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Principles of MiCBT

The real voyage of discovery consists not in seeking new lands but seeing with new eyes.

—Marcel Proust, 1923

This chapter describes the origins and development of Mindfulness-integrated Cognitive Behavior Therapy (MiCBT), as well as the core principles and theoretical basis for this integrated transdiagnostic approach. The chapter also discusses how we can conceptualize “suffering” in a way that productively guides our attitude and approach to using MiCBT. It also provides a brief description of the four stages of MiCBT, including the therapeutic mechanisms and supporting research evidence. We begin by describing our operational definition of mindfulness to ensure that the term used with regards to MiCBT is accurately understood.

Definition and Purpose of Mindfulness

Origins and Common Confusions

Mindfulness has a double meaning in the English language. The online *Oxford English Dictionary* defines mindfulness in its common meaning outside the meditative context as “The quality or state of being conscious or aware of something.” As you can imagine, this can lead to all sorts of misinterpretations of the term when trying to apply it to the Buddhist teaching of mindfulness. In modern day Western psychology, mindfulness has progressively become an umbrella term related to purposeful sustained attention in the present moment. This understanding is not only inaccurate, but it also misleads newcomers to mindfulness training. For example, a cat sitting attentively in front of a mousehole, ready to jump on its prey, sustains attention from moment to moment; however, it is not a mindful cat. Similarly, a sniper paying purposeful attention in the present moment, ready to

kill in the context of following orders without making judgments, is attentive but not mindful. Unfortunately, this initial misunderstanding of the construct engenders low construct validity in both mindfulness measurement tools and the studies that use them, but a discussion on these issues is beyond the scope of this chapter.

In the Buddhist psychological context, the term “mindfulness” is a translation of the Pali term *sati*. Pali was the common language used in northern India during the time of the Buddha, over 25 centuries ago. *Sati* has been interpreted by various monastic and lay teachers as “awareness” (Goenka, 2000, p. 135), “mindfulness or awareness” (Narada, 1988, p. 183; Rahula, 1974, p. 48), and as “remembering or bearing in mind” (Rhys Davids, 1881, p. 107; Sharf, 2014, p. 942;). The British Buddhist scholar Rupert Gethin explains that *sati* should be understood as that which allows us to be aware of the full range and extent of phenomena—as an awareness of phenomena and their relative value—and is therefore what causes the mindfulness practitioner to “remember” that any experience exists in relation to a whole variety of experiences that may be skillful or unskillful, wholesome or unwholesome, ethical or unethical (Gethin, 1992). The traditional purpose of mindfulness practice, since its origination in Buddhist teaching, is to develop wisdom and reduce suffering.

Unlike some of the current Western teaching models, the traditional approach teaches mindfulness as a quality of mind to be cultivated at all levels of experience. In particular, it involves developing our mindfulness skills across four modalities so that mindfulness permeates through all domains of functioning. This encompasses “the constant mindfulness with regard to body (*kāyānupassanā*), feelings (*vedanānupassanā*), thoughts (*cittānupassanā*), and mind objects (*dhammānupassanā*)” (Narada, 1988, p. 182). Note that “feeling” (*vedana*) is meant to signify “interoception” and the associated pleasant, unpleasant or neutral hedonic tone, and is frequently used interchangeably with “body sensations” in the literature (e.g., Rahula, 1974, p. 48). Hence, *vedana* has more to do with “feeling” (the verb) than with “feelings” (the noun). Although it is not necessary to explain these details to clients, it is helpful for therapists to know the original purpose of mindfulness training and understand clearly the definition of mindfulness, as some clients will ask about it.

In particular, it is important that clients understand the differences between attentiveness, awareness and mindfulness. In brief, we understand attention to be the mental effort that directs awareness to an object or stimulus and awareness is the action of conscious apprehension of the object. While mindfulness requires both attentional effort and awareness of what is occurring in the present moment, it must be free from any bias, such as liking or disliking what we attend to, and the propensity to desire or resent the object. The attentive cat in the aforementioned example craves the appearance of the mouse, and the sniper may resent the target or crave a successful shot. Mindfulness meditation needs to be understood as a training in *unbiased* attention to our ongoing experience, preventing any personal interpretation or interference with the object of observation. Mindfulness must, therefore, include a sense of detachment from, and non-identification with, the object that we attend to.

For this reason, mindfulness practice must be accompanied by equanimity (*upekkha* in Pali), which is *a detached, neutral and balanced mental state that is neither elated nor depressed, which enables a non-reactive attitude irrespective of the type of experience being encountered*. Researchers are starting to express the

importance of equanimity in mindfulness practice (e.g., Desbordes et al., 2015). Mindfulness practice requires mental neutrality, which allows us to investigate safely, objectively and with a healthy curiosity. Hence, to use the term mindfulness accurately, it must be understood as a tool, *not as a goal*. As we progressively acquire the ability to stabilize attention, our observation deepens and we notice that all things change, including our thoughts, emotions, physical body and the entire world around us—nothing remains the same, including what we call “the self.” Thus, mindfulness is a tool for both self-investigation and “self-desensitization” through direct exposure to whatever we call “I,” “my,” or “mine” while preventing the reinforcement of a sense of self, as is discussed in the next chapter and revisited in Part 2 as we implement the stages of MiCBT.

