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Mindfulness Meditation Practice by Individuals with Substance Dependent Behavior

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Walden University

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Walden University
2017

Abstract

Mindfulness Meditation Practice by Individuals with Substance Dependent Behavior

by

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M.Ed, Southeastern Louisiana University, 2007

BS, Georgia State University, 2001

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Many people in the United States suffer from substance dependence, which leads to depression, anxiety, work impairment, difficulties in interpersonal relationships, crime, and health care problems. Mindfulness meditation has been applied in many aspects of mental health treatment and all belief systems. The purpose of this phenomenological study was to explore substance dependents' experiences related to their mindfulness meditation practice of at least 6 months and up to 3 years. A constructivist conceptual framework, which states that human beings create systems for understanding reality based on their individual beliefs, emotions, and interpretations, was used for this study. Research questions focused on 4 themes: (a) substance dependents' experiences of cravings, (b) their experiences of emotional states or feelings, (c) their experiences of their behavioral actions, and (d) their explanations about the effectiveness of mindfulness techniques. Data were collected from in-depth interviews with 12 volunteer participants from a public meditation center in Baton Rouge, Louisiana, and they were analyzed using Moustakas' transcendental phenomenology framework. According to study results, positive social change may occur through increased understanding of varied emotional and behavioral states experienced by substance dependents as they strive for sobriety using mindfulness meditation techniques.

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Chapter 1: Introduction to the Study

Introduction

Both understanding and providing treatment for substance dependent individuals are complicated and limited because of the complexities involved with these issues (Hayes & Levin, 2012). Approximately 22.2 million people in the United States are substance dependent individuals, including adolescents, with the cost of substance use related to crime, work impairment, relationships, and health care upwards of \$559 billion a year (National Institute on Drug Abuse [NIDA], 2013). For many, substance dependence occurs as a result of individuals looking for happiness or an end to their unhappiness through drugs or alcohol (Zgierska et al., 2009). Fortunately, some substance dependent individuals realize that drugs and alcohol are not paths to happiness; thus, they have a desire to break their dependence; however, staying sober or clean, as evidenced by the high rates of relapse among this population (Witkiewitz & Bowen, 2010). Brewer, Bowen, Smith, Marlatt, and Potenza (2010) suggested that stress and ruminative thoughts are common patterns among most individuals attempting to manage cravings and relapse. Farb et al. (2010) indicated that mindfulness meditation has been shown to effectively reduce fear, anxiety, and ruminative thoughts that create risk factors for relapse among substance dependent individuals. Mindfulness practitioners are able to transform their automatic thoughts or reactions (Teasdale et al., 2000). Therefore, mindfulness practitioners should not worry about ruminative thoughts or anxiety; instead, they should be patient with these thoughts and feelings without any reaction to them.

Mindfulness teaches that everything changes constantly, thus relapse also is impermanent (Shapiro & Carlson, 2015).

One of many mindfulness-based practices that has achieved success is Mindfulness based stress reduction (MBSR), developed by Kabat-Zinn, and based upon the traditional Buddhist practice of mindfulness meditation. MBSR has been applied successfully for 30 years in both clinical and nonclinical settings as a treatment for many stress-related disorders and mental illnesses, including anxiety and depression (Piet, Hougaard, Hecksher, & Rosenberg, 2010). MBSR is centered on two essential focal points: present-moment awareness and nonjudgmental acceptance (Appel & Kim-Appel, 2009). The present-moment awareness component of the mindfulness technique teaches practitioners to be aware of the present moment by paying attention to what is occurring right here and right now in terms of their thoughts, feelings, and physical sensations. The recognition through awareness of these present-moment feelings, thoughts, and physical sensations allows practitioners to accept and experience these states without automatically incorporating evaluation and judgment, a distinction from their habitual manner of experiencing themselves and their world (Appel & Kim-Appel, 2009; Goldin, Ramel, & Gross, 2009). Consequently, MBSR practitioners not only increase present-moment awareness about their experiences, they also learn to tolerate unpleasant sensations of all kinds with a more open mind and an understanding that phenomena are in constant flux. Judgment about both internal and external events gradually lessens, creating opportunities for greater peace and acceptance.

Numerous quantitative research studies on the effects of mindfulness meditation on various aspects of substance dependence are correlational in nature and are discussed in Chapter 2. Despite positive outcomes for mindfulness meditation techniques as well as the positive effects of mindfulness meditation for substance dependent individuals, there is a gap in the literature regarding the personal accounts or lived experiences of substance dependent individuals in relation to their practice of mindfulness meditation. Hence, the purpose of this phenomenological study was to explore and describe substance dependent individuals' experiences related to mindfulness meditation. The conceptual framework used to guide this study was constructivism. The phenomenological research method was appropriate for this study because it is designed to examine the meaning of experiences about a phenomenon (substance dependence) from individuals who have experienced the same phenomenon (Creswell, 2013). Specifically, I addressed the substance dependent individuals' experiences as such cravings, emotional feelings, and behavioral actions in relation to their practice of mindfulness meditation.

To provide a meaningful and defensible purpose for this research, this chapter is organized as follows: (a) background of the study, (b) problem statement, (c) purpose of the study, (c) research questions, (d) conceptual framework, (e) nature of the study, (f) definitions of terms, (g) assumptions, (h) scope and delimitations, (i) limitations, (j) significance of the study, and (k) summary.

Background of the Study

Mindfulness practitioners achieve increased quality of life across numerous domains, including psychological, physical, and neurological functions, such as stress

reduction, and diminished depression, anxiety, chronic pain, arthritis, sleep disturbance, along with positive effects on brain and immune function (Davidson, 2013; Harris, 2013; Hayes & Levin, 2012; Lang, 2013). Additionally, there is a positive correlation between mindfulness meditation and a reduction in substance dependence. Mindfulness meditation can reduce negative experiences including stress, fear, and anxiety that are associated with drug and alcohol use by substance dependent individuals who seek to avoid unpleasant realities (Black, 2014; Bowen et al., 2011; Chiesa & Malinowski, 2011). Qualitative scholars, however, have explored mindfulness meditation only. In this section, I present an overview of mindfulness meditation and substance dependence. A more comprehensive review is provided in Chapter 2.

Mindfulness Meditation

Mindfulness is a technique that enhances a practitioner's attention to the present moment without judgment and interpretation. Mindfulness meditation is considered a tool to experience the moment to moment in which subject experience is directly observed and investigated (Shapiro & Carlson, 2015). Through the process of practicing mindfulness meditation, a person's mind can become more tranquil and calm because it focuses on the present moment as opposed to the past and future (Hayes & Levin, 2012). Practitioners learn how to be aware of thought patterns, feelings, and physical sensations without reaction (Hayes & Levin, 2012; Segal, William, & Teasdale, 2002). The effectiveness of tranquility and calmness depends on the length of time an individual practices mindfulness meditation (Alterman, Koppenhaver, Mulholland, Ladden, & Baime, 2004). Alterman et al. (2004) compared differences in the effectiveness of

mindfulness meditation between two randomly chosen inpatient recovery groups: patients receiving mindfulness training and patients receiving no mindfulness training. Alterman et al. revealed that there was no significant difference between the two groups after 5 months. Practicing mindfulness meditation for a short duration may not have a significant positive effect for substance dependent populations.

There are several techniques in mindfulness meditation and various techniques can be applied and modified to fit into different situations. Vallejo and Amaro (2009) provided a snapshot of the MBSR program process in terms of implementation and adaptation for use as a coping mechanism for mitigating stress, discomfort, and emotional pain. Participants received body scan, sitting meditation, mindful yoga, and walking meditation. Vallejo and Amaro showed that MBSR is an acceptable and feasible method to relieve stress, a risk factor for substance dependence. However, implementation and adaptation of MBSR should be adjusted or modified to fit different environments (Vallejo & Amaro, 2009). Vipassana is another technique that has been practiced successfully by substance dependent populations. Bowen et al. (2006) provided instructions in guided Vipassana meditation (VM), a traditional Buddhist mindfulness-based practice, to formerly incarcerated people following their release from prison. Participants volunteered to participate in a 10-day VM class without contact with anyone from outside the prison (Bowen et al.). Vallejo and Amaro indicated that VM participants showed significant decreases in alcohol-related problems. Clearly, research showed that both MBSR and Vipassana, when used appropriately, mitigate symptoms associated with alcohol-related issues.

Substance Dependence

Mental health professionals have investigated the causes of substance dependence for decades, but the manifestations of this disorder are complicated. Substance dependence is comprised of a complex set of genetic, neurobiological, social, and cultural factors. Individuals with substance dependent behaviors are influenced by psychosocial learning, such as social media, peer pressure, or family transaction (Smith & Widiger, 2012). There is also an interaction among brain activity, substance dependent behavior, and attention (Brewer et al., 2012). Brewer et al. (2012) demonstrated a relationship between the neurobiological mechanisms by which positive and negative reinforcement is associated with memories. These “addictive loops” lead to habitual cravings. In several empirical studies, mindfulness meditation was effective in managing substance dependent individuals’ cravings over several months, as compared to controls (Brewer et al.). Individuals practicing mindfulness are able to observe the association between habitual processes and attentional bias; hence, the more subjects practiced mindfulness, the more they developed a sense of self-regulation and self-control.

Mindfulness practices are not only effective for management of cravings and increased self-regulation. Studies also have shown the benefits of mindfulness practices for individuals with mono- and poly-substance abuse (Dakwar, Mariani, & Levin, 2011). Dakwar et al. (2011) sought to determine mindfulness impairments among substance users and to evaluate differences between poly versus mono drug use. Additionally, mindfulness meditation also helps individuals to develop more psychological flexibility, which in turn minimizes the potential of psychological problems (Luoma, Drake,

Kohlenberg, & Hayes, 2011). Individuals with greater levels of substance dependence demonstrate poorer psychological flexibility and exhibited more clinical problems. Furthermore, most substance-dependent individuals struggle with their negative self-stigma; they use substances to deal or cope with it. Luoma, Kohlenberg, Hayes, Bunting, and Rye (2008) demonstrated that individuals with negative self-stigma who participated in a 28-day treatment program including a mindfulness technique showed a significant decrease in their internal shameful feelings. Meditation is beneficial to the substance-dependent populations and can be used as an effective treatment for substance dependence, particularly mindfulness meditation. The current study, which was designed to provide detailed insights into the experiences of substance dependent individuals with their practice of mindfulness meditation, served to bridge the gap in the literature between the phenomenon of substance dependence and the possible influence of mindfulness meditation. This information could be helpful in the design of quantitative research or new therapeutic intervention.

Problem Statement

Several behavioral interventions targeting treatment for substance use disorders have been developed and applied within the past decades, including cognitive behavioral therapy (CBT), spiritual self-schema therapy, and social learning behavior therapy; yet, the relapse rates for substance users continue to be high (Witkiewitz & Bowen, 2010). Staying abstinent from substances is challenging for those substance-dependent individuals who want to break their drug or alcohol dependency (Witkiewitz & Bowen, 2010). A possible new effective treatment could be developed for substance dependent

individuals (Morgenstern, Naqvi, Debellis, & Breiter, 2013; Zgierska et al., 2009). There were no qualitative studies on substance dependence and mindfulness meditation that explored mindfulness experiences of those who are dependent on substances. Therefore, knowledge from the lived experiences of substance dependent individuals might be useful in crafting new treatment or helping those who strive for sobriety.

Purpose of the Study

Substance dependency among American adolescents and adults is a serious social problem with economic costs. More than 20 million individuals suffer from substance dependence at a cost of nearly \$560 billion annually. Additionally, with the 60% rate of relapse among these individuals in the United States (Zgierska et al., 2009), there is a need to explore the experiences of these individuals related to their cravings, emotional feelings, and behavioral actions, particularly after practicing mindfulness meditation. This exploratory study could help substance-dependent individuals to gain adequate treatment, thereby reducing their relapse rates. The purpose of this phenomenological qualitative study was to describe substance-dependent individuals' experiences of cravings, emotional states or feelings, and behavioral actions relative to their substance dependence following a mindfulness meditation intervention.

Research Questions

Individual human realities vary based upon personal experiences and interpretations. Phenomenological researchers focus on the subjects' perceptions or personal accounts of their world through their direct and lived experiences (Moustakas, 1994). To explore and understand participants' experiences related to substance use and

mindfulness meditation, the research study was based on the transcendental or psychological phenomenological approach, which focuses on descriptions of the experiences by subjects (Moustakas, 1994). I used the interview technique with guided and probing questions, necessitating further clarification, for data collection. The following research questions, coded as RQ, guided this study (also see Appendix F). The corresponding interview questions for these research questions are listed in Chapter 3.

RQ1. How do substance-dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ2. How do substance-dependent individuals experience emotional states or feelings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ3. How do substance-dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ4. How do substance-dependent individuals experience the mindfulness technique and how do they themselves explain its effect, if any, on their cravings, emotional states or feelings, and actions toward substances to which they are dependent?

Conceptual Framework

This phenomenological study was guided by a conceptual framework--constructivism. Constructivists address ways in which human beings create systems for

understanding their experiences and worlds in meaningful ways based on their individual beliefs, emotions, and interpretations (Patton, 2002). Patton (2002) also distinguished between the terms of social constructionism and constructivism. According to social constructionism, human beings' views of the world are influenced by the culture in which they were raised and in which they live. On the other hand, constructivists state that what human beings view as reality is constructed by them based upon their own beliefs, emotions, and interpretations. This subjective view of reality is influenced by factors such as culture, language, and interactions with other people, as well as prior knowledge and experiences (Patton, 2002). Individuals may have multiple perceptions as they construct reality through varying views as well as the ways in which these views affect their lives and those with whom they interact (Patton, 2002). Balbi (2008) stated that human beings define reality based on their lived experiences, which include their thoughts, feelings, and perceptions. Such findings suggested that a constructivist framework is an appropriate basis for which to develop a study of substance-dependent individuals' experiences and interpretations of their experiences, since difficult emotions and faulty perceptions play a role in substance abuse.

The constructivist framework was, therefore, compatible for exploring the lived experience of the substance-dependent individuals based on their realities. Understanding the reality of each individual depends on a view of his or her construction of understanding and knowledge in which experiences, personal beliefs, and interpretations play a role (Moustakas, 1994; Patton, 2002). The research questions of this study were centered on the participants and their settings; therefore, the data collected from the

participants were analyzed through this qualitative approach, specifically through the lens of constructivism. Detailed discussion of constructivism is provided in Chapter 2.

Nature of the Study

The study was a qualitative, phenomenological, descriptive approach. I focused on describing individuals' lived experiences of their cravings, emotional states or feelings, and behavioral actions with respect to substance dependence following mindfulness meditation. Participants were interviewed about their experiences of the mindfulness technique and its effect, if any, on their cravings, emotional states or feelings, and behavioral actions toward substances on which they are dependent. In following Moustakas's (1994) suggestion on the sample size of phenomenological studies, this study included 12 participants drawn from an open, public meditation group at the Tam Bao Meditation Center in Baton Rouge, Louisiana. A criterion-based sampling, a sample that has relevant characteristics to the research questions, was used in this study. Interviews were conducted until data saturation was achieved. A full explanation of the methodological details of the study is presented in Chapter 3.

Many research studies on substance dependence and mindfulness meditation have been quantitative in nature, concentrating on the effects that dependent substances have on human beings' minds, particularly among the polydrug users as well as the effectiveness of mindfulness meditation as a technique used to reduce cravings. Although quantitative research was not within the scope of this research study, a literature review of current quantitative research studies is included in Chapter 2. The goal of the study

was to explore and discover participants' experiences and the exploration of little known phenomena among substance dependent individuals (Creswell, 2013).

Definitions of Terms

To provide ease of reading, the terms described below and used throughout this dissertation, are defined as follows.

Addiction: Addiction is considered as a brain disease in which individuals experience a compulsive need to use substances, such as alcohol, nicotine, cannabis, or illicit drugs regardless harmful consequences including self-destructive behaviors (Agrawal & Lynsky, 2008; Hill et al., 2007; Williams & Kraft, 2012). Addiction is classified as a brain disease because drugs and alcohol change the brain functionality and structure (National Institute on Drug Abuse, 2016). However, this terminology is not used in the official *Diagnostic and Statistical Manual (DSM-V)*. *Substance use disorder* is the more neutral term used in the DSM-V, which is a combination of substance abuse and substance dependence categories as one single disorder. The DSM-IV defined substance abuse and substance dependence differently as outlined next.

Alcoholics Anonymous (AA): The first model of substance use treatment was for alcohol dependence. It is a 12-step program written in 1938, and it has served as the foundation for AA (National Institutes of Health [NIH], 2015).

Cognitive behavior therapy (CBT): The model emphasizes cognitions, thoughts, and emotions that are considered to maintain a particular healthy behavior by enhancing coping skills (Khaleghian, 2013).

Concentration meditation: Participants focus on a word, sound, phrase, or mantra to enhance what is referred to as “pure awareness” (Barnett et al., 2014; Bowen & Vieten, 2012).

Constructivism: It is a philosophy that emphasizes that knowledge is self-created through life experiences (Moustakas, 1994).

Loving-kindness meditation: A form of meditation that connects human beings through mutual love, compassion, empathy, understanding, and forgiveness (Kabat-Zinn, 2005; Kornfield, 2009).

Meditation: This is a technique used to improve self-directed awakened mind that is engaged with the body (Dakwar & Levin, 2009).

Mindfulness: This term refers to paying attention to the present moment in a nonjudgmental manner without attachment or reaction to the cognitions, feelings, or bodily sensations that arise (Baer, 2009; Kabat-Zinn, 1982).

Mindfulness meditation: The ability to comprehend both inner and outer worlds with clarity of mind and without judgment. Through the practice of meditation, a person’s capacity to be accepting and tolerant of both pleasure and pain is enhanced (Pelled, 2007).

Substance abuse: A state in which an individual experiences maladaptive behavior or distress that can lead to impairment due to the use of some kind of illegal drugs and alcohol. This occurs when one or more of the following exists within a 12-month period (American Psychological Association [APA], 2000):

1. Failure to perform routine functions such as work, school, or care for children or household as a result of recurrent substance use
2. Physically being challenged and hazardous as a result of recurrent substance use such as unable to operate a machine or drive an automobile
3. Involved in legal issues such as arrests for substance-related misconducts
4. Social and interpersonal problems caused by the effects of recurrent use of substance

Substance dependence: A state in which an individual experiences maladaptive behavior or distress that can lead to clinically significant impairment due to the use of some kind of illegal drugs and alcohol. This occurs when three or more of the following exists any time in a 12-month period (APA, 2000)

1. Tolerance: a need to increase the amount of substance use to achieve the desired effect
2. Withdrawal: individual experiences withdrawal syndrome or takes additional related and unrelated substances to avoid or reduce withdrawal syndrome
3. Increase the amount taken or extend the duration of use
4. Uncontrollable substance use or unsuccessful efforts to reduce

Therapeutic communities (TC): This is a residential treatment model developed in the early 1960s (Neff & MacMaster, 2005; NIDA, 2015)

Vipassana meditation (VM): Vipassana literally means “insight”-- to see things as they really are. The ultimate goal of VM is to liberate a person’s mind by understanding the impermanent nature of thoughts, feelings, emotions, and sensations (Perelman et al., 2012).

Assumptions

The assumptions used for this study are mainly described in the participant criteria. It was assumed that some participants may have dual diagnoses, but this could not be verified. Participants were recruited from a meditation center that was open to the public; thus, some participants considered vulnerable may have been included who were not targeted in this study. The vulnerable participants may also have experienced psychological and emotional problems, such as depression, anxiety disorders, personality disorders, or posttraumatic symptom disorders. Verification of these psychological and emotional problems was outside the scope of this study because it did not affect the objective of this study.

I also assumed that all participants would be honest and provide accurate information to me. It was difficult to ensure that there is no false information or misdirection of the researcher. It was assumed that those participants who self-reported as being substance dependent were honest and accurate in their reports. These assumptions are in alignment with the framework of constructivism in which the participants share thoughts or feelings that are based on their lived experiences. In addition, one criteria of this study required that participants have practiced mindfulness meditation for at least 6

months up to 3 years; therefore, the findings may not generalize to those who have practiced mindfulness meditation for longer or shorter periods of time.

Scope and Delimitations

The participants in this study came from an open group at a meditation center, and they had practiced various types of meditation as well as spiritual exercises. Therefore, without consideration, there was the danger of generalizing other forms of meditation to mindfulness meditation. However, I chose the participants from this open group meditation because I wanted to explore each individual's lived experiences associated with mindfulness meditation. I only accepted those participants (males and females) who were at least 18-years-old and meditated for 6 months up to 3 years regardless of their ethnic, cultural, or religious background. As such, persons under the age of 18, persons who did not meditate, persons who were not self-report or professionally being diagnosed as substance dependents, and persons who did not speak English fluently were excluded from this study. The qualitative approach using the open-ended questions, as well as the use of constructivism as a conceptual framework, allowed the participants to describe their own realities that were based on their own constructed thoughts, feelings, and perceptions. Because this study was qualitative, its generalizability was limited to the population and location in which the study took place (substance-dependent individuals in the Baton Rouge, LA area who meditate); however, some aspects of the findings may be applicable to similar populations elsewhere.

Limitations

Being a mindfulness practitioner for more than 25 years, I may have had a personal bias in terms of positive expectations about mindfulness meditation when interviewing, collecting, and analyzing data. To minimize this limitation, I disclosed my background and the role I took for this study, which is detailed in Chapter 3. I also addressed techniques I used to eliminate a potential personal bias. In addition, I wrote down my personal feelings and thoughts into a personal journal during the time of data collection. Another limitation of this study was that all of the participants were interested in the technique of mindfulness meditation. In fact, they used mindfulness meditation as a way to support themselves to stay sober. Therefore, there may have been some personal bias among participants when they shared their lived experiences.

All of the participants in this qualitative study came from Baton Rouge, Louisiana; therefore, the results of this study could be overrepresented. In general, most of these participants were willing to enrich their spiritual life through mindfulness meditation, which could be different from other substance-related populations.

Significance of the Study

Techniques of mindfulness meditation have application in a variety of mental health situations and in daily life for people of all belief systems. Through the regular practice of mindfulness meditation, individuals develop wisdom and a compassionate heart, allowing them to experience their own thoughts, feelings, or sensations in the moment, mindfully and wisely without judgment (Williams, Teasdale, Segal, & Kabat-Zinn, 2007). Mindfulness practitioners learn how to cope with triggers, such as sights,

smells, thoughts, emotions, or bodily sensations that once led to desire or craving. Mindfulness does not stop people from craving or experiencing a “wanting thought”; instead, it trains them not to react to the trigger in that moment of craving and desire (Brewer et al., 2012). Mindfulness does not encourage practitioners to avoid their unpleasant or negative thoughts, emotions, or physical sensations. Rather, mindfulness encourages practitioners to accept the realities of their lives, confronting their triggers from a stance of clarity and non-judgment without reactivity. Practitioners recognize that cravings and desire are impermanent and with time will pass.

Acceptance of negative feelings and cravings also leads to other skills. For example, because mindfulness meditation trains people to have more tolerance for both positive and negative situations, individuals who practice mindfulness meditation can transform negative feelings into positive ones (Goldin et al., 2009; Muesse, 2011). Goldin et al. (2009) also indicated that there is a correlation between negative mood states and problematic cognitive patterns that cause a person to relapse. These can lead to interpersonal conflicts and ineffective coping skills, also risk factors for relapse. Mindfulness meditation can transform negative mood states and cognitive dissonance while increasing coping skills and reducing stress levels, all of which are important for relapse prevention (Witkiewitz & Bowen, 2010). Therefore, substance-dependent mindfulness practitioners gained the ability to intervene on negative emotions, transforming them into positive mood states that allow for more improved interpersonal communication, beneficial coping skills, and reduced chance for relapse.

Substance dependence and relapse are not solely personal problems; they can negatively affect a user's health, create family conflicts, impact crime rates, and increase cost to the national health care, with each of these social problems being interrelated to all the others. Likewise, all aspects of treatment are interrelated as well. The relationship between the therapist and client in mindfulness meditation practice is also interrelated and interaffected. The therapeutic bond between participants and therapist plays a role in group mindfulness meditation and its effectiveness (Bowen & Kurz, 2011). This study offered an in-depth understanding of participants' actual, moment-to-moment experiences. According to the literature of meditation, these may include reductions in cravings, reduced intensity of emotional states, and interruptions in substance-dependent behaviors through the practice of mindfulness meditation and continuous self-report to the therapist. It is possible that participants in this study may have had different emotional and perceptual experiences within the same environment. The results of this research supported professional practice through increased understanding of the varied emotional and behavioral states experienced by substance-dependent individuals as they strive for sobriety using mindfulness meditation techniques. Additionally, an increased understanding of substance-dependent individuals' experiences in relation to the use of mindfulness meditation could result in testable hypotheses for subsequent quantitative studies that could be used to develop a protocol for professionals treating substance dependents. This could result not only in relief of individual suffering but in a reduction of the actual dependent behaviors and the effects of these behaviors on society, such as

reduced drug-related crime, increased personal- and job-related productivity, increased physical health, and more stable family lives.

Summary and Transition

Over 20 million adolescent and adult Americans experienced problematic substance use (Vernig, 2011). Increased crime, work impairment, and relationship issues are risk factors associated with substance dependence. This costs the society billions of dollars every year. Stress, anxiety, and conflict in interpersonal relationships also are risk factors related to substance relapse. Behavioral interventions, such as cognitive behavior therapy (CBT), spiritual self-schema therapy, and social learning behavior therapy have been used as substance-dependent treatment; yet, the relapse rates continue to be high. Mindfulness meditation has been identified as a technique that can be used to improve a person's self-regulation and self-awareness in stressful situations, thus increasing their chance of staying sober. This phenomenological study was conducted based on the conceptual framework, constructivism, to describe individuals' realities related to substance cravings, feelings, thoughts, behavioral actions, and mindfulness meditation. The study included 12 participants from an open meditation center in Baton Rouge, Louisiana. There were four research questions, which were used to explore experiences of participants including cravings, emotional states, feelings, and behavioral actions. In Chapter 2, I discuss the literature search strategy, conceptual framework (constructivism), overviews of substance dependence and mindfulness meditation, and substance dependence and meditation. A summary of the chapter is provided at the end.

Chapter 2: Literature Review

Introduction

According to historians, substance dependence is a pervasive social and psychological problem that has existed for centuries. Understanding individuals with substance use disorders is often complicated, and solving this problem is difficult. In addition, the rates of substance dependency are high, with each year approximately 7% of the U.S. population experiencing some forms of substance use (Vernig, 2011). The financial cost associated with substance dependence can be quantified; however, the psychological, social, and interpersonal relationship costs are immeasurable. According to Bayles (2014), over 1 million emergency room visits per year are trauma-related and also linked to substance use. When substance-dependent individuals have no effective treatment, they suffer various forms of emotional pain related to the effects of the substances, such as feelings of shame and worthlessness, which contribute to the more than 60% of the substance-dependence relapse rate in the United States (Zgierska et al., 2009). Substance dependence has psychological, social, and financial consequences not only for users themselves, but also for their families and communities.

While there is no one intervention that has proved completely effective for the treatment of substance dependence, therapeutic communities and CBT have been used with some success in relapse prevention for decades. However, there is a need to incorporate other techniques in order to improve treatment and to foster prevention for susceptible individuals and groups (Hendershot, Witkiewitz, George, & Marlatt, 2011). One possible option is mindfulness training. Garland (2013) found evidence for the use of

mindfulness training, showing positive effects on individuals' physical and cognitive functioning that may enhance their dependency recovery process. In this chapter of the dissertation, I will discuss (a) the literature search strategy, conceptual framework, overviews of substance dependence, mindfulness meditation, and different methodologies used for mindfulness meditation and substance dependence.

Literature Search Strategy

The method used to locate relevant, recent information included primary sources, and searches were conducted using keyword combinations: *substance abuse, substance dependence, substance use disorders, addicts, addiction, drug users, mindfulness meditation, meditation, mindfulness and addiction, treatment and addiction, addiction and prevention, constructivism, phenomenology, and Zen and constructivism*). The databases accessed were located within the libraries of Walden University including Academic Search Complete, PubMed, ProQuest Central, ScienceDirect, and Thoreau. I searched individual databases including MEDLINE, CINAHL Plus, PsycINFO, PsycARTICLES, ERIC, Google Scholar, and Psychology: SAGE, as well as the websites of CDC, NIH, NIMH, and ProQuest Dissertations. Database searches were conducted from August 2015 to March 2016. Table 1 below summarizes the search results by research topic.

Table 1

Summary of Search Results by Topic

Topic	Peer-reviewed articles	Books	Other (i.e., news articles, DoD data sources, etc.)	Total
Substance Dependence*	31	6	4	41
Meditation	74	12	5	91
Conceptual Framework	10			10
Methodology**	10	6	1	17
Total	125	24	10	159

* Includes Substance Abuse, Substance Use Disorder, Addictions

**Includes the qualitative approach chosen for this study -Phenomenology

Conceptual Frameworks

The conceptual framework used for this dissertation was constructivism (Patton, 2002). Researchers use constructivist theory to investigate how human beings create systems for understanding their experiences and worlds in meaningful ways. Such realities are constructed from individuals' own beliefs, emotions, and interpretations, which are subjective and influenced by factors such as culture, language, and interactions with other people, as well as prior knowledge and experiences (Patton, 2002). Constructivists' focus is on the multiple realities constructed by human beings and the effects that these constructed realities have on their lives, and those with whom they interact (Patton, 2002; Raskin, 2002). Constructivism suggests that changes in humans' constructed realities, such as those which occur as a result of mindfulness practices, will change not only perceptions but interpersonal relationships as well.

Constructivism

Constructivism, the theory that knowledge is self-created through lived experiences, has a long history dating back to the Greeks (Moustakas, 1994). The Greek philosopher, Socrates, sought knowledge through continual probing questions. This process of questioning helps students to develop their own knowledge, which is the core element of constructivist learning philosophy (Mayo, 2010). The constructivist theory of knowledge was formulated more officially in the 18th century by the Italian philosopher Giambattista Vico, who stated that knowledge is self-acquired. Knowledge is constructed based on the learners' own understanding, interpretation, and experiences of phenomena through their daily experiences (Mayo, 2010; Moustakas, 1994). Constructivists believe that the world is real and is in existence, but the meaning of the world, as humans create it, arises from the perceptions or interpretations of their personal experiences. Hence, there is not an objective reality, as the interpretations of the experiences are changing and differ between people (Ertmer & Newby, 2013). These findings support what mindfulness practices teach practitioners—that it is possible to transform negative thoughts, feelings, and perceptions into positive ones, thereby changing personal experiences.

Other philosophers and educators also contributed to the development of constructivism. In the 18th century, these included Kant, Rousseau, and Pestalozzi. Kant's claimed that human beings view a reality that is based on their own interpretation of thoughts, feelings, and experiences (as cited in Mayo, 2010). Kant's view is a predecessor for contemporary constructivism that has two distinctive branches: cognitive

constructivism and social constructivism. The development of cognitive constructivism can be credited to Piaget, whereas Vygotsky is known for the social constructivism (Pass, 2007). Rousseau and Pestalozzi created learning environments where students explored, discovered, and developed conclusions or knowledge from their own exploration and self-realization. This learning process coincides with the view of constructivism.

Rousseau's and Pestalozzi's learning theories are still being used by many constructivist educators today (Mayo, 2010). Constructivism became a part of modern educational psychology at the end of the 19th century through the work of James. James (1907) believed that human beings use their cognitive abilities (e.g., *native reactions* and *reaction of ownership*) to adapt to their environments. Native reaction represents natural reactions to the environment, such as curiosity, and these motivate people in the learning process. Reaction of ownership involves the development of a personal sense of investment or involvement in the reaction and personalizes the association between ideas (Mayo, 2010). According to constructivism, human understanding or knowledge of new experiences is based on humans' memories of past experiences (Raskin, 2011). James (1907) referred to this as the process of *apperception*, usually occurring when humans pay attention to matters of personal interest (as cited in Mayo, 2010). Therefore, our negative evaluations of past experiences will have a negative impact on new experiences, unless we are able to transform our apperceptions through a process such as mindfulness, which teaches the practitioner to open to new experiences without judgment.

The acquisition of human knowledge is an active process by which individuals experience, evaluate, and remember. Dewey (1896) asserted that the meaning in every

action is created and composed based on human knowledge (Mayo, 2010), and language plays a role in meaning-making of ideas between humans. Dewey believed that learning is an active and constructive process as opposed to passive memorization and recitation of information. Another contributor to constructivism was Kelly. Kelly (1963) stated that humans have the capability to reconstruct themselves and change their view of the world. In doing so, they change their fundamental transactional relationship with the world. Kelly referred to this concept as constructive alternativism. Kelly's assertions supported the ways in which mindfulness practices teach individuals to tolerate thoughts, emotions, and physical sensations, as well as to observe their impermanence and to transform negative states into positive ones.

The ongoing development of constructivism since Socrates's time has transformed it into the contemporary constructivism and represents the thoughts of many intellectual individuals. For example, Kelly (1963) has been credited with introducing constructivist theory to contemporary psychologists. Contemporary constructivism is derived from the works of earlier contributors of constructivism, in particular the two perspectives established by Piaget and Vygotsky: cognitive constructivism and social constructivism. Piaget believed that knowledge is self-constructed (cognitive process) but social process can influence learning experiences (as cited in Mayo, 2010; as cited in Von Glasersfeld, 1990). The process of *apperception*, as discussed by James, was also seen in Piaget's work (Mayo, 2010). In contrast, Vygotsky stated that knowledge or intellectual development is constructed or derived from social interaction between individuals. Although Vygotsky did acknowledge that intellectual development is related to

interpersonal interaction, the extent to which it contributes to knowledge development is much less than that derived from the direct assistance of others in a social context (Mayo, 2010). Other researchers and theorists in this area, including Montessori, have believed that “hands-on” experience is the most effective way to maximize young children’s learning. Finally, Neimeyer’s (2010) use of constructivism as a dynamic form of inquiry has advanced clinical research in the treatment of traumatic and complicated bereavement. Neimeyer’s assertions of dynamic constructivism correspond well with mindfulness practices, as they actively engage the practitioner’s mind and body through the process of observation, acceptance, and at times transformation. Being attentive to thoughts, emotions, and physical sensations requires an active, focused mind which is flexible.

Many educators have taken the constructivist approach to learning and organizing classes or lab courses in ways that require hands-on or participatory group activities designed to facilitate students’ learning of new concepts. This process is enhanced when students then share their interpretations of new materials with each other, thus helping both the sharing and the receiving students (Domenici, 2008). Constructivism is found in a range of professions including sociology, psychology, and cognitive neurology (Lektorskii, 2010). According to constructivism, knowledge is individually constructed based on the interpretations of experiences of the world. Constructivism is considered a postmodern approach to knowledge acquisition, which highlights the creation rather than discovery of social realities (Raskin, 2002). What is important is an understanding of how people know what they know and how they contribute to the construction of their own

knowledge.

Constructivism and Mindfulness

From the perspectives of constructivism and mindfulness, no statement or body of knowledge can be seen as an ultimate truth, as both knowledge and experience are changing as a function of thoughts, feelings, emotions, and perceptions (McWilliams, 2012). In constructivism, individuals' knowledge of a phenomenon is based on their construction of how the phenomenon exists, rather than on some absolute truth about the phenomenon that applies to all individuals across time (Mayo, 2013; Moustakas, 1994). The individual perception comes through the lens of personal experience; thus, there is no absolute truth (Moustakas, 1994; Patton, 2002). Similarly, mindfulness describes phenomenal experience in terms of interconnectedness and interrelatedness of dependent origination, impermanence, and emptiness (DeMonte, 2012). Dependent origination is the idea that the perception of objects, self, or the world depends on each moment for existence and for the identity of the object being perceived. Likewise, the concept of impermanence states that all phenomena change, thereby substance dependence itself is impermanent. This perspective does not suggest how long something will last before it changes, and from the point of view of a therapist, it is important to minimize the length of substance dependence.

Human beings interpret and respond to objects or events in the environment based upon their own existing perceptions and labeling of their perceptions. According to the mindfulness perspective, nothing can exist independently as each phenomenon is a part of a larger collective of being, which is the focal point of the concept of emptiness. When

using mindfulness practice, it is possible to see and understand the perception or reality of the world as it is evolving and changing, based on phenomena and personal experience (McWilliams, 2012). We are able to see and experience the interdependence of all phenomena as we train our minds through mindful practices. Understanding the ways in which all of our personal experiences are interrelated, we can relate this understanding to larger contexts—to other humans, their experiences, and the world.

