARTMENT OF MENTAL HEALTH
1706 EAST ELM STREET, P.O. BOX 687
JEFFERSON CITY, MISSOURI 65102
PHONE: (573) 751-4122 FAX: (573) 751-8224
www.dmh.mo.gov

JEREMIAH W. (JAY) NIXON
GOVERNOR

KEITH SCHAFER, Ed.D.
DIRECTOR

May 2, 2014

Reginald W. Holt, MA, LPC, NCC
Ph.D. Candidate
University of Missouri-St. Louis
Department of Counseling & Family Therapy
St. Louis, MO 63104

Dear Mr. Holt:

After analysis by the Professional Review Committee, I hereby approve your research project entitled **"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"**. This approval is contingent on the IRB approval. Please send documentation of IRB approval to my office once it is received.

Pursuant to Missouri Revised Statutes 630.194, you are required to submit to my office the attached "Research in Progress – Regular Review" form every 6 months for the duration of the research. Those 6-month progress reviews will be monitored by my office. A reminder will be sent to you when a 6-month review is approaching.

Please remember that when your project is complete you are also required to submit a final report of your research.

Good luck with your project. If you have any questions you may contact my office at 573-751-2794.

Sincerely,

L. Young-Walker mo

Laine Young-Walker, M.D.
PRC Chairperson
LYW:rls
copy: Research File #14.04.01

APPENDIX F

Missouri Department of Corrections Planning, Research and Evaluation Unit

Signed Transfer Agreement

Approval to Conduct Research

FINAL REPORT REVIEW AND DISSEMINATION

One (1) copy of the resulting research report will be provided to the Director of Planning, Research and Evaluation. The Director of Planning, Research and Evaluation will be notified of subsequent publication of the research finding. No departmental review or monitoring, beyond what is identified in the attached procedure, is anticipated, however, periodic status reports may be requested as a means of measuring progress on the project.

The undersigned agreement that data transferred under this agreement is to be used strictly for research and statistical purposes and that they are aware that violation of federal or state laws or regulations governing privacy and confidentiality are punishable as such. **The Department of Corrections reserves the right to withdraw from any cooperative research or evaluation project agreed to under this arrangement if departmental policy and procedures are not strictly followed.**

Reginald W. Holt, MA, LPC, NCC 04/16/2014

Reginald W. Holt, MA, LPC, NCC
Ph.D. Candidate
University of Missouri-St. Louis, Department of Counseling & Family Therapy

PROJECT REVIEWED AND TRANSFER APPROVED

BY: Daniel Oldfield TITLE: Director Research Evaluation DATE: 7/7/14

APPENDIX G

Gateway Foundation

Approval to Conduct Research Letter

July 11, 2014

Reginald W. Holt, MA, LPC, NCC Ph.D. Candidate
University of Missouri-St. Louis
Department of Counseling & Family Therapy
St. Louis, MO 63104

Dear Mr. Holt:

After review by the Research Review Committee of Gateway Foundation, we hereby approve your research project entitled **"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole".**

Based on documentation you have provided, we understand that the Missouri Departments of Corrections and Mental Health as well as the Institutional Review Board of the University of Missouri, St. Louis have approved your research project. We understand it is your intent to include the proposed clients receiving treatment services from Gateway Foundation's St. Louis Corrections Outpatient program.

Mr. Holt, as we have discussed, please contact me to schedule a meeting to discuss implementation of your research project at Gateway Foundation. Per guidance received from the Department of Mental Health, Division of Behavioral Health, Gateway Foundation will consider you an "intern" for the purposes of access to clients and their records and regarding client's treatment and clinical service documentation purposes. I will forward to you the documentation that is necessary to approve you as an intern.

We are excited to partner with you on your research project and look forward to the opportunity to enhance clients' services with your proposed treatment intervention.

Sincerely,

Stephen M. Doherty, M.Ed., LPC, CRADC, CCJP
Eastern Missouri Director, Gateway Foundation

Cc. Gateway Foundation Research Review Committee

APPENDIX H

State of Missouri-Department of Mental Health

Application for Research with Clients

STATE OF MISSOURI
DEPARTMENT OF MENTAL HEALTH

APPLICATION FOR RESEARCH WITH CLIENTS

PRINCIPAL RESEARCHER	DATE
Reginald W. Holt, MA, LPC, NCC Ph.D. Candidate, University of Missouri-St. Louis Department of Counseling & Family Therapy	INITIAL SUBMISSION: April 16, 2014 AMENDED SUBMISSION: June 26, 2014
HOME ADDRESS	PHONE
St. Louis, MO 63104	(314) xxx-xxxx EMAIL xxxxxx@mail.umsl.edu
CURRENT EMPLOYER	PHONE
University of Missouri-St. Louis Department of Counseling & Family Therapy 469 Marillac Hall St. Louis, MO 63121 <u>Doctoral Dissertation Committee Chairperson:</u> • Dr. Mark Pope, Ed.D <u>Doctoral Dissertation Committee Members:</u> • Dr. Susan Kashubeck-West, Ph.D. • Dr. R. Rocco Cottone, Ph.D. • Dr. Mary Lee Nelson, Ph.D.	(314) 516-5782

I. TITLE OF PROPOSAL

"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"

II. DATES OF PROJECT PERIOD

Total Duration (estimated): 12 months

Anticipated date to begin recruitment: August/September 2014
Anticipated date for treatment intervention and data collection to conclude: December 31, 2014

Anticipated date for data analysis and report preparation to conclude: June 2015

III. FACILITY OR LOCATION WHERE RESEARCH WILL BE CONDUCTED

Gateway Foundation-Corrections
1430 Olive St.
St. Louis, MO 63103
(314) 421-6188

IV. INTENT OF RESEARCH

The purpose of this study is to examine if the core components of Mindfulness-Based Relapse Prevention for Addictive Behaviors (Bowen, Chawla, & Marlatt, 2011) can be useful as an anger management strategy. In order to do so, an adapted version of MBRP will be implemented and analyzed using an experimental design among adult males on probation and/or parole recruited from Gateway Foundation-Corrections located at 1430 Olive Street in St. Louis, Missouri.

Developed by Witkiewitz, Marlatt, and Walker (2005), mindfulness-based relapse prevention (MBRP) is a cognitive-behavioral paradigm for substance use disorders integrating mindfulness-based skills with Marlatt's cognitive-behavioral relapse prevention program (Marlatt & Gordon, 1985). MBRP is an 8-week group program aimed at the prevention and management of relapse for addictive behaviors. This program teaches clients how to sharpen awareness of their personal triggers, unhealthy patterns, and automatic reactions. In addition, individuals are taught to pause, observe, consider their options, and then wisely respond to whatever is occurring in the moment. Ideally, these techniques free clients from being locked into harmful patterns associated with harmful and destructive behaviors.

Taking into account the impact that poorly controlled anger, aggression, and violence have on individuals, society, and the criminal justice system, it is crucial that effective protocols be developed and offered to those in need. When individuals mindlessly interpret other people, events, physiological reactions, and situations as threatening, hostility automatically arises leading to the potential for physical aggression and committing violent crimes. Mindfulness-based interventions for anger management and violence prevention may offer such an antidote. When mindfulness-based tools are incorporated into counseling, instruction is given to help clients develop awareness of thoughts, emotions, or sensations, accept these without judgment, offer an effective way to handle situational triggers (Witkiewitz, et al., 2005), and in turn, attenuate maladaptive reactions in response to unpleasant experiences (Bowen & Marlatt, 2009). Not only does conducting quantitative research inside the correctional system offer the opportunity to directly work with individuals at risk, this study may also add to the literature by examining the effects of alternative anger management strategies for this specialized population.

V. BRIEF ABSTRACT OF METHODOLOGY

This design of this research will be between-groups, randomized control study. A pool of participants (N= 100), for the treatment and comparison groups combined, is identified as

the ideal number required for this study. Individuals will be recruited at Gateway Foundation-Corrections located in St. Louis, Missouri. Eligible participants will be randomly assigned to attend an 8-week version of Mindfulness-Based Relapse Prevention (MBRP) for Addictive Behaviors adapted for anger management plus treatment as usual (n=50) or to a treatment as usual (TAU) only comparison group (n=50). All participants will continue to receive TAU services typically offered to parolees and probationers by Gateway Foundation-Corrections, but those within the experimental group will additionally receive the MBRP treatment. Attending the weekly MBRP group session will be in place of attending one other group session the participants usually attend during the week at Gateway Foundation.

The principal researcher will meet with Gateway Foundation-Correction's staff during a regularly scheduled weekly staff meeting approximately one month before recruitment efforts begin. The purpose of this meeting will be to orient staff to the details of the research study.

Approximately one week before the orientation sessions are held, which is where the consent forms will be signed and pre-test questionnaires completed, the researcher will briefly visit all group sessions offered at Gateway Foundation-Corrections during the course of one week. The purpose of these pre-orientation meetings will be to introduce the study to potential participants and identify the dates/times/on-site group room locations where interested individuals can appear for the forthcoming orientation sessions and begin the study.

An orientation meeting will be held where the "Informed Consent for Participation in Research Activities" and "HIPAA Authorization Form" will be read aloud by the principal investigator to the participants. This will provide an opportunity to review the study, describe what each participant may expect, including the limits of confidentiality and use/disclosure of information, and answer questions/address concerns any participant may have before the consent and authorization forms are signed. Incorporated within the informed consent, risk and benefits associated with this study will be identified, including a description of the efforts that will be made to reduce risk, minimize discomfort, and prevent harm to participants. All participation is voluntary. Participants may choose not to participate in this research study or to withdraw consent at any time. Participation in this research will have no effect on an individual's probation and/or parole. Participants may choose not to answer any questions that they do not want to answer. Participants assigned to the experimental group may choose to withdraw consent for their information to be included in the analyses of the research data. These participants, however, will be allowed to attend any remaining MBRP weekly group sessions should they desire. Participants will not be penalized in any way should they choose not to participate or to withdraw. By agreeing to participate, participants acknowledge an understanding that if they are required to attend an anger management program by the Missouri Department of Corrections, this research study will NOT be considered a substitute, nor meet the Missouri Department of Corrections' expectations, for a mandatory anger management course.

After all informed consent and HIPAA authorization forms and pre-test questionnaires are completed during the orientation sessions, participants will be randomly assigned to either the experimental or comparison group. Approximately one week following completion of the orientation sessions and random assignment, the eight-week group sessions will begin.

Demographic information will be obtained from each participant during the pre-test measurement period via a "Research Participant Demographic Information Questionnaire."

Three measures, State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1988), the Interpersonal Reactivity Index (IRI; Davis, 1983), and the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) will be given to the experimental and comparison groups at baseline (pretest) and upon completion of the 8-week MBRP anger management program (posttest).

The Paulhus Deception Scales (formerly known as The Balanced Inventory of Desirable Responding; Paulhus, 1984), concerned with attempts to appear morally and socially acceptable, will be administered at pretest to examine the tendency to reply in a manner that will be viewed favorably by others.

During the intervention phase, the experimental and treatment-as-usual comparison groups will have access to mental health and/or substance abuse (MHSA) services traditionally offered at Gateway Foundation-Corrections. The investigator will ask Gateway Foundation-Corrections staff to identify any known MHSA services received by probationers and parolees during the intervention phase. This information will be obtained during the post-test measurement period via a "Record of Services & Programming Received During Research" Questionnaire. When the data is being examined, it will be important to take this factor into consideration as a potential variable that may influence the study outcome.

Thirty days following conclusion of the 8-week MBRP program, Gateway Foundation-Corrections staff will be asked to complete a "Record of Institutional Offending During Research" questionnaire identifying if any member within the experimental and comparison groups committed a violation or offense between the pretest and 30 day follow-up measurement periods. For the purpose of this research, types of institutional offenses that will be examined include: (a) *physical* (e.g., assaulting others, destruction of property, etc.), (b) *verbal* (e.g., threats, hostility, cursing, etc.), (c) *institutional violations* (e.g., violating specific terms of probation or parole, etc.), (d) *substance use* (e.g., use and/or possession of illicit substances, positive drug screens, being under influence of mood-altering chemicals or alcohol, etc.), and (e) *general non-compliance* (e.g., conflicts, breaking rules, missing appointments, etc.).

At the request of the Missouri Department of Corrections (MO DOC) Research and Evaluation Unit, field violations and revocation data will be directly provided to the Principal Investigator by the MO DOC Research Unit at a three-month follow-up period.

Each participant's MO DOC identification # will be identified on the informed consent form. This DOC # will be collected in order for the MO DOC Research Unit to provide the field violations and revocation data.