Operational Definition

Most teachers agree that mindfulness practice requires paying attention to our present experience, without adding or subtracting any aspect to the experience, while preventing biased judgment, reactivity and identification with the experience. When gathering the essence of traditional and modern descriptions of mindfulness, we can summarize a mindful mental state as *a heightened sensory and meta-cognitive awareness of the present-moment experience, free from reactivity, biased personal values and self-referential evaluation*. Training in mindfulness meditation requires *deliberate sustained attention to sensory and cognitive processes with unconditional acceptance of the experience*. This necessitates a deliberate effort to inhibit one’s learned reactions (craving and aversion) and develop greater objectivity, acceptance and detachment with each experience.

MiCBT applies mindfulness training in the Vipassana tradition of the Burmese teachers lineage of Ledi Sayadaw, Saya Tetgyi, Sayagyi U Ba Khin and, later, S. N. Goenka. Accordingly, MiCBT may be defined as *a theoretically congruent and technically complementary integration of traditional mindfulness training and CBT, which provides a transdiagnostic approach to address emotional distress across a wide range of disorders*.

Origin and Development

MiCBT, originally called Mindfulness-based CBT (MCBT) until 2005, was initially conceptualized between 1989 and 1997 and developed by the first author between 2001 and 2003 to address a range of moderate to severe psychiatric symptoms (Cayoun, 2003). It was then piloted in several clinical and community settings (e.g., Cayoun, Sauvage, & van Impe, 2004; Lindsay, 2007) and progressively modified until 2010, which led to the first publication of a comprehensive book on the principles and practice of MiCBT (Cayoun, 2011). Since then, the MiCBT approach has been studied across a range of disorders, age groups and contexts, as will be discussed in the next chapter, and only minimal adjustments have been necessary despite a wide range of applications. Clinician training in MiCBT has also been piloted through the supervision of numerous therapists undertaking courses in various countries since 2003.

In contrast with an increasing number of mindfulness-based interventions (MBIs) over the past 20 years, MiCBT was not derived from Jon Kabat-Zinn's (1990) Mindfulness Based Stress Reduction (MBSR) approach, which was not well-known outside America at the time. Rather than integrating an existing adaptation of the original teaching of mindfulness, MiCBT was independently composed of the core mechanisms underlying cognitive and behavioral therapies (Barlow, 2002; Beck, 1976; Hawton, Salkovskis, Kirk, & Clark, 1989) and traditional *Vipassana* (insight) meditation, taught in Northern India over 2500 years ago by Siddhartha Gautama, better known as the historical Buddha, who was also the prince of the Sakya province situated in current Southern Nepal. This doesn't mean that MiCBT is a "Buddhist" approach. It simply makes use of the profound phenomenological wisdom that the early teachers of mindfulness described in their approach to human psychology, henceforward referred to as "Buddhist psychology."

For most mindfulness-informed therapists, what makes the Buddha's story interesting is that he shunned a theistic approach (Hindu religion) and embraced a psychological perspective with the aim of reducing human suffering. The uniqueness of his approach was twofold: he only believed in verifiable and replicable phenomena and he only taught systematically applicable methods that showed evidence of efficacy in the reduction of human suffering. Of course, unlike today, the only means of gathering evidence then was through the direct experience of phenomena. Hence, the methods he taught were passed on through the science of phenomenology, which is the study of consciousness and the objects of one's direct experience through introspection.

The early pioneers of Western psychology were also known as "introspectionists." As with the Buddha's approach to psychology, they used introspection to examine the nature of consciousness and experiential phenomena. One of the fathers of Western psychology, the introspectionist William James, stated very similar realizations to those reported by the Buddha 2400 years earlier. Some of the most strikingly similar realizations found in James' seminal book *Principles of Psychology* (James, 1890), still commonly cited today, are that "A man's ME is the sum total of all that he can call his," and that "Thought is in constant change." These phenomenological realizations are not limited to Buddhist and modern Western psychologies, as many similar observations were made by Greek philosophers, especially Heraclitus, whose fundamental doctrine was that everything is in a state of flux, and that perpetual change is the fundamental nature of life. This understanding is not only shared by traditional teachers of mindfulness, it is also an important characteristic of human experience that mindfulness training helps us understand and accept.

Of note, Albert Ellis' Rational Emotive Behavior Therapy (REBT) has been frequently associated with elements of Buddhist philosophy, partly because of its common emphasis on unconditional self-acceptance. Ellis wrote that the approach of the Buddha and other ancient philosophers, which stated that "people are disturbed not by things but by their view of things", became the basis of REBT (Ellis & Drysdon, 1997, p. 2). In the early days of MiCBT (then called MCBT), Henry Whitfield in the UK corresponded with one of us (BC) and saw much value in combining the basic elements of MiCBT with REBT, which resulted in a hybrid model of therapy combining these two approaches (Whitfield, 2006). Whitfield's mindfulness-based REBT seems to already be a common practice among REBT therapists (David, Lynn, & Lama Surya Das, 2013).

Over the past 17 years, the growth of MiCBT has been steady, and has been purposefully and carefully controlled because MiCBT was initially developed for clinical purposes, which necessarily places restrictions on who may use it and whom to use it with. Our understanding of professional ethics and our prudence with therapist training inclusion criteria made the overall research and dissemination of MiCBT slower than MBSR-based MBIs, which have historically been more compromising in this regard. One important point of the code of ethics for psychologists in Western countries is to abstain from teaching therapeutic methods to individuals who lack the professional background that enables them to use the methods safely and appropriately. We have remained continually aware of the importance of limiting access to MiCBT training courses to only those clinicians that have the appropriate professional qualifications and experience. We have also carefully monitored their levels of competency using MiCBT in clinical settings.