An Overview of Substance Dependence

Recent History of Substance Dependence

Substance dependence has been a social problem throughout 20th century U.S. history. The 1960s and 1970s were times of social turmoil linked to massive antiwar and antigovernment movements. Its landmark was the country's awareness of the Vietnam veterans' dependence to heroin and other illicit drugs (Bukoski, 2015). According to the National Survey on Drug Use and Health in 2010, approximately 2 million people in the United States between the ages of 12 and 20 admitted to heavy alcohol use, and about 22.6 million people in the United States over the age of 12 are current or former illicit drug users (as cited in Haugen & Musser, 2013). According NIDA (2015), substance dependence is an expensive problem, costing nearly \$484 billion per year in the United States alone. However, continued efforts to improve treatment and prevention can lead to long-term savings (Haugen & Musser, 2013). Mindfulness practices used in the treatment of substance dependence may be effective and may lead to lowered costs of treatment.

APA has published several editions of the DSM (DSM-III, 1980; DSM-IV, 2000; DSM-V, 2015), all of which have included a wide range of substance use diagnoses. In

the fifth and most recent edition, the DSM-IV addresses substance use disorder as a single disorder, a combination of the DSM-IV categories of substance abuse and substance dependence; substance use disorder, therefore, is measured on a continuum from mild to severe. Hence, abuse is viewed as mild or early phase while dependence is more on the severe manifestation; however, it is classified as a single disorder—substance use disorder (DSM-V, 2015). This revised definition of dependence helps to eliminate confusion because most people associate dependence with addiction, which is a brain disease when dependence is a normal body response to a substance used.

Consistent use of intoxicating substances can lead to significant impairment or distress when at least two of the following must occur within a 12-month period, which is being classified as substance use disorder by DSM-V.

1. Taking the substance in the larger amounts or for longer than a person means to take them
2. Wanting to cut down or stop using the substance but not being able to reduce usage
3. Spending significant time getting, using, or recovering from use of the substance
4. Cravings and urges to use the substance
5. Not being able to do what a person needs to do at work, home, or school because of substance use
6. Continuing to use the substance, even when it causes problems in relationships or work

7. Giving up social, occupational, or recreational activities because of substance use
8. Using substances repeatedly, even when it puts the person in danger
9. Continuing to use the substance, even when the individual knows that he or she has a physical or psychological problem that could have been caused or made worse by the substance
10. Needing more of the substance to get the same effect as previously (tolerance).
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance

A substance use disorder is a broad subject with multiple dimensions in that it includes substance abuse (mild case) to substance dependence (severe case) as defined in the DSM-V. In this study, I focused only on the use of illegal drugs and alcohol as defined and classified in the DSM-V. As such, I followed DSM-V, thereby making no distinction between substance abuse and substance dependence. The common abuse drugs listed by the NIDA (2015) include alcohol, ayahuasca, bath salts (synthetic cathinones), cocaine, DMT (synthetic drug producing-crystalline powder), hallucinogens, heroin, inhalants, marijuana (cannabis), ecstasy, mescaline, methamphetamine, over-the-counter cold and cough medicines, and prescription opioids.

Prevalence

According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2014) approximately 22.5 million people in the United States ages 12 and

above had health problems related to or resulting from either alcohol or illegal drug use. Almost 20 million people required treatment but had not yet received it (Han, Hedden, Lipari, Copello, & Kroutil, 2014). Herman (2014) indicated that a lack of insurance coverage and political or societal stigma associated with substance dependence, as well as childcare or family responsibilities, have made it more difficult, particularly for women, to receive treatment. Although the number of individuals who actually received treatment as a result of heroin addiction is low, approximately 618,000 people received treatment for heroin (author, year); ASAMHSA (2014) reported that this is an increase as compared with numbers of substance-dependent individuals receiving treatment between 2002 and 2008. In 2014, there were 4.1 million people receiving treatment for substance abuse and substance dependence, representing approximately 1.6% of the United States population (ASAMHSA, 2014; Han et al., 2014). The two most common reasons for lack of treatment among persons 12-years-old and older needing drug and alcohol rehabilitation are lack of health insurance coverage and the unwillingness to stop engaging in dependent behaviors (ASAMHSA, 2004). Mindfulness practices in themselves are inexpensive, and the skills learned can be practiced anywhere.

Risk Factors

Dependent behavior among individuals constitutes a difficult combination of mental, environmental (social interactions, family, stress, conditioned stimuli), social (gender, ethnicity, socio-economics, unemployment), historical (family background, expectation, learning), and biological (genetics, disease states, sex) factors. The root of substance dependence may be a physical, psychological, and spiritual imbalance resulting

from multiple factors in the life of individuals with substance use disorder (Haugen & Musser, 2013). According to the NIDA (2015), anyone can be at risk for substance dependence; however, childhood and adolescent aggressive behavior, lack of parental supervision, peer pressure, and environment are among the main risk factors.

Relapse among substance-dependent individuals is an important consideration when addressing factors that contribute to substance dependence. According to Hendershot et al. (2011), when a person encounters a high-risk situation with ineffective coping responses, decreased self-efficacy, or high perceived effects of a substance, the probability of relapse increases. There are many factors that relate to relapse, such as family history, individual cognitive ability, coping behavior, substance use behavior, and perceived effects (Hendershot et al., 2011).

Family. Family roles, such as the enabler, mascot, hero, and scapegoat, have a significant effect on dependent behavior (Bradshaw 1993). The enabler's role is to ensure a strong and positive family structure while preventing or obstructing any sign of dysfunction. Additionally, the enabler reinforces each family member's individual role behavior. Usually the enabler sacrifices his or her own interests in order to protect the dependence. The role of the hero is often assumed by the oldest child, generally a high achiever academically or in sports. The hero, whose accomplishments and societal approval add self-esteem to the entire family, often leaves home early in pursuit of a career or advanced education but is generally willing to return and rescue the family when needed. The lost child, often the middle child, receives little attention from the family and learns early on not to create problems. The lost child's behavior often

demonstrates loneliness, sadness, and failure. The mascot is commonly the youngest child and often plays the role of distracter from family conflict. The mascot appears to perceive life as a party. However, this child often buries feelings of sadness and anger because these emotions do not fit his or her role. On the other hand, the scapegoat often plays the role of a troublemaker, getting into legal difficulties, being truant from school, and demonstrating other maladaptive behaviors. The scapegoat role also calls attention to the family in negative ways and often carries the shame for the entire system. These are the five basic roles of the dependent American family and are among the most common and popular roles taught to professionals working in substance abuse and dependence treatment and prevention (Bradshaw, 1993; Vernig, 2011). It is important to note that these roles can change over time as children leave home or get help for themselves.

In general, young people who do not have a strong connection to parents and siblings are at a higher risk for becoming substance-dependent individuals as compared to individuals who have good relationships with family members (Vernig, 2011). However, family environment is not the only factor in the development of substance dependency. Studies of twins across cultures and countries show the significance of genetic components in the development of dependences to alcohol, nicotine, cannabis, and other illicit drugs (Agrawal & Lynskey, 2008; Hill et al., 2008). While researchers have not found a single gene that causes substance dependence, they have determined that multiple genes and interactive effects shape the risk of substance-dependent behaviors. Among male and female adolescent twins, Derriger et al. (2008) have found that genetic influences increased with age and were greater for males than for females, at ages 14 and

17, at a rate of 33% as compared to 25%. The authors suggest that early substance abuse might sometimes trigger a genetic predisposition to substance dependence. Hill et al. (2008) studied adolescent affiliation with substance using peers as a predictor of alcohol use. Their findings indicated that peer substance use did not influence alcohol use among adolescents when genetic and shared environmental confounds were considered. In other words, researchers must consider genetic and environmental factors in substance abuse and dependence to peer selection when studying adolescent alcohol use.

Psychological Factors. Negative affect, craving, interpersonal stress, and ineffective coping skills in high-risk situations are high-risk relapse factors. There is a strong relationship between symptoms of depression and substance use disorders (Witkiewitz & Bowen, 2010). Substance use disorders can be considered a manifestation of an individual's reaction to stress, unhappiness, and emotional pain. Stress is the leading predictor of drug urges, relapsing, or continued drug abuse. High levels of stress equate to increased chances for individuals to become drug users (Anderson, Ramo, & Brown, 2006; Vallejo & Amaro, 2009). Additionally, stress is linked to cravings. When a potential stressor challenges, harms or threatens, addiction-prone individuals, they become determined to find available substances to cope with the stressor. People in stressful situations with inefficient and effective coping skills tend to use alcohol or illicit drugs to solve their perceived insolvable problems. Unfortunately, those who are most vulnerable are people who have limited resources, such as unhealthy coping skills, no health insurance, a lack of social support, and physical stamina and symptoms of mental illness (Garland, 2013; Sinha, 2001).

Consequences

Buhringer, Kraplin, and Behrendt (2012) have described the three common consequences or effects associated with various substance- and activity-related expressions of substance use disorders: physical, mental, and social effects. Alcohol and illicit drugs affect health and contribute to a wide range of diseases and cancers. Physiological systems affected by drug and alcohol include the central nervous system, liver, digestive system, cardiovascular system, and immune system. Diseases such as tuberculosis, diabetes, and HIV and AIDS, are common. The severity of these health risks depends upon levels of usage of alcohol and drugs. Moreover, there is a high mortality rate, specifically related to premature death, commonly found among young individuals with dependent behavior to drugs. Drug-related mortality is associated with drug overdose (self-induced), illnesses (diseases and cancers) and results from drug consumption and suicide. Premature death due to drug overdose is found among individuals abusing a single drug or multiple drugs in concert with other drugs. Evidence also points to elevated mortality among individuals using heroin, opiates, cocaine, and amphetamines (Buhringer et al., 2012). HIV and AIDS illnesses in the United States are associated with IV-drug use in individuals sharing needles and engaging in sexual relationships with those diagnosed with HIV and AIDS. Pediatric AIDS occurs when IV drug addicted mothers pass the virus to their offspring as a result of infection through shared needles as well as contracting HIV and AIDS through sexual relationships (NIDA, 2013).

From the mental health perspective, SUDs and psychiatric disorders are known as dual disorders because there is a strong relationship between them, usually with the SUDs taking precedence (Buhringer et al., 2012); however, the NIDA (2015) cautioned that the establishment of causality or directionality between the two can be difficult to determine. Researchers of comorbidity have found that there is an overlap in genetic vulnerabilities in dual disorders, with an estimate of 40 to 60% of individuals' vulnerabilities attributable to genetics. Persons with genetic predispositions to substance dependence can directly and indirectly respond to a drug. For example, drugs can alter how an individual responds to stress, a risk factor that influences drug use and other mental illnesses as described above. Additionally, drug use disorders and mental illnesses affect the same brain circuitry that uses the neurotransmitter dopamine. This effect is found in individuals diagnosed with depression, schizophrenia, other psychiatric disorders, and substance addiction (NIDA, 2015).

NIDA (2015) has found a high rate of comorbidity between the SUDs and mood and anxiety disorders. Individuals diagnosed with antisocial syndrome (antisocial personality and conduct disorder) are about twice as likely to suffer from a drug use disorder. The rates and patterns of comorbidities are different between males and females with SUDs, in that males diagnosed with drug abuse or dependence are more likely to suffer from antisocial personality disorders, whereas the rates of mood and anxiety disorders are higher for females diagnosed with drug dependence. In general, depressive disorders, posttraumatic stress disorder, psychosexual dysfunctions, dysthymia, social

phobia, bipolar disorder, schizophrenia, and panic disorder are among the mental disorders found in SUD individuals (Hayes & Levin, 2012).

Impaired social functioning, high societal costs, and offspring diagnosed with UD are some adverse social consequences associated with substance dependence and SUDs. For example, individuals with high alcohol dependence have more issues with crime (theft, assault, and homicide), legal problems, unemployment, low educational achievement, and personal and family relationships problems. According to Arria et al. (2015), illicit drugs, predominantly marijuana, are common among college students in the United States, with one out of three students skipping classes more frequently, which results in a decline in their grade point averages, thereby further delaying their graduation dates because they may have to take some classes again.

The societal cost related to substance use is about \$484 billion per year in the United States. Diabetes and cancer costs related to substance use disorders are approximately \$131.7 billion and \$171.6 billion per year, respectively. Drug use also affects the well-being of the community in terms of homelessness (31% of homeless people are drug and alcohol dependents), cost for providing special education services to children with prenatal cocaine exposure (estimated annual spending of \$23 million for this service), and workplace absenteeism. Furthermore, families can be destroyed by drug use in cases where babies are born prematurely and have low birth weights from mothers using cocaine during pregnancy. Children put in care of child protective services due to child abuse and neglect often have parents with substance abuse and substance dependence problems (NIDA, 2015).

Current Treatments

The available data for the year of 2014, as reported by ASAMHSA (2015), showed that approximately 6.8 million people aged 12 and above received treatment for substance. Of the 6.8 million, 2.4 million people, or 35% received treatment for alcohol; the other 65%, or 4.4 million of the population received treatment for illicit drugs, including marijuana (1.0 million), cocaine (0.8 million), pain reliever (0.8 million), heroin (0.6 million), tranquilizers (0.5 million), stimulants (0.4 million), and hallucinogens (0.3 million). The various facilities or locations that were available for individuals with a substance use disorder to receive treatment in 2014 included self-help groups, outpatient rehabilitation and mental health centers, inpatient rehabilitation and hospitals, private doctor's offices, emergency rooms, and prison or jail (ASAMHSA, 2015).

Yet, it appears that there is no perfect treatment approach because addiction is a complicated mental health disorder, influenced by many factors: biological, drug, brain mechanisms, and environmental interactions (Haugen & Musser, 2013). Dr. Marlatt, while attending the Addiction and Recovery Conference in Los Angeles, stated that biological, psychological, social, and spiritual factors should be incorporated into any treatment (Dr. Marlatt, personal communication, October 13, 2009). In a 30-year review, the American Society of Addiction Medicine (ASAM) concluded that individuals with substance dependence are linked to depression, anxiety disorder, and post-traumatic stress disorder. Therefore, providing any treatment model to substance users without

thoughtful consideration of the family background, personality, social, and spiritual activity is likely to fail (NIDA, 2015).

The first model of substance treatment was for alcohol abuse, a 12-step program written in 1938, and served as the foundation for Alcoholic Anonymous (AA). In general, humans struggle and search for meaning of life and substance use can be related to the difficulties of this search. Hence, the 12-step program emphasizes spiritual transformation. Members of AA share their perspective experiences on similar problems related to alcohol abuse, and each member finds a “sponsor” who is substance free to get more guidance and support (NIH, 2015). Learning, sharing, and practicing the 12 steps is the core of the program, which has the following steps:

- 1) Admitting problem.
- 2) Believing in a Higher Power.
- 3) Turning the will to the care of God.
- 4) Cultivating moral sense.
- 5) Accepting human flaws.
- 6) Removing all of these defects.
- 7) Asking God to remove our shortcomings.
- 8) Listing the names of all people one has harmed.
- 9) Asking forgiveness from those people.
- 10) Continuing to take a personal inventory.
- 11) Praying and meditating.
- 12) Awakenning a spiritual sense within oneself.

The fundamental premise of this model is that spiritual mechanisms and spiritual processes would transform addictive behavior. Meaning within spirituality, forgiveness, self-acceptance, self-worth, coping skills, and social integration with non-substance users are processes of spiritual transformation. The activities of weekly AA meetings are considered group therapy and are ideally continued to maintain this practice after finished treatment (Neff & MacMaster, 2005).

Relapse Prevention (RP), which is based on Cognitive Behavior Therapy (CBT), has been applied in treatment and prevention for substance dependence for three decades. “The key distinction between CBT and RP in the field is that the term CBT is more often used to describe stand-alone primary treatments that are based on the cognitive behavioral model, whereas RP is more often used to describe after-care treatment” (Hendershot et al., 2011, p. 6). The CBT model emphasizes cognitions, thoughts, and emotions that are considered to maintain a particular healthy behavior with enhancing coping skills (Khaleghian, 2013). The central theme of RP is that cognition plays a significant role in determining the risk for relapse. For example, when an individual experiences a high-risk situation (such as meeting old friends who invite the person to go drinking or to use drugs), he or she may respond with effective coping skills or ineffective coping skills. Effective coping skills increase self-efficacy, which decreases the probability of relapse. Ineffective coping skills decrease self-efficacy and the perceived negative effects of substances, which increase the probability of relapse (Hendershot et al., 2011). Some treatment reviews indicate 58% of individuals who

received CBT treatment had better results than those in comparison conditions (Hendershot et al., 2011).

Therapeutic Communities (TC) is a residential treatment model developed in the early 1960's. The core of TC is often characterized as social learning behavior in which social norms and effective social skills are demonstrated. Positive peer influence transforms negative patterns of thinking and dependent behavior among substance users (Neff & MacMaster, 2005; NIDA, 2015). Social support and social reinforcement are key components in this method, which generate a sense of community to help individuals learn and connect to healthy social norms.

In addition, Hayes and Levin (2012) found that substance users experience self-stigma and shame linked to their substance dependence. There is a common stereotype that individuals using illegal substances lack willpower, thus impeding them from recovering from substance dependence. This belief can influence people with substance use problems, making them think negatively about themselves as worthless, incompetent, violent, unreliable, shameful, and morally weak. People labeling themselves with such a self-stigma begin to perceive them as a part of this group of drug users, alcoholics, or substance dependent individuals (Hayes & Levin, 2012). Self-Schema Therapy provides a spiritual self that can reduce harmful attitudes and behaviors while promoting healthy attitudes and behaviors. Ten spiritual factors have been utilized in this treatment: (a) generosity, (b) morality, (c) renunciation, (d) wisdom, (e) effort, (f) tolerance, (g) truth, (h) strong determination, (i) loving kindness, and (j) equanimity (Amaro et al., 2010).

Recognition, preparation, action, and commitment are important factors to the success of alcohol and substance dependent treatments (Velasquez et al., 2015).

In the last several decades, mindfulness meditation has received tremendous attention among many disciplines in psychology and has proven as one of the effective treatment methods for various mental health disorders including alcohol and substance abuse and dependence (Davis & Hayes, 2011; Wayment, Wiist, Sullivan, & Warren, 2011). The next section of this chapter provides an overview of meditation, including different types and forms, benefits and limitations, theories supporting how mindfulness meditation works, and particularly its use as a treatment for substance use disorder.

An Overview of Meditation

Meditation traditionally has been recognized as an aspect of religious and spiritual practice, particularly among Eastern cultures; however, during the past few decades, it has gained popularity in the West among psychologists and psychotherapists for treatment in clinical settings with patients. This section provides an overview of meditation, including different types and forms, benefits, and limitations. The objective of this dissertation is to explore and investigate the practice of mindfulness meditation by substance-dependent individuals or dependents for the purpose of transforming dependent behavior; therefore, emphasized on mindfulness meditation as alternative intervention for substance dependence. However, it is important to include a brief background and description of other popular meditation types and subtypes, or forms, of insight practice.

Types and Forms of Meditation

The most frequently researched and commonly utilized types of meditation among Western clinicians are concentration meditation (CM) and mindfulness meditation (MM). Subtypes of CM and MM are Vipassana Meditation (VM), loving-kindness or compassion meditation (LKM), and Transcendental Meditation (TM).

Concentration Meditation. The practice of CM trains the practitioner's mind in single-pointed focus through chanting a mantra, which typically is a Sanskrit word or phrase provided by the meditation instructor. Participants focus on this word, sound, phrase, or mantra to enhance what is referred to as pure awareness (Barnett et al., 2014; Bowen & Vieten, 2012). Meditators learn to re-direct their focus to the mantra when ruminative thoughts enter and divert their attention (Austin, 1999; Muesse, 2011). Transcendental Meditation (TM), a form of CM, was developed by Yogi, and originated in the Vedic tradition in India (Yunesian, Aslani, Vash, & Yazdi (2008). Through TM, practitioners reconnect their natural minds with love, compassion, wisdom, and awakening. TM practitioners enjoy this sitting meditation technique 20 minutes twice each day with their eyes closed.

Mindfulness Meditation. Mindfulness meditation originated through the teachings of Shakyamuni Buddha and his philosophy; thus, it is referred to as Buddhist meditation. From the Buddhist perspective, the ultimate goal of meditation practice is for people to liberate themselves from worldly suffering and to increase compassion for all sentient beings through the core teachings of the four Noble Truths and the Noble Eightfold Path as taught by the Buddha. Also known as "The Awakened One," The

Buddha spoke to his disciples after achieving enlightenment, imparting to them these core teachings. Briefly stated, the Four Noble Truths are:

1. Life is inevitable suffering,
2. There is a root cause of suffering,
3. Suffering can be eliminated, and
4. Suffering is eliminated through attaining the insights of the truth or right view,

known as the Noble Eightfold Path, (Kornfield, 2009).

Pelled (2007) asserted that in the past few decades, Buddhist meditation has been applied successfully as a valuable psychological resource for enriching and expanding the quality of human consciousness. Buddhist meditation has been incorporated into many treatment modalities for mental disorders. At the core of meditation practice is the development of the mental capacity to know the inner world through direct experience (Epstein, 2007). Learning and practicing Buddhist meditation helps to unfold practitioners' capacities for compassion, wisdom, joy, and equanimity, regardless of religious tradition (Austin, 1999; Hanh, 1987). With practice, Buddhist meditators cultivate the ability to comprehend both inner and outer worlds with clarity of mind, and without judgment. Through the practice of meditation, a person's capacity to be accepting and tolerant of both pleasure and pain is enhanced (Pelled, 2007).

Thich Nhat Hanh is often referred to as a great Zen Master in the West. His teachings include the application of mindfulness in daily activities. Mindfulness practitioners are encouraged to use "smiling" and "breathing" as anchors from which to connect with the present moment (Hanh, 1987). Using any of four basic positions--

sitting, standing, walking, and lying-- mindfulness practitioners can breathe, smile, and follow their thoughts, feelings, and sensations without reaction. Hanh emphasizes, practices, and guides mindfulness techniques that are based on the Discourse on mindfulness of breathing, *Anapanasati Sutta*. The four foundations of mindfulness cultivated and regularly practiced through this sutra include (a) contemplation of the body, (b) contemplation of feelings, (c) contemplation of the mind, and (d) contemplation of mind-objects (Hanh, 1987). In his book, *Peace Is Every Step* (along with more than 60 other books), Hanh introduces mindfulness meditation and provides lucid guidance to innumerable contemporary practitioners, thus offering them the opportunity to develop increased compassion and peaceful living in everyday life.

Vipassana Meditation (VM) is the most prominent form of mindfulness meditation practiced for over 2,000 years in the Theravada Buddhist tradition. Vipassana literally means “insight,” or to see things as they really are. The ultimate goal of VM is to liberate the mind by understanding the impermanent nature of thoughts, feelings, emotions, and sensations (Perelman et al., 2012). Goenka is a teacher of VM, successfully offering this technique to thousands of students from the East and West during the past 40 years (www.dhamma.org). Goenka’s intensive 10-day course in VM has been applied strictly around the world in numerous retreat centers. All participants must follow some major Buddhist precepts and practice noble silence, refraining from verbal and non-verbal communication with others for the duration of the retreat. VM practitioners are encouraged to observe, acknowledge, experience, and let go of all thoughts, feelings, and sensations. If students are unable to comply with the practice, they

may choose to leave the retreat or be asked to leave. The fundamental aspect of Vipassana is self-transformation through self-observation (Perelman et al., 2012).

Mindful-Based Stress Reduction (MBSR), which was developed in 1979, is widely recognized and applied in Western psychotherapy for stress and anxiety reduction, tolerance of chronic pain, relapse prevention for depression, and many other conditions (Kabat-Zinn, 1990). The core principals of MBSR are present-moment awareness and nonjudgmental acceptance (Appel & Kim-Appel, 2009; Kabat-Zinn, 1990; Smith, 2011). This eight-week training program is facilitated by certified trainers with participants attending one all-day class and eight weekly classes. Participants receive a total of 31 hours of direct instruction during the eight-week session. MBSR teaches practitioners to recognize and accept their thoughts, feelings, and physical sensations as they occur in the present moment, thereby allowing them to experience these states without analysis or judgment (Kabat-Zinn, 1990). Developing these skills is important because without mindfulness, individuals typically react instantly and habitually when experiencing thoughts, feelings, and physical sensations (Appel & Kim-Appel, 2009; Goldin, Ramel, & Gross, 2009). Additionally, the practice of mindfulness meditation enhances the practitioners' ability to breathe mindfully, hence bringing awareness to each inhalation and exhalation. Thoughts, feelings, and physical sensations that disconnect the mind from the breath can then be acknowledged without judgment and immediately let go, thus allowing the mind to refocus on the breath (Bishop et al., 2004). In trying to understand the experiences and perceptions of a community-based mindfulness training group, Moss, Waugh, and Barnes (2008) conducted a qualitative study where the participants

participated in a 20-week mindfulness training course. The participants had different physical and mental problems, including attempted suicide, anxiety, physical pain, relationship difficulties, and career-related stress. Based on the descriptions provided by the participants at the end of the course, Moss et al. (2008) concluded that group mindfulness practice is a safe and comfortable place.

Loving-kindness, or compassion meditation, is another form of MM, yet it does not receive the same kind of attention as does MBSR. Loving-kindness meditation is a guided meditation that incorporates visualization and concentration techniques so people cultivate love for themselves as well as for other living beings, known as metta. This form of meditation connects human beings through mutual love, compassion, empathy, understanding, and forgiveness, as opposed to judgment, cruelty, jealousy, anger, or hate. The compassion cultivated through this practice is shared without expectations; it is believed that expectations interfere with the practitioner's ability to extend love and forgiveness to others (Kabat-Zinn, 2005; Kornfield, 2009).

According to Germer and Neff (2013), most therapists believe that loving-kindness or compassion is an important part of psychotherapy. Compassion refers to people gaining an awareness of suffering or dissatisfaction within themselves and with others with the wish to alleviate that suffering. Compassion contains several important factors: (a) kindness, (b) a sense of humanity, and (c) mindfulness (Germer & Neff, 2013; Kornfield, 2009). A person practices loving-kindness meditation in order to share similar human experiences to alleviate the isolation of pain and loneliness. Loving-kindness involves recognizing painful thoughts and emotions instead of avoiding or suppressing

them (Kornfield, 2009). Loving-kindness and self-compassion are strongly associated with happiness, optimism, wisdom, and emotional intelligence (Germer & Neff, 2013).

Definition of Mindfulness Meditation

Davis and Hayes (2011) suggested that there have been many new definitions of mindfulness put forth within the past decade; however, Kabat-Zinn's definition is the most well known in psychotherapy as it relates to empirical research. According to Kabat-Zinn (1990), mindfulness is a particular way of purposefully paying attention, in the present moment, nonjudgmentally. The term "*mindfulness*" has been used to refer to the practice of achieving a psychological state of awareness, an experience of psychological freedom from personal thoughts, feelings, and physical sensations (Davis & Hayes, 2011; Wayment et al., 2011). Harrington and Pickles (2009) described four aspects of mindfulness: (a) naturally in a mindful state, (b) human capacity for attention, (c) present-moment experience, and (d) essential characteristics of mindful attention. These characteristics include openness, acceptance, non-reactivity, non-judging, and enjoyment in the here and now.

Origin of Mindfulness Meditation

Austin (1999) stated that the terms "mindfulness" and "insight meditation" have appeared in many early Buddhist texts; however, many contemporary Westerners freely use these terms, especially in counseling and psychotherapy. The word "mindfulness" is derived from "sati" from the Pali language, and means full awareness moment-by-moment (Bodhi, 2000; Bowen & Kurz, 2012; Chiesa & Malinowski, 2011). A mindfulness practitioner is described as "being" rather than "doing" (Kabat-Zinn, 1990).

Two commonly known forms of mindfulness meditation are: (a) formal practice involving sitting meditation several sessions a day or week, and (a) informal practice, which incorporates routine activities, such as eating, walking, washing the dishes or taking a shower in a state of mindfulness (Austin, 1999; Barnett et al., 2014). Davis and Hayes (2011) suggested that Buddhist mindfulness practices have been incorporated into mainstream Western psychotherapies. In fact, one survey indicated that approximately 10% of Americans used mindfulness meditation in 2007, and that meditation could be practiced across cultures and religious traditions, including Christianity, Hinduism, and Buddhism (Barnett et al., 2014).

Benefits and Limitations of Meditation

The use of all forms of meditation among Western physicians and psychotherapists for treatment of physical and mental conditions has evolved from its original religious or spiritual meaning and purpose in the East. However, it must be stressed that the affiliated benefits of mindfulness practice are the same: to reduce or eliminate suffering for the mind and body, whether the practitioner is meditating for religious purposes or for mental health and medical purposes. For example, Shonin, Gordon, and Griffiths (2014) concluded that mindfulness awareness training improves physical and psychological well-being, drawing these results from their interpretative phenomenological analysis. Numerous benefits of meditation have been determined through empirical research over decades, yet it may have limitations or disadvantages. The benefits and limitations of are discussed in the next section.

Benefits of Meditation. The benefits of meditation can be grouped into three major categories: (a) mental, (b) physical, and (c) neurological.

Mental Benefits. The National Institute of Mental Health [NIMH] (2015) has classified anxiety disorders, depression, schizophrenia, attention deficit hyperactivity disorder, bipolar disorder (manic-depressive illness) and many other disorders as mental illnesses. Along with pharmacotherapy and psychotherapy, meditation has been used successfully to treat these mental illnesses. As reported by NIMH (2015), in numerous empirical studies, the practice of mindfulness meditation reduced negative moods associated with some of these mental illnesses. More specifically, mindfulness meditation techniques are powerful tools for helping persons with generalized anxiety disorder, panic disorder, social anxiety disorder (SAD), post-traumatic stress disorder, and depression in both clinical and non-clinical populations (Owens, Walter, Chard, & Davis, 2012; Piet, Hougaard, Hecksher, & Rosenberg, 2010). For example, for patients diagnosed with SAD, the aim of mindfulness is to train them to transform cognitive distortions in social situations into more adaptive and acceptable cognitions. When SAD patients are able to control their anxiety through the practice of MBSR, the physiological symptoms associated with their disorder abate (Hayes, Follette, & Linnehan, 2004). In studying the efficacy of MBSR on SAD patients, Herbert and Cardaciotto (2005) placed more emphasis on the second component of mindfulness: acceptance. Acceptance, generally speaking, demonstrates a person's willingness to be flexible and open to present-moment experiences without evaluation or critique with regard to truth or value. Mastering acceptance through mindfulness allows the practitioner to allow experiences

without trying to change, avoid, or escape them (Herbert & Cardaciotto, 2005). Also, the increase in the present-moment awareness reduces the stress, fear, anxiety, and dysphoric states of mind often associated with negative past experiences that often interfere with a person's ability to focus on present reality (Black, 2014; Bowen et al., 2011; Chiesa & Malinowski, 2011).

In their meta-analysis of meditation practices, Orme-Johnson and Barnes (2013) found that individuals with high anxiety levels benefitted from the practice of Transcendental Meditation (TM), and Schmertz, Masuda, and Anderson (2012) showed that mindfulness interventions provided favorable outcomes in the treatment of chronic pain, stress, anxiety, and depression relapse. Yunesian et al. (2008) showed that following a 12-week course of TM, young adults had a significant reduction in symptoms of anxiety and somatization with less change in symptoms of depression and social dysfunction.

Bogels, Sijbers, and Voncken (2006), in their pilot study of mindfulness and task concentration training, showed that this treatment was highly effective for many patients with social phobia. The study consisted of eight sessions: (a) automatic pilot, (b) dealing with barriers, (c) mindfulness of breath, (d) staying present, (e) allowing or letting it be, (f) task-focused attention, (g) flexibility of attention, and (h) task-focused attention. Individual sessions had specific objectives and tasks for patients. Sitting meditation with mindfulness breathing was used, and patients learned to recognize and be fully aware of their emotions, thoughts, sensations, and physical tension while experiencing pleasant, unpleasant, or stressful social events or environments (Bogels, Sijbers, & Voncken).

Shennan, Payne, and Fenlon (2011) reviewed the literature on the effects of MBSR and cancer. They found that MBSR helps to reduce the psychological anguish or distress of individuals diagnosed with cancer. Stress associated with initial diagnosis as well as relapse can contribute to anxiety and depression for many cancer patients. In many cases, the psychological effects of cancer outweigh the physical effects. MBSR has been used successfully with these patients to improve their mental health during cancer treatments. MBSR also was found to improve the patients' sleep and to reduce fatigue as well as to enhance overall well-being and coping abilities.

For example, women with breast cancer reported multiple difficulties, including chronic physical symptoms, ruminations, depressive symptoms, and worries about the future (Thornton et al., 2014). Approximately 40% to 50% of lung cancer patients are faced with high levels of distress (Hurk, Schellekens, Modema, Speckens, & Drifs, 2015). In the last decade, mindfulness approaches have been implemented successfully as psychosocial interventions for women with breast cancer (Hurk et al., 2015) and for lung cancer patients (Corwin, Wall, & Koopman, 2012). Individuals with cancer, who practice and incorporate mindfulness regularly into their daily activities, may reduce anxiety and depressive symptoms. Additionally, mindfulness training encourages patients to accept their diseases as well as to come to terms with impending death (Hurk et al., 2015; Thornton et al., 2014)

Physical Benefits. Ussher et al. (2014) found that individuals with chronic pain who joined the 8-week MBSR program reported that mindfulness meditation was effective for managing their symptoms. The MBSR program enhances participants'

mindfulness abilities, thus reducing their reactive responses to physical pain. Pain levels remain the same, but the level of pain tolerance is increased. Patients with chronic pain also face functional impairment and emotional disturbance. Mindfulness meditation helps these individuals to maintain awareness without reaction or maladaptive responses (Davis, Zautra, Wolf, Tennen, & Yeung, 2015).

Pidgeon, Lacota, and Chaption (2013) demonstrated that emotional eating associated with anxiety, depression, and psychological stress is considered a main risk factor for obesity. Being overweight has been associated with numerous risks for the development of cardiovascular disease, hypertension, diabetes, and cancer. Recently, nutrition researchers have implemented mindfulness techniques to manage unhealthy eating behavior among clients. Increased mindfulness behaviors are linked to lower levels of stress and depression that may cause unhealthy eating behaviors. Mindfulness may reduce automatic and impulsive responses to food consumption (Mantzios & Giannou, 2014). Additionally, Mantzios and Giannou (2014) found mindfulness meditation had a positive effect on weight management, particularly for those practicing group meditation as opposed to individual meditation.

Other physical benefits of mindfulness meditation include reduction in symptoms of neck pain, arthritis, headaches, asthma, angina, fatigue, and sleep disturbance. For example, the practice of CM over a long period of time strengthened practitioners' levels of calmness, relaxation, and equanimity, hence reducing rapid heart rate, blood pressure, muscle tense, and respiratory rate (Rosenzweig et al., 2010; Shennan et al., 2011; Smith et al., 2011). Literature reviews in Pryor's (2011) dissertation revealed that the MBSR

technique has also been used to treat heart disease, cancer, skin conditions, and fibromyalgia. In addition, MBSR showed positive effects on sexual practices, including desire, arousal, orgasm, and satisfaction (Shennan et al., 2011).

Neurological Benefits. Mindfulness meditation has been shown to have positive effects on brain and immune function. Davidson et al. (2003) reported a positive increase in the left-sided anterior activation of the brain on those who participated in the 8-week clinical training program in mindfulness meditation. Their results are supported by Murakami et al. (2015), who found that mindfulness practice enhances an individual's ability to cope with negative emotions, thus transforming these states into positive ones and increasing in size the anterior cortical area where positive emotions occur.

Several neuroimaging studies of the brains of mindfulness practitioners demonstrated greater activation in the medial prefrontal cortex (MPFC) and lower activation in the amygdala (AMG), which responds to emotional stimuli (Davidson & Kaszniak, 2015; Tang & Posner, 2013). According to Tang and Posner (2013), there are four important components strongly associated with mindfulness meditation: (a) attention regulation, (b) body awareness, (c) emotion regulation (reappraisal, exposure, extinction, and awareness), and (d) change in self-perspective. Neuroplasticity and brain responses are found in mindfulness meditation practitioners, even if they practice for a short period of time. Varying levels of neurological change among practitioners are due to a variety of factors, such as personality, genetics, and different trainings (Davidson & Kaszniak, 2015; Tang & Posner, 2013). Davidson and Kaszniak (2015) suggested that mindfulness practitioners do not dwell and “get lost” in their personal experiences; instead, they learn

to enter a state of mind that is alert, aware, and calm. Thus, they become more aware of their environments even in chaotic situations.