INTERVENTION:

Following the protocol as outlined in *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide* (Bowen, et al., 2011), group therapy sessions will be adapted for anger management therapy and taught to the experimental groups by the principal researcher. Participants in the experimental group will meet in a group setting for approximately 2 - 2.5 hours per week focusing on the following topics over the course of an eight week program: (a) automatic pilot and relapse; (b) awareness of triggers for anger and aggression; (c) mindfulness in daily life; (d) mindfulness in high-risk situations that trigger anger/aggression; (e) acceptance and skillful action; (f) seeing thoughts as thoughts; (g) self-care and lifestyle balance; and (h) social support and continuing practice.

During the course of each week's group session, the participants will be educated on the concept of mindfulness in daily activities, receive instruction on the various modalities of meditative practices, as well as participate in guided meditation sessions. For the days to follow outside of group, the participants will practice daily mindfulness meditation exercises and subsequently record the outcomes on a daily practice worksheet. Guided meditation exercises will be pre-loaded on a compact disc and given to each participant, along with a portable CD player, for completion of daily practice outside the group setting. Worksheets will be modified by the researcher based upon those in Bowen, Shawla, and Marlatt's clinician's guide. In addition, participants will identify high-risk situations triggering anger and aggression, be encouraged to practice the mindfulness meditation in response to these triggers, and document the results.

A wait-list for MBRP for anger management will be created for those individuals assigned to the comparison group. This will provide the opportunity for interested parties in the comparison group to participate in the eight-week MBRP program at the end of the study should they desire. For those who desire to attend this MBRP program, no additional compensation will be given.

VI. ANTICIPATED OUTCOMES

The following research question will be addressed:

> Will males on probation and parole who complete an 8-week group therapy program using MBRP adapted as an anger management treatment protocol experience less anger, more empathy, enhanced mindfulness skills, and commit fewer episodes of institutional offending compared to those in the treatment as usual (TAU) only comparison group?

The following hypotheses will be tested:

- H1: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **less anger**, as assessed by State-Trait Anger Expression Inventory-2 scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H2: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **more empathy**, as assessed by Interpersonal Reactivity Index scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H3: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **more mindfulness skills**, as assessed by Five Facet Mindfulness Questionnaire scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H4: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **less institutional offending**, as assessed by the "Record of Institutional Offending During Research" questionnaire, when compared to those in the treatment as usual (TAU) only comparison group.

VII. THE FOLLOWING MUST BE ANSWERED

YES	NO	
☐	☒	1. Is this biomedical or pharmacological research?
☐	☒	2. Will research activities be conducted within a DMH facility?

Gateway Foundation-Corrections in St. Louis, Missouri.

☐	☒	3. Does the research involve children or pregnant women:
☒	☐	4. Does the research involve forensic clients, involuntary patients, or prisoners?
☒	☐	5. Will the research results be published?

If the results are statistically significant, submission to a peer reviewed journal will be considered by the researcher.

☐	☒	6. Is the research prospective?
☐	☒	7. Is the research retrospective?

This design of this experimental research will be a between-groups, randomized control study.

DESCRIBE THE NATURE OF ANY POTENTIAL RISKS TO RESEARCH SUBJECTS.

Per the information outlined on the "Informed Consent for Participation in Research Activities:"

There may be certain minor risks or discomforts associated with this research. They include mild uncomfortable physical sensations, emotions, thoughts, or memories because you were asked to practice unfamiliar meditation exercises and share personal information during the group sessions. If you become upset during the group sessions, Reginald W. Holt will use his professional counseling skills to assist you. Additionally, you will be directed to Gateway Foundation-Corrections staff to

obtain healthcare resources available to you.

An additional risk includes the possibility of a group member sharing personal information about another group member to someone who is not a member of that group, and/or discussing information about other group members outside the group session. At the beginning of each weekly group session, the researcher will inform the group to respect each participant's confidentiality by not disclosing information shared by other group members to anyone outside the group setting.

You may also be concerned about confidentiality as it pertains to information exchanged between the researcher and the State of Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation's staff. All data collected during this research will be stored on a password-protected computer and/or in a locked office and used only for the purpose of this study. By agreeing to participate, you understand and agree that information may be shared with other researchers and educators, including the Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation Clinical Research Committee, Community Director, and Clinical Director, in the form of progress and status reports, presentations, and/or publications. In these cases, your identity will NOT be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. There are some situations in which the researcher may be legally required to release information without consent or authorization. These include, but are not limited to, being a threat or danger to yourself or others.

By agreeing to participate, you understand that if you are required to attend an anger management program by the Missouri Department of Corrections, this research study will NOT be considered a substitute, nor meet the Missouri Department of Corrections' expectations, for a mandatory anger management course.

Your participation is voluntary. You may choose not to answer any question that you do not want to answer. Your participation in this research will have no effect on your probation and/or parole. You will NOT be penalized in any way should you choose not to participate or to withdraw from this research study. You may choose not to participate in this research study or to withdraw your consent at any time by notifying Reginald W. Holt.

By agreeing to participate, you understand and agree for Reginald W. Holt to submit documentation after each group to Gateway Foundation-Corrections identifying the session topic and each individual who attended the session.

By agreeing to participate, you understand and agree for Gateway Foundation-Corrections to release to Reginald W. Holt any known offense or violation you committed during the study, as well as list any mental health and/or substance abuse services you received while participating in this research.

By agreeing to participate, you understand and agree that field violations and

revocation data may be provided to Reginald W. Holt by the Missouri Department of Corrections Research Unit after your direct involvement in this research concludes.

BRIEFLY DESCRIBE THE IMPACT OF RESEARCH ACTIVITIES ON THE CLIENT'S DAILY ACTIVITIES AND TREATMENT PLAN, IF ANY.

Clients will be recruited from Gateway Foundation-Corrections office located at 1430 Olive St. in St. Louis, Missouri. These clients will already be enrolled in MHSA services at Gateway Foundation-Corrections. The clients who participate in the MBRP for anger management will attend one weekly 2-2 ½ hour group session for eight weeks led by the principal researcher in lieu of the usual on-site group service provided that day by a Gateway Foundation-Corrections staff member.

The amount of time involved for completion of each set of questionnaires (pre-test & post-test) will be approximately 1 to 2 hours. For those attending the group sessions, the time involved is approximately 2 to 2 ½ hours per week for eight group meetings. In addition, the daily guided meditations practiced at home will range between approximately five to 31 minutes, but may be longer on some days. During some weeks, additional brief exercises are also included. The expected time involved in completing the home worksheets is approximately 10 to 15 minutes each day.

All recruitment efforts, measurements/questionnaires, and interventions will be provided on-site at Gateway Foundation-Corrections office.

VII. ADDITIONAL INFORMATION (USE THIS SPACE TO PROVIDE ADDITIONAL INFORMATION TO ANY ITEM LISTED PREVIOUSLY. IF APPLICABLE, PLEASE INCLUDE THE CORRESPONDING NUMBER)

PLANNED COMPENSATION:

Per the information outlined on the "Informed Consent for Participation in Research Activities:"

- For completing each set of questionnaires, you will be eligible to receive one of 10 gift cards/gift certificates in the amount of $5 each. The gift cards/certificates will be awarded through a drawing. These will not have a cash value and are only reimbursable at local retail/grocery stores or restaurants.
- Refreshments/snacks will be available upon completion of each set of questionnaires.
- Individuals who complete all eight weekly group sessions will be eligible for one of 10 gifts cards/gift certificates in the amount of $5 each at the end of the eight week group program. The gift cards/certificates will be awarded through a drawing. These will not have a cash value and are only reimbursable at local retail/grocery stores or restaurants.
- Refreshments/snacks will be available at the end of each weekly group session.
- All men placed in the meditation sessions will be given one portable CD player and a CD containing guided meditation exercises. These are to be used

for the daily home practice during the eight week program. Men placed in the meditation groups will be allowed to keep the CD players and the guided meditation recordings at the end of the study.

- For the men who were not placed in the mindfulness meditation group, you will be put on a wait-list. Once the study ends, you will be given the opportunity to participate in the eight week program should you desire; however, no compensation, such as gift cards or CD players, will be available.

MISCELLANEOUS:

The Principal Investigator completed the dissertation proposal defense and was given written approval by the dissertation committee on March, 10, 2014.

The Principal Investigator discussed this dissertation research design and desire to recruit clients enrolled in Gateway Foundation-Corrections with Steve Doherty, Director, and Lori Carr, Assistant Director, at Gateway Foundation-Corrections. They expressed interest in the research study and referred the researcher to the Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation's Research Committee in order to complete the appropriate application procedures.

Pending full committee review and formal IRB approval at the University of Missouri-St. Louis, conditional approval has been given by the Professional Research Committee at the Missouri Department of Mental Health (05/02/2014), Gateway Foundation Clinical Research Committee (05/06/2014), and the Missouri Department of Corrections Research and Evaluation Unit (05/14/2014).

SIGNATURE OF APPLICANT	DATE
Reginald W. Holt, MA, LPC, NCC	Initial Submission: 04/16/2014 Revised/Resubmitted: 06/26/2014

RECOMMENDED DISPOSITION BY PRC COORDINATOR

☐ Requires Full Application before determination can be made

☐ Requires Full PRC Review with Full Application

☐ Referred for monitoring, oversight and review to:

DIVISION/SECTION	
NAME	TITLE
SIGNATURE OF PRC COORDINATOR	DATE

APPENDIX I

State of Missouri-Department of Mental Health

Research in Progress–Regular Review Form

STATE OF MISSOURI
DEPARTMENT OF MENTAL HEALTH

RESEARCH IN PROGRESS – REGULAR REVIEW

PROJECT TITLE: **Examining the Effects of Mindfulness-Based Relapse Prevention (MBRP) as an Anger Management Therapy for Adult Males on Probation and Parole**

PROJECT NUMBER: **Research File #14.04.01**

PRINCIPAL INVESTIGATOR: **Reginald W. Holt, PhD Candidate**

E-mail: **xxxxxx f@mail.umsl.edu**

APPROVED ON: **May, 2, 2014**

TO BE COMPLETED BY THE PRINCIPAL INVESTIGATOR:

Department of Mental Health facilities or contract agencies where research is being conducted:

Gateway Foundation-Corrections "Free & Clean", St. Louis, MO

1. Have there been any changes in the research protocol since its approval by the PRC?
   ☒ Yes ☐ No

2. If yes, please describe in detail:

CHANGES WERE MADE TO THE STASTISTICAL DESIGN (not the clinical intervention):

The Mindfulness-Based Relapse Prevention Program (MBRP) was provided to the participants during an eight week period per the protocol of the MBRP manual (**the final session occurred on 11/12/2014**). The original design was a between groups, randomized experimental study. Due to the small number of participants who registered for the study (N=23; experimental group n=12, control group=11), early occurrence of attrition, and the high likelihood that ongoing recruitment efforts will not produce improved recruitment outcomes, the PI modified the study using a descriptive design and added a qualitative research component. This change was reviewed during a meeting with the chair of my dissertation committee and my dissertation research methods advisor on September 25, 2014. The revisions were subsequently approved by my dissertation committee the following week. Full and final approval for the modifications were given by the Institutional Review Board (IRB) at the University of Missouri-St. Louis on October 21, 2014. Instead of testing hypotheses through a pretest-posttest experimental design, descriptive statistics will be used to describe the primary features of the data collected only from the individuals who attended the MBRP sessions and then summarized in a meaningful way. Data will be collected through the same questionnaires include in the original design (i.e., Research Participant Demographic Information Questionnaire, the State-Trait Anger Expression Inventory-2 [anger expression], the Interpersonal Reactivity Index [empathy], the Five Facet Mindfulness Questionnaire [mindfulness skills], the Paulhus Deception Scales [social desirability/impression management],and Institutional Offending [field violations and parole/probation revocation data provided by Gateway Foundation-Corrections and/or the MO Department of Corrections thirty days following completed of MBRP course).

In addition to changing from an experimental design to a descriptive study, the PI incorporated a qualitative element by adding a group interview after the final session of the MBRP course. By

changing to a mixed method design where a qualitative component is added, this study may offer insight into how the MBRP participants derive meaning from their activities and experiences practicing mindfulness meditation; information that is otherwise inaccessible through quantitative methods alone.