The first 10 years of research following MiCBT's initial piloting comprised a majority of convincing but unpublished research theses. Before the first book on MiCBT was published (Cayoun, 2011), we also discouraged MiCBT studies where the researchers were not formally trained in MiCBT because of the risk of poor implementation validity and low representativeness. MiCBT research is now blooming, including teams in India and Iran who have been industriously exploring the effects of MiCBT across a range of conditions, providing some indications of its transcultural efficacy.

Basic Principles

Approach to Learning

Learning from someone else can be engaging, but it relies on faith in another person's knowledge or experience and is limited to one's beliefs in someone else's view or knowledge. Our personal engagement in the learning process is minimal. In the therapy context, this would involve simply practicing the therapy methods that we have been taught without questioning their validity, just because we trust our teacher. People who train to be teachers of mindfulness are not immune to this exclusively devotional approach to learning. The same applies to clients, some of whom might engage in a mindfulness-based intervention because a friend, sibling or medical doctor they trust suggested it.

Critical thinking, on the other hand, requires more personal involvement in the process of learning. We question, verify the evidence beneath the assumed validity of a phenomenon, and eventually decide for ourselves on the basis of our findings. In the context of therapy, we verify whether the rationale for an approach makes sense, we may check the evidence in the literature, and ask questions with an open mind and healthy rationality. This learning process requires greater personal engagement than relying on faith and hearsay. Nonetheless, research evidence today is easily invalidated tomorrow. New findings cancel the previous, and what we thought made sense for a while has to be put into question; this is the nature of science and its evolution. The same applies to long-term clients, some of whom might have been told that a certain therapeutic approach was the "gold-star"

evidence-based treatment 15 years ago and are now told that other treatment methods that lacked research backing 15 years ago have progressively been shown to be more efficacious than the original “gold star” treatment.

In contrast to belief and critical thinking, direct experience is by far the most personally engaging approach to learning, especially when learning about ourselves. During experiential learning, what is happening in the present moment is undeniably factual to a person; it is not hypothetical or based on others’ experience. Meditation practice is the most profound and reliable method to learn about personal phenomena, including the experience of our sense of self. For this principal reason, therapists learning about MiCBT are required to meditate. However useful a manualized guide may be, it will not suffice for the successful implementation of MiCBT. Without our personal experience of what we teach our clients, it is very difficult to understand our clients’ experiences during meditation and to guide them accurately. Again, the same applies to clients, many of whom are depressed or anxious because they have not had the benefit of directly experiencing rapid change in their symptoms by just noticing the ephemeral nature of experience, including that of profound sorrow or panic symptoms. It is through sitting quietly, observing objectively, and accepting the experience equanimously, that the ensuing relief teaches clients about the true nature of their predicament.

Approach to Therapy

Psychological therapies have been categorized in various groups of approaches (Corey, 1991). Among these, the “common factors” approach proposes that the efficacy of different approaches to therapy and counseling is enabled by factors that are inherent in all evidence-based therapies (e.g., Dollard & Miller, 1950). These factors include the therapeutic relationship, empathy, and active listening skills, but the factor that seems unequivocally present in effective therapies is learning (Tryon & Tryon, 2011). It has been proposed that mindfulness is also a common factor across various therapy approaches. Martin (1997, p. 291) has suggested that mindfulness is a “core psychotherapy process,” on the basis that the development of mindfulness promotes access to new perspectives and disengagement from habitual response sets, including automatic thoughts and behavior. The “technical eclecticism” approach to therapy (e.g., Lazarus & Beutler, 1993) selects convenient techniques from various approaches, including mindfulness skills, according to the therapist’s perception of the client’s needs. This approach is inevitably limited by the client and therapist’s insight into the origins and maintenance of symptoms. The “theoretical integration” approach to therapy (Norcross & Goldfried, 2005) aims at putting diverse theoretical systems together under a greater metatheoretical framework.

MiCBT uses a “theoretical integration” approach which incorporates the most central common factors, including learning, acceptance, self-awareness, disengagement from habitual response sets and therapeutic relationship. It is based on a multidisciplinary metatheoretical framework that integrates essential elements of Buddhist and Western psychologies into a single step-by-step manualized intervention. Specifically, MiCBT tightly weaves learning theory through the co-emergence model of reinforcement (Cayoun, 2011), cognitive and exposure

techniques, affective and social neuroscience, the natural law of impermanence and its effects on one's sense of self, mindfulness, equanimity, and existential components through the theory of non-self directly experienced during mindfulness practice.

One advantage of working with a clinical intervention that is based on an established theory is that we operate from a clear understanding of mechanisms of action. We can then more easily understand and resolve difficulties commonly encountered in clinical practice. For instance, if the theory that we integrate in our therapy model is learning theory (operant conditioning; Skinner, 1953), we can easily case-conceptualize an unhelpful behavior and understand the maintaining or reinforcing factors at play, irrespective of the therapy techniques used. In contrast, an eclectic orientation tends to encourage using any potentially useful method from "our toolbox." The downside of this is an over-reliance on empirical findings with little understanding of how underlying mechanisms of action function to alter behavior. This can result in a lack of depth and grounding in the science underlying a therapeutic model.

The notion of theoretical integration lends itself to encouraging a scientist-practitioner approach to therapy. Being based on theory also prevents future modifications from jeopardizing the efficacy of the approach, since any model adaptation (e.g., for children) must remain in line with the underlying theoretical framework. As will be discussed in the next chapter, the central theoretical framework for MiCBT is the co-emergence model of reinforcement (Cayoun, 2011; Cayoun & Shires, submitted for publication), which is a neurophenomenological extension of operant conditioning. Although MiCBT is constructed with a tight integration of mindfulness and CBT, the level of integration varies according to the level of expertise. Our observation over years of providing professional training is that therapists initially tend to *juxtapose* CBT and mindfulness methods and perceive them as two different systems, and then *integrate* them and perceive them as various methods of the same system as their expertise increases.