Limitations of Meditation. As stated, meditation has many benefits that can be scientifically demonstrated; however, the practice is not without limitations. Some meditators may become confused among the concepts of mindfulness, meditation, relaxation, or cognitive therapy. It is difficult to draw a line between not attaching to feelings or emotions and connecting to the present moment, especially when a person is dealing with negative thoughts and sensations. For example, anxious individuals may have a difficult time meditating and staying focused. In some cases, anxiety levels increase or intensify during meditation because their thoughts or feelings are based on fear and worry. If meditators are unable to let go of this fear or discomfort, they will find it difficult to focus on the present moment (Kabat-Zinn, 1990). Therefore, repeating or chanting a “mantra” and attending to the breath may be the best options for anxious individuals, particularly early on as they begin to regulate their anxiety (Hooker & Fodor, 2008). A word of caution from Baer (2009) is that meditators should be aware when meditating with a person with psychosis; their unstable emotional states can be overwhelming, especially if they are grieving a loss (Wisner, Jones, & Gwin, 2010).

Another issue up for debate concerns the qualifications of meditation instructors themselves. What constitutes a qualified meditation instructor was addressed by Kostanski and Hassed (2008). Meditation instructors’ personal biases toward mindfulness meditation could produce varying effects, influencing practitioners’ expectations and self-reporting. Unclear instructions given during the time of meditation can frustrate the

participants, particularly when they do not see the value of it in terms of how meditation can be helpful. There is a need to examine the cause-and-effect relationships between and within meditation models, mindfulness instructors, and mindfulness meditation practices (Davis & Hayes, 2011; Ireland, 2012). The next section of this chapter specifically focuses on some theories supporting how mindfulness meditation works.

Theories Supporting How Mindfulness Meditation Works

It is important to note that the practice of mindfulness should not be restricted to meditation only (especially sitting), although it is a good way to bring attention to the here and now (present moment). As practitioners become more seasoned, mindfulness can be practiced through walking, lying down, eating, or even running. In essence, the emphasis is placed on a person's ability to be fully aware of what he or she is doing and thinking moment to moment (Kabat-Zinn, 1990). For example, a person eating mindfully can taste the food using all five basic senses.

As previously discussed, empirical evidence supports the use of mindfulness meditation for producing positive mental, physical and neurological effects. However, it is important to understand how the mechanisms of mindfulness really work to create positive changes. In other words, more detailed definition of mindfulness is needed (Shapiro & Carlson, 2015). A more comprehensive definition extends beyond the commonly cited definitions of mindfulness as present-moment awareness and nonjudgmental acceptance.

In an attempt to start a dialogue addressing the need for a more specific definition, Shapiro et al. (2006) theorized that the state of mindfulness is achieved through the

cultivation or practice of the three components occurring simultaneously: intention, attention, and attitude (IAA). The essence of this proposed theory is that when meditating mindfulness practitioners intentionally attend to their thoughts, feelings, and sensations with openness and non-judgment, this leads to a shift in perspective or *reperceiving* as defined by Shapiro et al. (2006). Reperceiving is driven by self-regulation: values clarification, self-exposure, and self-liberation; and accelerates with practice.

Intention, the first component of mindfulness, refers to the personal goal or vision that a mindfulness practitioner would like to achieve through meditation. This intention is dynamic and progressive over time; thus, it may begin with an intention for self-regulation but ultimately can end with self-liberation, with self-exploration in-between. An example of self-regulation as a goal is when a meditator uses mindfulness in an attempt to manage stress levels during a public speech. The vision or intention of self-liberation should be free from suffering while cultivating more compassion. Essentially, the intention tells the “why” a person is practicing, something which commonly-cited definitions of mindfulness do not address.

In order to achieve the intention, a meditator must be attentive, which is the second component of mindfulness. Paying attention within the context of mindfulness refers to observing an object or experience as it arises in the present moment without interpreting what that object is or does. Thus, personal thoughts and feelings toward an object or experience should be suspended. Simply put, a meditator observes the object or experience “as is” without allowing thoughts or emotions to emerge and become part of that experience.

Attention is important in the field of psychology, particularly in Cognitive-behavioral therapy (CBT) because it demonstrates a person's capacity to attend to internal and external behaviors. In fact, there are three specific aspects of attention addressed in cognitive psychology: (a) sustained attention, (b) switching attention, and (c) cognitive inhibition. Sustained attention is the ability to attend to one object for a period of time, and switching attention is the process of moving thoughts from one object to another. Cognitive inhibition involves inhibiting processing and the elaboration of thoughts, sensations, and emotions. With the intention of self-regulation, a meditator can improve these three attentional abilities (Bowen et al., 2011; Kornfield, 2009).

Shapiro et al. (2006) described attitude as the "openhearted qualities" of attention given to phenomena as they arise, whether positive or negative, thus allowing the meditator to accept them the way they are and to let go even if the experiences are pleasant or undesirable. As such, practitioners embrace both positive and negative emotions, knowing they are not reality and will pass eventually. Acceptance, then, is about non-judgment of feelings, emotional states, and physical sensations, regardless of whether those mental and physical states are pleasant or unpleasant. Unfortunately, Shapiro et al. did not transform their theory into testable hypotheses for empirical study.

Mindfulness Meditation and Substance Dependency

Mindfulness meditation (MM) is considered to be a new treatment method for substance use disorders. MM provides an environment of tolerance and flexibility for treatment and goal-setting, regardless of religious beliefs and cultures (Bowen et al., 2006). The psychological and emotional issues found among substance-dependent

individuals can be addressed through mindfulness meditation (Bayles, 2014). Through self-regulation as the “intention,” mindfulness practitioners are able to separate urges, desires, or yearnings for pleasure Kabat-Zinn (2005). As such, individuals with a substance dependence who practice mindfulness meditation increase their ability to regulate their automatic thoughts and to bring awareness to triggers and cravings, thus reducing potential risks of drug use and relapse (Black, 2014; Bowen, Chawla, & Marlatt, 2011; Hayes & Levin, 2012; Williams & Kraft, 2012). Mindfulness also provides the ability to respond in healthy ways “in the moment” to drug cues or stimuli, thus enhancing individuals’ “willpower” and ability to stop the impulsive behavior (Shapiro & Carlson, 2015).

Luoma et al. (2011) developed the Mindful Attention Awareness Scale (MAAS). In their study, comprised of 352 participants receiving inpatient and outpatient treatment for substance use both inpatient and outpatient, they found that psychological flexibility is highly associated with the ability to be in contact with the present moment (Luoma et al., 2011). Psychological flexibility was measured using the Acceptance and Action Questionnaire (AAQ), a 49 items instrument specifically developed for evaluating thoughts, urges, and cravings related to substance dependence.

Dakwar, Mariani, and Levin (2011) recruited participants with substance behavior through television and radio stations to investigate the mindfulness impairment related to substance dependence and evaluate the differences between poly-drug and non-drug users using the Mindful Attention Awareness Scale (MAAS). The results revealed that mindfulness level is low in substance-dependent individuals, particularly in those

individuals who are multiple drug users. This was evidenced by the lower scores on the MAAS for the multiple drug users in comparison with those individuals who were mono-drug users. Another study of Bowen and Kurz (2011) focused on understanding the levels of mindfulness of the substance-dependent individuals between sessions of mindfulness practices as well as the end of the mindfulness-based relapse prevention. The results showed that the levels of mindfulness are higher immediately after the course. However, the long-term sustainability of mindfulness cannot be determined based on the findings of this study; this is due to the nature of the quasi-experimental research. According to Temme, Fenster, and Ream (2012), mindfulness meditation minimizes the warning signs relating to the potential risk of relapse in the substance-dependent population. The results also indicated that mindfulness meditation increased mindfulness traits and decreased negative mood states. The results of this research are supported by a qualitative study conducted by Shonin et al. (2014). In this qualitative research, the participants described their mood states as joy, calm, and equanimity after practicing mindfulness meditation.

Review of Literature Related to Research Methodology

Within the most recent three decades, there have been many empirical studies focused on mindfulness meditation as a treatment for various psychological problems, such as depression, anxiety, and phobia. Mindfulness meditation also has been used to treat substance use disorders. This section examines the approaches and methodologies used in existing quantitative and qualitative studies related to mindfulness meditation and substance use disorders.

The literature review indicated that there are many quantitative studies on mindfulness meditation and substance abuse and dependence. However, there appears to be no qualitative literature on substance abuse or dependence and mindfulness meditation. Thus, the following quantitative studies section discusses the quantitative literature for both mindfulness meditation and substance abuse and dependence. The qualitative studies section, on the other hand, only addresses qualitative literature on meditation generally.

Quantitative Studies

Quantitative research uses numerical data collected to explain phenomena. The objective of quantitative research is to explore relationships between dependent and independent variables within a population or phenomenon (Bordens & Abbott, 2002). Many of the quantitative studies found on mindfulness meditation and substance use are correlational in nature.

Dakwar et al. (2011) conducted a correlational study to investigate the effectiveness of mindfulness training by using the mindfulness attention awareness scale (MAAS) in poly-drug and mono-drug users. The MAAS contains 15 short questionnaires using the Likert scale from 1 (almost always) to 6 (almost never). An example of one of the questions is “I find myself doing things without paying attention” (Dakwar et al. p. 523, 2011). There were 315 participants from New York City metropolitan area recruited by television, subway, and radio advertisement. The self-report survey was employed for this study; T-tests were used to measure the statistical differences in MAAS between poly-drug users and mono-drug users. The results indicated that individuals who were

multiple drug users had lower scores on the MAAS than individuals who were mono-drug users. Independent variables related to the participants, such as meditation experience, occupation, or marital status, were not noted in this study. These variables may influence the MAAS in different drug users.

The rate of relapse is very high; hence, a secondary analysis and correlational study was designed by Bowen and Kurz (2011) to understand factors contributing to the levels of client mindfulness after receiving the mindfulness-based relapse prevention. This quasi-experimental study analyzed a selected sample of 93 clients in the outpatient treatment programs for substance dependence. Researchers assessed the changes in mindfulness after providing intervention, between sessions of mindfulness practices, and the effects on the level of mindfulness between client and therapeutic alliance at post-course, 2-month, and 4-month intervals. The therapeutic alliance was measured by the working alliance inventory (WAI), which contained a 12-item self-report, and mindfulness was assessed using a Five Facet Mindfulness Questionnaire (FFMQ), which consisted of 39 items on a 5-point Likert scale. The purpose of this quasi-experimental study was to demonstrate causality between intervention and mindfulness. The researchers were able to determine that engagement (intervention) between session practices is associated with levels of mindfulness immediately after the course. They were not able to establish the long-term sustainability of mindfulness from the findings of this research due to the nature of quasi-experiments being non-randomized; no independent variables were used (Bowen & Kurz, 2011).

In another study, Temme et al. (2012) investigated the effect of intervention through mindfulness training on the potential risk of relapse. The researchers employed both the experimental (random assignment) method and the quasi-experimental (self-select) method to validate whether mindfulness meditation minimizes warning signs that relate to the potential risk of relapse in the substance dependence population. Sixty participants were randomly categorized into two groups: (a) mindfulness meditation or (b) the treatment-as-usual group. All participants were recruited from a residential treatment center in Brooklyn, New York. FFMQ was used for measurement in this study; the five major meditation components measured were observing, describing, mindful responding, accepting without judgment, and being aware of the inner experience of mindfulness. Other factors, such as age, gender, race, religion, and the number of the trial (first, second, or third), were controlled for analysis. The results indicated that mindfulness meditation increased mindfulness traits, decreased negative mood states, and decreased warning signs of relapse. In contrast to a quasi-experimental method, the experimental research method allows researchers to control the independent variables that may affect the results of the study. As such, the researchers attempt to predict the effect of the outcome when controlling the independent variables.

The quantitative research studies reviewed in this section had sample sizes ranging from 60 to 315 participants. The large sample size is one of the benefits of quantitative research, thus allowing the researchers to analyze a large amount of data. For general trends, the quantitative meta-analyses of smaller studies are more applicable. With these studies, the researchers can generalize the conclusions more broadly from

existing data, and one such meta-analysis was conducted by Ledesma and Kumano (2009). The purpose of this meta-analysis, consisting of 10 randomized-controlled and observational studies, was to explore the effects of MBSR on the mental and physical wellbeing of cancer patients. Based on the results, the researchers were able to draw a general conclusion that the MBSR is beneficial to the mental health of cancer patients (Cohen's effect size $d = 0.48$). Ledesma and Kumano (2009) also stated that further research is needed to draw a conclusion on the effects of MBSR on physical health (Cohen's effect size $d = 0.18$).

Essentially, quantitative studies provide descriptive or relative directional indications about the effectiveness on subjects studied; however, the designs of the quantitative studies do not offer rich narrative data, which is a distinctive feature that differentiates them from the qualitative studies (Creswell, 2013). Based on Creswell's view (2013), many existing quantitative studies conducted on mindfulness meditation and substance use disorders are effective, such as relapse rate reduction or a decrease in negative mood states; however, these studies do not provide an understanding of the meaning-making or patterns of relationships of mindfulness meditation on substance-dependent behavior. On the other hand, qualitative studies examine and discover the underlying meanings between human interactions or patterns of relationships between people and phenomena or entities (Creswell, 2013).

As mentioned in the conceptual framework section of this chapter, according to the constructivist theory, human beings create systems of understanding, meanings, or realities through their experiences that are influenced by their culture, language, and

interactions with other people. Prior knowledge and experiences can influence or shape the current constructions of beliefs, emotions, and interpretations (Patton, 2002).

Therefore, the idea that people with substance dependence may feel or react differently toward their behaviors is in alignment with the constructivist theory. In addition, feelings, reactions, and behaviors after practicing mindfulness meditation may also be different among the substance-dependent individuals. Hence, the qualitative research approach is appropriate for investigating the mindfulness meditation experiences of substance dependence. The understanding of these experiences could be useful in providing treatment for substance use disorders including prevention of relapse (Black, 2014; Bowen, Chawla, & Marlatt, 2011; Hayes & Levin, 2012; Williams & Kraft, 2012).

Qualitative Studies

As stated previously, qualitative studies provide rich narrative data of individual situations. According to Creswell (2013), the objective of the qualitative research approach is to understand the non-measurable details and complexity of situations through exploring personal experiences, understandings, perceptions, and opinions of those involved in the situations. It attempts to make sense of realities or phenomena through interpretations of the meanings people bring to them. Phenomenology is commonly used in qualitative studies reviewed in this section. With phenomenological studies, the knowledge gained is on "how" an individual experiences an object or event from the first-person point of view. This is not a passive experience in which the experience felt is based on observations or sensory perception; rather, it is based on thoughts, emotions, desire, imagination, and lived-through action or performance (Patton,

2002). More detailed description of the phenomenological study will be discussed in Chapter 3, Research Methods.

A qualitative study was designed by Shonin et al. (2014) to understand the participants' experience when receiving meditation awareness training (MAT). Seven females and three males were recruited into this study, and most of the participants enrolled in this study with a purpose to learn more about the practice of mindfulness meditation. The study used the interpretative phenomenological approach, thereby allowing the researchers to interpret the meanings of the descriptions or narratives of experiences from individual participants (Kirkham, Smith, & Havsteen-Franklin, 2015; Moustakas, 1994). With phenomenological studies, the "what" of the individuals' lived experiences is not only learned but also the "how" behind the meanings of the lived experiences, including the conditions of living, situations, or social context (Creswell, 2013). The structured interview used six open-ended questions that were based on four themes, including development of awareness, importance of support practices, increased sense of acceptance, and interactions with others. The use of the interview technique coupled with open-ended questions allowed the researchers to elicit the narratives and experiences directly from the participants and follow up with probing questions to reveal more details on complex information (Guion, Diehl, & McDonald, 2013; Lau et al., 2006). Participants reported that they experienced increased levels of contentment, more spiritual awareness, increased self-acceptance, more emotional focus, and a more positive attitude. This interpretative phenomenological analysis that was based on the participant

experiences suggested that mindfulness awareness training could improve physical and psychological well-being (Shonin et al., 2014).

Mindfulness is considered as a tool for life, as self-help, or as a method to decrease anxiety due to uncertainty. Moss, Waugh, and Barnes (2008) conducted a study not only to investigate how mindfulness training is effective in term of intervention, but also as a more holistic aim to explore participants' experiences of mindfulness practices and perceptions. In trying to explore the experiences of the participants, this study utilized the phenomenological approach, allowing the participants to share their personal experiences and perceptions in narrative descriptions related to mindfulness practices. There were 14 individuals who participated in this 20-week course of studying and practicing mindfulness; however, only eight participants attended regularly until the end of the course. These individuals had many psychological problems, such as obsessive behaviors, intrusive thoughts, suicidal thoughts, low or depressed moods, anxiety, and relationship difficulties. Group experience, description of mindfulness, and impact of mindfulness practice were three main categories of this study. The researchers collected the data using the focus group technique, an interactive group setting where all participants describe and share their experiences, perceptions, opinions, and attitude with each other. The results indicated that participants developed a feeling of safety and productive energy in the group meditation space; however, some participants expressed uncertainty and paradox of mindfulness practice (Moss et al., 2008).

As aforementioned, there are many quantitative studies on mindfulness meditation and substance use disorders. Based on the literature review, there appears to be no

qualitative studies on mindfulness meditation and substance use disorders. Existing qualitative studies on mindfulness seem to be more focused on understanding and learning mindfulness meditation as well as the meanings of meditation. As such, there is a need to understand the substance-dependent individuals' experiences of cravings, emotional states, feelings, perceptions, and social actions about their addictions following a mindfulness meditation intervention. The understanding of the substance dependent individuals' experiences related to mindfulness meditation could be useful in providing treatment including prevention of relapse. Hence, a qualitative method along with constructivism as a conceptual framework is the most appropriate approach for this study.

Summary

This chapter focused on a review of existing literature related to mindfulness meditation and substance use disorders. It was organized into five major sections beginning with a description of the literature search strategy, following the descriptions of the conceptual framework for the study. Overviews of substance dependence and mindfulness meditation were provided. Finally, this chapter ended with a discussion of research methodologies and a gap in current empirical research studies related to the research topic.

Substance use disorder is a global health issue. In the United States, approximately 7% of the population is involved in some form of substance abuse or dependence annually (Vernig, 2011), and 60% of these individuals are at risk for relapse (Zgierska et al., 2009). This health issue translates to a societal loss of about \$484 billion per year. Although many treatments for substance use disorders are in place, including

therapeutic and cognitive behavioral therapies, other techniques may improve the treatment and foster prevention for susceptible individuals or groups (Hendershot et al., 2011). Mindfulness training may be one possible option.

Meditation has gained popularity among psychologists and psychotherapists for treatments in clinical settings, particularly in mindfulness meditation. The core teaching of mindfulness is on awareness of the present moment, also known as “here and now,” and non-judgmental acceptance (Kabat-Zinn, 1990). Empirical evidence supports that mindfulness meditation produces positive mental, physical, and neurological effects; however, meditation, in general, does have some limitations, such as personal bias and expectations from the meditation instructors and ability to stay connected to the present moments when a person is highly anxious. Nonetheless, there exist no empirical studies to understand how the mechanisms of mindfulness work to create positive changes. Shapiro et al. (2006) theorized that the mechanisms of mindfulness are based on three mindfulness components: intention, attention, and attitude (IAA). While the IAA is impressively pervasive, Shapiro et al. (2006) did not turn these hypotheses into an empirical study.

This research study expands on the current empirical research studies, specifically focusing on the practice of mindfulness meditation by substance-dependent individuals by looking at the substance users’ experiences of cravings, emotional states or feelings, and behavioral actions in relation to their addictions following a mindfulness meditation intervention, which has not been studied from a constructivist perspective. Constructivism was chosen as the conceptual framework for this proposed study because

it takes on a view that the construction of understanding or knowledge of objects or events by human beings is based on their experiences, beliefs, emotions, and interpretations. These factors are influenced by their culture, language, and the interaction they have with other people. Prior knowledge and experience also play a significant role in how they construct their views or realities (Moustakas, 1994; Patton, 2002). The following Chapter 3 discusses the research method for this study, including the research design, methodological approach, issues of trustworthiness and ethical concerns.

Chapter 3 is organized with a discussion of the proposed research design, the justification for the design features, the role of the researcher, the methodology, and the issues of trustworthiness between the researchers and subjects. An overall summary of the chapter is provided at the end. In essence, it provides the methodology used to explore the mindfulness meditation and substance use phenomenon. The research design section of Chapter 3 discusses the five different qualitative approaches as described by Creswell (2013): (a) narrative, (b) phenomenology, (c) case study, (d) grounded theory, and (e) ethnography. The rationale for the chosen qualitative approach, phenomenology, is also explained. A detailed discussion of the participants, including recruitment criteria and steps taken to protect the participants, is described. The background and role of the researcher is also addressed. Finally, the procedures used for data collection and data analysis as well as issues of trustworthiness between the researchers and subjects are included.

Chapter 3: Research Methods

Introduction

This qualitative study was based on the transcendental, phenomenological approach (Moustakas, 1994), which was used to explore the personal accounts or lived experiences of substance-dependent individuals in relation to mindfulness meditation, including their experiences of cravings, feelings, emotions, and behavioral actions related to their dependence. Existing qualitative studies of mindfulness meditation tend to focus on subjects' learning and understanding of the meanings of meditation. No qualitative studies have been conducted on the personal constructed accounts or experiences of the substance-dependent individuals in relation to mindfulness meditation and substance dependence. This gap identified in Chapter 2, therefore, served as the foundational purpose for this research study.

This chapter provides an in-depth discussion of the research design, the justification for the design features, the role of the researcher, the methodology, and the issues of trustworthiness between the researchers and subjects. An overall summary of the chapter is provided at the end.

Research Design and Rationale

Research Questions

The following research questions guided the foundational development of this research study and led to a deeper understanding of the experiences described by substance-dependent individuals in relation to mindfulness meditation.

RQ1. How do substance-dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ2. How do substance-dependent individuals experience emotional states or feelings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ3. How do substance-dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

RQ4. How do substance-dependent individuals experience the mindfulness technique and how do they themselves explain its effect, if any, on their cravings, emotional states or feelings, and actions toward substances to which they are dependent?

Research Design

Quantitative researchers investigate the relationship between dependent and independent variables through deductive reasoning (Bordens & Abbott, 2002). In contrast, qualitative research methods are employed for purposes of inquiry and to develop a deeper understanding of given phenomena from the experiential perspectives of individuals or groups based upon the data that have been collected through inductive reasoning (Creswell, 2013; Davidsen, 2013). Qualitative research provides depth and breadth to understanding of human life, as subjects construct their meanings from their own experiences. The purpose of this study was to explore these personal meanings

derived from lived experiences of substance-dependent individuals following their practice of mindfulness meditation; thus, the research questions in this study were best explored using qualitative methodology. Participant observation, in-depth interviews, and focus groups are common techniques used to gather data in qualitative research (Creswell, 2013; Sloan & Bowe, 2014). In this study, I employed the semistructured interview process and used open-ended questions to understand the complexity of thoughts, feelings, sensations, and actions of subjects. The semistructured interview process was conducted in a conversational style using predesigned questions; the use of open-ended questions allowed subjects to describe their experiences freely in their own words. This interview process is an appropriate method for capturing the essence of human experiences (Creswell, 2013; Davidsen, 2013). Subjects were able to articulate their thoughts, feelings, and experiences in the moment, with all the nuances of tone, vocabulary, and emotion unique to each individual. Designing a qualitative study required that the researcher decide upon a methodological approach.

According to Creswell (2013), there are five commonly used qualitative methods approaches: narrative, phenomenology, case study, grounded theory, and ethnography. Each has its own distinctive features and encompasses many aspects. Consequently, the suitability of each approach depends upon the purpose of the research study. The narrative approach focuses the “experiences as expressed in lived and told stories” (Creswell, 2013, p.70) of one or several individuals. A feature of the narrative approach is that individual stories are organized chronologically by researchers, an order which may not have incurred as described by subjects. In addition, stories are collaboratively

constructed between the subject and the researcher (Creswell, 2007; Davidsen, 2013).

Phenomenologists, on the other hand, focus on common meanings among different individuals' experiences or phenomena. Through this method, the researcher collects the "what" and "how" of individuals' lived experiences, all of whom have had similar occurrences. The fundamental focus of the grounded theory is on the development of a theory based upon a "process, an action, or an interaction shaped by the views of a large number of participants" (Creswell, 2013, p. 83). The grounded theory is used to examine individuals who share the same process, action, or interaction. This approach is also seen in ethnographic research; however, in this approach, the researcher also studies the shared patterns of a cultural group's activities, including behavior, beliefs, language, and group interaction through participant observation by the researcher, who is actively involved in the subjects' daily lives. Although the ethnographic approach allows the researcher to understand the meaning of behavior, beliefs, language, or interaction among people of the same culture, this method cannot be used to develop an in-depth examination or understanding of multiple data sources regarding an individual subject for illustrative purposes. The key element of a case study is that it is a bounded system, often in common time and physical place with the subject (Creswell, 2013; Davidsen, 2013; Sloan & Bove, 2014).

Each of these methodological approaches has its benefits and limitations, and I chose phenomenological method. Based on the purpose of each qualitative approach discussed above, narrative, grounded theory, ethnography, and case study were not suitable for this study, in which I sought to explore and describe the experiences of

subjects (substance-dependent individuals) involved with a common phenomenon or experience (mindfulness meditation). Hence, phenomenology was chosen as the most appropriate approach because a phenomenological scholar focuses on the meaning of people's experiences in relation to a phenomenon (Creswell, 2013; Davidsen, 2013). The narrative approach was deemed inappropriate because it focuses on the experience of a single individual or a small group of people through a collaborative effort from the researcher, which was not the interest of this study. I did not aim at generating a new theory of group interactions; thus, the grounded theory was also not appropriate. Ethnographers explore the patterns of process, action, or interaction within a cultural group (Creswell, 2013), which was not within the scope of this study so ethnography also was not appropriate. Finally, because the subjects (substance dependent individuals) in this study did not share a common boundary in time or space, a case study design was an inappropriate choice.

Rationale

The essence of phenomenological research is the search for meaning in human experiences as individuals identify it. According to Krieger (2011) and Patton (2002), the aim of phenomenological research is to allow the subjects to describe their perceptions or personal accounts of their world through direct and lived experiences; thus, their perceptions are retrospective. This approach targets the realities of a phenomenon from the perspectives of different people with varying perceptions and lived experiences (Moustakas, 1994). For this study, the use of a phenomenological research approach was used to explore the various meanings of experiences among several participants

(substance dependents) about a phenomenon—a mindfulness meditation intervention.

Phenomenological research goes beyond the description, themes, or concepts of a subject or phenomenon; it also includes the “interpretative process in which the researcher makes an interpretation of the meaning of the lived experiences” (Creswell, 2013, p.80). For this research study, I used Moustakas’s (1994) transcendental or psychological phenomenological approach, which focuses more on the description of the experiences of the participants as opposed to the researcher’s (i.e., my own) interpretation of their experiences. My preference was to have a fresh perspective toward the phenomenon being studied, thereby setting aside my own personal experiences related to this phenomenon.

I followed Moustakas’ (1994) guidance for phenomenological research, which consists of four processes: epoche, phenomenological reduction, imaginative variation, and synthesis. Epoche is a Greek word, and it means refraining or suspending judgment or prejudice. As such, a researcher does not take any position—for or against; personal judgment is suspended. The researcher, therefore, seeks the truths of the experiences as they are presented and shared through personal accounts of those involved in the phenomenon. In addition, the researcher needs to suspend all preconceived notions of how things ought to be (Moustakas, 1994). With the phenomenological reduction process, the researcher also must set aside his or her assumptions regarding the participants’ experiences. The researcher needs to have a mindset that she or he does not have any knowledge or perceptions about the phenomenon being studied. The textural description created by the researcher from the statements gathered during the interviews

should have equal value initially. The textural description is then organized into common themes; irrelevant statements shared by the subjects are deleted (Moustakas, 1994).

Imaginative variation is a process of identifying the structural themes for the phenomenon, which is done after the phenomenological reduction process. The structural description is written by the researcher, which represents how the phenomenon (i.e., mindfulness meditation) was experienced by the all the participants (i.e., substance-dependent individuals) (Moustakas, 1994). Finally, the textural and structural descriptions are then combined as one, representing the essence of the phenomenon.

Role of the Researcher

The researcher in a qualitative study is the scientific instrument; hence, he or she is required to have the necessary skills, competency, and knowledge to appropriately conduct the study (Patton, 2002). Researchers employing qualitative methods are actively engaged with subjects in collecting and analyzing data (Creswell, 2013). I was the only researcher in this study; thus, I recruited, selected, interviewed, uploaded data to Nvivo (the qualitative data analysis software), and performed data analysis. Additionally, I hired a professional to transcribe the recorded interviews into written text, and a confidentiality agreement was signed (see Appendix A). To improve the validity of data in terms of trustworthiness and quality, I proposed having a colleague (on a voluntary basis) assist me with the data transcription and providing language support, as English is my second language. My colleague holds a PhD and state licensure in social work, has maintained a private psychotherapy practice for over 27 years, and is an experienced university professor in the department of sociology and anthropology at a large southern state

university. Additionally, this colleague has practiced Vipassana and mindfulness meditation for over 25 years and has taught mindfulness practices to clients for over 15 years. My colleague signed a confidentiality agreement before information collected from the participants was shared with her.

Qualitative research is more appropriate method for investigating personal experiences. Creswell (2013) and Moustakas (1994) asserted that the qualitative research method inspires the researcher's personal interests along with furthering professional field experience. Researchers should be aware of personal biases, especially because I am a qualitative research novice. The concept of "reflexivity" is a method to help qualitative researchers to be aware of conscious biases, values, and experiences that they may bring into their studies (Creswell, 2013; Davidsen, 2013). Two steps to minimize subjective bias are (a) the researcher may share his or her personal experiences related to the phenomenon being studied and (b) he or she may also find it necessary to discuss how personal past experiences might affect or shape the interpretation of the phenomenon being studied (Creswell, 2013). As such, I offer an overview of my background and experiences with mindfulness meditation.

I am a Vietnamese-American Zen practitioner, an American citizen since 2000. I immigrated to the United States in 1994 when I was 26-years-old. In 2006, I was invited to provide mindfulness meditation sessions to a private treatment center in a small town in Louisiana. From 2006 to 2009, I volunteered to provide weekly mindfulness meditation sessions to 15 clients at a private substance-dependent treatment center. Within a few years, many clients shared with me how mindfulness meditation helped

them to reduce symptoms of depression, anxiety disorders, and attention deficit hyperactivity disorder. I believe that mindfulness meditation, as a therapeutic technique, can help individuals reduce worries, anxiety, or depression that are associated with addictive behaviors. As a mindfulness meditator, I am fortunate to be able to practice self-reflection and to bring mindfulness into my daily activities; however, some days I also experience unmindful thoughts, behaviors, and actions. Although mindfulness meditation as a technique is available and can be readily practiced by anyone anywhere, I also know that it is difficult to become proficient in this practice. Personally, I believe that patience and compassion for oneself could help a person to master this technique.

I earned my master's degree in education with an emphasis on community counseling in 2007 from Southeastern Louisiana University. I also finished the 2-year program in PsyD (doctor of psychology) from Georgia School of Professional Psychology in Atlanta in 2002. Currently, I serve as the abbot monk of a Vietnamese Buddhist Temple in Baton Rouge, Louisiana. Additionally, I am a volunteer mindfulness meditation presenter for several professional associations as well as local universities and hospitals. Because of my background as a Zen Buddhist monk and experience in mindfulness meditation, I understand the concept of conflict of interest that may emerge in my study as a sole researcher. In order to eliminate or reduce personal biases or values, I instituted several different techniques, such as prolonged engagement and persistent observation, triangulation, reflexive journaling, and member checking (Creswell, 2013; Schensul & LeCompte, 1999) in this study. These techniques strengthened the quality of trustworthiness (Meltzoff, 1998). Detailed descriptions of these techniques were

discussed in the “Issues of Trustworthiness” section below. Moreover, to ensure that my personal and professional affiliations did not influence this study, there was no relationship established between any of the participants and myself prior to the interview process.

Methodology

Participant Selection

Sampling in a qualitative research study influences the study of the phenomenon. The participants in the sample must meet a predetermined set of characteristics and have direct experience related to the phenomenon being studied (Creswell, 2013; Moustakas, 1994). The sample of this study was drawn from the Tam Bao Meditation Center in Baton Rouge, Louisiana. The participants were required to meet the criteria I set in order to be qualified as research participants. The following criteria were enforced for this qualitative study: (a) ages 18 or older, (b) self-reported substance-dependent individuals who have not used substances within 6 months or formally diagnosed as ones by licensed health professionals and have been in treatment for at least 6 months, (c) have practiced mindfulness meditation at least 6 months up to 3 years, (d) were not in crisis or experiencing a substance use relapse, (e) participants were volunteers, (f) participants did not have any prior relationship with the research, and (g) participants were proficient in the English language. Creswell (2013) recommended a sample size of five to 25 participants for phenomenological studies, while Guest, Bunce, and Johnson (2006) stated that at least six participants are needed. I recruited and interviewed 12 participants until data saturation were reached (Moustakas, 1994). For those individuals meeting the

criteria described above, I shared the study design, stated their rights as a participant, answered any questions about the consent as a participant of this study, and then asked if they were interested in volunteering. All participants signed a consent form approved by Walden Institutional Review Board (IRB; see Appendix B). The recruitment of participants occurred once the approval was obtained from Walden IRB. I contacted the representative in charge of the meditation center to explain the purpose of the study first. The representative in charge signed the letter of cooperation from a community research partner (see Appendix C). After obtaining the approval from the representative in charge of the meditation center, I scheduled a time to present my study to the meditation group, seeking interested participants. A handout, along with the consent form (see Appendix B), was given to the group addressing the eligibility requirements as well as the communication channel with me (see Appendix G for a copy of the handout). Additionally, I posted an announcement (poster) at the meditation center with details about the study, including my contact information, seeking participants (see Appendix E for a copy of the poster).

Vulnerable Participants

Because Tam Bao Meditation Center is open to the public, it is possible that the participants may also experience psychological and emotional problems, such as depression, anxiety disorders, personality disorders, or post-traumatic symptom disorders. If during the interview the participants felt distress or discomfort, I was willing to stop the interview and reschedule it for another time. In fact, there were no participants who felt distress or discomfort. I provided a list of free and low cost counseling resources to

participants to use in case they became distressed as a result of participating in the study. In addition, the participants were required to provide agreement with the consent form (see Appendix B), which allowed them to not answer any questions and to withdraw from the study at any time. Prior to the beginning of the interview, I reconfirmed the verbal agreement with the participants. To further protect participant identity, I encouraged participants to use a fictitious name when contacting me.

Data Collection

This study focuses on the participants' self-reported experiences and self-assessments related to their substance cravings, emotional states or feelings, and behavioral actions with respect to mindfulness meditation. The data collection process was conducted in a private room at the meditation center via a semistructured, in-person interview technique of approximately 45 minutes; interviews were recorded via a tape recorder after the consent form was signed by each participant. The recorded interviews were transcribed by the professional transcriber as discussed in the Role of the Researcher section above. Although each interview was expected to last approximately 45 minutes, I set up the interview appointments for one and a half hours to accommodate the various lengths that different participants may have needed to articulate and convey their responses thoroughly. The interviews were conducted in a conversational style, using predesigned open-ended questions flowing from previous responses (Guion, Diehl, & McDonald, 2013). The open-ended questions were worded to allow participants flexibility and freedom to share their experiences and answer the questions in their own words (Guion et al., 2013; Lau et al., 2006). For example, participants were asked to

answer, “Please share with me, what has been your experience related to substance cravings when practicing mindfulness meditation and when not practicing?” and “How do you feel after each mindfulness meditation session?” (see Table 2 and Appendix F). Where necessary, I utilized probing questions and active listening skills in seeking clarity and understanding throughout the interview. An example of a probing question I would ask the participants is, “Can you give an example of a craving situation?” This approach provides consistency across the individual interviews (Moustakas, 1994). The interview questions, depicted in Table 2, were created based on my experience as a meditation instructor and the breakdown of the phenomena into simple categories of thoughts, feelings, and actions.

