

Mindfulness and Addiction Treatment

Do not dwell in the past. Do not dream of the future. Concentrate the mind on the present moment.

Buddha

Mindfulness as a practice for health and well-being has been around for centuries. Lately it has received attention in the addiction treatment field and is showing promising outcomes across a broad spectrum of uses. The widespread use of cognitive behavioral approaches in addiction treatment created fertile ground for the inclusion of mindfulness-based practices, which enhance treatment using a combination of meditation, movement and cognitive skills.

Mindfulness can be a way to cope with feelings, stress, triggers and urges and a way to manage stress and anxiety. Being mindful increases engagement with the present moment and allows for a clearer understanding of how thoughts and emotions can impact health and the quality of life. It is a way of staying present with pain and discomfort, rather than fleeing it, suppressing it or seeking to "medicate" it in some way. When confronted with an urge, a person practicing mindfulness observes and accepts the urge, and rides it like a wave – knowing that urges have a beginning, middle and end - and that this one too will pass.

Mindfulness frames strong urges or feelings not as commands to be acted upon immediately or automatically, but rather as invitations to accept or decline after careful consideration. Mindfulness practitioners say it allows them to remain calm under fire, enabling them to choose a more adaptive response to a particular stressor or stimulus.

Mindfulness: What it is...and what it isn't

Dr. Jon Kabat-Zinn is credited with bringing mindfulness to the modern treatment world. His basic definition of mindfulness is "paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally" (Kabat-Zinn, 1994). Efforts to operationalize the definition, in part so that treatment practices can be standardized, replicated and their outcomes measured, have resulted in expanded definitions that include concepts such as acceptance, commitment, openness and cognitive flexibility.

Mindfulness Skills

Mindfulness can evolve from learning, practicing and regularly applying several specific meditative and cognitive skills, including the following which are described in "Using Mindfulness Techniques in Substance Abuse Treatment" (http://kimh039.hubpages.com/hub/Using_Mindfulness_Techniques_in_Substance_Abuse_Treatment):

Awareness: The ability to focus attention on one thing at a time, while at the same time recognizing that there are many things going on. Some of these things are external such as sounds, odors, touch, and sights, while some of these things are internal, such as feelings, thoughts, urges, impulses, etc.

Non-judgmental: The ability to observe without judging or labeling things as "good" or "bad." For example, one can observe their angry feelings without judging them as bad or feeling a need to get rid of them or do something about them.

Present Moment: The ability to fully participate in the present without being distracted by guilt from the past or worry and anxiety about the future. It means not just mindlessly doing what you have always done or going through the motions, but paying deliberate attention to what you are experiencing.

Open (or Beginner's) Mind: The ability to be open to new experiences and see them as they are, not how you have judged them to be or think they should be. A "Beginner's Mind" is as open as that of a child who experiences something for the first time.

How does one develop mindfulness skills? Through exercises such as those briefly highlighted below from the aforementioned "Using Mindfulness Techniques in Substance Abuse Treatment":

Mindful Breathing: *Mindful breathing involves focused attention on breathing. Notice how you are breathing. Notice slower breathing and fuller breaths. Notice your belly rise and fall as you breathe in and out. When your mind drifts away from your breathing, and it will, simply notice what caught your attention and gently shift your attention back to your breathing.*

Meditation: *The purpose of mindfulness meditation is to become more aware and accepting of internal processes; thoughts, feelings, urges, sensations, cravings, triggers, etc. People who are extremely anxious about internal processes or have difficulty sitting still may need to work up to a full session of 20 minutes, beginning with only 2-3 minutes at a time and working on other exercises more at first. The goal is 20 minutes of meditation two times a day. During meditation, if your mind drifts to thoughts about the past or worries about the future, gently re-direct your attention to the present moment. Mindfulness meditation is about staying in the present, not necessarily about achieving a heightened state of awareness or bliss.*

Beginner's Mind: *Pick an object in the room that is familiar to you, and examine it with your beginner's mind; that is, as if you have never seen the object before. Some people imagine they are an alien from another planet or an alien on another planet, and are seeing the object for the first time. Notice the shape, weight, texture and color of the object. Try to imagine what the object could be used for. As you continue to examine the object, do you notice anything about it that you may not have noticed before? When you put the object away, reflect on what you learned about the object that you didn't already know. Consider what would happen if you approached other areas of your life with a beginner's mind; people, places, objects, situations. How would these other areas of your life be the same or different if you approached them with beginner's mind? What expectations do you now have that you would not have if you saw them for the first time?*

There are many other exercises one can practice towards becoming more mindful, including those which focus specifically on emotions, eating, and physical sensations. Mindfulness can be applied to any activity at any time during the day. Mindfulness can be practiced in the shower, during a walk, at work, during exercise, in a store, in the waiting room, etc.