Approach to Symptomatology

It is not easy for clients to understand that our mental and emotional difficulties arise not only from *within* our mind, but also because of our *attitude* toward our mind. As will be described in some detail in the next chapter, when we give thoughts personal importance, even subconsciously, body sensations co-emerge with them, quickly intensifying to produce an emotion, irrespective of the disorder. Mindfulness practice develops better understanding of these and other mental processes, so that the mechanisms, and not just the content, of cognition can be altered. The purpose for which mindfulness was taught over the past 2500 years is to develop the necessary wisdom to perceive, understand and abandon our tendency to maintain suffering, as well as to promote a sense of well-being. It is possible that this description differs from what your client may have previously read about mindfulness.

One of the fundamental needs for human beings is to grow and evolve. Unknowingly guided by suffering, people feel the need to change for the better. When we avoid discomfort, we miss the teachings inherent in suffering. Therapists

are primarily students of suffering. They examine its multiple facets and their consequences, and eventually learn enough from it to develop means of reducing its unpleasant effects. What we mean by “suffering” is *an experience that leads to, or maintains, dissatisfaction or emotional reactivity following an unfulfilled expectation*. Buddhist psychology provides a profound understanding of suffering that supports the application of a transdiagnostic intervention. It helps us understand the common factors of suffering across all emotional disorders, as well as in life dissatisfaction in general. Human suffering can be divided into three types: (1) common suffering, such as physical pain and illness; (2) the effects of change; and (3) the effects of conditioning (Bodhi, 2000). Of course, these three types continually interact and cannot really be separated, but the way people learn and condition their mind is by far the most complex type to understand and is the principal reason for which they see a therapist.

It is useful to operationalize conditioned suffering in behavioral terms within the MiCBT theoretical framework, to demonstrate that the intervention is theoretically congruent with the problem. The *precipitating factor* (the trigger) for suffering is the fact that things change all the time, impacting all aspects of our life; this includes our sense of self, because of our attachment to our views, our senses, and our body and possessions. The *reinforcing factor* for suffering is our reactivity. Because of our attachments, we react with craving for the things we don’t have and want, and we react with aversion to the things we don’t want and have. As explained through the model of reinforcement in Chapter 2, our reactive behavior is positively reinforced when we obtain what we crave, and negatively reinforced when what we resent subsides. Our conditioned mind is extremely restricted by this ongoing, yet subconscious mental habit. As a consequence, our unawareness of these phenomena constitutes the principal *maintaining factor* for suffering because it prevents us from understanding these underlying mechanisms and correcting our habits accordingly.

Thus, the *mechanisms* of suffering, rather than their symptoms, form the transdiagnostic target of MiCBT. We make use of these mechanisms as a tool for growth, and not just “therapy,” as will be explained in Part 2 of the book. Based on the understanding that unawareness can be replaced with insight, developing insight allows us to outgrow the factors of suffering. To the best of our knowledge, mindfulness is the most productive tool a therapist can offer clients to develop this kind of insight. Over the past 25 centuries, the main purpose of cultivating mindfulness through the long chain of traditional teachers, including our own, has been to develop insight and wisdom to alleviate suffering in people from all cultures and walks of life.

Approach to Comorbidity

It is now well-established that core mindfulness principles can be used for a wide range of symptoms and conditions (Keng, Smoski, & Robins, 2011). MiCBT was developed for clinical purposes as a transdiagnostic approach, partly to address the problem of comorbidity—between 60 % and 85 % of clinical cases contain one or more comorbid conditions, which makes diagnostic-specific therapies sub-optimal. Transdiagnostic interventions have recently been developed using

exposure as the principal mechanism of action and are increasingly appealing to clinicians in general because they can address comorbidity more easily.

For instance, a standard diagnostic-specific therapy deemed efficacious to treat depression is not necessarily as useful when depressive symptoms are accompanied by panic or OCD symptoms. Transdiagnostic CBT is generally showing either equivalent or superior results to current evidence-based gold-standard diagnosis-specific CBT for most common anxiety disorders (Norton & Barrera, 2012), they tend to show a smaller dropout rate (Barlow et al., 2017), and the size of their effects is not affected by comorbidity (Pearl & Norton, 2017). Transdiagnostic interventions are also very useful in addressing barriers to the dissemination of evidence-based treatments. Thus, using one protocol instead of multiple single-disorder protocols can be a more effective way of treating most commonly occurring emotional disorders, and certainly easier to teach and learn.

Randomized controlled studies show that addressing crisis and comorbidity with MiCBT is possible when clients commit to sufficient frequency, duration and accuracy of mindfulness practice and integrate CBT skills, even in non-Western cultures (e.g., Bahrani, Zargar, Yousef-Ipour, & Akbari, 2017; Yazdanimehr, Omid, Sadat, & Akbari, 2016). A brief review of MiCBT study outcomes is provided in Chapter 2.

Structure and Content of MiCBT: The Four Stages

MiCBT teaches mindfulness according to the original fourfold establishment of mindfulness (*Mahasatipatthana Sutta*; see Walshe, 2012, for translation), which includes mindfulness of body (posture and movement/physical activity), body sensations (including those associated with emotions), mental states (including emotional states) and mental content (thoughts, images, etc.) (Brahm, 2006; Hart, 1987; see also Thanissaro Bhikkhu, 2011, for a translation of the *Satipatthana Sutta*, and Goenka, 1990, for discourses and useful commentaries on the *Satipatthana Sutta*). Of course, MiCBT is not presented to clients as a “Buddhist approach,” and this information is intended for you, the therapist, to know the components of MiCBT and their origins.