3. Has any risk or potential harm to subjects been identified which was not described in the original proposal? ☐ Yes ☒ No

4. If yes, please describe in detail: Not Applicable

5. Have you received or do you have knowledge of any oral or written complaints from participants? ☐ Yes ☒ No

6. If yes, please describe in detail. Attach copies of any written complaints: N/A

7. Do you foresee a change in the project completion date of this project: ☐ Yes ☒ No

   New Completion Date: N/A

8. Are you requesting continuing approval of this project including any changes or incidents noted above? ☒ Yes ☐ No

9. Please indicate the status of your project:

   Subject Selection: ☒ Complete ☐ In Progress ☐ Scheduled ☐ Postponed ☐ Other

   Data Collection: ☐ Complete ☒ In Progress ☐ Scheduled ☐ Postponed ☐ Other

   Analysis: ☐ Complete ☒ In Progress ☐ Scheduled ☐ Postponed ☐ Other

   Report Preparation: ☐ Complete ☒ In Progress ☐ Scheduled ☐ Postponed ☐ Other

10. At this time do you wish to notify the Facility Director/Superintendent that data collection and/or client participation has ended? ☐ Yes ☒ No

As of November 12, 2014, I finished the eight MBRP meditation sessions, and obtained follow-up questionnaires from and conducted qualitative interviews with the remaining six participants who completed the MBRP course (I started with 12, but ended with six due to attrition). **No further direct involvement is expected of the clients at Gateway Foundation-Corrections going forward.** My final collection of data will be obtained by asking Gateway Foundation-Corrections staff and/or the MO Department of Corrections to identify any known "institutional offense" committed by the six clients who completed the MBRP meditation course at a 30 day follow-up period (expected due date 12/15/2014). Once this data is collected from Gateway staff, I will no longer need access to their site. The remainder of my time will be spent analyzing data and writing the outcomes in preparation of defending my dissertation.

The remainder of this form must be completed by the director(s)/superintendent(s) of the facilities where the research is being conducted until they are given notice in writing that client participation and data collection have been completed.

If client participation has not ended, or if you answered yes to question 11, sign the form below and submit it to the director(s)/superintendent(s) of the facilities where the research is being conducted.

If notification has occurred prior to this review, sign the form below and return it to the Coordinator, Professional Review Committee.

PRINCIPAL INVESTIGATOR SIGNATURE *Reginald W. Holt*

DATE **11/18/2014**

TO BE COMPLETED BY FACILITY DIRECTOR/SUPERINTENDENT (ATTACH ADDITIONAL SHEETS IF NECESSARY)

1. Are you aware of any changes in the research protocol as it was implemented in your facility, since its approval by the PRC? ☐ Yes ☐ No
2. If yes, please describe In detail:
3. Has any risk or potential harm to subjects been identified which was not described in the original proposal? ☐ Yes ☐ No
4. If yes, please describe in full:
5. Have you received or do you have any knowledge of any oral or written complaints from participants? ☐ Yes ☐ No
6. If yes, please describe in detail. Attach copies of any written complaints.
7. Are you aware of any reasons why approval of this project should be suspended or revoked? ☐ Yes ☐ No
8. If yes, please explain:
9. Any comments regarding this research project:

FACILITY DIRECTOR/SUPERINTENDENT

Name **Stephen Doherty**	Signature
Date	

Return this form to:

Laine Young-Walker, MD
PRC Coordinator
DEPARTMENT OF MENTAL HEALTH
P.O. BOX 687
JEFFERSON CITY, MISSOURI 65102

11.06.03

APPENDIX J

Missouri Department of Corrections Department Manual

D1-6: Research and Evaluation

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MISSOURI DEPARTMENT OF CORRECTIONS

** DEPARTMENT MANUAL **

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D1-6 Research and Evaluation

Larry Crawford, Department Director — July 1, 2005 Effective Date

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I. **PURPOSE:** Consistent with the department's mission and philosophy, it is the department's policy to encourage a wide range of research and evaluation activity by staff, as well as, outside groups or resources interested in furthering and supporting effective correctional management. The department promotes professional research and evaluation through established procedures.

A. **AUTHORITY:** 217.040 RSMo

B. **APPLICABILITY:** This policy applies to the office of the director, all divisions within the department, and to all interested outside groups or individuals, who may have a role in the department's research and evaluation efforts.

II. **DEFINITIONS:**

A. None

III. **ATTACHMENTS:**

A. None

IV. **REFERENCES:**

A. D1-3 Public Relations
B. D1-6.1 Planning Procedures
C. D1-6.2 Informational Survey Coordination

V. **HISTORY:**

A. Original Effective Date: 02-27-89
B. Revised Effective Date:

APPENDIX K

Missouri Department of Corrections Planning, Research and Evaluation Unit

Transfer Agreement for Research Purposes

MISSOURI DEPARTMENT OF CORRECTIONS
PLANNING, RESEARCH AND EVALUATION UNIT

TRANSFER AGREEMENT FOR RESEARCH PURPOSES

The Missouri Department of Corrections views correctional research activity as an important and worthwhile endeavor and a vital means of improving correctional management practices. Cooperative research projects, which involve outside researchers, are encouraged so long as the projects conform to recognized professional standards, including those relating to privacy, confidentiality and the protection of human rights.

The purpose of this transfer agreement is to ensure that research and evaluation projects conducted by non-agency researchers is carried out with the highest regard for individual and organizational concerns related to privacy, confidentiality, human rights, security and professionalism. The undersigned agree to abide by all current and relevant department policies and procedures governing research and evaluation activities in the Department of Corrections and any other related state or federal statutes, requirements or regulations.

PROJECT NAME AND PURPOSE:

PRINCIPAL RESEARCHER:

Reginald W. Holt, MA, LPC, NCC
Ph.D. Candidate, University of Missouri-St. Louis
Department of Counseling & Family Therapy
469 Marillac Hall
St. Louis, MO 63121

PHONE:

314-xxx-xxxx (R. Holt)
314-516-5782 (University of MO-St. Louis-Department of Counseling & Family Therapy)

EMAIL:

xxxxxx @mail.umsl.edu

Doctoral Dissertation Committee Chairperson:

- Dr. Mark Pope, Ed.D.

Doctoral Dissertation Committee Members:

- Dr. Susan Kashubeck-West, Ph.D.
- Dr. R. Rocco Cottone, Ph.D.
- Dr. Mary Lee Nelson, Ph.D.

TITLE OF DOCTORAL DISSERTATION PROPOSAL:

"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"

FACILITY/LOCATION WHERE RESEARCH WILL BE CONDUCTED:

Gateway Foundation-Corrections
1430 Olive St.
St. Louis, MO 63103
(314) 421-6188

Adult men under the supervision of the Missouri Department of Corrections' Division of Probation and Parole will be recruited from Gateway Foundation-Corrections office located in St. Louis, Missouri. Gateway Foundation, a trusted non-profit leader providing drug treatment and alcohol treatment in correctional treatment settings since 1968, currently operates treatment programs for men, women, adolescents, special needs, and dual diagnosis clients involved in the criminal justice system. Gateway's Community Corrections programs in St. Louis, Missouri include intensive and supportive outpatient counseling, re-entry/transition programs, and more highly structured day reporting centers.

DATES OF PROJECT PERIOD

Anticipated date to begin recruitment: August/September 2014
Anticipated date for treatment intervention and data collection to conclude: June 2015

QUALIFICATIONS OF PRINCIPAL INVESTIGATOR:

1. Ph.D. Candidate (University of Missouri-St Louis, Department of Counseling & Family Therapy)
2. Master of Arts (Clinical Psychology)
3. Licensed Professional Counselor (State of Missouri)
4. Licensed Clinical Professional Counselor (State of Illinois)
5. Certified Advanced Alcohol & other Drug Abuse Counselor (State of Illinois)
6. National Certified Counselor (National Board of Certified Counselors)
7. Master Addictions Counselor (National Board of Certified Counselors)

INTENT OF DOCTORAL DISSERTATION RESEARCH:

The purpose of this study is to examine if the core components of Mindfulness-Based Relapse Prevention for Addictive Behaviors (Bowen, Chawla, & Marlatt, 2011) can be useful as an anger management strategy. In order to do so, an adapted version of MBRP will be implemented and analyzed using an experimental design among adult males on probation and/or parole recruited from Gateway Foundation-Corrections located at 1430 Olive Street in St. Louis, Missouri.

Developed by Witkiewitz, Marlatt, and Walker (2005), mindfulness-based relapse prevention (MBRP) is a cognitive-behavioral paradigm for substance use disorders

integrating mindfulness-based skills with Marlatt's cognitive-behavioral relapse prevention program (Marlatt & Gordon, 1985). MBRP is an 8-week group program aimed at the prevention and management of relapse for addictive behaviors. This program teaches clients how to sharpen awareness of their personal triggers, unhealthy patterns, and automatic reactions. In addition, individuals are taught to pause, observe, consider their options, and then wisely respond to whatever is occurring in the moment. Ideally, these techniques free clients from being locked into harmful patterns associated with harmful and destructive behaviors.

Taking into account the impact that poorly controlled anger, aggression, and violence have on individuals, society, and the criminal justice system, it is crucial that effective protocols be developed and offered to those in need. When individuals mindlessly interpret other people, events, physiological reactions, and situations as threatening, hostility automatically arises leading to the potential for physical aggression and committing violent crimes. Mindfulness-based interventions for anger management and violence prevention may offer such an antidote. When mindfulness-based tools are incorporated into counseling, instruction is given to help clients develop awareness of thoughts, emotions, or sensations, accept these without judgment, offer an effective way to handle situational triggers (Witkiewitz, et al., 2005), and in turn, attenuate maladaptive reactions in response to unpleasant experiences (Bowen & Marlatt, 2009). Not only does conducting quantitative research inside the correctional system offer the opportunity to directly work with individuals at risk, this study may also add to the literature by examining the effects of alternative anger management strategies for this specialized population.

ABSTRACT OF METHODOLOGY:

This design of this research will be between-groups, randomized control study. A pool of participants (N= 100), for the treatment and comparison groups combined, is identified as the ideal number required for this study. Individuals will be recruited at Gateway Foundation-Corrections located in St. Louis, Missouri. Eligible participants will be randomly assigned to attend an 8-week version of Mindfulness-Based Relapse Prevention (MBRP) for Addictive Behaviors adapted for anger management plus treatment as usual (n=50) or to a treatment as usual (TAU) only comparison group (n=50). All participants will continue to receive TAU services typically offered to parolees and probationers by Gateway Foundation-Corrections, but those within the experimental group will additionally receive the MBRP treatment. Attending the weekly MBRP group session will be in place of attending one other group session the participants usually attend during the week at Gateway Foundation.

The principal researcher will meet with Gateway Foundation-Correction's staff during a regularly scheduled weekly staff meeting approximately one month before recruitment efforts begin. The purpose of this meeting will be to orient staff to the details of the research study.

Approximately one week before the orientation sessions are held, which is where the consent forms will be signed and pre-test questionnaires completed, the researcher will

briefly visit all group sessions offered at Gateway Foundation-Corrections during the course of one week. The purpose of these pre-orientation meetings will be to introduce the study to potential participants and identify the dates/times/on-site group room locations where interested individuals can appear for the forthcoming orientation sessions and begin the study.

An orientation meeting will be held where the "Informed Consent for Participation in Research Activities" and "HIPAA Authorization Form" will be read aloud by the principal investigator to the participants. This will provide an opportunity to review the study, describe what each participant may expect, including the limits of confidentiality and use/disclosure of information, and answer questions/address concerns any participant may have before the consent and authorization forms are signed. Incorporated within the informed consent, risk and benefits associated with this study will be identified, including a description of the efforts that will be made to reduce risk, minimize discomfort, and prevent harm to participants. All participation is voluntary. Participants may choose not to participate in this research study or to withdraw consent at any time. Participation in this research will have no effect on an individual's probation and/or parole. Participants may choose not to answer any questions that they do not want to answer. Participants assigned to the experimental group may choose to withdraw consent for their information to be included in the analyses of the research data. These participants, however, will be allowed to attend any remaining MBRP weekly group sessions should they desire. Participants will not be penalized in any way should they choose not to participate or to withdraw. By agreeing to participate, participants acknowledge an understanding that if they are required to attend an anger management program by the Missouri Department of Corrections, this research study will NOT be considered a substitute, nor meet the Missouri Department of Corrections' expectations, for a mandatory anger management course.

After all informed consent and HIPAA authorization forms and pre-test questionnaires are completed during the orientation sessions, participants will be randomly assigned to either the experimental or comparison group. Approximately one week following completion of the orientation sessions and random assignment, the eight-week group sessions will begin.

Demographic information will be obtained from each participant during the pre-test measurement period via a "Research Participant Demographic Information Questionnaire."

Three measures, State-Trait Anger Expression Inventory-2 (STAXI-2; Spielberger, 1988), the Interpersonal Reactivity Index (IRI; Davis, 1983), and the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006) will be given to the experimental and comparison groups at baseline (pretest) and upon completion of the 8-week MBRP anger management program (posttest).