Demographic data collected at the beginning of the interview included age, ethnicity, and education level. This information was used as simple descriptive statistics, thereby creating a clearer picture of the participant sample and was not used to generalize to any larger population. In order to assess whether a volunteer participant met the inclusion criteria for this study, the following data was collected at the beginning of the interview: (a) the type of substance the participants are dependent on, (b) the number of years since diagnosis (if they have one), (c) how long it has been since they used their substances of choice, (d) the level of experience in mindfulness meditation (beginner, mediate, or advanced), (e) the frequency with which participants practice meditation and treatment (e.g., medications), (f) if they have they been in treatment for at least 6 months, and (g) if they are in crisis or experiencing a substance use relapse (see Appendix F). In the event that recruitment resulted in too few participants to reach saturation, a follow-up

plan was implemented; an invitation was sent out to the same population until interviews were completed. At the end of the interviews, arrangements were made for the participants to receive a copy of their textual-structural descriptions and offer feedback concerning them.

Table 2

Interview Questions As They Relate to the Research Questions

Interview Question	Research Question
<p>1. Please tell me, what has been your experience with substance cravings when practicing mindfulness meditation?</p> <p>2. What do you feel about substance cravings after you have practiced mindfulness meditation?</p>	<p>1. How do substance dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?</p>
<p>3. How would you describe your feelings or emotions when practicing meditation?</p> <p>4. How would you describe your feelings or emotions toward substance dependence when practicing meditation?</p>	<p>2. How do substance dependent individuals experience emotional states or feelings in relation to the substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?</p>
<p>5. Please tell me, what have been your behaviors related to your dependence?</p> <p>6. How would you describe behavioral actions related to your dependence after practicing mindfulness meditation?</p>	<p>3. How do substance dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?</p>
<p>7. How do you describe the effects of mindfulness meditation on your cravings?</p> <p>8. How has mindfulness meditation affected your dependent behaviors, if at all?</p> <p>9. How has been your experience with the mindfulness technique?</p>	<p>4. How do substance dependent individuals experience the mindfulness technique and how do they themselves explain its effects, if any, on their cravings, emotional states or feelings, and actions toward substances on which they are dependent?</p>
<p>10. Is there anything else you would like to share?</p>	

Data Analysis

Qualitative design methods involve sampling, collection of data, analysis of text or pictures, and personal interpretation of the findings (Creswell, 2013). The purpose is to avoid personal bias and prejudice so as to only describe and not edit the participants' responses (Groenewald, 2004). Therefore, the primary data for analysis was collected from participants' in-depth interviews. I used Van Kaam as modified by Moustakas (1994) to find themes to uncover the lived experiences of the participants related to mindfulness meditation and substance dependence. The Van Kaam method consists of the following steps:

1. Listing and describing all relevant experiences related to the phenomenon (e.g., mindfulness meditation and substance dependence).
2. Examining the interview transcripts to find significant descriptions or statements of participants' experiences related to the phenomenon (e.g., mindfulness meditation and substance dependence) in order to avoid overlapping statements.
3. Grouping the invariant meaning statements into themes (*craving, emotional states, behaviors*)
4. Synthesizing the meaning (*what*) of participants' experiences (*textual description*) with the phenomenon including verbatim examples.
5. Writing the "how" descriptions of the experience occurred (*structural description*).

6. Combining the textual and structural descriptions in order to create the essences of the experience.

In essence, the Van Kaam method as described by Moustakas (1994) allows the researcher to combine the significant personal accounts or statements from the participants into themes first by a textual description of the experiences, which is the “what” of the experience, followed by a structural description “how” of the experience in terms of the conditions, situations, or context. The combination of the textual and structural descriptions provides an overall essence of the phenomenon.

After the transcription process was completed, I uploaded the transcribed interviews into the NVivo qualitative research data analysis software, which allowed me to code, annotate, and compare information. “*A priori*” and emergent codes were used. Emergent codes were used to show the views or concepts of the participants from the transcripts while themes that were based on existing data prior to the data collection from the participants, including substance cravings, emotional states, and behavioral actions. Once I identified the themes related to the lived experiences of the participants using the NVivo software, I interpreted the findings using the constructivism framework and existing literature related to mindfulness meditation and substance use disorder. Any discrepant data were discussed and presented as other findings. Demographic data was analyzed by the use of simple descriptive statistics. This was used to create a clearer picture of the participant sample and was not used to generalize to any larger population.

As previously stated, I utilized the services of my colleague as a reviewer of my data and interpretation to ensure the data trustworthiness and quality. I shared my

interpretations along with the participants' interview transcripts with my assisting colleague who helped me to review my findings and interpretations. The colleague's review and feedback served as a safeguard to ensure data accuracy and my objectivity as a mindfulness meditation teacher and practitioner as well as my knowledge in relation to substance use disorder in this research study. I will keep all research data related to this study for 5 years from the completion of the study. The results of the data analysis are presented in Chapter 4.

Issues of Trustworthiness

Trustworthiness is defined as credibility, dependability, transferability, and confirmability in qualitative research studies. Williams and Morrow (2009) stated that validity includes three important categories: (a) integrity of the data, (b) balance between reflexivity and personal bias, and (c) clear communication of findings. A concept of trustworthiness is to balance between what the participants say and what the researcher interprets as the meaning of the words. Researchers can use bracketing and journaling to help them stay attuned to their own opinions, which helps to maintain objectivity in understanding the participants' stories (Patton, 2002; William & Morrow, 2009). According to Creswell (2013), there are several techniques to improve the quality of trustworthiness, including member checking, prolonged engagement and persistent observation, reflexive journaling, and triangulation.

Member Checking: Member checking is a technique that allows the participants to review the data that they provide for accuracy. With member checking, the credibility of the study's findings is strengthened because the researcher seeks the participants'

feedback and assessments of the findings for accuracy and thoroughness (Creswell, 2013; Schensul & LeCompte, 1999). As such, I asked the participants to review their own textual-structural descriptions for accuracy after the recorded interview conversation was transcribed by a hired professional as discussed previously. Additionally, I also asked each participant to review the textual-structural descriptions from their interviews for accuracy and thoroughness. The participants also had an opportunity to provide feedback, which took approximately 15 to 30 minutes. At the end of the interviews, the participants were given choices to receive the textual-structural descriptions via mail, email, or in person. The feedback opportunity could then be communicated back to the researcher via these same channels.

Prolonged engagement and persistent observation: The researcher tries to build trust with participants by learning and understanding their culture (Creswell, 2013; Schensul & LeCompte, 1999). As a Zen Buddhist monk with experience in mindfulness meditation, I volunteer to teach mindfulness meditation to clients at a private substance-dependent treatment center. In addition, I also volunteer as a mindfulness meditation presenter for several professional associations as well as local universities and hospitals. Hence, I have a comprehensive understanding of the context and phenomena under study.

Reflexive Journaling: Any researcher may bring his or her biases, values, and experiences into the qualitative study. Reflexive journaling is a technique that allows the researcher to keep a record of his or her personal thoughts and feelings while conducting research, thereby attempting to eliminate researcher bias (Creswell, 2013; Moustakas,

1994). I kept a record of my thoughts and feelings as they arose throughout the research process.

Triangulation: Triangulation means the researcher utilizes different theories, methods, investigators, and sources to ensure the accuracy of data collection analysis (Creswell, 2013; Schensul & LeCompte, 1999). I collected data using an interview guide. As previously discussed, my colleague verified my initial data analysis. I shared my interpretations and the participants' interview transcripts with my colleague who reviewed my findings and interpretations of the data and provide me with her feedback. These services ensured that my analysis and interpretation of the data are truly reflective of the participants' experiences. That is, they are not commingled with or influenced by my personal biases, values, or experiences.

Ethical Procedures

I obtained approval from Walden University IRB before contacting the representative in charge of the Meditation Center. I also provided adequate information regarding the purpose of the research to the potential participants so that they had sufficient information to make the decision to participate. To assure that undue influence or coercion did not take place, I informed the participants that they could withdraw from the study at any time without any consequences. In addition, participants were required to sign the informed consent forms before they were officially involved in this proposed study.

Participants' privacy and confidentiality were assured as required by Walden University guidelines. Therefore, data were collected and protected by the researcher.

The identities of the participants were protected through the use of pseudonyms or aliases. Electronic documents related to this study were saved under a password-protected folder on my personal computer that is also password protected. Paper documents were locked in a security box for which I am the only person who has access. Electronic and paper documents relating to this study will be destroyed after meeting the retention requirement, 5 years after the research study is completed.

Summary

This transcendental phenomenological study explored and described the lived experiences of substance-dependent individuals practicing mindfulness meditation. The sample was drawn from the Tam Bao Meditation Center in Baton Rouge, Louisiana. Semistructured, open-ended questions were used to collect data from the participants. Data collected was uploaded to the NVivo software where common themes of the individual experiences and perceptions were analyzed. I developed the common themes among participants' experiences based on the transcendental phenomenological approach of Moustakas (1994). The findings of this study are presented in Chapter 4.

Chapter 4: Results

Introduction

There was a research gap in the personal accounts or lived experiences of substance-dependent individuals in relation to their practice of mindfulness meditation. Hence, I attempted to fill that gap by employing the transcendental phenomenological approach within a conceptual framework of constructivism to explore the lived experiences of substance dependents including their cravings, emotional states or feelings, and behavioral actions after practicing mindfulness meditation for 6 months to 3 years. This research study was constructed based upon the following four research questions:

1. How do substance-dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?
2. How do substance-dependent individuals experience emotional states or feelings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?
3. How do substance-dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?
4. How do substance-dependent individuals experience the mindfulness technique and how do they themselves explain its effect, if any, on their cravings, emotional states or feelings, and actions toward substances to which they are dependent?

In this chapter, I present the results of the study in the following manner: introduction, research setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and the summary.

Research Setting

Data related to this study were collected based on in-depth interviews as described in Chapter 3. The interview process included the introduction, participation eligibility questions, and interview questions (see Appendix F). Before each interview began, I reconfirmed the context outlined in the consent agreement (see Appendix B) as well as the participation eligibility (see Appendix F) with the participant again. I conducted the interviews in a private room at the Tam Bao Meditation Center. To my knowledge, the participants appeared comfortable and did not become upset during or after their interviews. Although some of the participants missed their original scheduled interview times, the revised schedules did not have an effect on the interpretation of the data.

Demographics

In order to participate in this study, participants must have met the following predefined criteria: (a) ages 18 or older, (b) self-reported substance-dependent individuals who had not used substances within 6 months or formally diagnosed as substance dependent by licensed health professionals and had been in treatment for at least 6 months, (c) had practiced mindfulness meditation at least 6 months up to 3 years, (d) were not in crisis or experiencing a substance use relapse, (e) participants were volunteers, (f) participants had no prior relationship with the researcher, and (g) were proficient in the English language. Those individuals who expressed an interest in and

took part in this study met these criteria. There were 12 individuals who volunteered to participate in this study, and the interviews with these participants started on October 10, 2016 to November 5, 2016. The participants' demographic information is summarized and listed in Tables 3, 4, and 5 below. As described in the consent form (Appendix B), the participants were encouraged to use fictitious names; the participants introduced themselves using the names listed in the tables below when they contacted me to express their interest in taking part in the study.

Overall, the 12 participants were made up of six males and six females and were all Caucasians with an overall average age of 42.9 years. Three participants were in their 20s, two in their 30s, two in their 40s, four in their 50s, and one was 63-years-old. The level of education varied among the participants from trade school to graduate school. Two participants completed trade school (Ray and Neo); four participants had some college-level schooling (Emily, Annie, Sam, and River); one completed an associate's degree (Maggie); four earned a bachelor's degree (Flower, Jack, Rose, and Turtle); and one completed graduate school (Michael). With respect to substance dependence, 50% of the participants (Annie, Jack, Michael, Neo, Rose, and Turtle) cited that alcohol was their dependence. There were four, representing 33% of the participants (Emily, Flower, Maggie, and Ray), who claimed that they were dependent on both alcohol and drugs. The remaining 17% of the participants (River and Sam) named drugs as their dependence. Heroin (mentioned four times), marijuana (mentioned three times), opiates, cocaine, and methamphetamine were commonly used by the participants who reported drug dependency.

Participants also were different in terms of the duration of time they had been substance dependent, averaging about 14.4 years. The longest period of time since diagnosis was 34 years (Annie), and the shortest was 3.5 years (Emily). Except for two participants (Sam and Ray), all reported that they had been attending the AA program and incorporating meditation as ways to staying sober. Among the drug dependents, one participant (Sam) also attended Narcotics Anonymous in addition to AA and meditation, while another one (Ray) also reported that he had used therapy and counseling. Specifically related to meditation as an approach to staying sober, the participants reported that they practiced meditation varying from daily to weekly. Five participants reported that they been practicing mindfulness meditation for 3 years, three participants for 2 years, three participants for 1 year, one participant for almost 2 years (18 months), and one participant for 9 months. Seven participants considered themselves in the intermediate level of experience in mindfulness meditation, four in the beginner level, and one in advanced.

Table 3
Participant Demographics

Participant	Age	Ethnicity	Gender	Education Level
Michael	42	Caucasian	Male	Graduate School
Neo	59	Caucasian	Male	Trade School
Maggie	63	Caucasian	Female	Associate's Degree
Turtle	53	Caucasian	Female	Bachelor's Degree
Emily	26	Caucasian	Female	Some College
Jack	55	Caucasian	Male	Bachelor's Degree
Annie	55	Caucasian	Female	Some College
Sam	26	Caucasian	Male	Some College
Rose	49	Caucasian	Female	Bachelor's Degree
Flower	33	Caucasian	Female	Bachelor's Degree
Ray	30	Caucasian	Male	Trade School
River	24	Caucasian	Male	Some College

Table 4

Participant Demographics: Substance Dependence and Treatments

Participant	Substance Dependence	# of Years	Treatment*	Medication Taken**
Michael	Alcohol	4.5	AA/M	No
Neo	Alcohol	8	AA/M	No
Maggie	Alcohol/Drugs	9	AA/M	Yes
Turtle	Alcohol	21	AA/M	Yes
Emily	Alcohol/Drugs	3.5	AA/M	No
Jack	Alcohol	25	AA/M	No
Annie	Alcohol	34	AA/M	Yes
Sam	Drugs	7	AA/NA/M	No
Rose	Alcohol	32	AA/M	Yes
Flower	Alcohol/Drugs	13	AA/M	Yes
Ray	Alcohol/Drugs	6	AA/C/M	Yes
River	Drugs	10	AA/M	No

Note: * AA = Alcohol Anonymous, C=Therapist/Counseling, M = Meditation, NA = Narcotics Anonymous; ** medications taken for non-substance dependent related purposes

Table 5

Participant Demographics: Meditation

Participant	Time of Meditation	Frequency	Level of Experience
Michael	2.5 Years	Weekly	Beginner
Neo	Three years	Daily	Intermediate
Maggie	Three years	Weekly	Intermediate
Turtle	Three years	Weekly	Intermediate
Emily	6-9 Months	Weekly	Beginner
Jack	18 Months	Weekly	Beginner
Annie	Three years	Daily	Advanced
Sam	1.5 Years	Daily	Intermediate
Rose	Three years	Daily	Intermediate
Flower	2 Years	Weekly	Intermediate
Ray	Over a Year	Daily	Beginner
River	2 Years	Daily	Intermediate

Participant Profiles

As outlined in Chapter 3, I used Van Kaam as modified by Moustakas (1994) to construct the textural-structural description for each participant. In order to capture the essence of the participants' lived experiences with mindfulness meditation and substance dependence, I asked probing or follow-up questions during the interviews for clarification of complex information when deemed necessary. To provide an opportunity for readers to be more engaged with the participants with respect to their experiences, I felt it was necessary to provide a summary-style narrative (see Appendix H). I also included the participants' own words whenever possible for better understanding of their points of view.

Data Collection

The 12 individual interviews were conducted in a conversational-style using the predesigned, open-ended questions that aligned with the research questions (see Appendix F) in a private room at the Tam Bao Meditation Center; they were completed within a month. The duration of each interview varied among participants, primarily because of different amounts of time each participant took and how much each chose to share as well as the number of probing questions imposed by me based on their responses to the questions. Overall, the interviews lasted between 45 minutes to 1 hour. At the end of the interview, I asked if they were interested in reviewing their interview transcripts for accuracy and thoroughness, and they accepted. The recorded interviews were then transferred into my personal laptop computer, which is only accessible by me as it is password-protected. The physical recorded interviews were stored in a locked drawer that was also only accessible by me. The recorded interviews were then transferred into a password-protected thumb drive and given to a professional transcriber in person. Before transferring the recorded interviews to the transcriber, I reiterated the importance of keeping the participants' data confidential as described in the agreement (see Appendix A). The transcriber returned the written transcriptions saved on a password-protected thumb drive to me in person. I provided a copy of the written transcriptions to each perspective participant to review for accuracy and gave all of them an opportunity to make changes. The participants reviewed their respective written transcriptions; no additional context or changes were made to the original interviews, but one participant did make a correction because he misinterpreted the question during the review.

Data Analysis

I followed Van Kaam's, as modified by Moustakas's (1994) approach, as outlined in Chapter 3 to write the textual-structural description for each participant's experiences based on the written transcripts. The textual-structural descriptions were then given to the participants for a final review for accuracy. I imported the 12 interview files into the NVivo 11 qualitative software. I then used inductive and deductive reasoning in the coding process; each line was manually read and coded based on the framework of constructivism. Once the parent nodes or major themes were identified, the same coding process was used to create their respective subthemes; that is, the subthemes and subsubthemes were derived from manually reading and coding the content in each of the parent nodes and subthemes. Consequently, six themes were developed: (a) demographics, (b) cravings, (c) feelings and emotions mindfulness meditation, (d) behavioral actions, (e) mindfulness technique, and (f) other findings. However, only four main themes based on the four research questions (cravings, feelings and emotions mindfulness meditation, behavioral actions, and mindfulness technique) were used to depict the essence of this study. The demographic node was created to capture the participants' demographics to give readers more insight into the participants; it was not intended to generalize to any larger population. Similarly, the other findings node was an attempt to capture the participants' experiences that were not shared in common or could not be grouped in the four parent nodes. Any statements irrelevant to the experiences related to substance dependence and mindfulness meditation were excluded from analysis. The four major parent nodes are made up of nine themes and within the nine

themes, there 12 subthemes identified. A summary of the themes is included in table 6 below.

Table 6

Themes and Subthemes

Theme(s)	Subtheme(s)
Substance Cravings	Substance cravings during meditation
	Feelings about craving after meditation
Feelings and emotions toward meditation	
	General feelings and emotions
	Acceptance
	Appreciation
	Awareness
	Empathy
	Specific feelings and emotions towards substance dependence
	Beyond the thought
	Mixed emotions
	Appreciation positive regard for self
Behavioral Actions	
	Behaviors related to dependence
	Destructive behaviors
	Immoral behaviors
	Negative about self
	Behaviors after meditation
Mindfulness Technique	
	Effects of meditation on substance cravings
	Meditation affecting dependent behaviors
	Positive moral behaviors
	Positive mindful Behaviors
	Mindfulness techniques
Other Findings	

Evidence of Trustworthiness

Chapter 3 listed the different methods (prolonged engagement and persistent observation, triangulation, reflexive journaling, and member checking) and their respective purposes, as cited by Creswell (2013), I could use to show evidence of trustworthiness. These techniques were employed during the data collection and analysis phases of the study. Every interview was conducted in the same room, with the same procedural protocol using the predesigned, open-ended interview questions and a high quality audio recorder (conditions for credibility), although the lengths of the interviews varied from 45 minutes to 1 hour, depending on the amount of information shared by different participants. During the interview sessions, trust was created and maintained through the whole interview process by reiterating the consent and confidentiality agreement at the beginning of the interview and repeating and asking follow-up questions to ensure thorough understanding from the participants as well as from the researcher (prolonged engagement and persistent observation, achieving the conditions of creditability, dependability, and transferability).

The conditions of credibility, dependability, and transferability were further met by employing the member-checking technique. I asked the participants to review their recorded interviews after they had been transcribed by a professional transcriber as well as their own textual-structural descriptions that I composed in a summary format. I included their own words in these summaries whenever possible to provide readers a better engagement, for thoroughness and accuracy. There was only one participant who made a correction to his transcribed interview because he misunderstood the question.

This same participant also wanted to correct the timeframe that he has been participating in the AA program when reviewing his textural-structural descriptions that I composed. Once the data collection and analysis were completed, I engaged assistance from a colleague, as previously discussed in Chapter 3, to review the summaries (textural-structural descriptions) and findings to ensure that my analysis and interpretation of the data were truly reflective of the participants' own experiences and free from my personal biases, values, or experiences; this service satisfied the triangulation method. Last, I also kept a reflective journal (condition of credibility) whenever my personal thoughts arose during data collection and analysis processes. This was crucial because I am an experienced mindfulness meditator and have volunteered to teach mindfulness meditation to clients at a private substance-dependent treatment center. Thus, I have an ample understanding of the context and phenomena of this study.

Results

The purpose of this study was to explore the experiences of the substance-dependent individuals who practice mindfulness meditation for at least 6 months up to 3 years. The 10 interview questions created for this study were used to address the following four research questions:

- 1) How do substance-dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

2) How do substance-dependent individuals experience emotional states or feelings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

3) How do substance-dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

4) How do substance-dependent individuals experience the mindfulness technique and how do they themselves explain its effect, if any, on their cravings, emotional states or feelings, and actions toward substances to which they are dependent?

The participants were very different demographically in terms of substance dependency (alcohol and drugs), duration of dependency (3.5 years to 34 years), level of experience in practicing mindfulness meditation (beginner to advanced), and the frequency of meditation (daily to weekly). However, there were common themes that emerged from their personal accounts or experiences, specifically related to cravings (still wanted to drink or smoke regardless of the costs), feelings or emotions (mental and physical obsession, delusions about joy and happiness, stress triggers, low self-esteem, and irresponsibility), and behavioral actions (inappropriate relationships, stealing, lying, hitting people, and harming self and others) associated with substance dependency. The results of the study, as organized below, are based on the four major research questions and their respective themes, which emerged during the coding process as described in the Data Analysis section above.

Research Question 1

The participants were asked to describe their substance craving experiences when practicing mindfulness meditation as well as their feelings about substance cravings after they have practiced meditation. The responses revealed two types of experiences: (a) none, and (b) sometimes when practicing meditation. The participants reported they felt less anxious and obsessive about substance cravings after they practiced meditation, thus reducing and eliminating their substance cravings.

Theme 1: Substance craving experiences when practicing mindfulness meditation. Eight out of 12 participants reported that they did not experience or have cravings during meditation. The other four participants shared that they sometimes still experienced cravings during meditation. The following responses came from the respondents who shared that they did not have cravings during practicing meditation:

- “I don’t have any more cravings. The mental obsession and the physical craving, it’s gone. I don’t crave it. I don’t think about it” (Annie).
- “I can’t say that I have cravings. There’s really no obsession of wanting or craving it anymore” (Emily).
- “I don’t experience cravings at this point. So, I don’t have that anxiousness that I would have that I think would ultimately produce that craving” (Rose).
- “The compulsion to consume alcohol was lifted from me. I have not had any alcohol by choice” (Jack).

- “I don’t have any whatsoever. None since for about two years now; I haven’t had a single day where I’ve started craving drugs or just craving the feeling to get high” (River).
- “I currently don’t have that many cravings because I have nine years without a drink” (Maggie).
- “I don’t have a lot of cravings at this point. So, I think that meditation helps me be in a better frame of mind. I think it helps me to avoid cravings” (Michael).

Mindfulness allows me to recognize that cravings are instincts and thoughts which don’t need to be acted upon. They can be observed without reacting to them. So, I can choose not to have a drink. Mindfulness helps me to recognize instincts and thoughts and cravings as part of an expression of instincts and thoughts. It’s essential to practice daily or I lose sight of that reality. (Neo)

Flower, Turtle, Ray, and Sam stated that cravings occurred sometimes or the craving was minimal when practicing meditation. The experiences that the participants described as included below demonstrate that anxious or distressed minds can produce cravings when practicing meditation, but the cravings eventually dissipated.

- I find that sometimes when I’m practicing meditation, I find myself occasionally fixating on something in particular. So, sometimes it actually gets worse, the craving. Because I’ve allowed myself to go into this zone, and if I’m thinking about drugs or alcohol, it’s almost as if the craving gets intensified. (Ray)

- I find that cravings usually tend to come up whenever I have some sort of emotional stress or distress. I find that meditation, whenever I use my practice, it sort of minimizes those emotions and gets me back to a place of comfort and stillness and peace, and with that the cravings kind of go away with the emotions attached with that, so I find that it really helps. (Sam)
- When I feel anxious or like I might engage in any kind of behavior that would be self-destructive, including engaging in substance abuse or substance use in general, I've used what I've learned from mindfulness meditation to calm myself down. Those feelings can dissipate when I do that. (Flower)
- Once I started meditating, it was like we have this saying that our thoughts can get like hamsters on a wheel. You just run and it goes in this loop over and over again, and that's the best way to describe what you're calling the craving because it's more like a mental obsession; the conviction that if I just go use, then I will feel better. (Turtle).

Most participants who considered themselves intermediate-level mindfulness practitioners, and who had practiced anywhere from 18 months to 3 years, recognized a reduction in cravings associated with substance dependence as compared to cravings of beginner-level mindfulness meditation practitioners.

Theme 2: Feelings about substance cravings after meditation. The majority of the participants reported they felt less anxious and obsessive after practicing meditation because meditation brought calmness and helped them to have a different perspective

toward substance cravings. As a result, their feelings regarding cravings were gone or that craving was just a thought to which they did not have to respond.

- “They lessen. There’s no more. No more cravings” (Annie).
- Just gratitude. There’s no more obsession or cravings. I don’t have to act on it. If the thought crosses my mind, it doesn’t mean that I have to put forth the action of going and getting the alcohol or drug because alcohol or drugs would be a solution to a temporary problem. I can play that out and let go of the thought. (Emily)
- I’m just turned off to drugs, to cravings, after I’ve done mindful meditation. This sounds really weird—in reference to the substance, the actual substance, I feel dirty. I view the substances as dirty. To me, meditation and mindfulness are cleansing things. I view the substance after I’ve done that as disgusting, whereas before in my addiction it was not. It was not very clean. (Ray)
- “After some mindfulness and some meditation, I no longer feel as intense cravings, or the cravings go away all together” (Flower).
- I see them as just part of the mental, emotional, and physical landscape. It’s not the cravings are not as compelling as addiction. Cravings are not addiction. It’s just an idea. It’s just a feeling. It’s not imperative. It doesn’t require action. It just asks for action. And I can say no. I choose to say no. (Neo)
- I feel that after practicing mindfulness meditation, I have a great deal of relief from my cravings, because during the practice my mind is clear. After the first

time, I was really relieved of my cravings, so I feel like since my relief I have not had the compulsion to consume alcohol. So, I feel very much at ease and relieved after I practice mindfulness meditation. The compulsion to consume alcohol or any other substance has been lifted from me. (Jack)

- So after I've meditated, I feel calmer, more at ease, at peace, sort of like I feel like I have a grip on things that were worrying me before, like I can handle it. So, when I feel like that, I don't feel like I have to use a substance to alleviate those feelings. I have the meditation that I use that'll kind of get rid of those cravings, get rid of those feelings. (Sam)
- I don't have a lot of cravings at this point; meditation helps me be in a better frame of mind. I think it helps me to avoid cravings. The practice reduces the situations that would make me crave alcohol. A lot of times, if I have a hard day at work or a stressful day at work, stress builds up and then I feel at the end of the day it would be great to have a drink. It just feels like I need to have a drink, but I feel like when I'm meditating regularly then I don't get stressed out at work as much. So, it's sort of indirect, but I guess you could say I have less cravings, but it's more because my mind doesn't get into the situation that causes me to have cravings. (Michael)
- Overall, I'd say I've more neutral relationship to cravings after meditation, if that makes sense. I don't so much as have a conscious craving today as I have a feeling of unrest. And so, once I sit down and meditate, even if I do the five minutes, seems really to make a difference. The more time I can put in, the

better it is. But, I know that I just seem to be less worried about all of this in the world and just seem to be able to be more present and not have all that fear and anxiety pushing me. (Rose)

- For me, meditation reels myself in and try to be present to the moment, I can focus on what is happening right then and there in that very moment. Not think about yesterday. Not think about tomorrow. I can bring myself back to the present moment, and I can concentrate on my breath, which is going to take my mind off of my wanting—in a sense is craving because it's going be about what I want. (Maggie)
- Pretty peaceful. It seems every day's different with it. Some days I come out of a meditation and I feel peaceful, calm. I'm able to be in the present moment, and it's almost like a euphoric feeling. It seems like all my senses are amplified—hearing, touch, especially eyesight; eyesight seems to be the number one. Just peaceful, it's nice and it's calm. It makes life seem to be more energetic and happier. (River)
- That mental obsession (craving) is silly. I mean, sometimes I'm laughing, like I can't believe the stuff that my brain gets stuck on and wants to focus. Active addiction is terrible, and not having to act on it is amazing. Drinking's not going help anything, but my brain is sitting there chattering away like the little monkey, saying but if you go get drunk, you'll feel better. And it's a lie. It's a lie. It's a lie. So, the chattering monkeys are funny. That's just my take on it. (Turtle)

Despite the length of time practicing or the level of mindfulness meditation practice, all participants reported that they were less reactive and anxious and more peaceful and calm. They also reported that they had developed more emotional self-regulation and self-confidence. Additionally, they experienced more present-moment awareness. One participant reported having changed her perceptions of “feeling dirty” related to her use of illicit drugs to “feeling clean” as a result of mindfulness meditation.

Research Question 2

The participants were asked to describe their emotional states or feelings when practicing meditation as well as toward substance dependence when practicing meditation. The participants’ emotional feelings were grouped into two themes: (a) general feelings when practicing meditation, and (b) specific feelings toward substance dependence. There were four subthemes derived for the general feelings when practicing meditation: (a) acceptance, (b) appreciation, (c) awareness, and (d) empathy.

Theme 1: General feelings when practicing meditation. The overall theme for feelings or emotions when practicing meditation was positive.

Subtheme 1: Acceptance. The respondents reported that practicing meditation allowed them to accept who they were without judgment because they felt less anxious, thereby achieving more calmness and peace.

- “I feel much more calm and serene” (Michael).
- When I’m drinking or using, drinking alcohol and on that chemical dependency rollercoaster, then I’m not conscious of my well-being. I’m not peaceful. Now I walk in peace. If something disturbs me, I either try to get out

of the situation, change it, or if I can't change it and I can't get away from it, I need to accept it, be mindful of that and deal with it. (Annie)

- “Very, very calm. Very at ease. Very secure. Very comfortable. Sometimes a little bit of back pain (laughs) but that's not an emotion. Let's see, peaceful. Peaceful is the biggest emotion that I can describe” (Sam).
- “My emotions are no longer as intense, as well as my feelings. I have a lot more feelings of calm after I practice meditation” (Flower).
- During the act of practicing, it can go so many different ways. But for some reason for me, whenever I start to meditate sometimes I go off into different places in my mind, like I can see different things, and it's always something out in nature. Like in the woods, for some reason, is kind of where my mind takes me to. It's almost like National Geographic shows playing sometimes, and those are kind of my favorite, because I don't really have to concentrate on anything, it's just kind of playing whatever tape it's playing, and I'm just following it. It happens with little or no effort, but I do notice I'll come out of it, but the peaceful place in the woods is still in my mind, but I'll kind of venture away from that and I'll start focusing on something else. But once I feel like I'm tapped into this, it's easier for me to slowly get back into that peaceful, nature meditation place where it brings me sometimes. (River)

Subtheme 2: Awareness. The participants became more aware of themselves as well as their environments. They were more focused on the present moment, feeling closer to God, nature and the Universe. The participants also reported that they were

more centered, focused, and grounded; therefore, they were now in control of their emotions.

- “I can recognize the thought, be at peace with the thought, and let the emotion or the feeling leave me on its own time and just try to stay present in the moment” (Emily).
- “I’ve become more alert and focused on the things that I want and the things that I don’t want” (Annie).
- “Meditation helps me feel very close to my higher power. I feel kind of close to God or one with the universe” (Michael).
- Practicing mindfulness meditation has given me the ability to focus and identify my emotions, and to not react to...be aware of my emotions, but to not react to the emotions that I’m experiencing in any type of negative way. Through mindfulness meditation, I could be more aware of the anger and rage that I was experiencing because of things that had occurred in my past, and things that I was trying to deal with in negative ways. (Jack)
- Mindfulness allows me to recognize the relevance of emotions. Feelings and emotions again are just part of the whole experience of being alive. It’s not necessary that they control my behavior. I can be angry; I don’t have to act angry. I can be hungry; I don’t have to eat. I can be thirsty; I don’t have to drink. It helps to recognize that I am more than feelings and thoughts. And it’s not a theory; it’s actual experience. It’s very important for more than chemical

dependency—for anger, for desire, even for reluctance. Mindfulness is like a bird’s eye view of feelings and thoughts. (Neo)

- I am now in the moment and practicing what is really happening and I’m aware of my feelings and I’m way more aware of my emotions. I may react to a certain situation; someone may have said something to me, and I might take it very personal when in fact it had nothing to do with me. So, I would react. Previously, before meditation I might react to it and think, “Oh, well that’s just great.” Having practiced mindfulness and meditation I know how to discern, whereby it’s not about me, it’s about that person. I can accept it. I have a choice today. I know that, and that’s specifically what mindfulness and meditation does for me. (Maggie)
- “Identify my emotions and to not react to be aware of my emotions but to not react to the emotions that I’m experiencing in any type of negative way” (Jack).

Subtheme 3: Appreciation. By accepting who they were and becoming more aware of themselves, the participants reported that they were more appreciative, grateful, contented, and happy.

- “My mind has calmed down a little bit, so I’m not so anxious. I feel more joy and happiness when it comes to mindful meditation than I did in the beginning” (Ray).
- “So much calmer. Focused but not anxious; so content. Just more observant and appreciative” (Turtle).

- “Not very emotional, but sometimes I’m full of happiness” (Michael).
- I feel a lot calmer. I would say a general content, not elated and not completely joyful. Not ecstatic, just a steadiness or a calmness about myself—just grounded. I think it’s contentment with myself and the world around me regardless of what’s going on. (Rose)

Subtheme 4: Empathy. Being less selfish or self-centered, they became more empathetic toward themselves as well as other people.

- Through mindfulness meditation, I was able to take negative emotions and put them at rest without reacting to them. That’s been very beneficial to me because when I reacted to the emotions, immediately they would come up and then later I would have painful memories of that reaction because I had hurt someone. Either, usually verbally, I would have verbally abused somebody or something because my reaction to anger or rage. By being able to delay and put that anger and rage to rest, and not react to it, I save myself the pain of hurting someone else. (Jack)
- “I was able to stay focused on and not being self-centered. I don’t know what the opposite of that is. To think more of others, less selfishness” (Rose).

Generally speaking, all participants reported an increase in positive feelings and acceptance after practicing meditation. They also reported being able to accept “reality as reality” without judgment or reactions based upon their own interpretations. Participants also were more aware of their circumstance as well as their environments. They seemed to appreciate what they had instead of focusing on what they did not have; hence, they

became more content and happy. As a result, their sense of compassion for others increased their more positive thoughts and actions.

Theme 2: Feelings toward substance dependence. Practicing meditation allowed the respondents to have different feelings toward substance dependence. They saw substance dependence as a thought that they could work beyond. Substance dependence was now being negatively viewed, so they did not have positive feelings and emotions toward it. Without substance dependence, they could have positive outlooks of themselves and others. Six out of 12 participants believed that they perceived a thought as a thought without judgment. The other six participants stated that negative thoughts could play important roles in contributing to their substance dependence, as the following describes.

Subtheme 1: Beyond the thought. Six out of 12 participants stated that substance dependence was just a thought now; therefore, they did not have to react to that thought whenever it arose. It was through the practice of meditation that they came to realize it.

- I can't say that substance dependence is what I'm focused on during mindful meditation. And like I've said, gratefully, thankfully, if the thought does arise it's more of just gratitude that I don't live that life anymore. I don't have to depend on that substance anymore. I can have the thought, absolutely, but I don't have to let the thought control me. (Emily)
- I am reminded that I am an addict. I will always be an addict, but I have a choice. So, I can choose to either react to those very real feelings because addiction is very real. My first reaction is going to be to numb my pain. But

my second reaction is going to be just to sit, be with it, and it will pass.