It is also important to note what mindfulness isn't. It is not a relaxation technique, although relaxation can occur. Likewise, mindfulness meditation should not be promoted as a path to religious or spiritual enlightenment of some sort. It is not a mystical or religious endeavor. It doesn't produce trances or altered states of consciousness. It should not be the sole component of treatment; rather, it is one of several potentially useful tools to offer clients and train them to use. The training and practice components are very important if clients are to receive the full benefits from mindfulness meditation.

Research on Mindfulness Meditation Outcomes

The research on mindfulness is relatively new and emerging. Some combination of mindfulness-based interventions have been applied to the treatment of chronic pain, skin disorders, and anxiety disorders, borderline personality disorders, relapse prevention, neurological activity, immune functioning, stress levels with cancer patients and addiction treatment. (Hoppes, 2006) A few significant examples follow (Brewer et al 2010):

- Mindfulness-based stress reduction (MBSR) showed efficacy in the treatment of chronic pain where other treatments had failed.
- Mindfulness-based cognitive therapy (MBCT) has shown an absolute reduction of 44–50% in the relapse rate for individuals with three or more episodes of depression both in initial and replication studies.
- Incarcerated, substance abusing individuals who were taught mindfulness meditation showed significant reductions in substance use three months following incarceration, as well as reductions in anxiety and depression.
- Mindfulness-based treatment for substance use disorders was associated with greater decreases in craving and substance use compared to a treatment-as-usual by lessening depressive symptoms and craving.

Research on the Neurobiology of Mindfulness Meditation

Research on the neurobiological mechanisms by which mindfulness meditation works has shown that physical and physiological changes in the brain occur with sufficient practice and use. Specifically, mindful meditation has been shown to "thicken" the brain in areas in charge of decision making, emotional flexibility, and empathy. Changing your thought processes causes changes in the brain (Lazar et al. 2005).

Mindfulness practice may positively affect the activity in the amygdala, the center of the brain which regulates emotions (Davidson 2000). When the amygdala is relaxed, anxiety lessens: heart rate lowers, breathing becomes slower and deeper, and the body stops releasing cortisol and

adrenaline, two chemicals which are adaptive in some circumstances, but which can have a negative effect, if too much is released over the long term.

According to neuroscientist Daniel Siegel, mindfulness meditation practice may create new neural networks for self-observation, optimism, and well-being. Mindfulness meditation benefits the left-prefrontal cortex (associated with optimism, self-observation, and compassion), potentially reducing the effect of the right-prefrontal cortex (associated with fear, depression, anxiety, and pessimism) (Alexander, 2010).

Mindfulness-Based Stress Reduction (MBSR)

Modern foundational work on mindfulness came from Mindfulness-Based Stress Reduction (MBSR), a program developed by Jon Kabat-Zinn of the University of Massachusetts <http://www.umassmed.edu/cfm/stress/index.aspx>. The highly participatory 8-week course includes: guided instruction in mindfulness meditation, gentle stretching and mindful yoga, group dialogue and discussions aimed at enhancing awareness in everyday life, individually tailored instruction, daily home assignments, four home practice CDs and a home practice manual.

Research has shown MBSR to be effective for patients with chronic pain, hypertension, heart disease, cancer, and gastrointestinal disorders, as well as for psychological problems such as anxiety and panic. The success of this approach led directly to the application of similar principles for other mental health and addiction problems, brief descriptions of which follow.

Mindfulness-Based Cognitive Therapy (MBCT)

Mindfulness-Based Cognitive Therapy (<http://www.mbct.com/>) is designed to help people who suffer repeated bouts of depression. It combines the ideas of cognitive therapy with meditative practices and attitudes based on the cultivation of mindfulness. Participants become acquainted with the modes of mind that often characterize mood disorders while simultaneously learning to develop a new relationship to them. MBCT was developed by Zindel Segal, Mark Williams and John Teasdale, based on the MBSR program previously described. Research has shown that people who have been clinically depressed 3 or more times (sometimes for twenty years or more) find that taking the program and learning these skills helps to reduce considerably their chances that depression will return. In fact, evidence from two randomized clinical trials of MBCT indicates that it reduced rates of relapse by 50% among patients who suffer from recurrent depression.

Mindfulness in the Treatment of Substance Use Disorders

Mindfulness-based approaches, which include the work of Linehan, with dialectical behavior therapy (DBT), Kabat-Zinn with MBSR, Segal and colleagues and their adaptation of MBCT for depression, have been called the "Third Wave of CBT" (Hoppes, 2006). Mindfulness-based interventions "can enhance the effectiveness of cognitive-behavioral therapy (CBT) for addiction, particularly in relation to problems with affective regulation that often co-occur with substance abuse disorders." (Hoppes, 2006)

Michael Waupoose, program manager for Gateway Recovery, a University of Washington Health addiction treatment center, provides a relevant example "if a patient has a very bad argument with his spouse or children, his anxiety will increase; he may get frustrated and angry; and, commonly, he will automatically leave that situation and go out for a drink to relieve stress and tension. Obviously, this is an example of unhealthy coping with discomfort. Mindfulness meditation would teach that person how to be present in that situation, how to be conscious of what's happening to their body, and how to deal with it without reacting to it automatically," Waupoose continued. "It teaches people how to be conscious of their feelings or thoughts without having to follow them all the way through." (UW Health News, 2010)