The Paulhus Deception Scales (formerly known as The Balanced Inventory of Desirable Responding; Paulhus, 1984), concerned with attempts to appear morally and socially

acceptable, will be administered at pretest to examine the tendency to reply in a manner that will be viewed favorably by others.

During the intervention phase, the experimental and treatment-as-usual comparison groups will have access to mental health and/or substance abuse (MHSA) services traditionally offered at Gateway Foundation-Corrections. The investigator will ask Gateway Foundation-Corrections staff to identify any known MHSA services received by probationers and parolees during the intervention phase. This information will be obtained during the post-test measurement period via a "Record of Services & Programming Received During Research" Questionnaire. When the data is being examined, it will be important to take this factor into consideration as a potential variable that may influence the study outcome.

Thirty days following conclusion of the 8-week MBRP program, Gateway Foundation-Corrections staff will be asked to complete a "Record of Institutional Offending During Research" questionnaire identifying if any member within the experimental and comparison groups committed a violation or offense between the pretest and 30 day follow-up measurement periods. For the purpose of this research, types of institutional offenses that will be examined include: (a) *physical* (e.g., assaulting others, destruction of property, etc.), (b) *verbal* (e.g., threats, hostility, cursing, etc.), (c) *institutional violations* (e.g., violating specific terms of probation or parole, etc.), (d) *substance use* (e.g., use and/or possession of illicit substances, positive drug screens, being under influence of mood-altering chemicals or alcohol, etc.), and (e) *general non-compliance* (e.g., conflicts, breaking rules, missing appointments, etc.).

At the request of the Missouri Department of Corrections (MO DOC) Research and Evaluation Unit, field violations and revocation data will be directly provided to the Principal Investigator by the MO DOC Research Unit at a three-month follow-up period. Each participant's MO DOC identification # will be identified on the informed consent form. This DOC # will be collected in order for the MO DOC Research Unit to provide the field violations and revocation data.

INTERVENTION:

Following the protocol as outlined in *Mindfulness-Based Relapse Prevention for Addictive Behaviors: A Clinician's Guide* (Bowen, et al., 2011), group therapy sessions will be adapted for anger management therapy and taught to the experimental groups by the principal researcher. Participants in the experimental group will meet in a group setting for approximately 2 - 2.5 hours per week focusing on the following topics over the course of an eight week program: (a) automatic pilot and relapse; (b) awareness of triggers for anger and aggression; (c) mindfulness in daily life; (d) mindfulness in high-risk situations that trigger anger/aggression; (e) acceptance and skillful action; (f) seeing thoughts as thoughts; (g) self-care and lifestyle balance; and (h) social support and continuing practice.

During the course of each week's group session, the participants will be educated on the concept of mindfulness in daily activities, receive instruction on the various modalities of meditative practices, as well as participate in guided meditation sessions. For the days to follow outside of group, the participants will practice daily mindfulness meditation exercises and subsequently record the outcomes on a daily practice worksheet. Guided meditation exercises will be pre-loaded on a compact disc and given to each participant, along with a portable CD player, for completion of daily practice outside the group setting. Worksheets will be modified by the researcher based upon those in Bowen, Shawla, and Marlatt's clinician's guide. In addition, participants will identify high-risk situations triggering anger and aggression, be encouraged to practice the mindfulness meditation in response to these triggers, and document the results.

A wait-list for MBRP for anger management will be created for those individuals assigned to the comparison group. This will provide the opportunity for interested parties in the comparison group to participate in the eight-week MBRP program at the end of the study should they desire. For those who desire to attend this MBRP program, no additional compensation will be given.

SPECIFIC AIMS and HYPOTHESES or RESEARCH QUESTIONS:

The following research question will be addressed:

> Will males on probation and parole who complete an 8-week group therapy program using MBRP adapted as an anger management treatment protocol experience less anger, more empathy, enhanced mindfulness skills, and commit fewer episodes of institutional offending compared to those in the treatment as usual (TAU) only comparison group?

The following hypotheses will be tested:

- H1: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **less anger**, as assessed by State-Trait Anger Expression Inventory-2 scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H2: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **more empathy**, as assessed by Interpersonal Reactivity Index scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H3: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **more mindfulness skills**, as assessed by Five Facet Mindfulness Questionnaire scores, when compared to those in the treatment as usual (TAU) only comparison group.

- H4: Adult males on probation and parole who complete MBRP adapted as an anger management treatment protocol will experience **less institutional offending**, as assessed by the "Record of Institutional Offending During

Research" questionnaire, when compared to those in the treatment as usual (TAU) only comparison group.

RECRUITMENT:

Clients will be recruited from Gateway Foundation-Corrections office located at 1430 Olive St. in St. Louis, Missouri. These clients will already be enrolled in MHSA services at Gateway Foundation-Corrections. The clients who participate in the MBRP for anger management will attend one weekly 2-2 ½ hour group session for eight weeks led by the principal researcher in lieu of the usual on-site group service provided that day by a Gateway Foundation-Corrections staff member.

The amount of time involved for completion of each set of questionnaires (pre-test & post-test) will be approximately 1 to 2 hours. For those attending the group sessions, the time involved is approximately 2 to 2 ½ hours per week for eight group meetings. In addition, the daily guided meditations practiced at home will range between approximately five to 31 minutes, but may be longer on some days. During some weeks, additional brief exercises are also included. The expected time involved in completing the home worksheets is approximately 10 to 15 minutes each day.
All recruitment efforts, measurements/questionnaires, and interventions will be provided on-site at Gateway Foundation-Corrections office.

PLANNED COMPENSATION:

1. Individuals assigned to the experimental and comparison groups will be eligible to receive one of 10 gift cards/gift certificates in the amount of $5 each. These will not have a cash value and will only be reimbursable at retail/grocery stores, local restaurants, etc. These gift cards/certificates will be awarded via random drawing upon completion of each set of questionnaires at the pre- and post-test measurement periods.
2. Participants enrolled in and fully participate in all eight weekly group sessions (including practice of home meditation practice and completion of daily worksheets) will be eligible for one of 10 gifts cards/gift certificates in the amount of $5 each at the end of the eight week group therapy program (same value as described in #1 above). These gift cards/certificates will be awarded via random drawing.
3. Refreshments/snacks will be available during each measurement period (for the experimental and comparison groups) and at the end of each weekly group therapy session (for the experimental group).
4. All participants enrolled in the eight week group sessions will be given one portable CD player and one CD containing guided meditation sessions. These materials are to be solely used for the purpose of the study. All participants who attend and complete the eight week group sessions will be allowed to keep these materials for their own personal use at the conclusion of the study.

POSSIBLE BENEFITS TO THE SUBJECT:

It is expected that an adapted version of *Mindfulness Based Relapse Prevention for Addictive Behaviors* will be a worthwhile method of managing the cognitive and behavioral factors of anger and ultimately, increasing the ability to break conditioned reactions of verbal hostility and physical aggression when anger is evoked. Conducting research within a criminal justice setting not only provides such an occasion to intervene with at-risk individuals supervised by correctional authorities, it has the potential to valuably contribute to the literature by examining the use of Mindfulness Based Relapse Prevention as a viable anger management program. This may equip offenders with mindfulness skills that, when effectively used, lessens resistance and suffering, promotes awareness and acceptance, increases empathy and compassion, and enhances confidence and self-efficacy as each anger-provoking situation is successfully mastered.

POSSIBLE BENEFITS TO SOCIETY:

Taking into account the impact that poorly controlled anger, aggression, and violence have on individuals, society, and the criminal justice system, it is crucial that effective protocols be developed and offered to those in need. When individuals mindlessly interpret other people, events, physiological reactions, and situations as threatening, hostility automatically arises leading to the potential for physical aggression and committing violent crimes. Mindfulness-based interventions for anger management and violence prevention may offer such an antidote.

STATUS REPORTS/PROGRES REVIEWS:

The State of Missouri Department of Mental Health will require a "Research in Progress-Regular Review" form to be completed every six months during the duration of the research. Additionally, periodic status reports will be given upon request to the Missouri Department of Corrections Planning, Research, and Evaluation Unit and Gateway Foundation's Community Director and Clinical Director. Confidentiality of MHSA services will be maintained in accordance with State/Federal/ethical guidelines, as well as in accordance with the policies of the University of Missouri-St. Louis, State of Missouri Department of Mental Health, Missouri Department of Corrections, and Gateway Foundation.

IS DATA REQUIRED IN IDENTIFIABLE FORM? IF SO, PLEASE EXPLAIN.

1. **"Research Participant Demographic Information Questionnaire"**

   (completed by participants):

   - Demographic information, which will later be examined as potential covariates during data analyses, will be obtained from each participant prior to initiation of the MBRP sessions. These variables are as follows: (a) age, (b) race/ethnicity, (c) sexual orientation, (d) relationship status, (e) employment

status, (f) education level, (g) religiosity/religion preference, and (h) history of criminal offenses.

2. **"Record of Services or Programming Received during Research"**

(completed by staff):

- During the intervention phase, the experimental and treatment-as-usual comparison groups will have access to mental health and/or substance abuse (MHSA) services traditionally offered in the community and at the field services office. During the post-test measurement period, the investigator will inquire with Gateway Foundation-Corrections staff if any probationer or parolee received MHSA services and if yes, identify any known type and outcome. When the data is being examined, it will be important to take this factor into consideration as a potential variable that may influence the study outcome.

3. **"Record of Institutional Offending during Research"** (completed by staff):

- Thirty days following conclusion of the 8-week MBRP program, Gateway Foundation-Corrections staff will be asked to complete a questionnaire identifying if any member within the experimental and comparison groups committed a violation or offense between the pretest and 30 day follow-up measurement periods. For the purpose of this research, types of institutional offenses that will be examined include: (a) *physical* (e.g., assaulting others, destruction of property, etc.), (b) *verbal* (e.g., threats, hostility, cursing, etc.), (c) *institutional violations* (e.g., violating specific terms of probation or parole, etc.), (d) *substance use* (e.g., use and/or possession of illicit substances, positive drug screens, being under influence of mood-altering chemicals or alcohol, etc.), and (e) *general non-compliance* (e.g., conflicts, breaking rules, missing appointments, etc.).

- After the participant's direct involvement in this research concludes, field violations and revocation data may also be released to the principal investigator from the Missouri Department of Corrections' Research Unit using the participants' Missouri Department of Corrections' identification number. At the request of the Missouri Department of Corrections (MO DOC) Research and Evaluation Unit, field violations and revocation data will be directly provided to the Principal Investigator by the MO DOC Research Unit during a three-month follow-up period. Each participant's MO DOC identification # will be identified on the informed consent form. This DOC # will be collected in order for the MO DOC Research Unit to provide the field violations and revocation data.

4. **"Informed Consent for Participation in Research Activities" and "HIPAA Authorization Form"** (completed by participants); **See attached copies for detailed content**:
:

   Each individual will be required to sign/date an informed consent form and HIPAA authorization form. The research investigator is responsible for retaining all signed consent documents for at least three years past the completion of the research activity. At the request of Gateway Foundation-Research Committee, copies of the signed consent and authorization forms will be filed in a secure location on-site at Gateway Foundation-Corrections office located at 1430 Olive Street in St. Louis, Missouri.

WHY IDENTIFIABLE DATA IS REQUIRED.

At this time, it is not expected that identifiable information be included on the four surveys/questionnaires that will be given at post- and pre-test measurement periods (i.e., State-Trait Anger Expression Inventory-2 [STAXI-2], the Interpersonal Reactivity Index [IRI], and the Five Facet Mindfulness Questionnaire [FFMQ], and the Paulhus Deception Scales [PDS]).

Each individual will be required to sign/date an informed consent and HIPAA authorization forms and in doing so, the individual's name will be on the consent form for participation in research activities.

In order for the "Record of Institutional Offending during Research" and "Record of Mental Health/Substance Abuse Services & Programming Received during Research" questionnaires to be accurately completed by Gateway Foundation staff, they must be able to identify each research participant under review. With the exception of these two questionnaires, all other questionnaires and surveys will include an individually assigned code. The principal investigator will maintain a confidential copy of a key that will be used to link the assigned code with the identity of the participant in the event pre-test data needs to be removed for those who do not complete post-test questionnaires.

HOW WILL PRIVACY AND CONFIDENTIALITY OF THE DATA BE SAFEGUARDED?

Signed informed consent and HIPAA authorization forms will be collected from each enrolled participant (see attached copies for detailed content). The researcher will keep all data and personally identifiable information private, locked in a secure area, and use the information only for the purpose of this study. All data stored on a computer will be password-protected. Confidentiality of MHSA services will be maintained in accordance with State/Federal/ethical guidelines, as well as in accordance with specific expectations as identified by the University of Missouri-St. Louis, State of Missouri Department of Mental Health, Missouri Department of Corrections, and Gateway Foundation.