MiCBT is composed of four learning stages grouped into “internalizing” and “externalizing” phases that enable change at a systemic level. The stages are designed to develop mindfulness, cognitive and behavioral skill-sets across the main domains of functioning: intrapersonal (“personal stage”), situational (“exposure stage”), interpersonal (“interpersonal stage”), and transpersonal (“empathic stage”), typically denoted as Stages 1, 2, 3, and 4, respectively. The stages are usually delivered hierarchically, although the program can be delivered more flexibly when necessary. The purpose of this hierarchical integration is first to teach clients to internalize attention in order to regulate attention and emotion, and then externalize these skills to the contexts in which their psychological condition is triggered or maintained.

As will be discussed in Chapter 3, MiCBT is used in individual and group therapy with equivalent clinical efficacy (Roubos, Hawkins, & Cayoun, 2011) and usually requires between eight and twelve sessions for effective treatment of most emotional and behavioral disorders, but at least twice as long for moderately

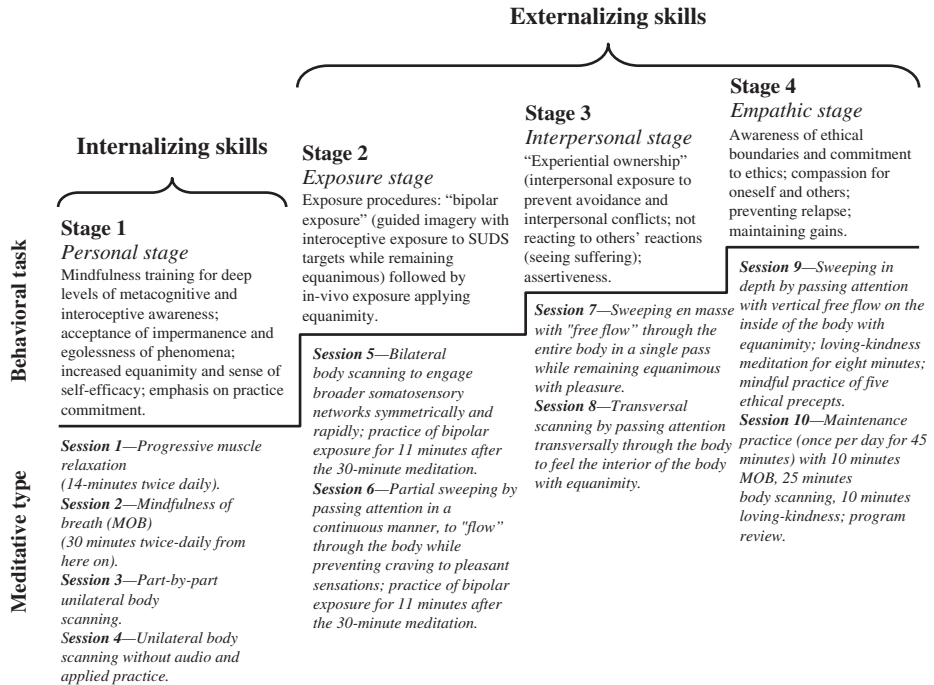


Figure 1.1 The four-stage model of Mindfulness-integrated Cognitive Behavior Therapy. (Adapted from Cayoun, 2011.)

severe personality disorders—though there are no controlled studies confirming the ideal program duration and long-term efficacy of MiCBT for personality disorders. Let us now examine the stages in some detail. Figure 1.1 summarizes the four stages of MiCBT within a typical 10-session format, which is also the delivery model through which you will be guided in Part 2 of this book. Note that this schedule is only an approximate indication of standard delivery. Each stage can be extended for a longer duration, depending on the patient’s needs and requirements for progressing to the next stage.

Stage 1: Personal Stage: Attention and Emotion Regulation

In Stage 1, mindfulness meditation training is taught to internalize attention in a way that decreases emotional reactivity and promotes deep levels of experiential awareness and acceptance. An emphasis is placed on the internal context of experience to equip clients with an increased sense of agency and self-efficacy in handling thoughts and emotions before addressing the life difficulties for which they sought therapy.

Following standard intake assessment and contractual agreement on therapeutic goals (described in Session 1; see Part 2 of the book), clients begin with the practice of progressive muscle relaxation (PMR) and mindfulness of body posture and movement. Besides its potential relaxing effect, PMR provides an initial and reassuring sense of agency over stress-related muscle tension, which assists in

reinforcing the client's initial effort to commit to a daily practice. However, PMR is only used for the first week in most cases, as a preparatory measure. This is because clients can inadvertently use relaxation as a means of experiential avoidance, which is incompatible with the aims and acceptance-based features of mindfulness. Mindfulness of body (posture and movements) in daily actions introduces the notion of present-moment awareness, which is a relatively easy introduction to mindfulness principles and practice, as commonly used in other integrations, such as Dialectical Behavior Therapy (Linehan, 1993).

Clients are then taught to practice mindfulness of breath (described in Session 2) for one to two weeks and basic (unilateral) body scanning for the following two weeks (described in Session 3 and Session 4). People who use these methods show an increased ability to detect and withstand distress, which leads progressively to brain reorganization in just a few weeks, both in grey matter (Hölzel et al., 2011) and white matter (Tang, Lu, Fan, Yang, & Posner, 2012). Increased efficacy of self-regulation networks produced by neuroplasticity provides an invaluable biological apparatus to facilitate emotion regulation during exposure tasks implemented in the following stages (exposure and interpersonal stages).