Because the only way I can get to the other side of whatever I'm experiencing is to walk right through it. So, mindfulness has taught me that it's not going to kill me. It's going to be all ok. And I'm just going to sit and feel my pain and this too shall pass. (Maggie)

- My feeling toward them is they no longer feel as though it's a necessity or a need that I have anymore. What I usually am trying to seek with substance abuse, I can get from mindfulness meditation, which is being able to control my feelings. A lot of the time when I abuse substances, it's because I don't like the way I feel, so I'm trying to change it in some kind of way or alter it. With meditation I can change and alter those feelings without engaging in something that only makes my problems worse once it's done and over with. (Flower)
- So when I think about meditation and my recovery, I'm just grateful. Gratitude is the best word I can come up with because I need a tool. My brain is not my friend, and it tells me stupid things, and I don't want to pay attention to it. Because of the discipline of meditation, I know I do not have to act on my thoughts. (Turtle)
- Well, my feelings towards substance dependency are more obvious when I practice mindfulness. I never wanted to be dependent on substances. I drank because I liked the way it made me feel, but alcohol is an addictive. The desire for freedom from dependency was more obvious from practicing

mindfulness, recognizing dependency as undesirable. Mindfulness reinforces that conclusion on my part. I see that dependency on anything is less desirable than freedom. So mindfulness helps me to experience freedom, and then I choose freedom. (Neo)

- Meditation definitely deters me from wanting to use a substance. I'm able to watch my thoughts and really just take time to sit back and look at my thought process and kind of pick about ok, you know, "that's weird that that came up" and I notice things like that, and it makes me pay attention to those thoughts and realize that they're just thoughts, and I don't have to act on those thoughts. There are other ways I can cope with whatever I'm feeling, if it's anything bad, other than using a substance. (Sam)

Six out of 12 participants perceived that negative thoughts contributed to their substance dependence, and they believed that meditation supported them in working beyond their thoughts. They came to understand that negative thoughts could play an important part in their substance dependency; therefore, these participants chose to transform these thoughts to positive ones, which reduced substance dependence.

- "I don't have to let the thought control me."
- "I will always be an addict, but I have a choice."
- "What I usually am trying to seek with substance abuse, I can get from mindfulness meditation, which is being able to control my feelings."
- "I know I do not have to act on my thoughts."
- "Mindfulness helps me to experience freedom, and then I choose freedom."

- “I don’t have to act on those thoughts.”

Subtheme 2: Mixed emotions. Two participants stated that they had mixed feelings or emotions about their substance dependence when practicing meditation. On the one hand, they were happy to no longer be victims of substance dependence, but on the other, they felt sad whenever they thought of others who still struggled with substance dependence.

- Sorrow and sadness. Sad for anybody who struggles with that. Sad for myself who struggled with it for so long. Those are kinds of the feelings that I have with it because when I meditate I feel like I become very in tuned with my emotions and my thoughts and my feelings. And so, if I’m meditating or being mindful about substances and heroin and alcohol, I feel very sad. On the same note, I feel very happy because I don’t have to struggle with that today. So there is this level of joy and happiness and peace. Honestly there’s a whole lot of peace that comes with it. It’s really crazy, and I can get emotional just talking about it because I feel free from that today. (Ray)
- “I think it’s evil. I think it absolutely will take somebody’s life and throw it down the gutter. And if they make it out alive, it’s an absolute miracle. I’m very fortunate to be sitting here today” (River).

Subtheme 3: Appreciation and positive regard for self. Practicing mindfulness meditation altered how the participants viewed themselves and others. The view, in turn, changed how they felt toward substance dependence.

- With practicing meditation, it feels completely unnecessary to ever want to drink again. My peace allows me not to want to crave alcohol anymore. When I'm meditating, I have no interest in alcohol. I'm where I need to be. I feel very centered. (Michael)
- "Meditation improves our conscious contact with God. I am really grateful for that it really helps with the mental obsession and it helps with that relationship with what we refer to as our Higher Power" (Turtle).
- "I don't think about it (substance) when I'm practicing it. I'm more focused on my internal self--my heart, my soul. My body, my mind, and spirit are not controlled by alcohol and substances anymore. Mindfulness brings out peace" (Annie).
- "Gratefully, thankfully; if the thought does arise it's more of just a gratitude that I don't live that life anymore, I don't have to depend on that substance anymore" (Emily).
- I don't have any. I can see clearly that it's not a solution. It's like my mind is working, and I know that's not going to get me where I need to be emotionally. So, I don't feel the need for that. I don't feel the anxiousness over it. I feel like it doesn't own me. (Rose)
- When practicing mindfulness meditation, I'm able to be in the present moment. Mindfulness meditation for me goes beyond the twenty minutes of sitting. I try to stay mindful as much as I can and that puts me in the present

moment and keeps me focused on the present moment. That way, my mind's not drifting into areas where it doesn't need to be. (Jack)

All participants were active members of Alcoholics Anonymous as well as daily or weekly mindfulness practitioners, which they felt had contributed to awakening a spiritual sense within them. The fundamental premise of both AA and mindfulness meditation involves developing a spiritual mechanism and enhancing spiritual processes. Participants experienced an increased positive sense of self as emerging through the development of self-confidence, self-worth, and coping skills.

Research Question 3

The participants were asked to share their behaviors related to substance dependence as well as behavioral actions related to substance dependence after practicing mindfulness meditation. The behaviors related to substance dependence that the 12 participants described were with negative characteristics, such as destruction, immorality, and negativity attitudes about self. Conversely, their behavioral actions related to dependence after practicing meditation were more constructive. The common themes that emerged included appreciation, acceptance, awareness, and positive self-outlook.

Theme 1: Behaviors related to substance dependence. The negative behaviors related to substance dependence were grouped into three categories: (a) destructive behaviors, (b) immoral behaviors, and (c) negative attitudes about self.

Subtheme 1: Destructive behaviors. The characteristics associated with the destructive behaviors related to substance dependence that the participants described

included aggressiveness, violence, delusion, erratic behavior, hatred, and behaviors harmful to health.

- “I hated other people. I hated the world. I hated God. I hated myself. I was very, very violent. I hit people; I punched walls; I threw chairs. It was just evil” (Ray).
- “I had no consideration for my own well-being” (Jack).
- “Doing what I wanted to do even though it’s harmful to my health” (Annie).
- Engaged in behavior that is destructive or can be dangerous such as driving too fast, driving while intoxicated, going into areas of town that could be dangerous where I could be harmed, being around people who would harm me if they could, and engaging in relationships that are unhealthy. All of these for the sake of continuing to have access to my substance use. (Flower)
- So, my behaviors were very erratic. I became another person. I was very mean. I was not a nice person, especially to my husband. I said things in the moment that I couldn’t really take back when I realized. I wasn’t my authentic self. I didn’t even know who I was. I grew up in a big family, and there was alcoholism, so it was sort of like...my family, we worked hard but we played hard. (Maggie)
- At that point I didn’t really come out of the house much. After it was pretty much all said and done with me taking those, I would stay inside. I thought there were people watching me. I thought there were people coming after me. I thought that everybody had a conspiracy against me in some sense of the

way. If I never met the person before in my life I thought that they were all related, they were all somehow and they planned. (River)

- “I will lash out at people. I’m much more aggressive, not physically, but kind of, I’m less restrained. I can get angry easily, I say unkind things” (Michael).
- “Some people are not very rational or they don’t make sense, or they are still suffering from self-delusion and self-deception” (Neo).

Subtheme 2: Immoral Behaviors. The participants shared that they were being dishonest and inauthentic; they engaged in illegal or criminal activities and lacked values. Stealing was commonly mentioned among the participants because they needed money to support their substance use.

- Certainly my behavior with women, it’s a lot different. I’m more liable to engage in casual sexual activity, or you know inappropriate relationships, in some ways maybe. So, when I was drinking I actually had a relationship with a woman who was married and I was married, so adultery. (Michael)
- Whenever I was dependent on heroin, it completely changed who I was. It literally stole my soul. I was lying, stealing money to get my drugs. I would do whatever I had to do to get heroin, and it didn’t matter who I hurt, didn’t matter what I had to do to get it, I would do it. I’ve stolen money from my parents. I’ve written checks from my dad’s checking book, and I actually did two months in prison because I was stealing. Technology is so great, you can just take a picture of a check and it goes to your checking account, so what I was doing was; I was getting checks from one of my employers. I was taking

a picture of it. It would go to my checking account, but then I would take the hard copy of the check and go cash it at a check cashing place. So, I was getting double the money, and I was arrested and charged with fraud. That's the big one. (Sam)

- I started hanging out with more people who were doing drugs. Then it also bled into school. I'd go to school in the morning and I'd meet up with somebody and we'd make a trade or I'd buy some stuff from them. Eventually, it led me to get kicked out of school. I couldn't pay my bills. I couldn't keep a roof over my head. I couldn't keep any friends or anybody around me. My family didn't want me around because I would bribe them or manipulate them for money; I would steal from them. So, just over time, I ended up pushing everybody out of my life. (River)
- "Lying, stealing, betraying" (Ray).
- With my dependence, I would do anything to be able to participate and using those substances. I would steal from my parents; I would steal from anyone. I would go to any lengths to get those substances. I would use those substances and put other people in jeopardy. I was arrested three times and taken to jail and twice for driving under the influence of substances. I had no consideration for family. I had no consideration for anyone around me. I had no consideration for my own well-being. (Jack)
- My thoughts absolutely ran my actions to the point where I would steal from people to support my addiction. I would be late and I would always have an

excuse as to why I wasn't where I said I was going to be. I was a person with no morals or values. (Emily)

- “My romantic relationships while I was abusing substances were always related to whether that person was able to provide me with substances that I needed to use” (Flower).

Subtheme 3: Negative attitudes about self. The participants described that substance dependence created many undesirable behaviors about themselves, including impatience, irresponsibility, unreliability, paranoia, sadness, self-deprecating thoughts, self-centeredness, poor self-esteem, and poor self-care and appearance.

- Probably the best way I could describe it is really self-centered. Like, how I felt and what I wanted was really the only thing that mattered when I was drinking. How I felt was all that mattered, and it's not realistic for a wife and a parent and just, a person. I can't think about myself all the time, it makes me sick. So, selfish is the best way to describe my alcoholism. (Turtle)
- “I was very sad. It was a very dark time in my life. I wasn't my authentic self. I didn't even know who I was” (Maggie).
- Just negative behaviors toward myself. Lots of negative thoughts. Lots of depression. Lots of anger. Lots of suicidal feelings. Mostly anger, but directed inward not so much at the world. It was self -destroying and my self-esteem. I was willing to let go of all of what I feel like today are my belief systems. The things I believe are right and wrong. I was willing to degrade myself on any level to get it because I was underage when I drank, so it wasn't easy for me

to get alcohol. I never felt safe. I never felt at peace. I never felt comfortable just in my own body. I really didn't. I mean, I never had a minute's peace when I felt like that, when I was in the midst of that. That feeling, all the time, like something really bad was going happen all the time. I never felt safe. I never felt at peace. I never felt comfortable just in my own body. I really didn't. I never had a minute of peace when I felt like that when I was in the midst of that. (Rose)

- “Unreliable, impatient, very impatient, and selfish—a lot of selfish behaviors” (Ray).
- Nobody wanted to be around me, and I don't blame them because I was a horrible person. In every way shape or form, I wasn't mindful; I wasn't at ease; I wasn't loving; I didn't have kindness in my heart. I was the complete opposite of all those. I had fear, I was mean toward people, stole, had no integrity, no honesty, and I was living life like that for the longest time. (Sam)
- “I was constantly anxious because I was constantly worried about how I was going to get through the day. My self-care and appearance were not presentable” (Emily).
- “Doing what I wanted to do. Not being accountable to my actions” (Annie).

All twelve participants reported engaging in numerous self-destructive and immoral behaviors, and negative self-attitudes. These were all related to substance abuse prior to beginning a meditation practice. Participants' average period of substance dependence was approximately 14.4 years, and all admitted that while living in their

substance-induced delusion, their maladaptive behaviors had contributed to the destruction of their morals.

Theme 2: Behaviors after meditation. The participants described positive and more desirable behavioral actions related to dependence after practicing mindfulness. They stated they could distinguish the feelings (calmer, happy, open, and mindful), emotions (connected, more loving and compassionate for self and others, and less reactive), and behavioral actions (better self-care, being responsible, increased self-esteem, and more self-control) when staying abstinent of substance use. These positive feelings and behavioral actions allowed them to stay sober.

- I want to help out people more. I can connect to people better, not just talking to them but on a soul to soul level like a deeper connection than just physical. Whenever I can get like that it's absolutely peaceful. It's like I'm altruistically helping somebody and I don't want anything in return. (River)
- My behaviors, thoughts and emotions have become less intense in a negative way. Today, it's about really enjoying each and the moments that come with each day, and that alone has given me a lot of happiness. It makes me feel more fulfilled in myself, and then I feel like that contributes to my overall purpose and belonging in the world. Connection is huge for me. In my addiction, I was just by myself. And that's what I talked about. I was so self-centered. I was all alone; it was just me. I only thought about myself. Mindfulness meditation makes me feel at one with my environment, my God, just myself, my own being. (Ray)

- I think self-care. A lot more openness because I think I was really closed before. I have a much more positive outlook, especially even when things don't go my way whereas before it was always bad. I find my attitudes toward people in general and my life are lot more positive. I think that's the biggest thing is that I have a lot more peace. (Rose)
- "Meditation was one, if not the only, thing that I could do in order to quiet my mind down and sort of, you know, let my body know that hey I don't need these drugs anymore" (Sam).
- I've become more responsible; I've become more in tune to anything that would disturb me to get away from. I've become more alert and focused on the things that I want and the things that I don't want. When I'm drinking or using, drinking alcohol and on that chemical dependency rollercoaster, I'm not conscious of my well-being. I'm not peaceful. If something disturbs me, I either try to get out of the situation, change it, or if I can't change it and I can't get away from it, I need to accept it—be mindful of that and deal with it. (Annie)
- The morals and values are back. I know right from wrong today. I have a conscience today, so I try to do the right thing. Mindfulness meditation gives me the ability to quiet my mind even when there's chaos around me. I can just be at peace with whatever is happening and trust that it's all going to play out exactly the way it's supposed to. Even with work and with school, things can

get stressful, but just remembering that I'm ok with the present moment, the future's going take care of itself. (Emily)

- Now that I practice mindfulness meditation, my behaviors have changed a great deal. I don't steal. I try to be very compassionate and loving. I try to be helpful in every way. I try to be helpful and build my self-esteem through admirable acts, and through mindfulness meditation I've learned that happiness comes from within. External things are very inconsequential to my happiness. I can be happy just being all to myself and in the moment. True happiness has to exist within. (Jack)
- Definitely calmer, which is important, because I drank alcohol to calm myself down. So, if I can get that same feeling and affect from something that doesn't make me sick and isn't addictive, that's really good for me and the rest of the world because I'm dangerous when I'm drunk. I do stupid things. Also, more empathy for other people and less easily irritated by what other people do. So, that's probably the biggest one because I would use that as an excuse to drink all the time, oh you made me so mad, I've gotten go get drunk. Now, I know that I have a choice in that and I have control over the way I react to people. And, meditating makes it a lot easier for me to be peaceful in the noise and the mess and the chatter. (Turtle)
- After mindfulness meditation it's much easier to put the remnants of chemical dependency into perspective and recognize that from time to time, I do wish I could have a drink, but if I look at the whole picture I remember that I am an

alcoholic, and without mindfulness I might forget that. The result is being able to find peace no matter what is going on around me. I can still pause, breathe, and observe. I don't have to do anything about anything. (Neo)

- After practicing meditation, I'm dealing with reality. I'm not taking things personal, and I'm trying to be present to what is right in front of me in that very moment. That's really what mindfulness does. For me, it slows me down and makes me appreciate more because prior to meditation I was just full force, reacting to life's situations and just blowing through life. It's forced me to slow down and look around and perhaps even get some enjoyment and happiness in life. Prior to meditation, I didn't really experience any happiness or any joy. (Maggie)
- Meditation allows me to be a lot less reactive, even if I'm not using alcohol. But even if I'm not using, I can still be reactive at times and angry, so it definitely helps with that. "I'm much more mindful of the other person. I'm much more focused not on what I can get out of a relationship, but what I can bring to a relationship, and I kind of want to do less harm. So, a lot of the old behaviors were harmful. I keep in my mind that I don't want to do harm to other people. It helps me not to be as reactive. (Michael)
- I don't as quickly get to anger. I don't lash out as quickly, as well. Often what I've found whenever I've stopped using substances, I could no longer control my feelings and emotions, so I would react emotionally very strongly toward things. And with mindfulness meditation I've been able to not react so

strongly toward things, or lash out at others, or be quick to anger. I just have a lot more control over myself when I'm practicing mindfulness meditation.

(Flower)

Participants reported that they saw a bright future filled with possibilities since practicing mindfulness meditation. They experienced more positive feelings and behaviors, including feeling calmer, happier, more mindful, more connected to others, more compassionate, and a greater sense of responsibility for self and others. These positive feelings and behaviors allowed these participants with substance-dependent behaviors to stay sober. There was a positive relationship between positive behaviors and mindfulness meditation.

Research Question 4

Research question 4 summarizes the 12 participants' self-reports on the effects of meditation on their cravings as well as how mindfulness meditation affected their dependent behaviors in addition to their experiences with the mindfulness technique in general. The effects of meditation on cravings described by the respondents were positive in that meditation helped them reduce their substance cravings as well as the triggers of cravings. Their behavioral actions as the result of practicing meditation could be categorized as positive moral and mindful behaviors. With respect to meditation techniques, mindfulness meditation, loving-kindness, and transcendental meditation, detailed in Chapter 2, were used by the participants.

Theme 1: Effects of meditation on substance cravings. The participants reported that meditation reduced or took away their substance cravings and allowed them to distance themselves from or not put themselves in situations that may trigger cravings.

- “I don’t have any more cravings when I meditate and do what I’m supposed to do to stay sober. I don’t have any cravings” (Annie).
- Whenever I have a craving, and I feel that coming, I’ve sort of trained myself now to fall back on my meditation practice. And that doesn’t mean I have to sit down and be in a room. If I’m at work and I have a craving, I’ll just take a step back and just breathe and just close my eyes and focus on my breath. Even if it’s just for a minute, you know, just to get some sort of peace and stillness back. And it’s just, whenever I can take a step back and focus on my breath and just be at peace and be still, even if it’s the biggest craving I’ve ever had, it diminishes that craving. It might mean I have to meditate for a little bit longer, but it will eventually subside if I’m just quiet and just focused and kind of sit with that craving, but also focus with my breath. Because that craving will pass, and that’s what I’ve come to know through meditation.
(Sam)
- Mindfulness for me is practicing just paying attention. It’s like observing my thinking and my feelings. Cravings are feelings without the need to respond; recognizing that I am more than my cravings. A craving is not an imperative. It does not require action, because I am more than my craving. Mindfulness

allows me to release. It's not even resisting. I don't have to fight or struggle. I can just let the craving be. It comes and it goes like an itch. (Neo)

- Mindfulness meditation has helped me in the sense where when I think of a drug or a drink, I don't act on it, so I stop and I breathe. I focus on my breathing. I focus on where I am at that moment, what's around me. The mindfulness helps the cravings, and eventually they go away. (Ray)
- Mindfulness meditation led me to a spiritual experience that relieved me of all my cravings for my substance of choice, and I find that now I'm able to do more because I don't have to constantly worry about how I'm going to get any of those things that I used to want to do. Mindfulness meditation was the thing that led me to the spiritual experience that relieved me of my cravings. (Jack)
- My mind is telling me that my body is craving a substance. Recognizing that, accepting it, and letting it go, is how mindfulness meditation has helped me move forward, and I believe, remove cravings. The more I give in to what's going through my mind, the more I want to act on it. The more I let go of what's going through my mind, the easier it is to just keep moving forward with the next right thing in the day. (Emily)
- I would say it decreased for sure. I mean, a reduction because when I'm meditating and being true to that practice, I don't have that free-floating anxiety that makes me feel like I want relief. I'm peaceful, so I would say it decreases that feeling of wanting to drink. It's not there, not for me. (Rose)

- Some days when I'm meditating I feel like a beginner. Some days I feel like I'm intermediate. And that's why I said that, because some days it seems more effective than other days. My head gets quieter. I can have longer moments of real serenity, and other times it's like, well I didn't run screaming from the room. (Turtle)
- Recently I was in the kitchen and I was cooking, and I was not happy. I didn't want to be there. And I kept being mindful to the fact that it was ok. I am able to cook without drinking. It's just a thought. It's going to go away. It's all ok. And I was just very mindful that my body was telling me one thing, that it would be a lot easier if I could have a drink, but my second thought was I didn't need to have a drink. I'm just a little hassled. It'll all be ok. And I got through the cooking moment by moment. (Maggie)
- The effect of mindfulness meditation, when I'm doing it on a regular basis, is it reduces my cravings to the point where I don't have them. I can use mindfulness meditation to prevent cravings. Without practicing meditation regularly, the cravings will be more likely to occur. (Flower)
- "The more I practice meditation, the less I have cravings and the less I'm in the state of mind that produces cravings where I'm very stressed about a relationship or work or something like that" (Michael).
- Mindfulness meditation alters the way I think. It makes it extremely peaceful, and then afterwards it's kind of just easy going. I don't have any tension in my body, and I'm able to just float through the day a lot more relaxed. (River)

All participants in this study stated that meditation helped them to reduce substance cravings and reactivity when encountering situations that triggered cravings. Most participants shared similar experiences about the positive effects of meditation on their substance cravings. They reported that mindfulness meditation allowed them to be mindful about their cravings, feelings, or thoughts without having to act on them. Meditation empowered participants with the capacity to recognize, observe, and transform their cravings into peace and positive energy.

Theme 2: Meditation affecting dependent behaviors. The descriptions that the participants reported regarding how meditation affected their dependence behaviors can be categorized as positive moral and mindful behaviors.

Subtheme 1: Positive moral behaviors. The positive moral behaviors consisted of honesty, less selfishness, more self-control, and better self-esteem.

- “Oh, I’m so much less selfish” (Turtle).
- “I can tend to be a little bit more objective, level headed” (Flower)
- I also had self-esteem insecurities, and I believe mindfulness meditation has helped me here recently, grow more confident in myself. I don’t need somebody or something to make me feel better about myself. Before mindfulness meditation, I constantly had to have someone or something to tell me how they felt about me to make me feel ok with me. So, it’s a gift to be able to be quiet with myself and not need anybody or anything to build that security or that self-esteem. (Emily)

- “Lying and dishonesty were huge dependent behaviors of mine, not only when I was using, but I’ve always struggled with telling white lies,” Sam stated. For example, Sam could recognize his behavior in one incident “was not right, not the mindful thing to do,” so the behavior was stopped which Sam credited to mindfulness meditation.
- I had no control, so I always have to be in a good state of mind because if I’m not in a good state of mind then that can lead to almost out of nowhere starting to drink. So I think meditation helps my state of mind; it helps stay out of situations or conditions where I might drink. (Michael)

Subtheme 2: Positive mindful behaviors. Positive thinking, patience, level-headedness, independence, and being in the moment were the common reported behaviors that the participants exhibited with respect to the effects of meditation.

Rose and River described their positive thinking when it came to meditation. Rose stated that:

the negative thinking, like the suicidal thoughts, I don’t have any of that anymore. And by not having it here, I’m not practicing it either. I’m not participating in negative behavior anymore all the way around, whether that’s gossip or whatever; those things to me all contribute to my substance abuse if I participate in them for too long. (Rose)

River shared a similar thought process and stated that:

being a drug addict for so long, I have bad tendencies of anger and having a really bad perception on things, and even if I display anger toward somebody, I don’t

always display anger, and it's very seldom that I do get angry anymore. It's been a while maybe in traffic. I think mindfulness meditation on that, it's like whenever I start feeling negative thoughts or negative actions coming up, especially the negative thoughts, I can look at it as just a thought and I don't really have to act on it. (River)

- “Have more patience in general. Mindfulness meditation is really great for patience” (Flower).
- I was addicted to alcohol, and mindfulness helped me to recognize my addiction to thinking and feeling, feeling like I had to do something, because this is what I thought or because this is what I felt. Chemical dependency was in a way much easier to overcome than addiction to thinking and feeling because they're more constant. Thoughts and feelings, I have them all the time. I don't have cravings all the time. And mindfulness allows me some freedom from thoughts and feelings, not to ignore them because thoughts and feelings are important. I don't want to be dependent on self any more than I was dependent on. Without the broad view that mindfulness allows, I wouldn't see errors in my behavior. (Neo)
- “Basically, the dependency is released at least for that moment when I'm being mindful or when I'm practicing meditation” (Ray).

Jack and River stated that mindfulness meditation was about “being in the moment.” Jack reported that “true happiness is in the present moment and that all the

external things that I used to think would make me happy, they don't really matter. True happiness has to come from within." River stated that:

I'll be able to handle whatever situations I'm in because I should be concentrating on at this point in time. It's amazing, occasionally whenever I get like that I'll just concentrate on my breathing for like a second or I'll take a deep breath and just sigh, and that seems to relieve a lot of tension and stress, or whatever thoughts may have come. (River)

Theme 3: Mindfulness techniques. When I asked the participants about their experiences with the mindfulness technique, they responded that they have used mindfulness meditation, loving-kindness meditation, and transcendental meditation. Specifically related to the mindfulness meditation technique, some participants liked to focus or concentrate on their breathing, reading, walking, writing, chanting, being silent, doing copper artwork, and attending group meditation and retreats.

- It's been good. I like it. I like focusing on my breathing. Being that I was a smoker for a long time, I like being able to breathe clean air and be fresh about it. I just am trying to quit smoking now and am being really mindful of the medications to help me quit. (Annie)
- At night I like to do it before I go to bed. I'll sit on that same spot in my room on the floor, light some incense, and just focus on my breath and just try to unwind from the day. (Sam)
- "Chanting seems to work better for me because my brain is so busy" (Rose).

- Honestly, my favorite type of meditation that I do is I do some copper artwork, and it involves me cutting metal, hammering metal, soldering with heat. One of the things I've been working on lately is a flower that's also an incense burner. It catches all the embers that fall off the incense. It's something about me, I can put every single ounce of attention I have toward this thing I'm working on in my hands. It's like I can envision what I want it to look like, and then I can make it to look like I'm envisioning it to look like, and that's pretty amazing. (River)
- "I don't know why meditating with others makes meditation so much stronger or easier to get into, but it does" (Flower).
- What really helped me was I heard a lady talking about how meditation helped her when she was being treated for cancer. And she described it...it was the first time I heard anybody say the phrase "the chattering monkeys," and I was like that's what it sounds like in my head. I could just imagine being in the jungle with a bunch of monkeys around all chattering, and that's what it sounds like in my head. And to realize that I don't have to listen to them. Just because they're chattering doesn't make any of it real. I can sit there no matter what the chattering monkeys are doing, and I don't have to chase one into the jungle. I can just sit there because even when I'm sitting, sometimes I just wanted to crack up laughing. Other times, when I'm in a circle meditating with other people, I'm (this is terrible and I've admitted it to them) really tempted to just push one of them over, so they knock each other over in a big

circle. And then when I think about it, I want to start laughing and I don't. So, like I said, it's really about not acting on my impulsive and compulsive behavior. So, it helps a lot. It helps a lot. (Turtle)

- I learned how to sit up straight here. My back was really sort of slumping before and just the correct posture. And just the more you do it, the more you get comfortable with it. It used to hurt a lot in my lower back whenever I would do it, and now there's really no pain there anymore. So, it's just the more you do it, the more comfortable you get with it. Just like anything. Like I said, I've been doing that for a year to almost a year and six months, and I love where my practice is now. (Sam)
- My experience with mindfulness technique has been several things: to try to focus on the present moment and to find that true happiness lies within and that a lot can be accomplished with compassion and love and that there can only be one thing that I can do at a time. I can't be present and be participating in more than one activity at a time, so I've learned to give my attention to whatever activity is going on at the time. That has helped me with my emotional state and everything else. It helps me with just to be able to live life on life's terms, to accept things as they are, to accept myself as I am, and things like that. (Jack)

Loving-kindness meditation and Transcendental meditation, subsets of concentration meditation as described in Chapter 2, train a practitioner's mind in a singled-pointed focus through chanting a "mantra" or phrases over and over again. Rose

and Annie reported that they also practiced concentration meditation. Rose often repeated these four sentences over and over:

- “May I be filled with loving kindness.”
- “May I be well.”
- “May I be patient and at ease.”
- “May I be happy.”

Annie silently repeated a “mantra” in her head over and over again, and it made her feel good.

Several mindfulness techniques were beneficial for use with different personalities and situations. Mindfulness meditation, loving-kindness meditation, and transcendental meditation were all used in different forms by participants, including sitting, walking, chanting, reading, doing copper artwork, and attending group meditation.

Collectively, these themes (substance cravings, dependent behaviors) demonstrated negative characteristics or attributes to substance dependency. After engaging in mindfulness meditation, the substance cravings were reduced to sometimes or never for some participants. Mindfulness meditation has helped the participants to reduce their stress and anxiety, thus reducing their obsessions with substances. For many, substance craving has a new definition as a thought that does not require an action as opposed to an “addiction” or mental and physical obsession that must be satisfied at any cost. All 12 participants shared that mindfulness meditation has helped them to stay sober because of feeling calm, peaceful, and focused. Meditation also has helped them to have

positive outlooks about themselves through acceptance of who they are in the present moment while being able to love, care for, and empathize with other people.

Consequently, participants have gained positive moral attitudes and mindful behaviors, and they continue to focus on complete abstinence from substances.

Other Findings

Other findings were considered as discrepant findings that did not fit into any one theme or category as mentioned in Chapter 3. As stated previously, the other findings theme is used to capture the participants' experiences, feelings, or behavioral actions that could not be categorized into the four major themes. At the end of each interview, I asked if there was any additional information that the participant would like to share. All of them, except for one (Michael), shared more information. Those who chose to share more essentially just recapitulated their feelings and behaviors related to substance cravings, the benefits of meditation, and the blessing that they have not gone into relapse. There was no other self-reported information that was different from the four major nodes. Some of the best recaps of the experiences are listed below.

- We can relapse, not just in alcohol; we can relapse in old behaviors and things that trigger relapse. So I have to be careful not to relapse in old behaviors. So, like I had a boyfriend came over recently and he wasn't drinking. But the second day he was over there he started drinking. That was like an emotional relapse for me, an emotional hangover and I had to make him leave. (Annie)
- I never thought that my mind being at peace was a possibility. When I was actively in my addiction, my mind controlled me. So, it's freeing to be able to

sit here and talk about how that's not the way I live my life anymore. And my mind doesn't control my actions; my thoughts don't control my behaviors. I'm able to be mindful and aware of my surroundings and to continue to live life doing the next right thing, not only for myself but for the people around me as well. (Emily)

- I've also had the luxury of being married to a man for forty years, who is not an addict or an alcoholic, and has been practicing and reading about mindfulness meditation since he was a young person. And he's sixty-three. But I always thought that since he wasn't an addict or an alcoholic, he was able to do that, and since I was an addict or an alcoholic, I couldn't do that because meditation would be for people like him. But I couldn't have been more wrong. So I've also had the gift of being married to someone, and I've been able to watch his feat also when he practices meditation, and we talk about it on a daily basis. (Maggie)
- I really do mean it when I said it helped after I hurt myself. I can remember while I was driving, this would be a really good time to just flip out. And I'm like that wouldn't help. It wouldn't help at all so just take a deep breath. (Turtle)
- I'd like to say that I encourage everyone that I come into contact with addictive disorders that they try to be open-minded to mindfulness meditation as a avenue toward their recovery and to dealing with their emotions and how they can get some relief and live in the present moment, be able to let go of

some of things they are haunted with from their past. I very much encourage all of the people that I come into contact with addictive disorders to try some type of meditation, rather it be yoga, zen, yoga-nanda, whatever it may be, just some type of meditative approach that could help them stabilize, and help them get rid of their past, realize that they can only be happy with themselves, that the external world has nothing to do with happiness. To be able to be happy with themselves. (Jack)

- Today, life changes, life's different, but I've still held on to certain meditations I do every single morning. And it's funny, if I don't do it in the morning time, a couple hours go by and whether I forgot I did it or it didn't even occur to me that I was going to do that that morning, I feel kind of funny throughout the day, and I literally have to pause sometimes throughout the day and I take a moment out to sit by myself, whether I'm at work or I'm at the house, or I'm out on the road or something, and try to eliminate some of the thoughts in my head and try to get it back to a zero neutral basis. It just helps. (River)
- Your mind is going to be the one that trips you up and tells you need to do things or you need to get these drugs. And meditation is a great way to calm your mind and bring yourself back to your centered place and focus hindsight on what you really need to do. So, I wish meditation was more emphasized in treatment centers, as far as just the way to be sober, cause I think it's a very useful tool. (Sam)

- But my experience, I don't really know what to say, except that it's been a good one, and it continues to be a good one. Like I was saying earlier, I think that connection has been the biggest thing for me. The techniques bring me back to now, the present moment. Also, I think this component of love and compassion that I've developed because of everything that I've been doing really helps. To me, the connection with my environment, other people, and the universe stems from mindfulness. It allows me to really see, feel, hear, interpret, describe all these things and it brings me closer to everything and everyone. So my experience with it has been really great. I feel awesome when it comes to that. (Ray)
- I've been to some of their weekend retreats, because I really feel strongly about mindfulness meditation. I have had the luxury, because I have a nice income, to be able to afford to go to these retreats and learn more about it. My experience has been that it's a wonderful tool, and everyone can have it. I've been to quite a few retreats and have heard people that write books on the subject. (Maggie)
- Being quiet while washing the dishes. Being quiet while driving the car. It was more like I was performing an action. I wasn't necessarily sitting there with my eyes closed. I was doing a task, but I was being mindful of that task. What my hands were doing throughout that task whereas my mind was going while I was focused on a task. It used to be that I felt like my mindfulness practice was the strongest when I was doing something like cooking or

running or crocheting. But I had the goal to be able to sit with my eyes closed without touching or acting or performing. And that's been something that I'm working on now. (Emily)

- Mindfulness is kind of a natural act when monotony. It's like you just learn to pay attention. I was driving big heavy equipment; I had to pay attention, so you don't run over or break something. So, you know, and the idea as it was introduced back then was that it's important to sit quietly and observe the inner noise, but it was also important to sit quietly with your eyes closed; it was important also to open your eyes. And then it was important to practice mindfulness while walking around doing what life requires. (Neo)

Composite Description

This research study consisted of four research questions:

1. How do substance dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?
2. How do substance dependent individuals experience emotional states or feelings in relation to the substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?
3. How do substance dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least 6 months up to 3 years?

4. How do substance dependent individuals experience the mindfulness technique how do they themselves explain its effects, if any, on their cravings, emotional states for feelings, and actions toward substances on which they are dependent?

In *Phenomenological Research Methods*, Moustakas (1994) discussed the use of composite descriptions to describe how research participants experienced each theme. The composite description for this study describes the themes of the substance cravings (with subthemes of substance craving experiences and feelings about cravings after meditation), the feelings and emotions toward mindfulness meditation (with subthemes of general feelings and emotions toward mindfulness meditation and feelings and emotions toward substance dependence), the behavioral actions (with subthemes of behaviors related to dependence and behaviors after meditation), and mindfulness technique (with subthemes of effects of meditation on substance cravings, meditation affecting dependent behaviors, and mindfulness techniques).

With respect to substance craving experiences when practicing meditation and their feelings about substance cravings after they have practiced meditation, half of the participants shared that they did not have any cravings during meditation while the other half stated that they sometimes did experience cravings during meditation. For those participants who reported that they sometimes experienced cravings during meditation, they stated that the cravings occurred when their minds were anxious or distressed; emotional stress increased their feelings toward cravings. They reported that they felt calmer and less anxious after practicing meditation, thus reducing their obsession toward substance cravings. The majority of the participants shared that meditation has helped

them to recognize that their cravings are just thoughts; therefore, they do have to take actions. One participant described cravings as a part of mental, emotional, and physical landscape.

The participants reported positive feelings or emotions when practicing meditation. The majority of the participants stated that practicing meditation has allowed them to become more aware, to accept, to appreciate, and to empathize toward themselves and others. They are more aware of themselves and their environments through focusing on being in the present moment as opposed to thinking about the past or the future. The participants reported that they are more centered, focused, and grounded; therefore, they are in control of their emotions. By accepting who they are and becoming more aware of themselves, the participants shared that they are more appreciative, grateful, contented, and happy. As a result, they are being less selfish or self-centered by not saying harmful things to other people that they cannot take back. In terms of feelings and emotions toward substance dependence, participants felt grateful and thankful because they do not have to live a life of substance dependence any more. Some participants reported they felt better emotionally, spiritually, and physically. One participant stated that he feels sorrow and sadness for whoever is still struggling with drugs for so long; however, he is happy because he does not have to struggle with that life anymore. Participants reported more positive thinking after practicing meditation. Meditation has allowed them to see substance dependence as a thought that they can overcome. They stated that they no longer feel the need to use substances because

substance dependence is an undesirable feeling or thought that impedes them achieving true happiness and peace.