HOW WILL THE IDENTIFIABLE DATA BE DISPOSED OF UPON COMPLETION OF THE PROJECT?

Questionnaires from the study will be destroyed within twelve months after the completion of the data collection and data analysis. The research investigator is responsible for retaining all signed consent documents for at least three years past the completion of the research activity. At the request of Gateway Foundation-Research Committee, copies of the signed consent and authorization forms will be filed in a secure location on-site at Gateway Foundation-Corrections office located at 1430 Olive Street in St. Louis, Missouri.

All identifiable data and sensitive, confidential paper documents will be disposed of upon completion of the project per protocols via paper shredding.

APPROVAL FOR RESEARCH

The Principal Investigator completed the dissertation proposal defense and was given written approval by the dissertation committee on March, 10, 2014.

The Principal Investigator discussed this dissertation research design and desire to recruit clients enrolled in Gateway Foundation-Corrections with Steve Doherty, Director, and Lori Carr, Assistant Director, at Gateway Foundation-Corrections. They expressed interest in the research study and referred the researcher to the Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation's Research Committee in order to complete the appropriate application procedures.

Pending full committee review and formal IRB approval at the University of Missouri-St. Louis, conditional approval was given by the Professional Research Committee at the Missouri Department of Mental Health (05/02/2014), Gateway Foundation Clinical Research Committee (05/06/2014), and the Missouri Department of Corrections Research and Evaluation Unit (05/14/2014).

Official approval to conduct this research was given by the Office of Research Administration- Institutional Review Board at the University of Missouri-St. Louis on June 26, 2014 (see attached IRB approval letter).

FINAL REPORT REVIEW AND DISSEMINATION

One (1) copy of the resulting research report will be provided to the Director of Planning, Research and Evaluation. The Director of Planning, Research and Evaluation will be notified of subsequent publication of the research finding. No departmental review or monitoring, beyond what is identified in the attached procedure, is anticipated, however, periodic status reports may be requested as a means of measuring progress on the project.

The undersigned agreement that data transferred under this agreement is to be used strictly for research and statistical purposes and that they are aware that violation of federal or state laws or regulations governing privacy and confidentiality are punishable as such. **The Department of Corrections reserves the right to withdraw from any cooperative research or evaluation project agreed to under this arrangement if departmental policy and procedures are not strictly followed.**

Reginald W. Holt, MA, LPC, NCC 04/16/2014/Revised-Resubmitted 06/26/14

Reginald W. Holt, MA, LPC, NCC
Ph.D. Candidate
University of Missouri-St. Louis, Department of Counseling & Family Therapy

PROJECT REVIEWED AND TRANSFER APPROVED

BY: _____

TITLE: _____

DATE: _____

APPENDIX L

Gateway Foundation

Research Policy: Document Number PS 111

Policy: Gateway desires to establish parameters under which it will participate in research programs.

Scope: All Gateway Programs.

Procedure

Any proposed research project first must be reviewed and approved by the Clinical Research Review Committee, consisting of the Gateway Clinical Director, the Gateway Director of Quality Improvement, and the Gateway Privacy and Security Officer.

1.1 The review will address the research in relation to:

1.1.1 Gateway's Mission Statement;

1.1.2 The value of the research to our client population;

1.1.3 Risks and benefits to the participant(s) in the research;

1.1.4 The methodology for the selection of the participant(s);

1.1.5 Adequacy of the provisions for monitoring the data collected to ensure the safety of the participant(s);

1.1.6 Adequacy of provisions to protect the privacy of the participant(s) and to maintain confidentiality of data, including appropriately documented informed consent.

1.2 Clients will be provided with information regarding any research involved in their treatment and a full explanation of the research procedures. Any written information will be maintained in the client record.

1.3 Any researchers will provide Gateway with an informed consent signed by each participant in form and content satisfactory to the Clinical Research Review Committee. This documentation of informed consent will include;

1.3.1 A statement explaining what the research will consist of, what the participant will be doing, the purposes of the research, and the expected duration of the participant's involvement;

1.3.2 A description of any benefits to the participant(s), Gateway, or the greater society to be expected;

1.3.3 A description of any foreseeable discomforts and/or risks;

1.3.4 Identification of any procedures which are experimental;

1.3.5 A statement describing the extent, if any, to which their personally identifiable private information will be held confidential;

1.3.6 A description of whether there is any compensation;

1.3.7 An explanation of what medical treatments are available if injury occurs;

1.3.8 A statement of whom to contact for answers to any questions the participant(s) may have either during the course of his/her involvement or after;

1.3.9 A statement that participation is voluntary. Gateway client(s) have the right to refuse to participate in any research project without compromising their access to Gateway's care, treatment, and services and;

1.3.10 The name, signature and date of the staff member providing information.

1.4 Clients are allowed to withdraw consent and discontinue participation in a research project at any time without affecting their status in the program.

1.5 All researchers are required to comply with state and federal confidentiality laws.

2. The following procedure is to be followed to initiate any research at a Gateway program:

2.1 Prospective researchers must submit to the Clinical Research Review Committee the following documentation:

2.1.1 Qualifications of the researcher(s) conducting the research;

2.1.2 A research protocol concerning client identifying information that ensures the security of such information and prohibits redisclosure other than back to the program;

2.1.3 A written statement that the research protocol has been reviewed

by an institutional review board (IRB) that meets the requirements of the Protection of Human Subjects Regulations (45 C.F.R. Part 46) to ensure that the rights and welfare of patients are adequately protected and that the benefits of the research outweigh the risks;

2.1.4 A listing of members on the on the IRB approving the project;

2.1.5 A copy of the informed consent approved by the IRB;

2.1.6 A copy of the authorization meeting the requirements of the HIPAA Privacy Rule (which can be combined with the informed consent) or a waiver of the individual authorization approved by the IRB or a Privacy Board;

2.1.7 In the case of reviews preparatory to research, the researcher must also provide written representation that the use or disclosure of (PHI) is solely to prepare a research protocol or for similar purposes, that the Protected Health Information (PHI) will not be removed from the facility, and that the use of PHI is necessary for the research purpose;

2.1.8 In the case of research on decedents, the researcher must also represent that the use or disclosure of PHI is solely for research on the PHI of decedents, that the PHI is necessary for the research, and that, at the request of the research entity; documentation of the death of the individual is being sought.

2.2 Researchers must receive written authorization from the Gateway Clinical Research Review Committee;

2.3 Researchers will indicate what type of participant(s) would be appropriate for their particular research project. The participant(s) will be selected by the program management staff and cleared by the Clinical Service Managers.

2.4 Clients must have signed the informed consent to participate in the research project;

2.5 Researchers are to provide regular status reports to the Community Director, and Clinical Director;

2.6 Researchers may disclose client identifying information only back to the program from which the information was obtained and may not identify any individual client in any report.

2.7 After completing their research and prior to publishing any report researchers must obtain authorization for publishing the research by the Clinical Research Review Committee.

2.8 Researchers are encouraged to provide recommendations based on the outcomes of the research and its applicability to treatment planning, program development and/or quality management.

3. In the event a client is participating in any medication or pharmaceutical research prior to entering a Gateway program and such client wishes to continue self-administration of any experimental drug, or an existing client has an opportunity to participate in any medication or pharmaceutical research;

3.1 The Site Physician must approve the use of the experimental drug. The Community Director will then inform the Clinical Research Review Committee of this decision. The researcher will have to agree to comply with Gateway's Research Policy and the client will have to sign the Gateway informed consent.

3.2 The Gateway medical staff will supervise and monitor the use of any experimental drug(s).

3.3 The pharmaceutical company and researcher shall;

3.3.1 Indemnify, defend and hold harmless Gateway Foundation, its officer, directors, employees, against any and all liability, claims, damages, losses and expenses (including attorney fees) arising out of the research performed by the researcher and pharmaceutical company, whether claimed by any of the clients participating in the research, members of their respective families, heirs, successors or anyone claiming by or through them; and

3.3.2 Aggregate liability insurance coverage in an amount not less than $5,000,000 or such other amount as may be approved by the Gateway Foundation will be provided Gateway, with Gateway named as an additional insured on all such liability policies obtained by the researcher and pharmaceutical company.

4. If a research related injury occurs, the principal researcher and pharmaceutical company (if applicable) must address any harmful consequences the participant has experienced as a result of the research.

APPENDIX M

University of Missouri-St. Louis

Informed Consent for Participation in Research Activities

Department of Counseling and Family Therapy
One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
Fax: 314-516-5784
E-mail: xxxxxx@mail.umsl.edu

Informed Consent for Participation in Research Activities

"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"

Participant _____ HSC Approval Number 604708-2

Participant's Missouri Department of Corrections Identification # _____

Principal Investigator Reginald W. Holt PI's Phone Number (314) 643-9370

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1. You are invited to participate in a research study conducted by Reginald W. Holt, Ph.D. candidate, under the supervision of Dr. Mark Pope, Ed.D., Professor and Chair at the Department of Counseling and Family Therapy. The purpose of this study is to look at the effect of an eight-week mindfulness-based meditation course designed to help you manage anger more effectively. The effect of meditation practices on mindfulness, empathy, and offending behaviors will also be studied.

2. a) **What is involved in the study?**

The study will take place at Gateway Foundation-Corrections office located at 1430 Olive Street in St. Louis, Missouri. Part of your participation will involve completing a personal information form and a set of four questionnaires at the beginning of the study, and a final set of four questionnaires at the end.

There will be two groups of participants in this study. Approximately half of all participants will be placed by chance in each group. While both groups will continue to attend all recommended services at Gateway Foundation-Corrections, only one group will participate in a weekly meditation course taught by Reginald W. Holt. Attending this weekly group session will be in place of attending one other group education session you usually attend during the week at Gateway Foundation. Men placed in the weekly meditation group will be educated on mindfulness-meditation practices, as well as be asked to practice daily meditation exercises at home and complete daily tracking logs and worksheets in-between the weekly group sessions. Each 2 ½ hour mindfulness meditation group session will occur one time per week and will be held on-site at Gateway Foundation-Corrections for a total of eight weeks of classroom instruction.

For the men who are not placed in the mindfulness meditation group, you will be put on a wait-list and should you desire, be given the opportunity to participate in the eight week program once the study ends.

Thirty days after the eight-week meditation program ends, either the Principal Investigator, or staff affiliated with Gateway Foundation-Corrections office, will complete a questionnaire on each participant to identify if any known offense or violation was committed during the study, as well as list any mental health and/or substance abuse services received while participating in this research. Field violations and revocation data may also be provided to the Principal Investigator by the Missouri Department of Corrections Research Unit after your direct involvement in this research concludes.

2. b) **How much time is involved in the study?**

For the individuals who are not scheduled to attend the eight group sessions, the approximate total amount of time involved is 3-5 hours. This includes approximately 30 minutes to review the informed consent and HIPAA authorization forms, and approximately 1 - 2 hours to complete a personal information form and each set of questionnaires that will be given at the beginning and end of the program.

For the men who attend the eight week course, the approximate time involved is 43-61 hours:

- 30 minutes for review of the informed consent and HIPAA authorization forms
- 1 to 2 hours for completion of a personal information form and each set of questionnaires
- 2 ½ hours per week for each of the eight weekly group meetings
- Five to 30 minutes each day (may be longer on some days) for the home meditation exercises
- 10 to 15 minutes each day for completing home practice worksheets
- Additional brief exercises may also be included during some weeks

2. c) **Are there any awards or prizes for participating in the study?**

- For each set of questionnaires you complete, you will be eligible to win one $5 gift card. Up to 50 winners will be selected through a random drawing at the end of each round of questionnaires. The card is only reimbursable at a local fast food restaurant and will not be redeemable for cash. Winners will receive the first gift card during a notification meeting where each participant will be informed if they have been selected to attend the eight-week meditation program. The second gift card will be awarded after the last set of questionnaires is completed at the end of the eight-week program.
- Pizza and bottled water will be available upon completion of each set of questionnaires.
- All men placed in the meditation sessions will be given one portable CD player and a two disc set of CDs containing guided meditation exercises.

These are to be used for the daily home practice during the eight week program. Men placed in the meditation group who complete the course will be allowed to keep the CD players and the guided meditation recordings at the end of the eight-week program.

- Light snacks will be available at the end of each weekly meditation group session.
- Each person who completes the meditation program will be eligible to win one $5 gift card. The card is only reimbursable at a local fast food restaurant and will not be redeemable for cash. Up to 50 winners will be selected through a random drawing at the end of the eight week program.
- For the men who were not placed in the mindfulness meditation group, you will be put on a wait-list. Once the study ends, you will be given the opportunity to participate in the eight week program should you desire; however, no compensation such as food, gift cards, or CD players, will be available.