For instance, imaging research using functional MRI shows that mindfulness of breath can produce a generalized reduction in amygdala response to emotional stimuli that is maintained during non-meditative states (Desbordes et al., 2012). Anatomical MRI also shows rapid decrease in grey matter volume of the right basolateral amygdala during a standard eight-week MBSR program (Hölzel et al., 2010). The emphasis on interoception as the locus of reinforcement places body-scanning methods at the heart of twice-daily MiCBT practice. This is partly because interoceptive awareness and acceptance are central to the Vipassana approach to mindfulness training (Hart, 1987; Kerr et al., 2013), and partly because the last 15 years of affective and cognitive science have reliably shown that people with emotional disorders have impaired interoceptive capacity; i.e., a reduced ability to feel common body sensations (Khalsa et al., 2017). The effort to decrease the habit of identifying with moment-to-moment experience trains clients to process information in a less self-referential, more objective manner (Farb et al., 2010), as will be discussed in the next chapter.

To maximize training efficacy, clients learn to adhere to three fundamental practice principles: *sufficient frequency* (usually twice daily), *sufficient duration* (usually 30-minutes per session) and *sufficient accuracy* of practice (conscious effort to decrease identification with, and reacting to, emerging experiences). MiCBT research shows that clients who adhere to this protocol benefit most (e.g., Scott-Hamilton & Schutte, 2016). The first two principles permit the third, which specifically increases equanimity by reducing the need to react with craving or aversion, irrespective of the type of experience. Generalizing awareness and acceptance of thoughts and body sensations in everyday situations occurs as a spontaneous consequence of neuroplasticity.

In addition, clients are taught to apply equanimity in daily life. They learn to monitor body sensations as continually as possible in everyday situations and identify typical patterns of sensations experienced during stressful events while increasing their capacity to prevent learned responses (i.e., via increased equanimity). Hence, interoceptive awareness, developed during formal meditation practice, becomes a skillful means for preventing the reinforcement of unhelpful reactive

habits in daily life. In chapter 2, we will cover the theory underpinning MiCBT and the crucial relevance of interoception and the reasons for surveying (“scanning”) the body during mindfulness meditation to develop equanimity.

Stage 1 requires between three and five weeks (typically four weeks), depending on personal and clinical factors, such as symptom severity and adherence to treatment. Normalizing and psychoeducation about potential early difficulties of mindfulness practice are important at this early stage; these are discussed throughout the first four sessions in Part 2 of the book. Completion of Stage 1 is largely determined by enhanced interoceptive awareness and equanimity during practice and a better sense of agency in daily life. Clients must have developed a reliable ability to accept and “stay with” (expose to) most types of body sensations with some equanimity (i.e., the tendency to avoid aversive experiences is markedly decreased). Accordingly, clients are invited to start Stage 2 as soon as they can feel sensations in about 80 % of the body. They also begin to learn more efficient (faster and more global) ways of scanning the body, as taught by the Burmese *Vipassana* tradition, and develop ability for rapid distress-cue detection. The detailed delivery is in Session 3 and Session 4 of the book.

Stage 2: Exposure Stage: Behavioral Regulation

Meditating well, even for long periods, does not necessarily translate to behavior change when avoidance habits are well-established (see Toneatto & Nguyen, 2007, for a review of controlled research). For example, personal isolation when sitting with closed eyes on a cushion may be relieving or even pleasurable for socially anxious or avoidant clients, but in and of itself may not result in skill transfer allowing them to confront fears in social contexts. Stage 2 is the first “externalizing” stage, during which attention is partly directed outward to regulate behavior by applying Stage 1 skills (interoceptive awareness and equanimity) in contexts of avoidance. Clients learn to remain “equanimous” with external targets to extinguish their conditioned avoidance of stressful situations. Hence, mindfulness skills are now at the service of CBT, and CBT skills are used to extend mindfulness skills in contexts of avoidance.

There is neurological evidence that mindfulness meditation in novices produces a down-regulation of the left amygdala during emotional processing (Farb et al., 2015; Hölzel et al, 2010), and that the progressive acquisition of mindfulness skills induces a deactivation of brain areas associated with self-referential processing called the “default mode network” (medial prefrontal and posterior cingulate cortices) across all induced emotions (Taylor et al., 2011). Increasing one’s ability to deactivate the default mode network (i.e., taking things less personally) is a function of one’s ability to not identify with the experience, which in turn increases one’s ability to extinguish a learned response. These findings are in line with the imagery-based exposure method called “bipolar exposure,” which is the first procedure used with clients during Stage 2. The term “bipolar” in this context means two extreme poles; it has nothing to do with bipolar depression. Bipolar exposure is an MiCBT-specific technique based on interoceptive desensitization that lasts about 11 minutes. It is implemented following each 30-minute

practice of mindfulness meditation for two days (i.e., four times) prior to commencing exposure *in vivo*.

Once the client has identified a set of varied avoided situations and listed them hierarchically as a function of subjective units (percentage) of distress, they begin the practice of bipolar exposure. This consists of imagining the worst-case scenarios that could happen when *in vivo* exposure takes place while remaining equanimous, and then repeat the procedure with best-case scenarios. This is fully described in Part 2 of the book (Session 5 and Session 6). Because interoception (feeling body sensations) is considered to be the locus of reinforcement in MiCBT (Cayoun, 2011; Cayoun & Shires, submitted for publication), exposure is applied to body sensations co-emerging with the imagined unpleasant and pleasant scenarios. As a result, bipolar exposure helps reduce the intensity of learned aversion and craving before exposure *in vivo* commences. Exposure to neutralize negative as well as positive expectations is important in order to develop equanimity, irrespective of the outcome—hence “bipolar” exposure.