The 12 participants shared that their behavioral actions related to substance dependence included destruction, immorality, and negativity about self. In contrast, their behavioral actions related to substance dependence after practicing meditation could be categorized as appreciation, acceptance, awareness, and positive self-outlook. All participants reflected and saw that there were many negative behaviors manifested through their thoughts and actions, including being angry, mean, violent, hateful, delusional, erratic, and harmful to health when they engaged in substances. Participants stated that they were dishonest, inauthentic, and lacked moral values. The engagement in illegal behaviors, particularly stealing from family members or their employers, was to support their substance use. They also perceived themselves with many negative characteristics, including self-deprecating, self-centeredness, low self-esteem, and poor self-care. All participants described positive behavioral actions related to dependence after practicing mindfulness meditation, such as being more alert, aware, focused, and self-accepting. Being abstinent from substance use, their positive behavioral actions included better self-care, being responsible, increased self-esteem, and more self-control. Participants recognized that they felt more connected and compassionate for self and others. They believed that positive feelings and behavioral actions supported them in staying sober.

The participants' self-reports on the effects that meditation had on the participants' cravings as well as how mindfulness meditation affected the dependent

behaviors were mainly positive. Positive effects of meditation were noted in participants' self-reports about their cravings and dependent behaviors. Meditation helped to reduce their substance cravings, including triggers for cravings, such as distressed or anxious thoughts. They realized that living in mindfulness reduces their substance cravings, negative thoughts, and anxiety. All participants concluded that mindfulness meditation was a wonderful tool to enhance positive behaviors, including honesty, more selflessness, better self-esteem, and more patience. Participants valued the true happiness through mindfulness meditation.

The participants in this study stated that their experiences with mindfulness techniques included mindfulness meditation, loving-kindness meditation, and transcendental meditation. With the loving-kindness and transcendental meditation techniques, the participants focused on chanting a "mantra" or phrases over and over again. Mindfulness meditation was used in many forms, such as walking, sitting, writing, and attending group meditation.

This research study is consisted of four research questions: 1) How do substance dependent individuals experience cravings in relation to their substance dependence after practicing mindfulness meditation for at least six months up to three years? 2) How do substance dependent individuals experience emotional states or feelings in relation to the substance dependence after practicing mindfulness meditation for at least six months up to three years? 3) How do substance dependent individuals experience behavioral actions in relation to their substance dependence after practicing mindfulness meditation for at least six months up to three years? 4) How do substance dependent individuals

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Summary

In this chapter, I presented the findings from this transcendental phenomenological study to explore the personal accounts of substance dependents and mindfulness meditation. The data collection and analysis stemmed from the in-depth interviews with 12 participants using the predesigned open-ended questions in a private room at the Tam Bao Meditation Center. I also discussed the use of the NVivo qualitative software for the coding process; there were four major themes that emerged: (a) cravings, (b) feelings meditation, (c) behavioral actions, and (d) mindfulness technique.

Experiences shared by the participants that were deemed relevant to the study but did not fit into the four major themes were shared in Other Findings. An interpretation of the findings will be provided in Chapter 5.

Chapter 5: Interpretation, Conclusions, and Recommendations

Introduction

In this chapter, I discuss the findings presented in Chapter 4 regarding substance-dependent individuals' personal accounts related to their substance dependence and effects of mindfulness meditation. There was a gap in understanding about the experiences of substance-dependent individuals in relation to their practice of mindfulness meditation. Using the transcendental phenomenological approach within the framework of constructivism to explore and describe the first-hand experiences of these individuals, including their substance cravings, emotional states or feelings, and behavioral actions with respect to practicing meditation, I conducted in-depth interviews with 12 participants at the Tam Bao Meditation Center from October 12 to November 15, 2016. I used predesigned, open-ended interview questions, and interviews lasted 45 minutes to 1 hour.

Recruitment of participants was based upon predetermined criteria. The 12 individuals who volunteered to participate in this study were between the ages of 26 and 63 years of age, were self-reported as substance-dependent individuals who had not used substances within 6 months and had practiced meditation for at least 6 months, and were not in crisis or had experienced a substance use relapse. The experiences shared by participants were coded into four parent themes derived from the creation of textural-structural narratives: (a) substance cravings, (b) feelings and emotions about mindfulness meditation, (c) behavioral actions, and (d) mindfulness techniques. The results of this phenomenological study provided a rich description of participants' experiences related

to substance dependence and mindfulness meditation, including information about cravings, feelings or emotions, and behavioral actions.

The key findings for this study are that regular practice of mindfulness meditation (a) helps substance dependents to reduce or eliminate their substance cravings, (b) allows them to have positive feelings and emotions about themselves as well as about those around them, and (c) encourages them to exhibit or to take healthy behavioral actions.

Interpretation of the Findings

The effects of mindfulness meditation on many aspects of substance dependence are correlational in nature (Black, 2014; Bowen, Chawla, & Marlatt, 2011; Hayes & Levin, 2012; Williams & Kraft, 2012). Additionally, some qualitative scholars also have focused on meditation as a technique (Bayles, 2014; Shonin et al., 2014). However, there was a gap in the literature regarding the personal accounts or lived experiences of substance-dependent individuals related to their practice of mindfulness meditation. In this study, I attempted to fill this gap. The textual-structural descriptions of the 12 participants' experiences and mindfulness meditation were obtained through interviews lasting from 45 minutes to 1 hour each. Interpretations of the results of this phenomenological qualitative study are organized across four major themes: (a) substance cravings, (b) feeling meditation, (c) behavioral actions, and (d) mindfulness technique. Although participants' demographics were unique, their experiences related to their transformation of dependent behaviors through mindfulness practice were similar, as shown by themes, subthemes, and sub subthemes as depicted in Table 6.

Research Question 1

This study was designed to explore and to gain a deeper understanding of the substance craving experiences of substance-dependent individuals after practicing mindfulness meditation. The majority of participants shared that mindfulness meditation helped them to reduce or eliminate their substance cravings, while a few stated that they still experienced cravings occasionally. Mindfulness meditation enhances physical and psychological well-being (Gordon & Griffiths, 2014; Perelman et al., 2012). I found that participants felt less anxious and less obsessive about substance cravings after practicing mindfulness meditation. Participants indicated that they did not have to “dwell” or “get lost” in their personal experiences; in fact, they entered a peaceful state of mind that was alert, aware, and calm.

Theme 1: Substance craving experiences when practicing mindfulness meditation. Practicing mindfulness meditation provides an opportunity for substance-dependent individuals to look into their inner world through their direct experiences including cravings, feelings, emotions, and behavioral actions. According to Perelman et al. (2012), mindfulness practitioners develop the ability to observe, experience, and liberate themselves from all kinds of feelings and sensations. Jack stated that with practicing meditation, he was not forced to use alcohol by his compulsive behavior. When an individual has more inner peace or inner happiness, it seems that he or she no longer seeks or attempts to create happiness through outside activities (Hanh, 1987; Pelled, 2007). One participant described that for the previous 2 years, he did not crave drugs to get high because he was able to maintain positive energy from his practice of

mindfulness meditation (River). In addition, the practice of mindfulness meditation enhances the capacity of practitioners to refrain from reacting based on thoughts, feelings, or emotions (Perelman et al., 2012). Neo shared that when practicing mindfulness, he was able to observe his cravings when they arose, and he recognized that “cravings are instincts and thoughts” which do not require a response other than breathing and observing. With daily practice living in mindfulness, individuals may develop the ability to self-reflect, self-regulate, and self-liberate (Shapiro et al., 2006).

Moustakas (1994) stated that phenomenological studies allow participants to share their own unique experiences about a similar phenomenon and to understand their own reality based on personal beliefs, experiences, and interpretations. Therefore, substance-dependent individuals may have different experiences from others even though they all have practiced mindfulness meditation. Every moment is a unique moment; therefore, mindfulness practitioners learn how to experience reality based upon “present moment experience” without expecting certain results. For example, sometimes Ray allowed himself to encounter an uncomfortable zone where he struggled with his intensified cravings for drugs or alcohol. Meditation may empower individuals to expand their ability to be in contact with what is going right now and right here, without reacting, which increases psychological flexibility (Luoma et al., 2011). Cravings are still there for most of the substance-dependent individuals; however, practicing mindfulness meditation may help them to be aware of their cravings without judging or reacting to them (Black, 2014; Bowen et al., 2011; Chiesa & Malinowski, 2011). With meditation practice, Sam was able to minimize emotional stressors or distress.

Liberation from all kinds of attachments is challenging for all human beings, especially for individuals with substance-dependent behaviors. Sam stated that “letting go” is helpful for a mindfulness practitioner to stay peaceful, still, and calm. Mindfulness also enhances individuals’ “willpower” and ability to smile and breathe through emotional attachments (Willams & Kraft, 2012). Bogels, Sijibers, and Voncken (2006) stated that during the time of practicing mindfulness meditation individuals recognize, accept, and transform all kinds of pleasant as well as unpleasant experiences. With 21 years as a substance dependent and only 3 years practicing mindfulness, Turtle could perceive that “thoughts can get like hamsters on a wheel,” but she does not have to follow her ruminative thoughts. With mindful living, she could see craving as more of a “a mental obsession.” She also admitted though, that sometimes she still thinks, “I will feel better if I just go to use.

Theme 2: Feelings about substance cravings after meditation. According to NIMH (2015), several scientific studies revealed that the practice of mindfulness meditation transformed negative moods related to anxiety disorder, panic disorder, and depression in clinical as well as non-clinical populations. The results of this qualitative study demonstrated that after practicing meditation, participants had more inner peace and calm and were better able to let go of substance cravings. “They lessen. There’s no more. No more cravings” (Annie). With more insight after meditation, one participant changed his perspective on drugs from obsessive to dirty. This is an example that illustrates the constructivist framework, theorizing that a person’s reality is dependent upon that individual’s lived experience. One participant in this study reported that

meditation practice changed her perceptions of reality. Ray associated mindfulness meditation with clean things and associated substances as dirty stuff. “I view the substance after I’ve done that as disgusting, whereas before in my addiction it was not” (Ray). Thus, a person’s inner world depends on his or her mental capacity as well as that person’s direct experiences (Epstein, 2007).

As mentioned in Chapter 2, individuals’ experiences are constantly changing as a function of thoughts, feelings, and perceptions (McWilliams, 2012). After practicing meditation, the practitioners gain more inner peace and have clearer minds, which help them to release cravings and compulsive behaviors (Davis, Zautra, Wolf, Tennen, & Yeung, 2015). Jack believed that the reason he was relieved of his cravings was because after practicing mindfulness meditation, he gained more inner strength to be at ease and peaceful. He was no longer a victim of compulsive behaviors and cravings. The more inner peace and happiness a person has, the more freedom from all kinds of temptations and dissatisfactions (Kornfield, 2009). Shapiro and Carlson (2015) stated that within a few minutes of meditation, some individuals may have a transcendent experience, which leads them to be free from suffering. The most challenging aspect of meditation is the commitment to daily practice. As Rose mentioned, as long as she took even a few minutes, she could see the benefits of meditation: “The more time I can put in, the better it is.” Rose concluded that there was a positive relationship between the amount of time practicing meditation and less worry and fear.

Hanh emphasized numerous times in his books on mindfulness meditation that living in the present moment is the most significant and wonderful moment in people’s

lives because it allows them to engage reality with a transformed mind (Hanh, 1987). This very moment is different from the last moment and the next moment. Therefore, each day's experience of peace, calm, or happiness is different after practicing meditation. River stated that every moment's experience was euphoric, which made his life more energetic and happier. As Hanh has said, present moment is a wonderful moment. This moment is the only moment that a person can truly experience thoughts, feelings, or emotions as they are now. It is not possible to ever repeat the present moment.

Research Question 2

Feelings or emotions play a significant role among substance-dependent populations. Participants in this study described the way they handled their feelings or emotions through acceptance, appreciation, awareness, and empathy. Instead of reacting based on their feelings or emotions, these participants recognized, experienced, and let them go.

Theme 1: General feelings when practicing meditation

Subtheme 1: Acceptance. The principals of MBSR are present-moment awareness and nonjudgmental acceptance (Appel & Kim-Appel, 2009; Kabat-Zinn, 1990; Smith et al. 2011). Mindfulness meditation helped individuals with substance dependence to recognize and accept their thoughts and feelings by tolerating situations or circumstances. Acceptance is simply to be with what is occurring in the moment. Accepting weaknesses is the first step, and it is a big step for a substance-dependent individual. As Annie stated, she has a tendency to run away from her unpleasant

situations: “If something disturbs me, I either try to get out of the situation or change it.” However, with mindfulness techniques, she can learn how to accept the situation as it is and learn how to deal with it instead of running away from her unhappy reality.

Being with nature may be a great environment for some mindfulness practitioners to cultivate peace and harmony (Vernig, 2011). No matter what level of mindfulness practice a person has, a peaceful environment is an important supportive factor for increasing the ability to focus in any situation. River suggested that a sanctuary, meditation hall, or a quiet place is necessary to increase concentration or inner peace: “Like in the woods, for some reason, is kind of where my mind takes me to”. In general, most of mindfulness practitioners can practice better in a peaceful environment that requires less or little effort from these meditators.

Subtheme 2: Awareness. The purpose of practicing meditation is to increase the levels of concentration and awareness, especially in the Vipassana tradition. The ultimate goal of meditation is to see things as they are or to recognize thoughts, feelings, and emotions with “insight” (Perelman et al., 2012). “I can recognize the thought, be at peace with the thought, and let the emotion or the feeling leave me on its own time and just try to stay present in the moment” (Emily). “I’ve become more alert and focused on the things that I want and the things that I don’t want” (Annie). Hayes and Levin (2012) indicated that mindfulness meditation enhances the ability of substance-dependent individuals to challenge themselves in high-risk situations. Through the practice of mindfulness, Jack has developed the ability to accept and tolerate both pleasant and unpleasant emotions. He understands that sometimes the actual pain is not as intense as

the interpretation of it based on “unhappy emotion.” Jack continued, “I could be more aware of the anger and rage that I was experiencing because of things that had occurred in the past and things that I was trying to deal with in negative ways”.

Subtheme 3: Appreciation. Shapiro and Carlson (2015) described mindfulness practitioners as having openhearted qualities in terms of embracing both positive and negative experiences. With this appreciative attitude, practitioners were at ease and peaceful regardless of whether physical or mental states were pleasant or unpleasant. They perceived that feelings or emotions were not reality and would pass eventually. Turtle and Rose were able to contemplate the feelings that helped them to unfold their capacity for love, joy, and equanimity, regardless of what was going on with them at the moment (Austin, 1999; Hanh, 1987). “I feel a lot calmer. I would say a general contentment” (Turtle).

Subtheme 4: Empathy. Empathy was defined by humanistic psychologist Carl Rogers as the ability to sense another person’s reality as if it were his or her own world. Mindfulness meditation is a great form of connecting human beings through mutual love, compassion, and empathy (Kabat-Zinn, 2005; Kornfield, 2009). Everyone has a potential to develop loving-kindness and compassion toward themselves and others. With practice, Rose could see that her self-centeredness and selfishness decreased over time. Shapiro and Carlson (2015) found that there was a significant difference in empathy levels between the meditation group as compared to the control group; thus, the more people are mindful, the more empathy they have, which enhances the ability to show concern for others (Shapiro & Carlson, 2015).

Theme 2: Feelings toward substance dependence. Tang and Posner (2013) suggested that practicing meditation allowed practitioners to realize that emotions and feelings are linked with their thoughts. Hence, substance-dependent individuals could move beyond their thoughts, and they were no longer victims of negative feelings or emotions.

Subtheme 1: Beyond the thought. Human beings possess strong habits for reacting based upon perceptions or interpretations (Murakami et al., 2015). However, mindfulness meditation can empower substance-dependent individuals to see substance craving as it is a thought instead of reacting to that thought whenever it arises (Davidson & Kaszniak, 2015; Tang & Posner, 2013). The experiences of participants in this study indicated that they did not allow thoughts to control their lives. A key concept in mindfulness meditation is that thoughts are not true or factual; therefore, avoiding, attempting to change, or controlling thoughts are not components of meditation. Learning how to contact or engage the present moment fully, including difficult thoughts or feelings, is the goal of mindful living. “I can have the thought, absolutely, but I don’t have to let the thought control me” (Emily).

Being a mindfulness practitioner, a person does not seek to always have his or her own way. Everyone has a choice to relate to a “right way” of thinking. Good mindfulness practitioners would be fine with all kinds of thoughts, feelings, and sensations in their lives. As Maggie stated in her interview, her first reaction to cravings is to numb her pain, but her mindful response is to just sit, “be with it, and it will pass.” As Muesse (2011) mentioned in his book, an unskilled mind carries unwholesome thoughts that are connected with selfish desire, hatred, or delusion. As an individual who has struggled

with her substance-dependent mind, it was challenging for another participant to have positive thinking instead of thought about “stupid things” (Turtle).

Subtheme 2: Mixed emotions. Substance-dependent individuals must face many difficulties, including unhappiness and emotional pain. Witkiewitz and Bowen (2010) found a positive relationship between symptoms of depression and substance use disorders. Caution is important when applying mindfulness practices with substance abusing populations, because in some cases meditators might find it difficult to focus and may instead contemplate their substances. “If I’m meditating or being mindful about substances and heroin and alcohol, I feel very sad” (Ray). Fortunately, mindfulness meditation can be used to transform negative effects, craving, and interpersonal stress (Davis & Hayes, 2011; Ireland, 2012). In fact, one participant in this study implemented mindfulness meditation as a spiritual tool to transform his “evil thoughts” and “make it out alive, it’s an absolute miracle” (River).

Subtheme 3: Appreciation and positive regard for self. Shonin et al. (2014) reported that mindfulness awareness training could improve self-acceptance, positive attitude, and levels of contentment. Several participants in this study reported increased contentment and more positive attitudes as a result of practicing meditation. Michael gained more inner peace from meditation, so he did not crave alcohol or want to drink any longer. “My peace allows me not to want to crave alcohol anymore” (Michael). Annie also confirmed that when her mind, heart, and soul are peace filled, then substances could not intrude in her life. The practice of mindfulness meditation is a process by which a person is able to distinguish his or her thoughts, feelings, or emotions

from moment-by-moment experience with clarity and objectivity (Shapiro & Carlson, 2015). As long as mindfulness practitioners are able to see “reality as reality,” then they no longer allow their thoughts and feelings to control their life. After practicing meditation daily for 3 years, Neo realized that his true-self was more than thoughts and feelings.

Research Question 3

Individuals with substance-dependent behaviors are highly associated with harmful behavioral actions, such as theft, assault, and homicide (Arria et al., 2015). This finding was consistent with those of this study; participants reported negative characteristics (destruction, immorality, and negative about self) related to substance dependence. In contrast, there were increases in constructive behavioral actions (appreciation, acceptance, awareness, and positive self-outlook) emerging after mindfulness meditation.

Theme 1: Behaviors related to substance dependence. Destructive behaviors, immoral behaviors, and negative thoughts about self are three main negative behaviors related to substance dependence.

Subtheme 1: Destructive behaviors. NIDA (2013) revealed that one out of three college students were willing to skip classes due to illicit drug and marijuana use. Aggressiveness, violence, delusion, erratic behaviors, hate, and harm to health are common destructive behaviors related to substance dependence. Anger may be the most destructive behavior among most substance-dependent individuals. Increased heart rate and blood pressure are associated with anger (Muesse, 2011). All participants in the study

indicated that before beginning the practice of meditation, their behaviors were harmful and horrible because of substance dependency. Ray conducted her life based on the energies of hatred, violence, and self-harm as well as harm to those around her. “Doing what I wanted to do even though it’s harmful to my health” (Annie). “I will lash out at people” (Michael). In fact, prior to practicing mindfulness meditation, the 12 participants in this study were engaging in destructive behaviors without a sense of concern for humanity. Examples of participants’ destructive behaviors included driving too fast, driving while intoxicated, engaging in unhealthy relationships, or even hitting others without thinking.

Subtheme 2: Immoral Behaviors. Maladaptive behaviors are very common in most American families with a history of chemical dependence. In general, substance-dependent individuals do not have good relationships with parents or family members; they also participate in all kinds of immoral behaviors (Bradshaw, 1993; Vernig, 2011). Before practicing mindfulness meditation, the participants in this phenomenological study engaged or exhibited common behaviors, such as dishonesty, stealing, being inauthentic, or participating in criminal activities. Engaging in unhealthy relationships was a common behavior for many participants in this study and included engaging in casual sexual activity. Other dysfunctional behaviors included stealing money to get drugs, and getting double the money from other bank accounts.

As Hill et al. (2008) indicated, peer pressure is a strong predictor for adolescent affiliation with substance using. River reported that he started hanging out with his friends who were doing drugs so that he could buy some from them. Without a moral

sense, River manipulated people around him in order to use drugs to the point that eventually he had nobody around him. Thoughts can manifest into actions; therefore, individuals with substance dependency are always looking for people who can support their chemically-dependent behaviors (Bowen & Kurz, 2011). Emily and Flower both stated that they were willing to ruin all kinds of relationships in their life, even romantic relationships, just to get and abuse substances.

Subtheme 3: Negative about self. Shapiro and Carlson (2015) recognized that people perceive values or what is meaningful for them based on what family, culture, and society define. In fact, most people are not able to recognize the actual values that drive their choices in life. Participants in this study demonstrated that substance dependence led to negative behaviors, including impatience, irresponsibility, unreliability, paranoia, sadness, self-deprecating thoughts, self-centeredness, poor self-esteem, and poor self-care and appearance. With 32 years of living with and abusing substances, Rose destroyed all moral and cultural values in her life; she developed very low self-esteem, no self-worth, and “lots of suicidal feelings” as a result. Zgierska et al. (2009) stated that substance-dependent individuals often experienced feelings of shame and worthlessness. Sam sincerely reflected on himself and acknowledged, “Nobody wanted to be around me...because I was a horrible person.” There was no peace, love, honesty, or integrity in Sam’s life as a result of his substance abuse.

Theme 2: Behaviors after meditation. Gordon and Griffiths (2014) revealed that after practicing mindfulness, practitioners gained more physical and psychological benefits. My study suggests that participants saw increases in their positive behaviors as

related to dependence after practicing meditation. It is very important for this particular population to be able to stay sober by having positive feelings (calmer, happy, open, and mindful), lovely emotions (connected, more loving, compassionate, and less reactive), and positive behavioral actions (better self-care, being responsible, increase self-esteem, and more self-control). All participants stated that they had begun a completely new chapter in their lives after practicing meditation and staying sober. They all connected to people better, helped others with love and care, and became less negative overall. With a mindful way of recovering and living, they each enjoyed life with more positive thoughts, behaviors, and emotions. It seems that true human connection is a big antidote for addiction. “Mindfulness meditation makes me feel at one with my environment, my God, just myself, my own being” (Ray).

In general, mindfulness meditation brought participants more inner peace and happiness, along with more positive behaviors toward themselves and others. When a person has increased compassion, he or she could refrain from stealing more easily (Black, 2014; Bowen, Chawla, & Marlatt, 2011; Hayes & Levin, 2012; Williams & Kraft, 2012). Jack stated that true happiness came from within; therefore, to develop compassionate and loving behaviors could transform his immoral attitudes about stealing. “Now to my happiness. I can be happy just being all to myself and in the moment. True happiness has to exist within” (Jack).

Mindfulness meditation helps a person to become more calm and tranquil because the mind engages with the present moment instead of worrying about the past or planning the future (Hayes & Levin, 2012). Therefore, substance-dependent individuals could

learn to use meditation as a substitute for a substance with the same results but without negative consequences. A very interesting and valuable lesson was learned by Turtle, who reported that the reason she drank alcohol was to calm herself. Now, however, she realizes that she can calm herself by practicing meditation. “Meditating makes it a lot easier for me to be peaceful in the noise and the mess and the chatter” (Turtle). Inner peace and happiness are acquirable for every mindfulness practitioner (Goldin et al., 2009; Muesse, 2011). The thought of describing himself as, “I am an alcoholic” is challenging for Neo from time to time; however, with mindfulness meditation, he can still pause, breathe, and observe (Neo).

According to the definition of Vipassana, meditation is a technique to gain “insight” to see reality or things as they really are, which is the whole purpose of the practice of living in mindfulness (Perelman et al., 2012). Maggie reported in her interview that when she lives in mindfulness, which connects her to every moment of her reality, there is no space or time for worrying about the past and future. According to Hayes and Levin (2012), mindfulness practitioners developed more psychological flexibility, including openness and awareness.

Participants in this study seemed to alleviate negative emotions and psychological discomfort very well. Running, hiding, and fighting the “present moment” or “reality” are very common behaviors in human life. In contrast, accepting or engaging in the present moment is at the core of mindfulness meditation (Hayes & Levin, 2012). Participants in this study stated that the more mindful they were, the less reactive behaviors they engaged in throughout their daily activities. “And with mindfulness meditation I’ve been

able to not react so strongly toward things, or lash out at others, or be quick to anger. I just have a lot more control over myself when I'm practicing mindfulness meditation” (Flower).

Research Question 4

In addition to its use in therapeutic communities and cognitive behavioral therapies for treatment and prevention of substance dependence, mindfulness meditation has also been found to be effective for individuals' physical and psychological functioning during their recovery process (Garland, 2013). Mindfulness technique is a way of being present moment-by-moment without attachment or reaction to thoughts, feelings, emotions, or physical sensations. Mindful awareness is a natural human capacity that enables mindfulness practitioners to accept what is here and now (Kabat-Zinn, 1990; Baer, 2009; Shapiro & Carlson, 2015). The results of this study indicated that after practicing meditation, participants reduced their substance cravings and increased positive morals as well as mindful behaviors. In addition, different techniques of meditation have been used effectively by different participants.

Theme 1: Effects of meditation on substance cravings. Practicing mindfulness meditation empowered practitioners in this study to experience moment-by-moment awareness without trying to change or escape negative thoughts or feelings. Substance cravings may always be present with substance-dependent individuals; however, they no longer become victims of their cravings (Black, 2014; Bowen et al., 2011; Chiesa & Malinowski, 2011). Cravings may visit individuals with substance-dependent behavior at any time, but with mindfulness, their only job is to breathe, focus, and feel that coming

and that cravings will pass. “I don’t have to fight or struggle. I can just let the craving be. It comes and it goes like an itch” (Neo).

Spirituality is very complicated to understand, but it is very important in human life. Empirical studies suggest that mindfulness meditation could be a great factor for cultivating spiritual experiences (Shapiro & Carlson, 2015). All participants in this study were active members of an AA group at Tam Bao Meditation Center. Learning, sharing, and practicing meditation along with practicing the 12 steps are the core values of this particular AA group, which meets every Monday night. Jack believes that mindfulness meditation led him to enrich his spiritual experience as well as relieve his cravings. Mindfulness is a potential spiritual tool for individuals with substance dependence, used to enhance positive growth (NIMH, 2015). Emily confirmed that mindfulness meditation helped her to move forward and go beyond her cravings more easily. It is a daily battle for substance dependency between the “wanting mind” and spirituality. Most substance-dependent individuals face many obstacles in their daily life, such as the things they hear or see that may trigger them to drink or use substances. However, with a mind strengthened by spirituality and meditation, these obstacles weaken for them, moment by moment.

Theme 2: Meditation affecting dependent behaviors. Kabat-Zinn (2005) and Kornfield (2009) indicated that mutual love, compassion, empathy, understanding, and forgiveness are developed through loving-kindness meditation. Many participants in this study believed that their positive moral and mindful behaviors were the results of practicing meditation.

Subtheme 1: Positive moral behaviors. Even though participants practiced mindfulness meditation for a short time, they increased their ability to regulate attention, body awareness, emotion regulation, and positive self-perspective (Davidson & Kaszniak, 2015; Tang & Posner, 2013). Honesty, reduced selfishness, more self-control, and better self-esteem are positive behaviors that were disclosed in this study. Emily believed that being able to quiet her busy mind helped her to recover self-confidence and self-esteem. “Lying and dishonesty were huge dependent behaviors of mine, not only when I was using, but I’ve always struggled with telling white lies,” Sam stated. For example, Sam could recognize his behavior in one incident “was not right, not the mindful thing to do,” so the behavior was stopped, which Sam credited to mindfulness meditation.

Subtheme 2: Positive mindful behavior. Common positive mindful behaviors, including positive thinking, patience, and independence, are associated with meditation practice. Additionally, happiness, optimism, wisdom, and emotional intelligence are associated with mindful behaviors (Germer & Neff, 2013). Rose and River described using positive thinking associated with their meditation practice to handle situations that once were difficult. For example, they use positive thinking in traffic, have no time for gossip, have more positive perceptions about things, and let go of angry feelings more easily.

Substance-dependent individuals who practiced mindfulness meditation learned how to cope with personal desires or cravings. Mindfulness does not stop those individuals from craving or from experiencing a “wanting thought”; instead practitioners

learned to mindfully accept every moment of craving and desire (Brewer et al., 2012). Jack and River stated that mindfulness meditation is about “being in the moment.” Jack reported that true happiness is to enjoy the present moment and that all the external things are not significant in his life anymore. True happiness must come from within (Hanh, 1987).

Theme 3: Mindfulness techniques. Hanh offers mindfulness techniques in many forms, including smiling, breathing, reading, walking, chanting, and practicing noble silence (Hanh, 1987). The participants in this study practiced different forms of meditation in unique situations, including mindfulness meditation, loving-kindness meditation, and transcendental meditation. Some participants preferred to sit on the floor with some incense at nighttime before going to bed, but other practitioners concentrated better by listening to some chanting, which made them feel at ease. Loving-kindness meditation and Transcendental meditation, subsets of concentration meditation as described in Chapter 2, train a practitioner’s mind in a single-pointed focus through chanting a “mantra” or phrases repeatedly. Rose and Annie reported that they also practice concentration meditation. Rose often repeats these four sentences over and over:

- “May I be filled with loving kindness.”
- “May I be well.”
- “May I be patient and at ease.”
- “May I be happy.”

Annie silently repeats a “mantra” in her head, and it makes her feel good.

Almost everyone has to work for a living; working in mindfulness is a common form of daily meditation. One participant stated that he did some copper artwork, so cutting, hammering and soldering metal with heat were what he considered informal forms of his meditation practice. In fact, working in mindfulness should be the most applicable and practical form of meditation for any type of work. Sitting meditation can be challenging because practitioners may experience uncomfortable sensations, feelings, or physical discomfort, such as numbness and backache. However, over time, a higher level of tolerance for physical or emotional pain will increase (Kabat-Zinn, 1990). After practicing sitting meditation for 18 months, Sam was able to accept pain in his lower back while sitting in an uncomfortable sitting position, which brought him to a higher level of tolerance for physical as well as emotional pain.

In general, human beings tend to multi-task without being aware of what is going on around them. As a result, living in mindfulness can be a challenge when participants are only doing one thing at the time (Epstein, 2007). For many people in contemporary society, multi-tasking is a familiar way of living, and they believe that they cannot do just one thing at a time. However, participants in the study have learned how to enjoy one thing in each moment as they employ their full attention and intention. Each person is a human “being” rather than human “doing.” The right attention is a fundamental component of mindfulness meditation. In any context of mindful practice, paying attention requires the observation of the operations of moment-to-moment internal as well as external experiences (Bowen et al., 2011).

Other Findings

There were four major themes in this phenomenological study as analyzed in Chapter 4. The other findings were considered discrepant findings in this study. The last part of the interviews investigated further lived experiences of all participants related to their substance dependence and practice of mindfulness meditation. It was amazing to learn more about personal experiences from each participant. Most of the participants relapsed at some point in their lives. People have a tendency to hold on to old thoughts, feelings, or behaviors that may create more suffering and are habituated to return to all those old thoughts, feelings, and behaviors (Hayes & Levin, 2012). Annie viewed her relapse from a macro-perspective; her relapse was not only with alcohol but also with old thoughts, behaviors or emotions that contributed to her substance dependence in the first place.

A good mindful practitioner would be able to discover his or her human potential, including positive psychological, transpersonal, and spiritual variables (Shapiro & Carlson, 2015). One participant was surprised when she recognized that she had the capacity to be mindful, despite the many obstacles in her daily life. Emily discovered that she had the potential to be aware of herself and her interactions with other people.

There is no doubt that marital relationships play a big role, both positive and negative, in substance dependency as well as in mindfulness meditation. Because of these dynamics, there was an interrelated and interdependent relationship between substance dependency and mindfulness practices in most participants' relationships. Maggie

believed that her being a proactive mindfulness practitioner for 40 years allowed her husband to be a great support for her in maintaining sobriety.

Even though mindfulness meditation was developed in Buddhist practice more than 2,600 years ago, it is relevant to practitioners today. The intention of this study was to demonstrate the fundamentals of effective psychotherapy using mindfulness meditation with participants in hopes that this practice would be useful to all people who want to live in peace, harmony, and happiness. Jack encouraged everyone to try to be open-minded to mindfulness meditation as a way to deal with their emotions, feelings, and addictive behaviors. He continued by sharing that mindfulness meditation, yoga, Zen, or any type of meditations would without question bring more joy and happiness to practitioners. Another participant had a wish that meditation would be emphasized more in many treatment centers, because it is a great way to deal with substance dependents' busy minds and a way to bring practitioners back to a centered place where they really need to be.

I believe that human connection is the biggest challenge for all substance-dependent individuals. Therefore, the practice of living in mindfulness is the best way to reconnect with a person's true self, with nature, and with others. A participant shared that as long as he is able to be connected with the present moment, he can relate to other people with a sense of love and compassion. Ray expressed that his personal experience with mindfulness was the best way for him to see, feel, or hear everything in his life more clearly.

Mindfulness meditation is the best antidote to suffering or dissatisfaction; however, it requires practice not just every day but every possible moment. Mindfulness is also about freedom: freedom from negative thinking, freedom from reactivity, and ultimately freedom from monkey mind (Muesse, 2011). For beginners and intermediate-level mindfulness practitioners, participating in group meditation or retreats could enhance the ability to observe the mind with the mind (Kornfield, 2009). Emily preferred to apply mindfulness practices into her daily life through such activities as washing the dishes, cooking, running, or crocheting. She referred to these activities as actions in mindfulness. The real mindfulness practitioner is not just sitting there with her eyes closed but is also doing every task with one focused mind.

The right attention is a fundamental component of mindfulness meditation. In any context of mindful practice, paying attention requires the observation of the operations of moment-to-moment internal as well as external experiences (Bowen et al., 2011). Hanh (1987) said mindfulness involves a deep looking and penetrating attention, not as simple as grazing the surface of phenomena. Neo reported that mindfulness is a kind of natural action in which he did not have to pay attention, but he naturally was in that moment. A real mindfulness practitioner is able to do everything in any situation with just the right attention through breathing in and breathing out in order to nurture his organs. A mindful mind can see the whole reality, not just a part of the whole reality.

Limitations of the Study

The experiences that the participants shared related to substance dependence and mindfulness meditation are invaluable and may provide positive social change; however,

the findings should be used with caution due to limitations within this study. The participation eligibility was self-disclosed based on the criteria that I set for this study, but I was not able to verify all of the information. For example, I did not have a means to validate if participants had practiced meditation for at least 6 months up to 3 years. Likewise, the participants' substance dependence was self-reported. The sample of the participants was drawn from one meditation center and therefore may not be representative of the entire population. Additionally, because the recruitment of participation was from a single meditation center, some of these volunteered participants could have been eager to share their positive views of mindfulness meditation, whereas the substance-dependent individuals from other meditation settings might have offered different perspectives. Another limitation is that this study interviewed only those who persevered with meditation for at least 6 month up to 3 years. I do not know the experiences of those substance abusers who start meditation and subsequently drop out.

There were 12 individuals who participated in this study, and they were all Caucasians as shown in Table 3. Therefore, the results of this study may not be transferable to non-Caucasian individuals as they may not have similar experiences with respect to substance cravings, emotions, or feelings related to substance use and meditation, and behavioral actions. The participants reported having education with the majority of them having graduated from college. As such, the results of this study may not reflect the experiences of those substance dependents who do not have similar education levels, such as high school or below. In addition, this study only considered

adult substance-dependent individuals; the results of this study may not be transferable to substance dependents who are under 18.