3. There may be certain minor risks or discomforts associated with this research. They include mild uncomfortable physical sensations, emotions, thoughts, or memories because you were asked to practice unfamiliar meditation exercises and share personal information during the group sessions. If you become upset during the group sessions, Reginald W. Holt will use his professional counseling skills to assist you. Additionally, you will be directed to Gateway Foundation-Corrections staff to obtain healthcare resources available to you.

   An additional risk includes the possibility of a group member sharing personal information about another group member to someone who is not a member of that group, and/or discussing information about other group members outside the group session. At the beginning of each weekly group session, the researcher will inform the group to respect each participant's confidentiality by not disclosing information shared by other group members to anyone outside the group setting.

4. You may also be concerned about confidentiality as it pertains to information exchanged between the researcher and the State of Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation's staff. All data collected during this research will be stored on a password-protected computer and/or in a locked office and used only for the purpose of this study. By agreeing to participate, you understand and agree that information may be shared with other researchers and educators, including the Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation Clinical Research Committee, Community Director, and Clinical Director, in the form of progress and status reports, presentations, and/or publications. In these cases, your identity will NOT be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. There are some situations in which the researcher may be legally required to

release information without consent or authorization. These include, but are not limited to, being a threat or danger to yourself or others.

5. By agreeing to participate, you understand that if you are required to attend an anger management program by the Missouri Department of Corrections, this research study will NOT be considered a substitute, nor meet the Missouri Department of Corrections' expectations, for a mandatory anger management course.
6. Your participation is voluntary. You may choose not to answer any question that you do not want to answer. Your participation in this research will have no effect on your probation and/or parole. You will NOT be penalized in any way should you choose not to participate or to withdraw from this research study. You may choose not to participate in this research study or to withdraw your consent at any time by notifying Reginald W. Holt.
7. By agreeing to participate, you understand and agree for Reginald W. Holt to submit a sign-in log after each group to Gateway Foundation-Corrections. This document will identify each individual who attended the session, as well as the topic and group content discussion.
8. By agreeing to participate, you understand and agree for Gateway Foundation-Corrections to release to Reginald W. Holt any known offense or violation committed during the study, as well as list any mental health and/or substance abuse services you received while participating in this research.
9. By agreeing to participate, you understand and agree that field violations and revocation data may be provided to Reginald W. Holt by the Missouri Department of Corrections Research Unit after your direct involvement in this research concludes.
10. The possible benefits to you from participating in this research are learning ways to develop a healthier and more fulfilling life. Your participation will contribute to the knowledge about the effects of mindfulness meditation practices and may help society.
11. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator (Reginald W. Holt at 314-643-9370) or the Faculty Advisor, (Dr. Mark Pope at 314-516-7121). You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration, at 314-516-5897.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature/Date	Participant's Printed Name
	Reginald W. Holt
Signature of Investigator or Designee/Date	Investigator/Designee Printed Name

APPENDIX N

HIPAA Authorization Form

Department of Counseling and Family Therapy
One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
Fax: 314-516-5784
E-mail: xxxxxx@mail.umsl.edu

HIPAA AUTHORIZATION FORM

Authorization for the Use and Disclosure of Personal Health Information Resulting from Participation in a Research Study

Project #: 604708-2
Project Title: "Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"

You have agreed to participate in the study mentioned above. This authorization form explains how your Protected Health Information will be safeguarded. **Please read carefully to be sure you agree to all of the following statements.**

Description of the Protected Health Information

My authorization applies to the information described below. Only this information may be used and/or disclosed in accordance with this authorization:

1. Consent/authorization forms
2. Demographic information
3. Questionnaires and measures
4. Record of weekly attendance during group sessions
5. Record of mental health and/or substance abuse services received during research
6. Record of institutional offending during research
7. Field violations and revocation data

Who may use and/or disclose the information

I authorize the following persons (or class of persons) to make the authorized use and disclosure of my PHI:

1. University of Missouri-St. Louis:
   - Reginald W. Holt, Principal Investigator
   - Reginald W. Holt's Dissertation Advisory Committee
   - Office of Research Administration/Institutional Review Boards

2. Gateway Foundation:
   - Clinical Research Committee
   - Community and Clinical Directors
   - Clinical and administrative staff

3. Missouri Department of Corrections:
   - Planning, Research, and Evaluation Unit
   - Director of Planning, Research, and Evaluation
   - Division of Probation & Parole, including Probation and Parole Officers

4. State of Missouri Department of Mental Health:
   - Professional Review Committee
   - Professional Review Committee Chairperson

Who may receive the information

I authorize the following persons (or class of persons) to receive my personal health information:

1. University of Missouri-St. Louis:
   - Reginald W. Holt, Principal Investigator
   - Reginald W. Holt's Dissertation Advisory Committee
   - Office of Research Administration/Institutional Review Boards

2. Gateway Foundation:
   - Clinical Research Committee
   - Community and Clinical Directors
   - Clinical and administrative staff

3. Missouri Department of Corrections:
   - Planning, Research, and Evaluation Unit
   - Director of Planning, Research, and Evaluation
   - Division of Probation & Parole, including Probation and Parole Officers

4. State of Missouri Department of Mental Health:
   - Professional Review Committee
   - Professional Review Committee Chairperson

Purpose of the use or disclosure of information

My PHI will be used and/or disclosed upon request for the following purposes:

☒ Auditing
☒ My treatment during the study
☒ Study outcomes including safety and efficacy
☒ Administrative and billing
☒ Submission to government agencies that may monitor the study
☒ Publications and presentation of results that may identify me as a subject
☒ Other: Periodic research in progress reviews and status reports; Results and outcomes of research

Expiration date or event

This authorization expires upon:

☐ The following date: _____
☐ End of research study
☐ No expiration date
☒ Other: Twelve months after the completion of the final data collection and data analysis

Right to revoke authorization

I understand that I have a right to revoke this authorization at any time. My revocation must be in writing in a letter sent to Reginald W. Holt, the Principal Investigator at the University of Missouri-St. Louis, Department of Counseling and Family Therapy, 469 Marillac Hall, One University Boulevard, St. Louis, Missouri 63121. I am aware that my revocation is not effective to the extent that the persons I have authorized to use and/or disclose my PHI have already acted in reliance upon this authorization.

Statement that re-disclosures are no longer protected by the HIPAA Privacy Rule

I understand that my personal health information will only be used as described in this authorization in relation to the research study. I am also aware that if I choose to share the information defined in this authorization with anyone not directly related to this research project, the law would no longer protect this information. In addition, I understand that if my personal health information is disclosed to someone who is not required to comply with privacy protections under the law, then such information may be re-disclosed and would no longer be protected.

Right to refuse to sign authorization and ability to condition treatment, payment, enrollment or eligibility for benefits for research related treatment

I understand that I have a right not to authorize the use and/or disclosure of my personal health information. In such a case, I would choose not to sign this authorization document. I understand I will not be able to participate in a research study if I do not sign. I also understand that treatment that is part of the research project will be conditioned upon my authorization for the use and/or disclosure of my personal health information to and for use by the research team.

Suspension of right to access personal health information

I agree that I will not have a right to access my personal health information obtained or created in the course of the research project until the expiration of this authorization.

If I have any questions or concerns about my privacy rights I should contact, the HIPAA Compliance Officer at 314-516-5362.

I have read the above statements and have been able to express my concerns, to which the investigator has responded satisfactorily. I believe I understand the purpose of the study, as well as the potential benefits and risks that are involved. I authorize the use of my PHI and give my permission to participate in the research described above. I certify that I have received a copy of the authorization.

All signature dates must match.

_____
Participant's Printed Name

_____
Participant's Signature Date

__N/A_____
Parent or Guardian's Printed Name

__N/A_____
Parent or Guardian's Signature Date

_____
Witness' Printed Name

_____
Witness' Signature Date

_____
Researcher's Signature Date

APPENDIX O

Research Participant Demographic Information Questionnaire

RESEARCH PARTICIPANT DEMOGRAPHIC INFORMATION

Please complete the information below. For items with multiple choices, please check the *one* option that *best describes you*.

Research Participant ID # _____ Today's Date: _____

1) Age: What is your age? _____

2) Race/Ethnicity:

How do you describe yourself?

1. __ African American/Black
2. __ Asian/Pacific Islander
3. __ Hispanic/Latino
4. __ Multiracial
5. __ Native American/American Indian
6. __ White/Caucasian
7. __ Not Listed (please specify): _____

1) Sexual Orientation:

1. __ Heterosexual
2. __ Gay
3. __ Bisexual
4. __ Other (please specify): _____
5. __ Prefer not to respond

2) Relationship Status:

1. __ Single
2. __ Married
3. __ Domestic Partner
4. __ Divorced
5. __ Widowed
6. __ Separated
7. __ Never married
8. __ Member of unmarried couple

3) Employment Status:

1. __ Working full-time
2. __ Working part-time
3. __ Out of work for less than 1 year
4. __ Out of work for more than 1 year
5. __ Student
6. __ Retired
7. __ Permanently unemployed/disabled

4) Education Completed:

What is the highest grade or year of school you *completed*?

1. __ Never attended school
2. __ Grades 1 through 8 (Elementary school only)
3. __ Grades 9 through 11 (Some high school, but did not finish)
4. __ Grade 12 or GED (Graduated high school graduate/completed GED)
5. __ Some college, but did not finish
6. __ Completed Technical/Vocational School
7. __ Two-year college degree / A.A / A.S.
8. __ Four-year college degree / B.A. / B.S.
9. __ Some graduate work
10. __ Completed Graduate school (Masters or Ph.D. degree)

5) Religiosity/ Religious Preference:

What, if any, is your religious preference?

1. __ Protestant
2. __ Catholic
3. __ Latter-Day Saints / Mormon
4. __ Jewish
5. __ Muslim
6. __ Buddhist
7. __ Hindu
8. __ Other _____
9. __ No Preference / No religious affiliation
10. __ Prefer not to respond

6) History of Legal/Correctional System Involvement:

1. How many times have been you been *arrested*? _____

2. How many times have you been *convicted* for a criminal offense? ___

3. Have you been *incarcerated* in a *prison* setting?

    1. __ No
    2. __ Yes

4. If you checked "yes" to question #3, how many times? _____

5. Identify the type of supervision you are under by the Missouri Department of Corrections Board of Probation and Parole:

    1. __ Probation
    2. __ Parole
    3. __ Both

6. What is the main offense(s) leading you to currently being on parole and/or probation?

_____

_____

_____

7. Do you have a history of violating the terms and conditions of your parole or probation?

    1. __ No
    2. __ Yes

8. If you checked "yes" to question #7, briefly identify the reason(s).

    1. _____

    2. _____

    3. _____

APPENDIX P

*State-Trait Anger Expression Inventory-2 (STAXI-2)

*Because the State-Trait Anger Expression Inventory-2 (STAXI-2) is copyrighted, the STAXI-2 57-item booklet and corresponding rating sheet could not be copied or reproduced for insertion within the appendices.