Stage 2 is usually implemented over two to three weeks across a list of avoided situations, depending on client needs and commitment. Because exposure is also directed to body sensations during exposure *in vivo*, the increase in distress tolerance transfers to multiple unrelated situations that would habitually lead to some avoidance. This phenomenon of generalization and the entire procedure are explained in detail in Session 5 and Session 6. Thus, Stage 2 makes exposure non-context-specific. It helps generalize self-confidence and, as emphasized in the Acceptance and Commitment Therapy approach (Hayes et al., 1999), it helps clients follow their valued directions.

Stage 3: Interpersonal Stage: Interpersonal Regulation

For a therapeutic approach to be transdiagnostic, it needs to address interpersonal dynamics. There is evidence that amygdala volumes correlate with the size and complexity of social networks in adults, and this association does not seem to be present for other subcortical structures (Bickart, Wright, Dautoff, Dickerson, & Feldman Barrett, 2011). Neuroplasticity research also shows evidence that post-institutionalized children with distressing early childhood experiences who had been adopted at about 15 months of age showed larger amygdala volumes and decreased volumes in the hippocampus and prefrontal cortex eight years later (Davidson & McEwen, 2012). This further demonstrates that exposure to aversive social influences leads to developing a more emotionally reactive brain configuration. Moreover, socially driven neuroplasticity may be an important factor for personality development in childhood that may persist well into adulthood.

Although some clients will need more interpersonal skills than others, the social network of clients with chronic conditions or personality disorders is generally negatively affected by the client's symptoms. These include social withdrawal and other avoidant behavior, low mood, lack of motivation, agitation and reactivity, anxiety and addictive behavior. The sense of disconnectedness during and following an episode of emotional disturbance can be a maintaining factor for maladaptive behavior, such as substance abuse, and often precipitates relapse. In addition, the client's lack of social intelligence (Goleman, 2006) may also be a precipitating

factor for crises. As we often hear in clinical practice, poor interpersonal boundaries, seeking validation in the wrong context or in destructive ways, reinforcing guilt about one's needs or one's rights, or using a passive/aggressive style of communication, often contribute to the client's interpersonal difficulties. Hence, the next stage of MiCBT employs mindfulness skills to cultivate interpersonal insight and interpersonal regulation.

Stage 3 of MiCBT requires externalizing mindful attention further towards others by dividing the focus of attention between self and others. In the first week of Stage 3, clients learn a mindfulness-based interpersonal skill called "experiential ownership" which uses a form of exposure to understand and accept others' ways of communicating and reacting. Clients learn to inhibit their value-based judgments by considering others' emotional experiences non-judgmentally and by not reacting to others' reactivity. Clients apply Stage 1 and Stage 2 skills during communication with others, knowing that others' emotional reactivity is a function of their lack of awareness and skill in managing body sensations. Recent behavioral and brain studies provide evidence that the experience of body sensations activates approach-avoidance behavior independently of what we may be thinking consciously (Krieglmeyer, Deutch, De Houwer, & De Raedt, 2010; Rogers-Carter et al., 2018). Clients learn to "see suffering" in others, rather than judge them for their reactions.

In the second (and perhaps the third) week of Stage 3, clients learn to combine assertive communication with experiential ownership and mindfulness skills in as many situations as possible (two at the very least). Awareness of interpersonal boundaries and assertiveness skills are more likely to develop if the client is able to contain his or her own arousal and is able to allow time for the other's reactivity to diffuse. Hence, mindfulness skills are again at the service of CBT. The detailed procedure for Stage 3 is explained in Session 7 and Session 8.

Stage 4: Empathic Stage: Transpersonal Insight and Relapse Prevention

One of the most common experiences shared by clients with an emotional, behavioral or personality disorder is a sense of separation from others. This may be in the form of feeling (or fear of being) judged, avoided, rejected or unloved by others, or through being uninterested in connecting with others and avoiding them. Sometimes, this is associated with a sense of lack of purpose. The result of such disconnectedness is a lack of perceived well-being and an increased probability of relapse. Stage 4 of MiCBT extends Stage 3 skills to a more global awareness of how we can overcome the perpetuation of unnecessary suffering and influence each other for the better. Stage 4 promotes self-acceptance and compassion, which helps clients to reduce their tendency to overidentify with their experiences and increase their ability to accept their perceived shortcomings and distress. In so doing, Stage 4 assists in the prevention of relapse. Through normalizing suffering in terms of it being a human condition, rather than a personal flaw or misfortune, clients learn to minimize unhelpful judgments about themselves and others and develop a sense of connectedness within themselves and with others. They do so by producing wholesome and pleasant mental states, such as kindness and compassion, rather than focusing solely on decreasing destructive emotions.

There is behavioral and neurological evidence that compassion can be learned through meditation practice (e.g., Jazaieri et al., 2012; Lutz, Brefczynski-Lewis, Johnstone, & Davidson, 2008). There is also evidence that becoming more compassionate helps clients remain more resilient when exposed to common stressors (Neff, Kirkpatrick, & Rude, 2007). In particular, people who learn to adopt a more self-compassionate perspective seem to be more able to acknowledge their role in negative events without feeling overwhelmed with emotions, and can more easily attenuate their reactions (Leary et al., 2007). This stage of MiCBT teaches empathic skills grounded in bodily experience and in genuine respect for ethical boundaries in daily actions.