Why is this important? According to Dr. Kimberly Hoppes of Mt. Sinai Medical Center, "facing the damages of addiction (occupational, familial, social, economic, etc.) without the mood numbing effects of substances, poses an additional challenge for the recovering individual. For many individuals in early recovery, the negative thoughts and feelings they experience about their lives are not based upon distortions in perception, but upon real problems which have often been compounded by avoidance and denial. Individuals attempting to achieve abstinence face the daunting task of trying to abstain while simultaneously confronting the reality of serious consequences of their addiction. The lack of preparation, skills, or resources to handle what can feel like an unbearable "wake up call" can greatly contribute to the risk of relapse, particularly during the early months of heightened addiction-related emotion deregulation... through mindfulness skills that focus on dealing with these painful realities without becoming consumed by negative emotions and thoughts, the recovering individual is more likely to build the motivation to pursue positive changes in behavior in the present." (Hoppes, 2006)

Mindfulness meditation is also beginning to be discussed as a promising component in the treatment of co-occurring substance use and mental health disorders (Brewer, et al, 2010).

Mindfulness and Relapse Prevention

Mindfulness-Based Relapse Prevention (<http://www.mindfulrp.com/default.html>), developed by the late Dr. Alan Marlatt and colleagues (Bowen, Chawla&Marlatt, 2010) at the University of Washington, is an aftercare program integrating mindfulness practices and principles with cognitive-behavioral relapse prevention. MBRP practices foster increased awareness of triggers, habitual patterns, and "automatic" reactions. These practices help those in recovery develop the ability to pause, observe present experience, and bring awareness to the range of choices before them.

MBRP developers believe it is best suited to individuals who "have undergone initial treatment and wish to maintain their treatment gains and develop a lifestyle that supports their well-being and recovery." Before enrolling, participants typically have at least 30 days of active sobriety, and participate in a short interview to discuss suitability for the MBRP class. The program involves 8 weeks of curriculum-based classes. Each class includes mindfulness meditation and/or mindful movement, along with cognitive-behavioral strategies to maintain and reinforce sobriety. Participants are expected to do daily home practice. The primary goals of MBRP are to develop awareness of personal triggers and habitual reactions, and learn ways to create a pause in this seemingly automatic process; change the relationship to discomfort, learning to recognize

challenging emotional and physical experiences and responding to them in skillful ways; foster a nonjudgmental, compassionate approach toward oneself and experiences; and build a lifestyle that supports both mindfulness practice and recovery.

The outcomes of MBRP (<http://www.mindfulrp.com/Research.html>) have been promising, including: significantly lower rates of substance use, decreases in craving, and increases in acceptance and acting with awareness among those who received MBRP as compared to treatment as usual. Free mp3s audios featuring techniques used in MBRP such as: Body Scan, Sober Space, Urge Surfing, Mindful Movement, and Meditation are available on the MBRP website at <http://www.mindfulrp.com/For-Clinicians.html>.

Is Mindfulness Meditation for Everyone?

Of course not, there are side effects and contraindications identified in the literature regarding the use of mindfulness meditation. A good reference article on this topic, *Mindfulness Meditation Research: Issues of Participant Screening, Safety Procedures, and Researcher Training* (Lustyk, Chawla, Nolan, Marlatt, 2009) notes: "Side effects of meditation with possible adverse reactions are reported in the literature. Mental health consequences were the most frequently reported side effects, followed by physical health then spiritual health consequences." For each of the potential adverse effects identified in the article, the authors offer methods to assess the relative risks and deal with them.

Conclusion

According to one mindfulness researcher, "mindfulness seems to represent an emotional balance that involves acceptance of internal experiences, affective clarity, an ability to regulate one's emotions and moods, cognitive flexibility, and a healthy approach to problems. Mindfulness may indeed represent a solid ground from which to experience the vicissitudes of life without losing one's balance or distorting one's experience." (Hoppes, 2006) Indeed, the words and ancient wisdom of the Buddha quoted at the beginning of this issue seem to have found an increasingly legitimate place in modern, effective addiction treatment and recovery practices.

Additional Resources

The following are recommended in addition to the websites and other resources mentioned in this issue:

Monthly updates on published research on the application of mindfulness to various fields can be found in the newsletter Mindfulness Research Monthly at <http://www.mindfulexperience.org/newsletter.php>

Several instruments have been developed for measuring mindfulness. A listing of the instruments and their supportive psychometric studies is available at <http://www.mindfulexperience.org/measurement.php>.

Sample mindfulness exercises can be heard/downloaded from UCLA's Mindful Awareness Research Center website at <http://marc.ucla.edu/body.cfm?id=22>

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