APPENDIX Q

Interpersonal Reactivity Index (IRI)

Questionnaire with Scoring Key and Answer Sheet

IRI

Research ID#: _____ Today's Date: _____

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, *indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E*. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE				
A	**B**	**C**	**D**	**E**
DOES NOT DESCRIBE ME WELL ← - →				DESCRIBES ME VERY WELL

Question #	**QUESTION**	**ANSWER (A, B, C, D, or E)**	**Leave Blank**	
1	I daydream and fantasize, with some regularity, about things that might happen to me.		FS	
2	I often have tender, concerned feelings for people less fortunate than me		EC	
3	I sometimes find it difficult to see things from the "other guy's" point of view.		PT-	
4	Sometimes I don't feel very sorry for other people when they are having problems.		EC-	
5	I really get involved with the feelings of the characters in a novel.		FS	
6	In emergency situations, I feel apprehensive and ill-at-ease.		PD	
7	I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.		FS-	
8	I try to look at everybody's side of a disagreement before I make a decision.		PT	
9	When I see someone being taken advantage of, I feel kind of protective towards them.		EC	
10	I sometimes feel helpless when I am in the middle of a very emotional situation.		PD	
11	I sometimes try to understand my friends better by imagining how things look from their perspective.		PT	

ANSWER SCALE				
A	**B**	**C**	**D**	**E**
DOES NOT DESCRIBE ME WELL ← - →				DESCRIBES ME VERY WELL

Question #	QUESTION	ANSWER (A, B, C, D, or E)	Leave Blank	
12	Becoming extremely involved in a good book or movie is somewhat rare for me.		FS-	
13	When I see someone get hurt, I tend to remain calm.		PD-	
14	Other people's misfortunes do not usually disturb me a great deal.		EC-	
15	If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.		PT-	
16	After seeing a play or movie, I have felt as though I were one of the characters.		FS	
17	Being in a tense emotional situation scares me.		PD	
18	When I see someone being treated unfairly, I sometimes don't feel very much pity for them.		EC-	
19	I am usually pretty effective in dealing with emergencies.		PD-	
20	I am often quite touched by things that I see happen.		EC	
21	I believe that there are two sides to every question and try to look at them both.		PT	
22	I would describe myself as a pretty soft-hearted person.		EC	
23	When I watch a good movie, I can very easily put myself in the place of a leading character.		FS	
24	I tend to lose control during emergencies.		PD	
25	When I'm upset at someone, I usually try to "put myself in his shoes" for a while		PT	
26	When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.		FS	
27	When I see someone who badly needs help in an emergency, I go to pieces.		PD	
28	Before criticizing somebody, I try to imagine how I would feel if I were in their place.		PT	

IRI Scoring Key and Answer Sheet

NOTE:(-) denotes item to be scored in reverse fashion:

PT = perspective-taking scale	EC = empathic concern scale
FS = fantasy scale	PD = personal distress scale

A = 0, B = 1, C = 2, D = 3, E = 4

Except for reversed-scored items, which are scored:

A = 4, B = 3, C = 2, D = 1, E = 0

APPENDIX R

Five Facet Mindfulness Questionnaire (FFMQ)

FFMQ

Research ID#: _____ Today's Date: _____

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

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

Question #	QUESTION	ANSWER (1, 2, 3, 4, or 5)	Leave Blank
1	When I'm walking, I deliberately notice the sensations of my body moving.		
2	I'm good at finding words to describe my feelings.		
3	I criticize myself for having irrational or inappropriate emotions.		
4	I perceive my feelings and emotions without having to react to them.		
5	When I do things, my mind wanders off and I'm easily distracted.		
6	When I take a shower or bath, I stay alert to the sensations of water on my body.		
7	I can easily put my beliefs, opinions, and expectations into words.		
8	I don't pay attention to what I'm doing because I'm daydreaming, worrying, or otherwise distracted.		
9	I watch my feelings without getting lost in them.		
10	I tell myself I shouldn't be feeling the way I'm feeling.		
11	I notice how foods and drinks affect my thoughts, bodily sensations, and emotions.		
12	It's hard for me to find the words to describe what I'm thinking.		
13	I am easily distracted.		
14	I believe some of my thoughts are abnormal or bad and I shouldn't think that way.		
15	I pay attention to sensations, such as the wind in my hair or sun on my face.		
16	I have trouble thinking of the right words to express how I feel about things.		
17	I make judgments about whether my thoughts are good or bad.		

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

Question #	QUESTION	ANSWER (1, 2, 3, 4, or 5)	Leave Blank
18	I find it difficult to stay focused on what's happening in the present.		
19	When I have distressing thoughts or images, I "step back" and am aware of the thought or image without getting taken over by it.		
20	I pay attention to sounds, such as clocks ticking, birds chirping, or cars passing.		
21	In difficult situations, I can pause without immediately reacting.		
22	When I have a sensation in my body, it's difficult for me to describe it because I can't find the right words.		
23	It seems I am "running on automatic" without much awareness of what I'm doing.		
24	When I have distressing thoughts or images, I feel calm soon after.		
25	I tell myself that I shouldn't be thinking the way I'm thinking.		
26	I notice the smells and aromas of things.		
27	Even when I'm feeling terribly upset, I can find a way to put it into words.		
28	I rush through activities without being really attentive to them.		
29	When I have distressing thoughts or images I am able just to notice them without reacting.		
30	I think some of my emotions are bad or inappropriate and I shouldn't feel them.		
31	I notice visual elements in art or nature, such as colors, shapes, textures, or patterns of light and shadow.		
32	My natural tendency is to put my experiences into words.		
33	When I have distressing thoughts or images, I just notice them and let them go.		

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

Question #	QUESTION	ANSWER (1, 2, 3, 4, or 5)	Leave Blank
34	I do jobs or tasks automatically without being aware of what I'm doing.		
35	When I have distressing thoughts or images, I judge myself as good or bad, depending what the thought/image is about.		
36	I pay attention to how my emotions affect my thoughts and behavior.		
37	I can usually describe how I feel at the moment in considerable detail.		
38	I find myself doing things without paying attention.		
39	I disapprove of myself when I have irrational ideas.		

APPENDIX S

*Paulhus Deception Scales (PDS)

*Due to the Paulhus Deception Scale being a copyrighted document, the publisher, Multi-Health Systems Inc. (MHS), does not grant permission for the assessment to appear in its entirety in any medium. The Permissions Department at MHS, however, granted the researcher approval to include a maximum of six example items from the Paulhus Deception Scale (BIDR Version 7) as follows:

1. I never regret my own decisions (item 11).
2. I am a completely rational person (item 15).
3. I am very confident of my judgments (item 17).
4. I never swear (item 24)
5. I always obey laws, even if I'm unlikely to get caught (item 26).
6. I have never dropped litter on the street (item 32).

From: Betty Mangos <betty.mangos@mhs.com>
To: Reginald W Holt
Sent: Monday, April 27, 2015 10:28 AM
Subject: Permission to scan and insert image of the Paulhus Deception Scale (PDS) into Dissertation Appendices

Hello Dr. Holt,

Thank you for returning the Permissions Application. Please accept this e-mail as confirmation that MHS has granted you permission to use the Paulhus Deception Sales in your dissertation. These items are:

I never regret my own decisions (item 11)
I am a completely rational person (item 15)
I am very confident of my judgments (item 17)
I never swear (item 24)
I always obey laws, even if I'm unlikely to get caught (item 26)
I have never dropped litter on the street (item 32).

I hope that this is enough for you to proceed. Please let me know if there is anything else that I can do.

Thank you,

Betty

APPENDIX T

University of Missouri-St. Louis

Informed Consent for Participation in Research Activities

(Modified for Group Interview)

Department of Counseling and Family Therapy
One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
Fax: 314-516-5784
E-mail: xxxxxx mail.umsl.edu

Informed Consent for Participation in Research Activities

"Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole"

Participant:_____ HSC Approval Number: 604708-4

Participant's Missouri Department of Corrections Identification #: _____

Principal Investigator: Reginald W. Holt PI's Phone Number: (314) 643-9370

---

1. You are invited to participate in a research study conducted by Reginald W. Holt, Ph.D. candidate, under the supervision of Dr. Mark Pope, Ed.D., Professor and Chair at the Department of Counseling and Family Therapy. The purpose of this study is to look at the effect of an eight-week mindfulness-based meditation course designed to help you manage anger more effectively. The effect of meditation practices on mindfulness, empathy, and offending behaviors will also be studied.

3. a) **What is involved in the study?**

   The study will take place at Gateway Foundation-Corrections office located at 1430 Olive Street in St. Louis, Missouri. Part of your participation will involve completing a personal information form and a set of four questionnaires at the beginning of the study, and a final set of four questionnaires at the end.

   There will be two groups of participants in this study. Approximately half of all participants will be placed by chance in each group. While both groups will continue to attend all recommended services at Gateway Foundation-Corrections, only one group will participate in a weekly meditation course taught by Reginald W. Holt. Attending this weekly group session will be in place of attending one other group education session you usually attend during the week at Gateway Foundation. Men placed in the weekly meditation group will be educated on mindfulness-meditation practices, as well as be asked to practice daily meditation exercises at home and complete daily tracking logs and worksheets in-between the weekly group sessions. Each 2 ½ hour mindfulness meditation group session will occur one time per week and will be held on-site at Gateway Foundation-Corrections for a total of eight weeks of classroom instruction.

For the men who are not placed in the mindfulness meditation group, you will be put on a wait-list and should you desire, be given the opportunity to participate in the eight week program once the study ends.

Thirty days after the eight-week meditation program ends, either the Principal Investigator, or staff affiliated with Gateway Foundation-Corrections office, will complete a questionnaire on each participant to identify if any known offense or violation was committed during the study, as well as list any mental health and/or substance abuse services received while participating in this research. Field violations and revocation data may also be provided to the Principal Investigator by the Missouri Department of Corrections Research Unit after your direct involvement in this research concludes.

2. b) **How much time is involved in the study?**

For the individuals who are not scheduled to attend the eight group sessions, the approximate total amount of time involved is 3-5 hours. This includes approximately 30 minutes to review the informed consent and HIPAA authorization forms, and approximately 1 - 2 hours to complete a personal information form and each set of questionnaires that will be given at the beginning and end of the program.

For the men who attend the eight week course, the approximate time involved is 43-61 hours:

- 30 minutes for review of the informed consent and HIPAA authorization forms
- 1 to 2 hours for completion of a personal information form and each set of questionnaires
- 2 ½ hours per week for each of the eight weekly group meetings
- Five to 30 minutes each day (may be longer on some days) for the home meditation exercises
- 10 to 15 minutes each day for completing home practice worksheets
- Additional brief exercises may also be included during some weeks

2. c) **Are there any awards or prizes for participating in the study?**

- For each set of questionnaires you complete, you will be eligible to win one $5 gift card. Up to 50 winners will be selected through a random drawing at the end of each round of questionnaires. The card is only reimbursable at a local fast food restaurant and will not be redeemable for cash. Winners will receive the first gift card during a notification meeting where each participant will be informed if they have been selected to attend the eight-week meditation program. The second gift card will be awarded after the last set of questionnaires is completed at the end of the eight-week program.
- Pizza and bottled water will be available upon completion of each set of questionnaires.
- All men placed in the meditation sessions will be given one portable CD player and a two disc set of CDs containing guided meditation exercises.

These are to be used for the daily home practice during the eight week program. Men placed in the meditation group who complete the course will be allowed to keep the CD players and the guided meditation recordings at the end of the eight-week program.

- Light snacks will be available at the end of each weekly meditation group session.
- Each person who completes the meditation program will be eligible to win one $5 gift card. The card is only reimbursable at a local fast food restaurant and will not be redeemable for cash. Up to 50 winners will be selected through a random drawing at the end of the eight week program.
- For the men who were not placed in the mindfulness meditation group, you will be put on a wait-list. Once the study ends, you will be given the opportunity to participate in the eight week program should you desire; however, no compensation such as food, gift cards, or CD players, will be available.

3. There may be certain minor risks or discomforts associated with this research. They include mild uncomfortable physical sensations, emotions, thoughts, or memories because you were asked to practice unfamiliar meditation exercises and share personal information during the group sessions. If you become upset during the group sessions, Reginald W. Holt will use his professional counseling skills to assist you. Additionally, you will be directed to Gateway Foundation-Corrections staff to obtain healthcare resources available to you.

   An additional risk includes the possibility of a group member sharing personal information about another group member to someone who is not a member of that group, and/or discussing information about other group members outside the group session. At the beginning of each weekly group session, the researcher will inform the group to respect each participant's confidentiality by not disclosing information shared by other group members to anyone outside the group setting.

4. You may also be concerned about confidentiality as it pertains to information exchanged between the researcher and the State of Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation's staff. All data collected during this research will be stored on a password-protected computer and/or in a locked office and used only for the purpose of this study. By agreeing to participate, you understand and agree that information may be shared with other researchers and educators, including the Missouri Department of Mental Health, the Missouri Department of Corrections, and Gateway Foundation Clinical Research Committee, Community Director, and Clinical Director, in the form of progress and status reports, presentations, and/or publications. In these cases, your identity will NOT be revealed. In rare instances, a researcher's study must undergo an audit or program evaluation by an oversight agency (such as the Office for Human Research Protection). That agency would be required to maintain the confidentiality of your data. There are some situations in which the researcher may be legally required to

release information without consent or authorization. These include, but are not limited to, being a threat or danger to yourself or others.