Stage 4 of MiCBT is usually delivered over two weeks. In the first week, clients are taught “Loving-Kindness” meditation (*metta bhavana* in Pali), which has been taught as part of mindfulness training ever since mindfulness has been a feature of Buddhist teachings (Hart, 1987; Salzberg, 1995). It combines a set of simple positive affirmations that are paired with the pleasant body sensations produced by advanced body-scanning methods to create or enhance compassion toward oneself and others. This includes (but is not restricted to) producing thoughts of acceptance while pairing pleasant body sensations with memories of people with whom clients may have been in conflict or with whom they expect to be in conflict in the future, in a way that acts as a counterconditioning method. The practice lasts approximately eight minutes and is performed at the end of each mindfulness meditation session. Hutcherson, Seppala and Gross (2008) demonstrated that just a few minutes of loving-kindness meditation can increase one’s sense of social connectedness on both explicit and implicit levels, which may help decrease social isolation. The implementation and practice of loving-kindness meditation are explained in Session 9.

Moreover, in traditional teachings of mindfulness, taking mindfulness training without initially committing to ethical conduct is simply inconceivable. It is theoretically unsound and technically unsuccessful (see Cayoun, 2017, for comprehensive discussion). Indeed, in the therapy context, actions that are harmful to oneself or others tend to maintain or reinforce an existing psychological condition and are counterproductive to therapy. Taking this into account, the second week of Stage 4 teaches clients to materialize their sense of connectedness and empathy with others through making an effort to prevent harm to themselves and others. Note that this is done out of compassion, rather than being based on culture, religious duty or guilt. Whereas empathy involves sensing other people’s emotions and imagining what they could be thinking or feeling, compassion involves “*the will to extend oneself for the purpose of minimizing one’s own or another’s suffering*” (Cayoun, 2017, p. 177). Compassion can be experienced through a genuine *intention* and propensity for action, or through a fully-fledged *action* if the intention is sufficiently intense. Other program developers, such as our colleagues Drs Lynette Monteiro and Frank Musten at the Ottawa Mindfulness Clinic, have made mindfulness-based ethical training and compassion the essence of their program (Monteiro & Musten, 2013).

In MiCBT, clients develop compassion by “grounding” their developing empathy for others into ethical awareness, performing ethical actions and preventing unethical ones for an entire week as a behavioral experiment. Specifically, clients are asked to pay effortful attention to their motivation in daily actions to prevent

harmful intentions and actions toward themselves and others, including basic acts such as using deceitful and other types of harmful speech, taking what is not given, intoxicating, performing harmful sexual acts, and taking lives (e.g., killing insects). These are presented as experiments and a means of education, rather than as a dogmatic moral protocol. Clients are asked to monitor body sensations co-emerging with harmful intentions preceding harmful actions, examine the nature of the sensations, inhibit the learned response (craving or aversion), let the sensations pass in their own right, and acknowledge that their conscious effort has successfully prevented harm. This procedure is explained in some detail in Session 9.

Clients are also asked to keep a record of such effort and how it made them feel about themselves, and the type of influence that this effort may have had on their environment. As clients learn to generate helpful thoughts and perform worthwhile actions out of compassion, they gradually internalize their locus of self-worth. Since there is less reliance on external factors in order to feel worthy and deserving of acceptance from others, the likelihood of relapse is lessened. Clinicians often report that clients make decisions regarding significant life changes during Stage 4, often mentioning that they now value their life and happiness more. Thus, the probability of relapse is further reduced.

Stage Structure

There is evidence to suggest that the ordering of the four stages in their current format is an advantage. For example, an electroencephalographic investigation of prefrontal alpha-asymmetry in previously depressed individuals showed that responses to type of meditation (mindfulness of breath and loving-kindness) was moderated by the degree of ruminative brooding (Barnhofer, Chittka, Nightingale, Visser, & Crane, 2010). Although both forms of meditation practice had beneficial effects on prefrontal alpha-asymmetry, individuals high in ruminative brooding tended to respond to mindfulness of breath (taught in Stage 1 of MiCBT) but not loving-kindness meditation (taught in Stage 4), whereas those low in ruminative brooding showed the opposite pattern. Another study, with novice meditators, showed that participants in the mindfulness-of-breath condition reported greater ability to not identify with emerging thoughts relative to loving-kindness meditation (Feldman, Greeson, & Senville, 2010). Moreover, people in the loving-kindness condition showed more repetitive thoughts and negative reactions to thoughts than those in the mindfulness-of-breath condition.

Both these studies support the view that clients who ruminate need to develop skills to address unhelpful thoughts first, before being able to benefit from producing more helpful ones, such as those produced by loving-kindness meditation. Since the majority of the clients we see in clinical practice ruminate, the MiCBT program places mindfulness of breath earlier and loving-kindness meditation later, once skillful means to address ruminative and other unhelpful thoughts have been developed. Although the sequential positioning of core CBT skills across the stages is based on their level of complexity (Stage 2 skills are less complex to learn than Stage 3 skills), this order of implementation has not been specifically researched.

We propose that the four-stage conceptualization of MiCBT has two significant advantages: (1) it permits a systemic application of mindfulness and CBT methods, and (2) facilitates a transdiagnostic application that helps address comorbidity. This broad development and application of skills is more likely to target the varied factors contributing to a client's condition, across life domains and symptomatology.

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