Finally, another limitation of this study is the potential for personal bias. As a Zen practitioner with over 20 years of experience in mindfulness meditation, I enjoy and can attest to the positive experiences or benefits of meditation. I also have volunteered to teach mindfulness meditation to clients at a private substance-dependent treatment center. As a way to control this personal bias, I maintained a journal (reflexive journaling) during data collection and analysis, documenting my personal thoughts and opinion so that they could be separated from the participants' experiences. The use of a colleague's assistance to review the textural-structural descriptions and findings was another avenue to ensure that my analysis and interpretations, which based on participants' information.

Recommendations

Future research may enrich these findings by focusing on a more diverse sample, which was a limitation in this study, as described in the previous section of this chapter. There were many more volunteers who met research criteria for this study who were willing to participate; therefore, it is possible to have a more diverse sample for improving trustworthiness going forward. It would be better for future studies to have a researcher's assistant who has no monastic life experience, which would minimize bias and expected outcomes as well during recruiting and data collection.

I believe that achieving human connection is the biggest challenge for all substance-dependent individuals. I also believe that the practice of living in mindfulness is the best way to understand the nature of people's minds as well as their emotions and

feelings. Future research in this area should examine the impact of mindfulness practices on this sense of connection with self, nature, work, or other things in the present moment. In the current busy and distracted society, people seem to struggle to connect to their thoughts, feelings, emotions, and physical sensations. Hence, substance abusers with psychotic behavior, antisocial, or personality disorder for whom meditation might not work or be effective.

Davidson and Kaszniak (2015) indicated that there was a positive relationship between positive emotion and compassionate meditation. His studies also found that mindfulness meditation increased positive mood states as the results of brain activity that connected with the generation of positive emotional states. Future research could investigate more neurophysiology of mindfulness meditation in relation to individuals with substance-dependent behaviors.

There is a large body of research on gender, some of which indicates that men and women have different experiences in life and may need different learning environments or master cognitive tasks in different ways. Further studies could investigate the best techniques for meditation with male and female substance abusers.

In terms of a timeline of meditation practice, there were five participants who practiced mindfulness for 3 years; four out of these five participants identified themselves at an intermediate level and one at an advanced level. Four participants were considered beginner-level mindfulness practitioners. Future studies could investigate developmental milestones that allow a mindfulness practitioner to know that he or she is headed in the right direction with sobriety.

Implications

For the purposes of positive social change, mindfulness meditation should be available at any church, temple, or spiritual center for anyone who needs help, in particular for individuals with dependent behaviors. In fact, mindfulness techniques could be incorporated into the AA tradition with support from scientific evidence. The AA tradition and mindfulness meditation could be very compatible. Mindfulness meditation could be utilized as another available relapse prevention technique for long-term treatment for substance-dependent individuals (Hayes & Levin, 2012). In fact, looking deeply into different aspects of life, there is the possibility that any person can see that everyone in this mundane human society could become a victim of his or her negative thoughts, feelings, or emotions at some point in life. “We can relapse, not just in alcohol, we can relapse in old behaviors and things that trigger relapse. So I have to be careful not to relapse in old behavior” (Jack). Therefore, mindfulness is the best tool for developing a potential coping skill to deal with many challenged moments of this stressful society (Brewer et al., 2012).

From a clinical perspective, mindfulness meditation could be utilized as a practical tool for each individual client, patient, participant, or therapist. There is no one who can access psychotherapy every day, nor is there anyone who can understand a person’s feelings or emotions except that person. Incorporating mindfulness meditation into daily life among the general population is the best way to understand humans’ lived experiences. Instead of running away from unpleasant situations, all people can enjoy

their personal experiences moment by moment without expecting any particular outcome (Davidson & Kaszniak, 2015).

I encourage everyone that I come into contact with addictive disorders, that they try to be open-minded to mindfulness meditation as a avenue toward their recovery and to dealing with their emotions and how they can get some relief and live in the present moment, be able to let go of some of things they are haunted with from their past. (Jack)

I believe that everyone has the potential to self-awaken and discover a whole human being filled with love, compassion, wisdom, and liberation. The more insight people have, the more they are in a mindful way of being and living. “I’ve become more in tune to anything that would disturb me to get away from. I’ve become more alert and focused on the things that I want and the things that I don’t want” (Annie). They are no longer victims of greed, hatred, and delusion because in delusion people can easily become individuals with dependent behaviors.

Based on the literature review in Chapter 2, numerous empirical studies indicated that mindfulness practitioners reduce psychological, physical, and neurological problems, including stress, depression, anxiety, chronic pain, sleep disturbance, and lack of concentration (Davidson, 2013; Harris, 2013; Hayes & Levin, 2012; Lang, 2013). Hence, advocating the technique of mindfulness for the general population in any community will not only benefit substance-dependent individuals but will also enhance the quality of life for all individuals, families, and society. According to Shapiro and Carlson (2015), meditation exercises helped reduce anxiety in people with schizophrenia and enhanced

attention and cognitive inhibition in adolescents with attention-deficit/hyperactivity disorder (ADHD). There was a positive relationship between depression and anxiety disorders and substance dependence; therefore, introducing formal and informal mindfulness meditation practices to everyone in society is a compelling argument for substance-dependence prevention at this time (Black, 2014; Bowen et al., 2011; Chiesa & Malinowski, 2011). Everyone has a potential risk to develop physical as well as psychological issues; therefore, it is very important to provide mindfulness mediation as a practical tool for treatment and prevention at any time.

In the meantime, I cooperate with some local clinical psychologists to create several mindfulness workshops throughout the year for mental health professionals to have the chance to practice mindfulness and to bring it into their professional lives, which plays a significant role in therapeutic relationships with clients as well as in the process of psychotherapy itself (Germer & Neff, 2013). In fact, I have provided a treatment center in Louisiana one day a week since 2007 detailed instructions for sitting meditation, walking in mindfulness, and applying mindful-living. Based upon my clinical observation, clients in this treatment center have received tremendous benefits from mindfulness practice; reducing cruelty, jealousy, anger, or hate; and cultivating mutual trust, love, understanding, and forgiveness. “My heart, my soul, my body, my mind, and my spirit is not controlled by alcohol and substances anymore...My mind, body, soul, and spirit, and go within myself and bring out the positive. Peace.” (Annie).

Conclusion

This phenomenological study investigated lived experiences of individuals with substance-dependent behavior in relation to their mindfulness meditation practice. Twelve participants who met all research criteria were interviewed in this study by using an in-depth format based on four themes: (a) substance dependents' experiences of cravings, (b) their experiences of emotional states or feelings, (c) their experiences of their behavioral actions, and (d) the effectiveness of mindfulness techniques. The literature review in Chapter 2 revealed that the root cause of substance dependence can be a physical, psychological, or spiritual imbalance resulting from multiple factors in the life of a substance-dependent individual (Haugen & Musser, 2013). Therefore, when a substance-dependent individual encounters a high-risk situation that increases his or her cravings, the probability of cravings and relapse increases; this is, especially, the case when there are ineffective coping responses (Hendershot et al., 2011). The participants in this study validated these findings in their descriptions when reporting the effects of meditation on their dependent behaviors.

The participants shared their cravings, feelings, emotions, and behavioral actions based on perspectives of constructivism and mindfulness. In this framework, there is no ultimate truth or absolute truth because each participant could construct his or her reality based on that individual's knowledge, personality, family background, social context, and personal experience (Moustakas, 1994; Patton, 2002). This study focused on investigating, describing, and understanding deeper lived experiences of 12 participants through listening to their own stories of substance dependency as well as their

experiences with mindfulness meditation. A person can better understand the real languages or lived experiences of individuals with dependent behaviors in relation to their mindfulness meditation practices. The findings of this study may not be true for every substance-dependent individual; however, the results are an invaluable resource for future research.

This was a vulnerable group of substance-dependent individuals who used meditation to transform their negative feelings, thoughts, behaviors, and actions into positive energy. As a result, they no longer had the need to use substances. They seemed very honest in sharing their lived experiences related to substance dependency and mindfulness meditation. They showed courage and endurance in their paths to find freedom from substance dependence. Meditation has given them a means to transform themselves into peaceful individuals with calm and healthy minds; therefore, they are no longer victims of substance dependency. I was honored to have these individuals participating in my research study. Their stories were felt deeply in my heart. I am happy to know that they overcame the darkest time of their lives. Meditation offers the possibility that others may do the same.

References

- Adan, A. (2013). A chronobiological approach to addiction. *Journal of Substance Use*, 18(3), 171-183. doi: 10.3109/14659891.2011.632060
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Arlington, VA: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Arlington, VA: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Arlington, VA: Author.
- American Psychiatric Association. (2015). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: Author.
- Agrawal, A., & Lynskey, M. T. (2008). Are there genetic influences on addiction: evidence from family, adoption, and twin studies. *Addiction*, 103, 1069-1081. doi:10.1111/j.1360-0443.2008.02213.x
- Alterman, A. I., Koppenhaver, J. M., Hulholland, E., Ladden, L. J., & Baime, M. J. (2004). Pilot trial of effectiveness of mindfulness meditation for substance abuse patients. *Journal of Substance Use*, 9(6), 259-268. doi: 10.1080/14659890410001711698
- Amaro, H., Gatmaytan, C., Melendez, M., Cortes, D. E., Arevalo, S., & Margolin, A. (2010). Addiction treatment intervention: An uncontrolled prospective pilot study of spiritual self-schema therapy with Latino women. *Substance Abuse*, 31, 117-125. doi: 10.1080/08897071003641602

- Anderson, K. G., Ramo, D. E., & Brown, S. A. (2006). Life stress, coping and comorbid youth: An examination of the stress-vulnerability model for substance relapse. *Journal of Psychoactive Drugs*, 38(3), 255-262.
- Appel, J., & Kim-Appel, D. (2009). Mindfulness: Implications for substance abuse and addiction. *International Journal of Mental Health Addiction*, 7, 506-512. doi: 10.1007/s11469-009-9199
- Arria, A., Caldeira, K., Bugbee, B. A., Vincent, K. B., & O'Grady, K. E. (2015). The academic consequences of marijuana use during college. *Psychology of Addictive Behaviors*, 29(3), 564-575. doi.org/10.1037/adb0000108
- Austin, J. H. (1999). *Zen and the brain*. Cambridge: MIT Press
- Baer, R. A. (2009). Self-focused attention and mechanisms of change in mindfulness-based treatment, *Cognitive Behaviour Therapy*, 38, 15-20. doi: 10.1080/16506070902980703
- Balbi, J. (2008). Epistemological and theoretical foundations of constructivist cognitive therapies: Post-rationalist developments". *Dialogues in Philosophy, Mental and Neuro Sciences*. Retrieved on January 12, 2014, from <http://www.crossingdialogues.com/Ms-A08-01-6.pdf>.
- Barnett, J. E., Shale, A. J., Elkins, G., & Fisher, W. (2014). Complementary and alternative medicine for psychologists: An essential resource. *American Psychological Association*. doi.org/10.1037/14435-006

- Bayles, C. (2014). Using mindfulness in a harm reduction approach to substance abuse treatment: A literature review. *International Journal of Behavioral Consultation and Therapy, 9*(2), 22-25
- Bishop, S.R., Lau, M., Shapiro, S., Carlson, L., Anderson, N.D., Carmody, J., et al. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241. doi:10.1093.clipsy.bph077
- Black, D. S. (2014). Mindfulness-based interventions: An antidote to suffering in the context of substance use, misuse, and addiction. *Substance Use & Misuse, 49*, 487-491. doi: 10.3109/10826084.2014.860749
- Bodhi, B. (2000). *A comprehensive manual of Adhidhamma*. Seattle, WA: WABPS Pariyatti
- Bogels, S. M., Sijbers, G. F., & Voncken, M. (2006). Mindfulness and task concentration training for social phobia: A pilot study recent advances in the treatment of social phobia. *Journal of Cognitive Psychotherapy, 20*(1), 33-45.
- Bowen, S., Chawla, N., Marlatt, G. A. (2011). *Mindfulness-Based Relapse Prevention of Addictive Behaviors*. The Guilford Press. New York, NY: A Division of Guilford Publications, Inc.
- Bowen, S. & Kurz, A. S. (2011). Between-session practice and therapeutic alliance as predictors of mindfulness after mindfulness-based relapse prevention. *Journal of Clinical Psychology, 68*(3), 236-245. doi: 10.1002/jclp.20855

- Bowen, S. & Vieten, C. (2012). A compassionate approach to the treatment of addictive behaviors: The contributions of Alan Marlatt to the field of mindfulness-based interventions. *Addiction Research and Theory, 20*(3), 243-249
- Bowen, S. et al. (2006). Mindfulness meditation and substance use in an incarcerated population. *Psychology of Addictive Behaviors, 20*(3), 343-347. doi: 10.1037/0893-164X.20.3.343
- Bowen, S. et al. (2009). Mindfulness-based relapse prevention for substance use disorders: A pilot efficacy trial. *Substance Abuse, 30*, 295-305. doi: 10.1080/08897070903250084
- Bordens, K.S. & Abbott, B.B. (2002). *Research Design and Methods* (5th ed.) New York, NY: McGraw-Hill Higher Education
- Bradshaw, J. (1993). *The Family: A Revolutionary Way of Self-Discovery*. Deerfield Beach, FL: Health Communications.
- Brewer, J. A., Bowen, S., Smith, J. T., Marlatt, G. A., & Potenza, M. N. (2010). Mindfulness-based treatments for co-occurring depression and substance use disorders: what can we learn from the brain? *Addiction, 105*, 1698-1706. doi: 10.1111/j.1360-0443.2009.02890.x
- Brewer, J. A., Elwafi, H. M., & Davis, J. H. (2012). Craving to quit: Psychological models and neurobiological mechanism of mindfulness training as treatment for addictions. *Psychology of Addictive Behaviors, 105*, 1698-1706. doi: 10.1037/a0028490

- Brewer, J. A. et al. (2009). Mindfulness training and stress reactivity in substance abuse: Results from a randomized, controlled stage I pilot study, *Substance Abuse*, 30, 306-317. doi: 10.1080/08897070903250241
- Buhringer, G., Kraplin, A., & Behrendt, S. (2012). Universal characteristics and consequences of the addiction syndrome. In *Vol.1 Foundation, Influences, and Expressions of Addiction*. American Psychological Association. doi: 10.1037/13751-015
- Bukoski, K. (2015). A history of drug abuse prevention science. In handbook of adolescent drug use prevention: Research, intervention strategies, and practice. Scheier, L. M. (Ed.). *American Psychological Association*
- Butt, T. (2007). Making sense of ourselves and others. *Journal of Constructivist Psychology*, 20, 337-345. doi: 10.1080/10720530701347977
- Chawla, N. et al. (2010). The mindfulness-based relapse prevention adherence and competence scale: Development, interrater reliability, and validity. *Psychotherapy Research*, 20(4), 388-397. doi: 10.1080/10503300903544257
- Chiesa, A. & Malinowski, P. (2011). Mindfulness-based approaches: Are they all the same? *Journal of Clinical Psychology*, 67(4), 404-424. doi: 10.1002/jclp.20776
- Chou, C., Condrón, L., & Belland, J. C. (2005). A review of the research on internet addiction. *Educational Psychology Review*, 17(4), 363-388. doi: 10.1007/s10648-005-8138-1

- Corwin, D, Wall, K., & Koopman, C. (2012). Psycho-spiritual integrative therapy: Psychological intervention for women with breast cancer. *The Journal for Specialists in Group Work, 37*(3), 252-273. doi: 10.1080/01933922.2012.686961
- Courbasson, C. M., Nishikawa, Y., & Shapira, L. B. (2011). Mindfulness-action based cognitive behavioral therapy for concurrent binge eating disorder and substance use disorders. *Eating Disorders, 19*, 17-33. doi: 10.1080/10640266.2011.533603
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design Choosing Among Five Approaches*. Thousand Oaks, California: Sage Publications, Inc.
- Dakwar, E. & Levin, F. R. (2009). The emerging role of meditation in addressing psychiatric illness, with a focus on substance use disorder. *Harvard Review Psychiatry, 17* (4), 254-267. doi: 10.1080/10673220903149135
- Dakwar, E., Mariani, J. P., & Levin, F. R. (2011). Mindfulness impairments in individuals seeking treatment for substance use disorders. *The American Journal of Drug and Alcohol Abuse, 37*, 165-169. doi: 10.3109/00952990.2011.553978
- Dakwar, E. & Levin, F. R. (2013). Individual mindfulness-based psychotherapy for Cannabis or cocaine dependence: a pilot feasibility trial. *The American Journal on Addiction, 22*, 521-526. doi: 10.1111/j1521-0391.2013.12036.x
- Davidson, A. S. (2013). Phenomenological approaches in psychology and health sciences. *Qualitative Research in Psychology, 10*(3), 318-339. doi: 10.1080/14780887.2011.608466
- Davidson, R. J., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F., et al. (2003). Alterations in brain and immune function produced by

mindfulness meditation. *Psychosomatic Medicine*, 64(4), 564-570. doi: 10.1097/01.PSY.0000077505.67574.E3

Davidson, R. & Kaszniak, A. W. (2015). Conceptual and methodological issues in research on mindfulness and meditation. *American Psychologists*, 70(7), 581-592. doi: 10.1037/a0039512

Davis, D. M. & Hayes, J. A. (2011). What are the benefits of mindfulness? A practical review of psychotherapy-related research. *Psychotherapy*, 48(2), 198-208. doi: 10.1037/a0022062

Davis, K. M., Lau, M. A., & Cairns, D. R. (2009). Development and preliminary validation of a trait version of the Toronto Mindfulness scale. *Journal of Cognitive Psychotherapy: An International Quarterly*, 23, 185-195. doi: 10.1891/0889.23.3.185

Davis, M. C., Zautra, A. J., Wolf, L. D., Tennen, H., & Yeung, E. W. (2015). Mindfulness and cognitive-behavioral interventions for chronic pain: differential effects on daily pain reactivity and stress reactivity. *Journal of Consulting and Clinical Psychology*, 81(1), 24-35

DelMonte, M. M. (2012). Mindfulness and awareness: Constructivist psychodynamic and eastern perspectives. *International Journal Mental Health Addiction*, 10, 311-329. doi: 10.1007/s11469-011-9368-8

Derriger, J., Krueger, R. F., McGue, M., & Lacono, W. G. (2008). Genetic and environmental contributions to the diversity of substances used in adolescent

- twins: a longitudinal study of age and sex effects. *Addiction*, *103*, 1744-1751. doi: 10.1111/j.1360-0443.2008.02305.x
- Domenici, D. (2008). Implications of hermeneutic constructivism for personal construct theory: Imaginally construing the nonhuman world. *Journal of Constructivist Psychology*, *21*, 25-42. doi: 10.1080/10720530701503868
- Dunn, R., Callahan, J. L., & Swift, J. K. (2013). Mindfulness as a transtheoretical clinical process. *Psychotherapy*, *50*(3), 312-315. doi: 10.1037/a0032153
- Epstein, M. (2007). *Psychotherapy without the self: A Buddhist perspective*. New Haven: Yale University Press
- Ertmer, P.A. & Newby, T. J. (2013). Behaviorism, cognitivism, constructivism: Comparing critical features from instructional design perspective. *Performance Improvement Quarterly*, *6*(4), 50-70. doi: 10.1111/j.1937-1993.tb00605.x
- Farb, N. A., Anderson, A. K., Mayberg, H., Bean, J., McKeon, D., & Segal, Z. V. (2010). Minding one's emotions: mindfulness training alters the neural expression of sadness. *Emotion*, *10*(1), 25-33
- Fernandez, A. C., Wood, M. D., Stein, L. A., & Rossi, J. S. (2010). Measuring mindfulness and examining its relationship with alcohol use and negative consequences. *Psychology of Addictive Behaviors*, *24*(4), 608-616. doi: 10.1037/a0021742
- Freed, C. R. (2012). Historical perspectives on addiction. In Shaffer, H. J. (Eds), *APA Addiction Syndrome Handbook: Vol. 1. Foundations, Influences, and Expressions of Addiction* (pp. 27-47). doi: 10.1037/13751-002

- Garland, E. L. (2013). *Mindfulness-Oriented Recovery Enhancement*. The NASW Press: Washington DC.
- Garland, E. L., Boettiger, C. A., Gaylord, S., Chanon, V. W., & Howard, M. O. (2012). Mindfulness is inversely association with alcohol attentional bias among recovering alcohol-dependent adults. *Cognitive Therapy*, 36, 441-450. doi: 10.1007/s10608-001-9378-7
- Garland, E. L. (2011). Trait mindfulness predicts attentional and autonomic regulation of alcohol cue-reactivity. *Journal of Psychophysiology*, 25(4), 180-189. doi: 10.1027/0269-8803/a000060
- Garland, E. L., Schwarz, N., Kelly, A., Whitt, A., & Howard, M. O. (2012). Mindfulness-oriented recovery enhancement for alcohol dependence: Therapeutic mechanisms and intervention acceptability. *Journal of Social Work Practice in the Addictions*, 12, 242-263. doi: 10.1080/1533256X.2012.702638
- Germer, C. K. & Neff, K. D. (2013). Self-compassion in clinical practice. *Journal of Clinical Psychology: In Session*, 69(8), 856-867. doi: 10.1002/jclp.22021
- Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews are Enough? An Experiment with Data Saturation and Variability. *Field Methods*, 18(1), 59-82. doi:10.1177/1525822X05279903.
- Guion, L., Diehl, D., McDonald, D. (2013). Conducting an In-Depth Interview. *University of Florida IFAS Extension*. Retrieved on January 9, 2014 from <http://edis.ifas.ufl.edu/pdffiles/FY39300.pdf>

- Goldin, P., Ramel, W., & Gross, J. (2009). Mindfulness Meditation Training and Self-Referential Processing in Social Anxiety Disorder: Behavioral and Neural Effects. *Journal of Cognitive Psychotherapy: An International Quarterly*, 23(3), 242-257
- Groeneward, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods*, 3(1). Retrieved on January 23, 2015 from http://www.ualberta.ca/~iiqm/backissues/3_1/pdf/groeneward.pdf
- Hall, G. C., Hong, J. J., Zane, N., & Meyer, O. L. (2011). Culturally competent treatments for Asian Americans: The relevance of mindfulness and acceptance-based psychotherapies. *Clinical Psychology: Science and Practice*, 18(3), 215-231.
- Han, B., Hedden, S. L., Lipari, E., Copello, E., & Krouti, L. A. (2014). Receipt of services for behavioral health problems: results from the 2014 national survey on drug use and health. Retrieved on September 23, 2015 from <http://www.SAMHDA.gov>
- Hanh, T. N. (1987). *Interbeing: Fourteen guidelines for engaged Buddhism* (3rd ed.). Berkley: Parallax Press
- Harris, W. (2013). Mindfulness-based existential therapy: Connecting mindfulness and existential therapy. *Journal of Creativity in Mental Health*, 8, 349-362. doi: 10.1080/15401383.2013.844655

- Harring, N., & Pickles, C. (2009). Mindfulness and cognitive behavioral therapy: A rebuttal. *Journal of Cognitive Psychotherapy: An International Quarterly*, 23(4), 333-336. doi: 10.1891/0889-8396.23.4.333
- Hayes, S. C. & Levin, M. E. (2012). *Mindfulness and Acceptance for Addictive Behaviors*. Oakland, CA: New Harbinger Publications, Inc.
- Hayes, S. C., Follette, V. M., & Linnehan, M. M. (2004). *Mindfulness and Acceptance Expanding the Cognitive-Behavior Tradition*. New York, NY: The Guilford Press.
- Haugen, D. & Musser, S. (2013). *Addiction*. Farmington Hills, MI: Greenhaven Press
- Hendershot, C. S., Witkiewitz, K., George, W. H., & Marlatt, G. A. (2011). Relapse prevention for addictive behaviors. *Substance Abuse Treatment, Prevention, and Policy*, 6(17), 1-17
- Herman, P. (2014). *The efficacy of substance abuse treatment as regards patient gender, life stage, primary diagnosis, and level of care: a retrospective analysis* (Doctoral dissertation). Retrieved from ProQuest Dissertation (UMI No.3633820)
- Herbert, J.D., & Cardaciotto, L., (2005). A mindfulness and acceptance-based perspective on social anxiety disorder. In S.M. Orsillo & L. Roemer (Eds), *Acceptance and Mindfulness-Based Approach to Anxiety: Conceptualization and treatment*, (pp.189-212). New York, NY: Springer. doi: 10.1007/6136521
- Hill, J., Emery, R., Harden, P., Mendle, J., & Turkheimer, E. (2008). Alcohol use in adolescent twins and affiliation with substance using peers. *Journal of Abnormal Children Psychology*, 36, 81-94. doi: 10.1007/s10802-007-9161-0

- Hooker, K.E., & Foder, I. E. (2008). Teaching mindfulness to children. *Gestalt Review* 12(1), 75-91. Retrieved from <http://www.mindfuleducation.org>
- Hurk, D. M., Schellekens, M. P., Molema, J., Speckens, A. E., & Drifs, M. A. (2015). Mindfulness-based stress reduction for lung cancer patients and their partners: results of a mixed methods pilot study. *Palliative Medicine*, 29(7), 652-660. doi: 10.1177/0269216315572720
- Ireland, M. (2012). Meditation and psychological health and functioning: A descriptive and critical review. *The Scientific Review of Mental Health Practice*, 9(1), 4-19
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. New York: Dell
- Kabat-Zinn, J. (2005). *Wherever You Go, There You Are: Mindfulness in Everyday Life*. New York: Hyperion Books
- Kelly, G. A. (1963). *A Theory of Personality: The Psychology of Personal Constructs*. W.W. Norton and Company.
- Kirkham, J., Smith, J.A., & Havsteen-Franklin, D. (2015). Painting pain: An interpretative phenomenological analysis of representations of living with chronic pain. *Health Psychology*, 34(4), 398-406. doi: 10.1037/hea0000139
- Khaleghian, S. (2013). *The impact of mindfulness approaches on chemical dependency: Recovery and relapse*. (Doctoral dissertation). Alliant International University. Los Angeles.
- Kornfield, J. (2009). *The wise heart: A guide to the universal teachings of Buddhist psychology*. New York, NY: The Random House, Inc.

- Kostanski, M. & Hased, C. (2008). Mindfulness as a concept and a process. *Australian Psychologist, 43*(1), 15-21. doi: 10.1080/011050060701593942
- Krieger, L. H. (2010). Success vs. wisdom: Phenomenological foundations of psychological practice. *The Psychologist Manager Journal, 13*, 93-104. doi: 10.1080/108871510033761291
- Lang, A. J. (2013). What mindfulness brings to psychotherapy for anxiety and depression. *Depression and Anxiety, 30*, 409-412. doi: 10.1002/da.22081
- Lau, M. A. et al (2006). The Toronto mindfulness scale: development and validation. *Journal of Clinical Psychological, 62*(12), 1445-1467
- Ledesma, D. and Kumano, H. (2009), Mindfulness-based stress reduction and cancer: a meta-analysis. *Psycho-Oncology, 18*: 571–579. doi: 10.1002/pon.1400
- Lee, K. H, Bowen, S., & An-Fu, B. (2011). Psychosocial outcomes of mindfulness-based relapse prevention in incarcerated substance abusers in Taiwan: A preliminary study. *Journal of Substance Use, 16*(6), 476-483. doi: 10.3109/14659891.2010.505999
- Lektorskii, V. A. (2010). Realism, antirealism, constructivism, and constructive realism in contemporary epistemology and science. *Journal of Russian & East European Psychology, 48*(6), 5-44. doi: 10.2753/RPO1061-0405480601
- Liehr, P., Marcus, M. T., Carroll, D., Granmayeh, L. K., Cron, S. G., & Pennebaker, J. W. (2010). Linguistic analysis to assess the effect of a mindfulness intervention on self-change for adults in substance use recovery. *Substance Abuse, 31*, 79-85. doi: 10.1080/08897071003641271

- Lin, P. & Seiden., H. M. (2015). Mindfulness and psychoanalytic psychotherapy: A clinical convergence. *Psychoanalytic Psychology*, 32(2), 321-333.
doi.org/10.1037/a0038170
- Luoma, J., Drake, C. E., Kohlenberg, B. S., & Hayes, S. C. (2011). Substance abuse and psychological flexibility: the development of a new measure. *Addiction Research and Theory*, 19(1), 3-13. doi: 10.3109/16066359.2010.524956
- Luoma, J. B., Kohlenberg, B. S., Hayes, S. C., Bunting, K., & Rye, A. K. (2008). Reducing self-stigma in substance abuse through acceptance and commitment therapy: Model, manual development, and pilot outcomes. *Addiction Research and Theory*, 16(2), 149-165. doi: 10.1080/16066350701850295
- Mantzios, M., & Giannou, K. (2014). Group vs Single Mindfulness Meditation: Exploring Avoidance, Impulsivity, and Weigh Management in Two Separate Mindfulness Settings. *Applied Psychology: Health and Well-Being*, 6(2), 173-191.
doi:10.1111/aphw.12023
- Marcus, M. T et al. (2009). Mindfulness-based stress reduction in therapeutic community treatment: A stage 1 trial. *The American Journal of Drug and Alcohol Abuse*, 35, 103-108. doi: 10.1080/00952990902823079
- Marlatt, A. & Bowen, S. (2009). Surfing the urge: Brief mindfulness-based intervention for college student smokers. *Psychology of Addictive Behaviors*, 23(4), 666-671.
doi: 10.1037/a0017127
- Mayo, J. A. (2010). The epistemological root of constructivism. In constructing undergraduate psychology curricula: promoting authentic learning and assessment

- in the teaching of psychology (pp.33-39). Washington DC: *American Psychological Association*. doi: 10.1037/12081-002
- McWilliams, S. A. (2012). Mindfulness and extending constructivist psychotherapy integration. *Journal of Constructivist Psychology*, 25, 230-250. doi: 10.1080/10720537.2012.679130
- Meltzoff, J. (1998). *Critical Thinking About Research*. Washington, DC: American Psychological Association
- Moore, T. M. et al., (2014). Ecological momentary assessment of the effects of craving and effect on risk for relapse during substance abuse treatment. *Psychology of Addictive Behaviors*, 28(2), 619-624. doi: 10.1037/a0034127
- Morgenstern, J., Naqvi, N. H., Debellis, R., & Breiter, H. C. (2013). The contributions of cognitive neuroscience and neuroimaging to understanding mechanisms of behavior change in addiction. *Psychology of Addictive Behaviors. Advance Online Publication*. doi: 10.1037/a0032435
- Moss, D., Waugh, M., & Barnes, R. (2008). A tool for life? Mindfulness as self-help or safe uncertainty. *International Journal of Qualitative Studies on Health & Well-being*. 3, 132-142. doi: 10.1080/17482620801939592
- Moustakas, C. (1994). *Phenomenological Research Methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Muesse, M. W. (2011). *Practicing Mindfulness: An Introduction of Meditation*. The Teaching Company.

- Murakami, H., Katsunuma, R., Oba, K., Terasawa, Y., Motomura, Y., Mishima, K. et al (2015). Neural networks for mindfulness and emotion suppression. *PloS ONE*, *10*(6), 1-18. doi: 10.1371/journal.pone.0128005.t002
- Murphy, C. M. & MacKillop, J. (2014). Mindfulness as a strategy for coping with cue-elicited cravings for alcohol: An experimental examination. *Alcoholism: Clinical and Experimental Research*, *38*(4), 1134-1142. doi: 10.1111/acer.12322
- National Institute on Drug Abuse (2013). Retrieved on September 30, 2013 from <http://www.drugabuse.gov/publications/addiction>
- National Institute on Drug Abuse (2013). Retrieved on October 16, 2013 from <http://www.drugabuse.gov/publications/drugfacts>
- National Institute of Mental Health (2015). Retrieved on November 29, 2013 from <https://www.nimh.nih.gov/index.shtml>
- Neff, J. A. & MacMaster, S. A. (2005). Applying behavior change models understand spiritual mechanisms underlying change in substance abuse treatment. *The American Journal of Drug and Alcohol Abuse*, *31*, 669-684. doi: 10.1081/ADA-200068459
- Neimeyer, R. A. (2010). Symptoms and significance: Constructivist contributions to the treatment of performance anxiety. *Journal of Constructivist Psychology*, *23*(1), 42-64. doi: 10.1080/10720530903400988
- O'Connell, O. (2009). Introducing mindfulness as an adjunct treatment in an established residential drug and alcohol facility. *The Humanistic Psychologist*, *37*, 178-191. doi: 10.1080/08873260902892162

- Orme-Johnson, D.W., & Barnes, V.A. (2013). Effects of the Transcendental Meditation Technique on Trait Anxiety: A Meta-Analysis of Randomized Controlled Trials. *The Journal of Alternate and Complementary Medicine, 19* (0), 1-12. doi: 10.1089/acm.2013.0204
- Ostafin, B. D., Bauer, C., & Myxter, P. (2012). Mindfulness decouples the relation between automatic alcohol motivation and heavy drinking. *Journal of Social and Clinical Psychology, 31*(7), 729-745
- Owens, G. P., Walter, K. H., Chard, K. M., Davis, P. A. (2012). Changes in mindfulness skills and treatment response among veterans in residential PTSD treatment. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(2), 221-228.
- Pass, S. (2007). When constructivists Jean Piaget and Lev Vygotsky were pedagogical collaborators: A viewpoint from a study of their communications. *Journal of Constructivist Psychology, 20*(3), 277-282. doi: 10.1080/10720530701347944
- Patton, M. Q. (2002). *Qualitative Research & Evaluation Methods (3rd Edition)*. Thousand Oaks, California: Sage Publication
- Pelled, E. (2007). Learning from experience: Bion's concept of reverie and Buddhist meditation: A comparative study. *The International Journal of Psychoanalysis, 88*(6), 507-1526. doi: 10.1516/ijpa.2007.1507
- Perelman, A. M., Millier, S. L., Clements, C. B., Rodriguez, A., Allen, K., Cavanaugh, R. (2012). Meditation in a deep south prison: A longitudinal study of the effects of Vipassana. *Journal of Offender Rehabilitation, 51*, 176-198. doi: 10.1080/10509674.2011.632814

- Piet, J., Hougaard, E., Hecksher, M. S., & Rosenberg, N. K. (2010). A randomized pilot study of mindfulness-based cognitive therapy and group cognitive-behavioral therapy for young adults with social phobia. *Canadian Journal of Psychology, 51*(5), 403-410
- Pidgeon, A., Lacota, K., & Chaption, J. (2013). The moderating effects of mindfulness on psychological distress and emotional eating behavior. *Australian Psychologist, 48*, 262-269. doi: 10.1111/j.1742-9544.2012.00091.x
- Pryor, V.K. (2011). *Mindfulness and Lovingkindness Meditation: A Comparative Analysis* (Doctoral dissertation, California Institute of Integral Studies, 2011)
- Raskin, J. D. (2002). Constructivism in psychology: Personal construct psychology, radical constructivism, and social constructionism. In J. D. Raskin & S. K. Bridges (Eds), *Studies in meaning: Exploring Constructivist Psychology*, 1-25. New York, NY: Pace University Press
- Rosenzweig, S., Greenson, J., Rebel, D., Green, J., Jasser, S., & Beasley, D. (2010). Mindfulness-based stress reduction for chronic conditions: Variations in treatment outcomes and role of home meditation practice. *Journal of Psychosomatic Research, 68*(1), 29-36. doi: 10.1016/j.jpsychores.2009.03.010
- Schensul, J. J., & LeCompte, M. D. (Eds.). (1999). *Ethnographer's toolkit: Volumes 1-7*. Walnut Creek, CA: AltaMira Press.
- Schmertz, S.K., Masuda, A., & Anderson, P.L. (2012). Cognitive processes mediate the relation between mindfulness and social anxiety within a clinical sample. *Journal of Clinical Psychology, 68*(3), 362-371