5. By agreeing to participate, you understand that if you are required to attend an anger management program by the Missouri Department of Corrections, this research study will NOT be considered a substitute, nor meet the Missouri Department of Corrections' expectations, for a mandatory anger management course.
6. Your participation is voluntary. You may choose not to answer any question that you do not want to answer. Your participation in this research will have no effect on your probation and/or parole. You will NOT be penalized in any way should you choose not to participate or to withdraw from this research study. You may choose not to participate in this research study or to withdraw your consent at any time by notifying Reginald W. Holt.
7. By agreeing to participate, you understand and agree for Reginald W. Holt to submit a sign-in log after each group to Gateway Foundation-Corrections. This document will identify each individual who attended the session, as well as the topic and group content discussion.
8. By agreeing to participate, you understand and agree for Gateway Foundation-Corrections to release to Reginald W. Holt any known offense or violation committed during the study, as well as list any mental health and/or substance abuse services you received while participating in this research.
9. By agreeing to participate, you understand and agree that field violations and revocation data may be provided to Reginald W. Holt by the Missouri Department of Corrections Research Unit after your direct involvement in this research concludes.
10. By agreeing to participate, you understand and agree for Reginald W. Holt to audio record an interview that will be conducted during a group session at the conclusion of the eight week meditation course. The interview will be used to gather information about your experience attending the meditation course and practicing mindfulness meditation. In the event you prefer to be individually interviewed, the Principal Investigator will work with you to accommodate this request. Audiotapes will not include any information that will make it possible to identify you. Tapes will be securely stored inside a locked cabinet located within a secure environment maintained by the Principal Investigator. All tapes will be destroyed approximately one year after data is collected and transcriptions are made.
11. The possible benefits to you from participating in this research are learning ways to develop a healthier and more fulfilling life. Your participation will contribute to the knowledge about the effects of mindfulness meditation practices and may help society.
12. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator (Reginald W. Holt at 314-643-9370) or the Faculty Advisor, (Dr. Mark Pope at 314-516-7121). You may also ask questions or state concerns regarding your rights as a research participant to the Office of Research Administration, at 314-516-5897.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

Participant's Signature/Date	Participant's Printed Name
Signature of Investigator or Designee/Date	Reginald W. Holt Investigator/Designee Printed Name

APPENDIX U

Guide for Using the Interpersonal Reactivity Index (IRI)

Provided by Mark Davis, PhD

Eckerd College

St. Petersburg, FL

Guide for Using the Interpersonal Reactivity Index (IRI)

How to Score

Scoring of the four empathy scales is quite straightforward. For each scale, simply add together the responses to the seven items making up that scale (after first reverse-coding the negatively worded items). I use a 0 – 4 item response format, which produces a potential range of 0 – 28 for each scale. Other researchers often use a 1-5 format instead. It really does not matter, unless you are interested in comparing your results to the mean scores from another investigation. In such a case you will want to be sure that you are using the same response format as that other study.

Norms

There are no official "norms" or "cut-off scores" for the IRI as there are for some instruments. Thus, for example, there is no simple way to describe an individual participant as "high on Empathic Concern", or to characterize your sample as a whole in this way. The IRI was designed to provide continuous measures of empathy-related constructs as they exist in normal populations; these scores were not intended for the creation of categories such as "high empathy" or "low empathy". In my own research I have typically used scale scores as predictor variables in correlational or regression analyses.

When it does become useful in some research contexts to create such categories, I recommend simply employing a median split (or a more extreme split if desired) on the scores in your particular investigation.

Global Score

The IRI is a multidimensional measure of dispositional empathy intended to provide separate scores for four distinct dimensions. It is not designed to provide a measure of "overall", "global", or "total" empathy. In fact, to do so tends to undermine the chief advantage of a multidimensional instrument. After all, finding a significant effect involving "total" empathy would only prompt the question—at least, it *should* prompt the question—"which particular facet of empathy is responsible for this observed effect"?

In addition, because the four scales are correlated to varying degrees (and in particular since Personal Distress scores tend to be correlated *negatively* with the other scales), creating a "total" empathy score combines dissimilar things in a way that may do more to obscure our understanding of empathy than to improve it. Thus, I do not recommend the use of such composite scores.

Permissions

The IRI is freely available for all non-commercial uses, and this document may be taken as an explicit granting of permission to use the instrument in such a way. Requests to use the IRI for any commercial project should be directed to davismh@eckerd.edu.

APPENDIX V

Permission to Use and Reproduce the Interpersonal Reactivity Index (IRI)

Mark Davis, PhD

Eckerd College

St. Petersburg, FL

On 12/10/2013 9:46 PM, Reginald Holt wrote:

Dr. Davis,

Good evening. I am a doctoral candidate in the Department of Counseling and Family Therapy at the University of Missouri-St. Louis. I am currently designing my doctoral dissertation research project. I am interested in utilizing the Interpersonal Reactivity Index (IRI) as one of the measures and am writing to obtain information on the process of ordering the IRI questionnaires and scoring kit. Please advise if there is a specific company where I may purchase the IRI or if it resides in the public domain. Thank you in advance for your response and any information you can share.

Best Regards,

Reginald W. Holt, MA, LCPC, CAADC
Doctoral Candidate
University of Missouri-St. Louis

From: Mark Davis <davismh@eckerd.edu>
Date: December 12, 2013 at 2:48:08 PM CST
To: Reginald Holt
Subject: Re: Interpersonal Reactivity Index (IRI)

Hi Reginald:

Thanks for your interest in the IRI. It is freely available for all non-commercial uses, and you have my full permission to use it and to reproduce it in any way necessary for that purpose. I am attaching a few items you may find useful, including the test itself. Feel free to reproduce it as needed.

Best of luck with your work!
Mark

APPENDIX W

Mindfulness-Based Relapse Prevention for Addictive Behaviors

Guided Meditations CD Track Listing

MINDFULNESS-BASED RELAPSE PREVENTION

Guided Meditations CD Track Listing

DISC ONE	MINUTES
1. Body Scan Meditation (female voice):	31:26
2. Urge Surfing Meditation (female voice):	8:33
3. Mountain Meditation (female voice):	11:33
4. Breath Meditation (male voice):	11:36
5. SOBER Breathing Space Meditation (female voice):	5:21

DISC TWO	MINUTES
1. Brief Sitting Meditation (female voice):	12:31
2. Extended Sitting Meditation (female voice):	25:16
3. Mindful Movement Meditation (male voice):	20:25
4. Lovingkindness Meditation (male voice):	17:25

Permission to create CDs and disseminate copies of MBRP guided meditations has been granted by S. Bowen, PhD, first author of *Mindfulness-Based Relapse Prevention for Addictive Behaviors-A Clinician's Guide* (Bowen, Chawla, & Marlatt, 2011).

APPENDIX X

Permission to Copy and Disseminate MBRP Handouts/Worksheets and Guided Meditation Recordings

Sarah Bowen, PhD

University of Washington

Seattle, WA

On Oct 24, 2013, at 5:39 AM, Reginald Holt wrote:

Drs. Bowen & Chawla,

Greetings. I am a doctoral candidate in the Department of Counseling and Family Therapy at the University of Missouri-St. Louis. I am currently designing my doctoral dissertation research project. As indicated on the copyright page of "Mindfulness-Based Relapse Prevention for Addictive Behaviors-A Clinician's Guide" (Bowen, Chawla, & Marlatt, 2011), I am writing to request authorization to utilize the handouts in sessions 1-8. It is my understanding that photocopying permission is limited to the individual purchaser of the clinician's manual for "personal use or use with individual clients." The intent behind this letter is to ensure I am following your expectations regarding permission to use the MBRP client handouts with my research participants.

While I am in the process of writing my dissertation proposal, my plan is to incorporate a version of the eight week MBRP group sessions into my research. If given permission, I intend to disseminate the handouts, modified for a different population, during the intervention/treatment phase of my dissertation project. Please note, all appropriate references, citations, acknowledgments, credits, etc. will be included in my final written dissertation. If there is an associated fee, please advise.

Lastly, I noticed various MP3s are available for free download on your website, www.mindfulrp.com. Because these guided meditations are incorporated for practice in MBRP, is there a CD available containing these same meditations that I may purchase? If yes, please inform of the cost and if I may have permission to make individual copies for my participants' home use during my research.

Thank you in advance for your consideration and approval. If you have questions, please do not hesitate to contact me at your earliest convenience.

Best Regards,

Reginald (Reggie) W. Holt, MA, LCPC, CAADC, NCC
Doctoral Candidate
University of Missouri-St. Louis
Department of Counseling & Family Therapy
Phone: (314) xxx-xxxx

From: Sarah Bowen <swbowen@u.washington.edu>
Date: October 23, 2013 at 8:29:44 PM CDT
To: Reginald Holt
Cc: Neharika Chawla <neharikac@gmail.com>
Subject: Re: Request Permission to Photocopy MBRP Handouts for Dissertation Research

Hi Reginald,

Thank you for your concern about copyright.

The copyright statement is unfortunate, and we have in fact been in touch with the publisher about this. It is fine to photocopy these worksheets for use with clients (the second printing of the clinician's guide has corrected the copyright statement to clarify this).

There is no CD for sale, no. Please feel free to record the tracks from the website, however, and burn them to CDs. The intention is to freely offer those to clients if they're useful.

Best wishes in your work! Please let us know if we can be of further help.

Sarah

Sarah Bowen, PhD
Acting Assistant Professor
Department of Psychiatry and Behavioral Sciences
University of Washington
swbowen@uw.edu

Center for the Study of Health and Risk Behaviors (CSHRB)
1100 NE 45th Street, Suite 300
Seattle, WA 98105
tel. (206) 685-2995
http://depts.washington.edu/cshrb/

APPENDIX Y

Confidentiality Agreement for Professional Transcriptionist

Department of Counseling & Family Therapy
One University Blvd.
St. Louis, Missouri 63121-4499
Telephone: 314-516-5782
Mobile: 314-xxx-xxxx
Fax: 314-516-5784
E-mail: xxxxxx@mail.umsl.edu

Confidentiality Agreement for Professional Transcriptionist

I, _____, transcriptionist, agree to maintain full confidentiality in regards to any and all audiotapes/audio files and documentations received from Reginald W. Holt (Principal Investigator/Researcher) related to his research study titled *Examining the Effects of Mindfulness-Based Relapse Prevention as an Anger Management Therapy for Adult Males on Probation and Parole.* Furthermore, I agree:

1. To hold in strictest confidence the identification of any individual that may be inadvertently revealed during the transcription of audio-taped interviews, or in any associated documents.
2. To keep all the research information shared with me confidential by not discussing or sharing the research information in any form or format (e.g., disks, tapes, audio files, transcripts) with anyone other than Reginald W. Holt.
3. To not make copies of any audiotapes/files or computerized titles of the transcribed interviews texts, unless specifically requested to do so by Reginald W. Holt.
4. To store all study-related audiotapes and materials in a safe, secure location as long as they are in my possession.
5. To return all audiotapes and study-related materials to Reginald W. Holt in any form or format in a complete and timely manner when I have completed the research tasks.
6. After consulting with Reginald W. Holt, to delete, erase, or destroy all research information in any form or format when I have completed the research tasks, including electronic files containing study-related documents from my computer hard drive and any back-up devices.

I am aware that I can be held legally responsible for any breach of this confidentiality agreement, and for any harm incurred by individuals if I disclose identifiable information contained in the audiotapes and/or files to which I will have access.

Signature of Transcriptionist	Date	Transcriptionist's Printed Name
		Reginald W. Holt
Signature of Principal Investigator	Date	Principal Investigator's Printed Name

APPENDIX Z

University of Missouri-St. Louis Dissertation Grant Award Letters

College of Education

Office of Academic Programs

Doctoral Program Director

One University Boulevard
St. Louis, Missouri 63121-4400
Telephone: 314- 516-5872
Email: haywoodk@umsl.edu

October 17, 2013

Dear Doctoral Student,

The faculty committee reviewing the Travel Grant proposals met yesterday. I'm happy to inform you that they decided to award you $283.00 toward your trip. As indicated in the directions, we typically have so many applications that we can't afford to provide all of the expenses for a trip. Yet, we are very proud that you are presenting a paper and we want to help at least with this much of the expenses.

Please remember to acknowledge your connection with the University of Missouri-St. Louis, since we are providing funding, even if you also list an employer on a paper, on a poster, or in a Power Point.

Within a week or so, we will post the $283.00 to your student account. If you have a zero balance on that account, the University will send you a check.

Congratulations and best wishes to get the most out your presentation experience!

Sincerely,

Kathleen M. Haywood

Kathleen M. Haywood, Ph.D.

From: Haywood, Kathleen M.
To: Holt, Reginald
Cc: Pope, Mark L.
Sent: Thursday, February 27, 2014 2:23 PM
Subject: Grant

Reginald,

I'm happy to inform you that the Faculty Selection committee awarded you $690.00 as a Dissertation Grant. This amount will be posted to your University student account and if you have a zero balance, the University will send you a check for this amount.

I'm also happy to report that the committee is giving you an additional $283.00 toward travel to collect data and this too will be posted to your account.

Congratulations! I'll look forward to seeing your final dissertation!

Kathleen Haywood, Ph.D.
Associate Dean for Academic Programs
Doctoral Program Director
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