- Shapiro, S. L. & Carlson, L. E. (2015). *The Art and Science of Mindfulness Integrating Mindfulness Into Psychology and the Helping Professions*. Washington DC: American Psychological Association
- Shennan, C., Payne, S., & Fenlon, D. (2011). What is the evidence for the use of mindfulness-based interventions in cancer care? A Review. *Psycho-Oncology* 20: 681-697. doi: 10.1002/pon.1819
- Shonin, E., Gordon, W. V., & Griffiths, M. D. (2014). Current trends in mindfulness and mental health. *International Journal Mental Health Addiction*, 12, 113-115.
- Sloan, A. & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies, and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality and Quantity: International Journal of Methodology*, 48, 1291-1303. doi: 10.1007/s11135-013-9835-3
- Sinha, R. (2001). How does stress lead to risk of alcohol relapse? *Psychopharmacology (Berlin)* 158(4), 343-359
- Smith, B. W., Ortiz, J. A., Steffen, L. E., Tooley, E. M., Wiggins, K. T., Yeater, E. A. et al. (2011). Mindfulness is associated with fewer PTSD symptoms, depressive symptoms, physical symptoms, and alcohol problems in urban firefighters. *Journal of Consulting and Clinical Psychology*, 79(5), 613-617
- Smith, G. T. & Widiger, T. A. (2012). Addiction and nosology. In *APA Addiction Syndrome Handbook: Vol. 1. Foundations, Influences, and Expressions of Addiction*, 3, 49-66. doi: 10.1037/13751-003

- Tang, Y. & Posner, M. I. (2013). Tools of the trade: theory and method in mindfulness neuroscience. *Social Cognitive and Affective Neuroscience*, 8(1), 118-120. doi: 10.1093/scan/nss112
- Teasdale, J. D., Williams, J. M., Soulsby, J. M., Segal, Z. V., Ridgeway, V. A., & Lau, M. A. (2000). Prevention of relapse recurrence in major depression by mindfulness-based cognitive therapy. *Journal of Consulting and Clinical Psychology*, 68, 615-624. doi: 10.1037/0022-006X.68.4.615
- Temme, L. J., Fenster, J., & Ream, G. L. (2012). Evaluation of meditation in the treatment of chemical dependency. *Journal of Social Work Practice in the Addiction*, 12, 264-281. doi: 10.1080/1533256X.2012.702632
- Thornton, L. M., Cheavens, J. S., Heitmann, C. A., Dorfman, C. S., Wu, S. M., & Anderson, B. L. (2014). Test of mindfulness and hope components in a psychological intervention for women with cancer recurrence. *Journal of Consulting and Clinical Psychology*, 82(6), 1087-1100. doi: 10.1037/a0036959
- Toomey, B. & Ecker, B. (2007). Of neurons and knowing: constructivism, coherence psychology, and their neurodynamic substrates. *Journal of Constructivist Psychology*, 20, 201-245. doi: 10.1080/10720530701347860
- Ussher, M., Spatz, A., Copland, C., Nicolaou, A., Cargill, A., & Amini-Tabrizi, et al. (2014). Immediate effects of a brief mindfulness-based body scan on patients with chronic pain. *Journal of Behavioral Medicine*, 37,127-134. doi: 10.1007/s10865-012-9466-5

- Vallejo, Z. & Amaro, H. (2009). Adaptation of mindfulness-based stress reduction program for addiction relapse prevention. *The Humanistic Psychologist*, 37, 192–206. doi: 10.1080/08873260902892287
- Velasquez, M. M., Sternberg, K., Dodrill, C. L., Kan, L. Y., & Parson, J. T. (2015). The transtheoretical model as a framework for developing substance abuse interventions. *Journal of Addictions Nursing*, 16(1-2), 31-40. doi: 10.1080/10884600590917174
- Vernig, P. M. (2011). Family roles in homes with alcohol-dependent parents: An evidence-based review. *Substance Use & Misuse*, 46, 535-542. doi: 10.3109/10826084.2010.501676
- Vettese, L. C., Toneatto, T., Stea, J. N., Nguyen, L., Wang, J. J. (2009). Do mindfulness meditation participants do their homework? And does it make a difference? A review of the empirical evidence. *Journal of Cognitive Psychotherapy: An International Quarterly*, 23, 189-225. doi: 10.1891/0889-8391.23.3.198
- Vieten, C., Astin, J. A., Buscemi, R., Galloway, G. P. (2010). Development of an acceptance-based coping intervention for alcohol dependence relapse prevention. *Substance Abuse*, 31, 108-116. doi: 10.1080/08897071003641594
- Von Glasersfeld, E. (1990). An exposition of constructivism: Why some like it radical. *Journal for Research in Mathematics Education – Monograph 4*: 19-29 & 195-210 [22].
- Volkow, N. D. (2015). How science has revolutionized the understanding of drug addiction. Retrieved on July 7, 2015 from <http://www.drugabuse.gov>

- Vygotsky, L. (1978). Chapter 6: Interaction between learning and development. In M. Cole, V. John-Steiner, S. Scriber & E. Souberman (Eds.), *Mind in Society*, Cambridge, MA: Harvard.
- Waters, A. J. et al. (2009). Associations between mindfulness and implicit cognition and self-reported affect. *Substance Abuse*, 30, 328-337. doi: 10.1080/08897070903252080
- Wayment, H. A, Wiist, B., Sullivan, B. M., & Warren, M. A. (2011). Doing and being: Mindfulness, health, and quiet ego characteristics among Buddhist practitioners. *Journal of Happiness Studies*, 12, 575-589. doi: 10.1007/s10902-010-9218-6
- Williams, E. N. & Morrow, S. L. (2009). Achieving trustworthiness in qualitative research: A pan-paradigmatic perspective. *Psychotherapy Research*, 19(4-5), 576-582. doi: 10.1080/10503300802702113
- Williams, R. E. & Kraft, J. S. (2012). *The Mindfulness Workshop for Addiction*. Oakland, CA: New Harbinger Publications, Inc.
- Williams, M., Teasdale, J., Segal, Z., & Kabat-Zinn, J. (2007). *The Mindful Way Through Depression: Freeing Yourself from Chronic Unhappiness*. New York, NY: the Guilford Press.
- Wisner, B.L, Jones, B., & Gwin, D. (2010). School-based meditation practices for adolescents: A resource for strengthening self-regulation, emotional coping, and self-esteem. *Children & Schools*, 32(3), 150-159. doi: 10.1093/cs/32.3.150
- Witkiewitz, K. (2011). Predictors of heavy drinking during and following treatment. *Psychology of Addictive Behaviors*, 25(3), 426-438. doi: 10.1037/a0022889

- Witkiewitz, K. & Bowen, S. (2010). Depression, craving, and substance use following a randomized trial of mindfulness-based relapse prevention. *Journal of Consulting and Clinical Psychology, 78*(3), 362-374. doi: 10.1073/a0019172
- Witkiewitz, K., Lustyk, M. K., & Bowen, S. (2012). Retraining the addicted brain: A review of hypothesized neurobiological mechanisms of mindfulness-based relapse prevention. *Psychology of Addictive Behavior*. Advance online publication. doi: 10.1037/a0029258
- Witkiewitz, K., Marlatt, G. A., & Walker, D. (2005). Mindfulness-based relapse prevention for alcohol and substance use disorders. *Journal of Cognitive Psychotherapy: An International Quarterly, 19*(3), 211-223
www.dhamma.org
- Yin, R. K. (2006). Mixed methods research: Are the methods genuinely intergrated or merely parallel? *Research in the Schools, 13*(1), 41-47.
- Yunesian, M., Aslani, A., Vash, J.H., & Yazdi, A.B. (2008). Effects of Transcendental Meditation on mental health: a before-after study. *Clinical Practice and Epidemiology in Mental Health, 4*(25), 1-5. doi:10.186/1745-0179-4-25
- Zgierska, A., Rabago, D., Chawla, N., Kushner, K., Koehler, R., & Marlatt, A. (2009). Mindfulness meditation for substance use disorders: A systematic review. *Substance Abuse, 30*(4), 266-294. doi: 10.1080/08897070903250019

Appendix A: Confidentiality Agreement - Transcriber

I was hired by Quyen Ho to transcribe the recorded data. I, Timothy Love, understand that I will have access to information which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to participants.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participants' names are not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I am officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Printed Name of Participant

Timothy Love

Date of Consent

9/1/16

Transcriber's Written Signature

[Handwritten Signature]

Researcher's Written Signature

Quyen Ho

Appendix C: Letter of Cooperation from a Community Research Partner

This type of letter must be obtained from any type of organization involved in identifying potential participants or collecting data. Please contact irb@waldenu.edu if you have any questions about the appropriate content for a letter of cooperation. Either letter or e-mail format is acceptable, from the perspective of the Walden University Institutional Review Board (IRB).

Kane Mire, Representative of Group Meditation
kdmire@bellsouth.net

August 31, 2016

Dear Mr. Ho,

Based on my review of your research proposal, I give permission for you to conduct the study entitled “*A Phenomenological Study of Mindfulness Meditation Practice by Individuals with Substance Dependent Behavior*”. As part of this study, I authorize you to invite members of my group to participate in the study as interview subjects. I also give permission for you to present your proposed study in person to my group. Their participation will be voluntary and at their own discretion. We reserve the right to withdraw from the study at any time if our circumstances change.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB. A private room will be available for you and the participants to use during the interviews.

Sincerely,

A handwritten signature in black ink that reads "Kane Mire". The signature is written in a cursive style with a large, looped "O" at the end.

Kane Mire, Representative of Group Meditation
kdmire@bellsouth.net

Appendix D: Confidentiality Agreement – Research Reviewer

During the course of my activity primarily as reviewer for Quyen Ho's data analysis and interpretation of the results for clarification and accuracy for this research study, *A Phenomenological Study of Mindfulness Meditation Practice by Individuals with Substance Dependent Behavior*, I, Margot Hasha, understand that I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to participants.

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participants' names are not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I am officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Printed Name of Participant _____ Margot H. Hasha _____

Date of Consent _____ 8/31/2016 _____

Reviewer's Written Signature _____ *Margot H. Hasha* _____

Researcher's Written Signature _____ *Cuyenho* _____

Study Exploring the Lived Experiences of Individuals with Substance Dependence Practicing Mindfulness Meditation

If You Meet the Following Criteria, Please Consider Participating in This Study

- Age of 18 years and older
- Self-reported substance dependent individuals who have not used substances within six months or formally diagnosed as ones by licensed health professionals and have been in treatment for at least six months
- Participants are not in crisis or experiencing a substance use relapse
- Practiced mindfulness meditation at least six months up to three years
- Participants are volunteers
- Participants do not have any prior relationship with the researcher
- Are proficient in the English language

Participation is completely voluntary and confidential. Interviews will be conducted in a private room at the meditation center for approximately 45 minutes.

Please note your participation is greatly appreciated. No monetary compensation will be provided for your participation.

If you meet the requirements as stated above and are interested in this study, please contact Quyen Ho at quyen.ho@waldenu.edu or 678-357-9877 for more information.

Appendix F: Participation Eligibility and Interview Questions

Introduction Script

The purpose of this research study is to explore lived experiences with respect to cravings, emotional states or feelings, and behavioral actions of the substance dependency in relation to mindfulness meditation. Thank you for your interest and participation in this study. Before the interview begins, I would like to ask you several questions to ensure that you are still eligible to participate in this study based on the criteria that were set for participation eligibility that I mentioned during the recruitment process. Before we can proceed, I would like to take this opportunity to reconfirm your agreement with the consent form provided to you earlier.

1. Are you still in the agreement with the consent form provided to you?

Participation Eligibility Questions

2. Are you at least 18 years old?
3. The type of substance the participants are dependent on?
4. Number of years since diagnosis
5. Have you been in treatment for at least six months?
6. How long it has been since they used their substances of choice?
7. Level of experience in mindfulness meditation (beginner, mediate, or advanced)
8. How long have you been practicing mindfulness meditation for at least six months up to three years? (Have you been practicing mindfulness meditation for at least six months
9. The frequency of participants' practice meditation and treatment.
10. Are you currently in a crisis or experiencing a substance use relapse?
11. Have we had any contact/relationship prior to this meeting?

12. Are you proficient in English?

Interview Questions

I would like to ask you a number of questions about your background and experience as a chemically dependence practicing mindfulness meditation. If you feel that any of the questions are too personal or uncomfortable for you to answer, please let me know. If any of the questions are not applicable to you, please state so. If you begin to feel distress or anguish and do not wish to continue, I will cease the interview. Please remember that you may withdraw from this study at any time with no questions asked.

Let me begin by saying that the information you share with me during this interview will be kept confidential. Your identity will not be shared with anyone. To ensure that I provide you with the attention needed during the interview, our talk during the interview will be recorded. The recorded information will be transcribed by a professional who also will be required to sign a confidentiality agreement. This transcript will form the basis of my study data. Before I begin with the interview questions, do you have any questions?

Demographic Information

1. What is your age?
2. What is your ethnicity? (e.g., Caucasian, Black/African, Native American, Asian/Pacific Islander, Hispanic, East Indian, Middle Eastern, Other).
3. What is your highest education level completed? (e.g., High school graduate, GED, Some high school, Associates degree, Bachelor's degree, Some college, Master's degree, Professional degree, Other/please specify).
4. What substance are you dependent on? (e.g., Alcohol (wine/beer), Cocaine, Heroin, Marijuana, Ecstasy, Methamphetamine, Inhalants, Other/please specify).
5. How long have you been a substance dependent? (e.g., less than a year, more than a year).
6. What treatment(s) are you using for your substance dependence?

7. If you take medications, what medication do you take? And, what are the dosages for the medications?

Personal Experiences

1. Please tell me, what has been your experience with substance cravings when practicing mindfulness meditation? (RQ 1)
2. What do you feel about substance cravings after you have practiced mindfulness meditation? (RQ1)
3. How would you describe your feelings or emotions when practicing mindfulness meditation? (RQ 2)
4. How you describe your feelings or emotions toward substance dependence when practicing mindfulness meditation? (RQ 2)
5. Please tell me, what have been your behaviors related to your dependence? (RQ 3)
6. What are the behaviors related to your substance dependency after practicing mindfulness meditation? (RQ 3)
7. How you describe the effects of mindfulness meditation on your cravings? (RQ 4)
8. How has mindfulness meditation affected your dependent behaviors, if at all? (RQ 4)
9. What has been your experience with mindfulness technique? (RQ 4)
10. Is there anything else you would like to add?

This concludes our interview. Once the recorded conversation has been transcribed, would you mind reviewing the transcript of our talk to make sure everything is correct? You are not obligated to review our talk transcript; however, I would like to provide you an opportunity to review it again. Also, when I have completed my study, would you like a copy of the results?

Thank you for your participation.

Appendix G: Handout

Hello Everyone,

My name is Quyen Ho and I am a doctoral student at Walden University (<http://www.WaldenU.Edu>). I spoke with Kane Mire who gave me the permission to seek participants for my research study.

I am seeking 10-12 participants on a voluntary basis for my research study. If you are interested in participating in this study and meet the following requirements, I invite you to take part in a research study, *A Phenomenological Study of Mindfulness Meditation Practice by Individuals with Substance Dependent Behavior*.

Participants must be:

- a) ages 18 or older, b) self-reported substance dependent individuals who have not used substances within six months or formally diagnosed as ones by licensed health professionals and have been in treatment for at least six months, c) have practiced mindfulness meditation at least six months up to three years, d) are not in crisis or experiencing a substance use relapse e) participants are volunteers, f) participants do not have any prior relationship with the research, and g) are proficient in the English language.

Some of the interview questions for this study are:

1. Please tell me, what has been your experience with substance cravings when practicing mindfulness meditation?
2. What do you feel about substance cravings after you have practiced mindfulness meditation?
3. How would you describe your feelings or emotions when practicing mindfulness meditation?

A potential benefit to this study is that it gives participants the opportunity to share their experiences of substance dependence in relations to mindfulness meditation with professionals and the general public (your real names will not be known or used). By participating in this study, you will get to share your personal experiences related to substance use disorder and mindfulness meditation. In addition, the results (your personal experiences) of this proposed study may help the health professionals to have a better grasp of how substance dependent individuals experiences and feel about substance cravings in relations to mindfulness meditation intervention. The findings may also be

used to change or create intervention programs for substance use disorder such as to reduce substance cravings and negative behavioral actions. If you are interested in participating in my study, please do the following:

Option A: Via email

1. Establish a free email account (e.g., Yahoo Mail: <https://edit.yahoo.com/registration>) **using a fictitious name**.
2. Send me an email at **quyen.ho@waldenu.edu** from the email account that you have created using a fictitious name expressing your interest in take part of this research. This also means that you meet the requirements as stated above. **Please use your fictitious name at all times.**
3. I will respond to your email and include a consent form in my response. After reading the consent form, if you are still interested in participating, we will communicate via email using your fictitious name and email address to set up a date and time for your individual interview. You may state your consent in the email, stating your consent as described in the consent form.

Option B: Via phone

1. If you do not wish to use email account, you may contact me via phone at 678-999-0000. You may provide your consent via this channel. To express your interest in the study, please say “I consent”. **Please use a fictitious name at all times.**

Upon your agreement to participate in the study, whether by email or phone, we will set a date and time for your interview. Please be aware of that the interview will take place in a private, non-public location.

I want to assure everyone that you are in no way required to participate in my study. Likewise, if you choose to participate in my study, you may change your mind at any time and withdraw from the study without explanation. I will never know who does and does not participate in this study and I will never know the true identity of any participant.

I will be checking my email frequently. I look forward to hearing from those of you who are interested.

Thank you for your time

Quyen Ho

Appendix H: Participant Textual-Structural Descriptions

Participant 1: Michael

Michael, a 42-year-old male, has been diagnosed as a substance dependent for approximately four and a half years. Alcohol is the primary substance to which Michael became dependent, and he has been attending Alcoholic Anonymous. He states that his dependent behavior was non-social, declaring that he would “lash out at people; I’m much more aggressive, not physically, but kind of. I’m less restrained. I can get angry easily.” Michael attributes his dependent behaviors to stress that he was unable to manage, particularly when he had a hard day at work. Michael engaged himself in many inappropriate relationships when he was drinking excessively including engaging in casual sexual activity; Michael also admits to having a relationship with a married woman while he was still married.

Even though Michael considers himself as a beginner in mindfulness meditation, within two and a half years of practice, he has come to realize that meditation does help him to avoid cravings and aid his improved state of mind; “My mind doesn’t get into the situation that causes me to have cravings.” Practicing meditation regularly has helped Michael to reduce cravings because “the less I’m in the state of mind that produces cravings where I am very stressed about a relationship or work”, the less he is likely to drink. Conversely, when he is not in a good state of mind, it leads to alcohol. Michael reports that when he is practicing mindfulness meditation, he feels more peaceful, calmer, and centered. He describes this, “I feel kind of close to God or one with the universe. I don’t know how to explain it...but just very calm and centered.” As a result of feeling

more peaceful with a calm and centered mind, he does not need to drink. Additionally, Michael explains that the mindfulness meditation has helped him to be less reactive and to have more mindful behaviors such as no desire to harm others. He becomes more focused on what he can bring to a relationship as opposed to what he can get out of the relationship.

Participant 2: Neo

Neo is a 59-year-old male whose profession is school bus driver. He has been diagnosed as a substance dependent for eight years. Neo has been able to stay sober for many years and is able to recall exactly the last time he used his substance of choice (November 21, 2008). After struggling with alcohol dependency for 30 years, Neo now relies on AA and mindfulness meditation for treatment and prevention. According to Neo, self-deception and self-destruction were fundamental aspects in his substance dependency, which in turn created more difficulties for his life.

Neo has sought relief from his dependency through the practice of mindfulness meditation, describing how “mindfulness is a practice of awareness, abiding awareness-recognizing that I am more than feelings and thoughts. And it’s not a theory; it’s actual experience.” He further expresses that mindfulness allows him to observe his thinking and emotions without reaction. As a self-identified intermediate mindfulness practitioner, Neo improves his emotional and behavioral regulation through recognizing and understanding his state of mind: “I can be angry; I don’t have to act angry. I can be hungry; I don’t have to eat. I can be thirsty; I don’t have to drink.” This also applies to cravings, and Neo states that alcohol is not a “chemical dependency”; instead, cravings

are just “instincts and thoughts” that one makes a choice to respond to. The type of response is based on one’s state of mind. It is the practice of mindfulness that helps Neo to realize this fact. When asked about the effects of mindfulness meditation on his dependent behaviors, Neo responds that, “mindfulness allows me to recognize self-delusion, self-deception, and if you will, the bondage of self.” He continues to describe how mindfulness helps him to be in stillness and to experience profound calm and peace, which further motivates him to practice mindfulness meditation every day. In addition, Neo has brought his mindfulness practice into his daily life and has reaped its benefits. As a result, he has a positive perspective or perception on events even when facing adverse environments such as being stuck in traffic or being on the road for a long time as required by his job. Being on a road for a long time as Neo explains is “a perfect opportunity to practice mindfulness” because it is about the present moment that one should focus on, and driving requires that attention and focus.

Participant 3: Maggie

Maggie is a 63-year-old female who was diagnosed as substance dependent nine years ago and is currently taking Buspar for anxiety and Effexor for depression. When asked about the types of substances that Maggie had used, she reports that “I liked all drugs. I’ve used a lot of marijuana and a lot of alcohol. I’ve used some cocaine, too.” She also shares that she used alcohol frequently as a young woman. She further states, “I was drinking to numb my anxiety, numb my fears, numb all the things in life that I found too difficult.” Maggie grew up in a family where alcohol use was considered normal including excessive alcohol use during cooking.

As an AA member as well as a weekly mindfulness meditation practitioner, Maggie has learned how to overcome her substance cravings and slow down her activities. She realizes that mindfulness meditation has helped her to cope with what she termed “very busy minds” and “monkey minds.” Through the techniques of mindfulness, Maggie is able to bring herself back to the present moment, focusing on the now. Mindfulness meditation helps her to avoid reacting to situations based on feelings and emotions. She states, “I am not any longer reacting to situations, to life situations. I am now in the present and practicing what is really happening and I’m aware of my feelings and I’m way more aware of my emotions.” Maggie shares that she loves to cook, but it is also a trigger for her cravings because it was normal to cook with alcohol. The compulsion to drink activates whenever she cooks; however, being mindful and aware of her emotions and feelings in the present moment, a technique learned from mindfulness meditation, has helped Maggie to reduce or let go of the cravings in that moment. Now, her cooking is without alcohol and is done so by “cooking moment by moment.”

Participant 4: Turtle

Turtle is a 53-year-old female and has been an alcohol dependent for 21 years; however, she states that the alcohol consumption really started when she was 11 years old. She was also into drugs including stimulants mainly so she could stay awake to drink more. Turtle describes her cravings as a mental obsession like “hamsters on a wheel, and you just run and it goes in this loop over and over again.” Therefore, the automatic response to her obsession and a way to feel better or stop that mental obsession was to consume some alcohol and drugs. Although Turtle did not consume alcohol every day,

she admitted to thinking about drinking every day. For example, she recognized a distinct pattern of her substance dependency—she always got drunk on Tuesdays and Thursdays if she went out. Turtle describes her alcohol dependency as an addiction and believes that “addiction is terrible”. “When I drink, I know I’m gonna be sick to my stomach, can’t eat, have a headache, feel achy and sleepy all day long.” However, her brain, like a “little monkey”, chatters away and tells her something differently about drinking—“If you get drunk, you’ll feel better!” She knew that it was a lie at the time but could not overcome it. In order to stay sober, Turtle became active in AA and maintains her formal sitting meditation at least twice a week.

Turtle explains that she gets the same emotional effect when practicing mindfulness meditation as when getting drunk in that she feels calmer. However, meditation does not come with the sickness, guilt, and suffering that alcohol brings. Turtle has come to see that her practice of mindfulness meditation brings more positive and peaceful consequences than consuming alcohol—gratefulness and gratitude as opposed to selfishness and self-centeredness. According to Turtle, mindfulness meditation is a tool that helps her not to act on the things that her brain tells her to do or think because “my brain is not my friend and it tells me to do stupid things, and I don’t want to pay attention to it.” With this tool, Turtle now sees that the “addiction” as she has described it is an “impulsive behavior” that drives her into taking actions, but she does not have to give in to that impulsive behavior anymore. Turtle has been practicing mindfulness meditation for three years, but the effect of it is varied; it is a work in progress for her. Some days she feels like she has advanced to the intermediate level, but

some days she finds herself at a beginning level. In short, Turtle believes that by maintaining her meditation schedule, she can deal with impulsive behaviors caused by “addiction”.

Participant 5: Emily

Emily is a 26-year-old female with some college education. She reports that she was dependent on alcohol and heroin for about three and a half years ago. Emily states that when she was actively drinking or using heroin, she exhibited little in the way of moral behaviors, stating that she would steal, lie or manipulate people to support her dependent behaviors and actions; nothing else mattered except for drinking and using heroin. This occupied her mind and physical being like a clock, going 24/7—she “never paused or was quiet.” Through her practice of mindfulness meditation, praying, exercising, and joining A.A, Emily now recognizes that “drugs could only be a solution to a temporary problem,” and she has been able to liberate herself from the compulsion to drink or use drugs.

Emily believes in living in mindfulness, which has brought a moral foundation to her life. She states, “I have a conscience today. So, I try to do the right thing. But as far as mindfulness meditation is concerned, I know I have the ability to quiet my mind even when there’s chaos around me.” She considers mindfulness technique a spiritual gift, one that allows her to simply let go of cravings and insecurities. Now instead of basing her actions on her current emotions, Emily tries to “stay present in the moment.” She emphasizes, “Recognizing that my mind is telling me that my body is craving a substance. Recognizing it, accepting it, and letting it go is how mindfulness meditation

has helped me move forward.” By embracing mindfulness meditation, she has a feeling of security and renewed self-esteem; she confidently expresses, “The co-dependent behaviors aren’t there because I’m ok with Emily.”

Participant 6: Jack

Jack is a 55-year-old male with a Bachelor’s degree who was diagnosed as substance dependent approximately 25 years ago; his substance dependency was to alcohol. It started because he was always surrounded by people who drank excessively including family members and friends; drinking was a normal activity for them and Jack saw that as “fun and happiness.” Therefore, he continued to the point that he lost control over it. Jack reports that he was arrested three times and even imprisoned due to his behaviors related to alcohol. He views his substance dependency as an addiction that drove him to be careless, putting himself and others in jeopardy; it did not matter to him. He states that he would do anything or use anyone so that he could gain access to substances. Jack states, “I would steal from my parents; I would steal from anyone. I would go to any lengths to get those substances.” In 1991, he was sent to a treatment center where he came to understand that his problems (fun and happiness, job, and security) could not be resolved by substances. This awakening allowed Jack to transform his dependent behaviors through the practice of mindfulness meditation, and the enrichment of his spiritual life through A.A.

Jack also describes how the technique of mindfulness meditation has helped guide him to a more spiritual life; one with less worry about the past or the future. “I found a solution to my addiction. That was through a spiritual experience.” He concludes that

seeking happiness in drinking only led to sickness for him. “To find that true happiness lies within and that a lot can be accomplished with compassion and love.” He also encourages others who suffer from addictive behaviors to try to be open-minded and practice mindfulness meditation as an effective method to deal with the emotions and thoughts that so often come with addiction.

Participant 7: Annie

Annie is a 55-year-old female who has completed 2 years of college. Now 13 months into sobriety, her substance of choice was alcohol. Annie was diagnosed as substance dependent at age 21, reporting that drinking was the best way to escape from unpleasant reality, especially when something distressed her. She came to realize that smoking and drinking were detrimental; when using, she often acted irresponsibly. Annie refers to her cravings as both mental and physical obsessions. Today, with three years of practice in mindfulness meditation, Annie has learned how to accept her situations instead of simply running away from them. She states simply, for example, “I’m not happy with my finances, but I accept it the way it is.”

Considering herself as an advanced mindfulness practitioner, Annie is no longer struggling with physiological or psychological cravings. She continues to practice mindfulness meditation, describing her experiences with mindfulness technique, “It calms me down. It makes me live in the moment, and I walk in peace. If I get disturbed, it’s because I’m not accepting some person, place, or thing in my life.” Annie has certainly made great progress, and acknowledges that dependence on smoking is yet another behavior she must overcome. Overall, Annie is able to recognize the triggers that

can contribute to relapses (“relapse in old behaviors”) and can find ways to divert her attention from those triggers through such practices as mindfulness meditation or transcendental meditation.

Participant 8: Sam

Sam is a 26-year-old male currently enrolled in a 4-year college. Sam was diagnosed as substance dependent 8 years ago. His substance of choice was opiates, often in the form of heroin. He states that being dependent on heroin had negatively affected his physical condition, personality, and spirituality. Sam admits that he “was lying and stealing money to get my drugs. I would do whatever I had to do go get heroin, and it didn’t matter who I hurt, didn’t matter what I had to do to get it, I would do it.” Sam expresses that nobody wanted to be around him because of his dishonest behavior. He was arrested and spent two months in in jail for theft. Emotional stress such as feeling anxious, depressed, and worried usually triggered his cravings because taking drugs according to Sam would help to get rid of these feelings. Sam recognized that these feelings did not go away after taking drugs, but he could not control himself because “my brain tricking me” caused him to think otherwise. Within 18 months of practicing mindfulness meditation, Sam is able to gain insight into his cravings.

When he was in the treatment center, Sam started practicing mindfulness meditation and came to understand his dependence is a result of thoughts; therefore, he now knows that he does not have to respond to them. Describing the effectiveness of his mindfulness meditation, Sam states, “What I do now is I meditate in order to lower my anxiety level, lower my worry level and because I do that, I don’t feel like I have to use

drugs afterwards because those feelings have been lowered.” As a self-identified intermediate mindfulness meditation practitioner, Sam states that he could “get a little bit of peace in the beginning”, but the cravings were still present intensively in terms of frequency and the duration. As he went a little bit deeper and longer in the length of sitting meditation, the cravings began to subside. At present, he is able to control his cravings that surface even when he is practicing meditation. He is able to use the technique of mindfulness meditation, such as returning to his breathing by focusing on each inhalation and exhalation, to control his cravings. The craving feeling eventually goes away. Sam concludes that “Meditation is a great way to calm your mind and bring yourself back to your centered place and focus hindsight on what you really need to do.”

Participant 9: Rose

Rose is 49-year-old female diagnosed as substance dependent for the past 3three years. Rose has practiced mindfulness meditation for approximately three years, and is currently at an intermediate level. Rose has been diagnosed with depression and is being treated with Prozac. When describing her dependent behaviors, Rose shares that her alcohol dependency had destroyed her self-esteem and her life. She summarizes, “I never felt safe. I never felt at peace. I never felt comfortable, just in my own body.” The more she drank, the more negative thoughts and behaviors she felt toward herself. She was so depressed that at one point suicidal thoughts had surfaced because she had a lot of anger of herself.

Rose tries to practice mindfulness meditation four to five times a week for about 20 minutes, to help focus on daily activities. She believes that meditation, spirituality,

and AA meetings help her to find the peace and calm she needs. Rose has come to see there are many forms of meditation such as sitting, walking, chanting, or writing. She states, “Chanting seems to work better for me because my brain is so busy. I try to do silent meditation. That one’s really hard, but I do it. I do a writing meditation where I just write everything that comes to my mind for a certain period of time.” Rose states that after practicing mindfulness meditation she feels more positive toward other people and herself even in adverse situations. She is happy with her present moments as opposed to always thinking about her past and future. She also finds it efficacious to being peaceful when she practices the lovingkindness meditation.

Participant 10: Flower

Flower is a 33-year-old female who was diagnosed as substance dependent at about age 20. Flower claims she was dependent on multiple substances, but she was mainly into alcohol and marijuana. She describes how substance dependence had caused her to act dishonestly including stealing and engaging in other destructive behaviors such as unhealthy relationships, driving while intoxicated, and unsafe environments. The ultimate goal was to make sure that the substances needed were accessible. She further states, “My romantic relationships while I was abusing substances were always related to whether that person was able to provide me with substances that I needed to use.”

Instead of avoiding unpleasant situations by the escapism of drug use, Flower can now change her negative, self-defeating thoughts through the technique of mindfulness meditation. She concludes that, through mindfulness meditation, she can release herself from the cravings, transform angry feelings into positive ones, and increase patience. She

is happy married without substance use introduced into the relationship. She is less reactive and does not lash out as often, since she has gained more control of her feelings and emotions. Mindfulness meditation, as Flower described it, has helped her to prevent her cravings as well as dispel them when they arise. She also has noticed that regular or consistent practice of mindfulness meditation has lessened her self-destructive behaviors and the “cravings are less likely to occur.” Flower happily recommends the practice of mindfulness meditation to those suffering with dependence, stating “I do greatly recommend that people who are new in sobriety begin the practice of meditation and to “continue practicing it and to do it consistently.”

Participant 11: Ray

Ray, a 30-year-old high school graduate, is a licensed tradesman who was diagnosed as a substance dependent individual approximately fifteen years ago mainly used alcohol and heroin. He has been to multiple treatment centers. Although he states that he is not currently being treated for his dependency, he does take the antidepressant Trazodone to help stabilize his sleep patterns. Ray also shares that he uses holistic methods of treatment, for example, seeing a therapist and performing meditation. While recalling his behaviors while under the influence of substances, Ray cites a list of negative behaviors including “restlessness, rage, anger, lying, stealing, betraying, unreliable, impatient, very impatient, selfish, a lot of selfish behaviors, hate.”

Ray identifies himself as a beginner in mindfulness meditation, having been practicing for just over a year with a goal to practice it on a daily basis. Ray reports experiencing emotions such as anger and anxiety when he began mindfulness meditation.

This experience, in turn, had intensified his cravings. A year later, however, he now experiences “more joy and happiness when it comes to mindfulness meditation”; therefore, the cravings are gone. Ray remarks that meditation has helped him relax and control his breathing, once his mind is able to move on after acknowledging the intensified cravings for substance. After practicing meditation, he now sees these substances as “dirty”, “disgusting”, or “gross,” with mindfulness being a “cleansing” process.” He states “I’m just turned off to drugs, to cravings, after I’ve done mindful meditation”. In fact, he now has more compassion for those who also struggle with substance use. Sorrow and sadness are the emotional feelings that Ray uses when describing substance dependency for himself and those who are in similar situations. Although he feels that his meditating techniques were “weak”, Ray describes that he has gone from feeling frustrated about his mindfulness practice to accepting it and continuing to work on improvement, focusing “back to now, the present moment.” He concludes that mindfulness meditation allows him “to really see, feel, hear, interpret, describe” all that is going on and brings him closer “to everything and everyone”. These are opposite to the feelings he exhibited when he was using substances; he was angry and hateful toward himself, people, the world, and even God. At times, he became very violent including hitting people, punching walls, and throwing chairs. Today, Ray still refers to himself as an “addict” and alcoholic, but his mind is calm and peaceful and it can recognize when cravings arise and tame those cravings through re-training his brain that cravings are just thoughts that he does not have to act on.

Participant 12: River

Being the youngest participant, River is a 24-year-old male with a GED and some college education. He reports to being dependent on various substances including opiates, heroin, marijuana, cocaine, methamphetamine, hallucinogenic, and “a lot of” anti-depressants, Xanax, and different types of muscle relaxants. Diagnosed as substance dependent about 10 years ago, he recalls starting to drink and to smoking illegal substances at the age of 11-12, but he has been able to stay free for about 2 years without any craving thoughts. River describes his past lifestyle under the influence of substances to include stealing, robbing people, losing jobs, and losing his home. He remembers the pain, the headaches, the stomachaches, the anger, irritability, and impatience he felt; however, he could not stop them because the “mind is wanting and wanting and wanting and begging for the substance”; therefore, the only way to get better at those moments is “to go get high” even though Ray knew it had consequences because the cycle never stopped. Getting high was the only way to make his physical body feel better and his mind to calm down; this cycle continued for Ray every day. Ray states that as soon as he woke up he had to figure out a way to make money to support his dependency

Today, River is a member of AA and a regular mindfulness meditation practitioner. River considers himself an intermediate level practitioner of mindfulness meditation and talked about the various effects his practice had had on his mental state. He reports that, “all my senses are amplified-hearing, touch, especially eyesight, eyesight seems to be the number one.” He further states that he now feels peaceful and calm, and saw his overcoming substance dependence as ‘a miracle’, crediting it to the gradual practice of mindfulness meditation. “Whenever I start feeling negative thoughts or negative actions coming up,

especially the negative thoughts, I can look at it as just a thought and I don't really have to act on it," he remarks. River has come to understand that he can control his thoughts by concentrating on his breathing and relieving tension, stress, and negative feelings. He has also noticed a change in his social behavior; he now seeks to "help out people more", "connecting to people better" "on a soul to soul level" since coming to mindfulness meditation.

River also shares the various mindfulness techniques that he has been trying, which includes doing copper artwork, writing meditation, reading meditation, guided meditation, and silent sitting meditation. He recognizes that "The more meditations I was doing, the better of a person that I was, the less stuff would affect me in a negative way, I wouldn't get mixed up with my feelings, and I was just a happier, more easy going person." He concludes by affirming that doing meditation every morning keeps him focused, calm, and productive.