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## CHAPTER 2

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# Mindfulness and Meditation for Stress and Trauma

Many traumatized clients come to therapy with problems that have taken years to develop. By the time many people seek help, they have often been suffering for a long while and have problems in many domains of their lives, such as work, finances, relationships, and health. Sometimes a crisis precipitates entry into therapy, and it may be necessary in the initial phase of therapy to help the client restore their precrisis level of functioning prior to addressing any contributing mental health problems. In these instances, clients' most pressing initial concerns may be about achieving distress reduction along with better psychosocial functioning (Tasca et al., 2015). In the context of crisis, it may be easy for the therapist to neglect the underlying trauma-related issues that contribute to the client's disorganization and make them vulnerable to future stressors and crises.

Difficulties with trauma symptoms and psychosocial functioning are often caused and maintained by deficits in self-regulation—a set of skills and capacities that are normally developmentally acquired in the context of secure attachment relationships with caregivers but may have been derailed as a result of adversity and stress (Cloitre et al., 2009; Koenen, 2006). IR was designed to foster these developmental self-regulatory capacities so that the client can use them to resolve trauma symptoms and be resilient in the face of future stressors and traumas.

Effective trauma therapy will address the client's particular symptom manifestations and psychosocial functioning problems, along with supporting the development of fundamental self-regulation skills that will convey recovery and resilience. There are a range of disorders thought to have a traumatic etiology. It will be helpful to review common trauma outcomes and treatment models in preparation for a consideration of how the Inner Resources for Stress model (IR) was designed to help.

## Manifestations of Trauma

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Much clinical practice is guided by diagnostic classifications of mental disorder. As a result, there is much focus on PTSD as a primary or even exclusive manifestation of trauma. However, numerous other mental health disorders are thought to have a traumatic etiology, and traumatization may impact cognitive, emotional, and physiological self-regulation in a way that can diminish psychosocial and physical functioning and quality of life. Thus, traumatized clients' presentation to therapy can be varied and complex.

Among all the possible diagnostic outcomes of trauma, PTSD is distinct in that it reflects the outcome of exposure to extremely stressful events. Although early conceptualizations of PTSD emphasized exposure to extraordinary stressors, research soon established that trauma exposure is commonplace, affecting a majority of the U.S. population (Kessler et al., 2005). Current thinking acknowledges that a variety of types of trauma can lead to PTSD, including direct exposure to intensely stressful or life-threatening events. PTSD can also result from hearing about severe traumas that have happened to others, either to family members or significant others or through work-related exposures, such as those experienced by trauma therapists or first responders (Friedman et al., 2021).

Regardless of the type of trauma, PTSD interferes with the ability to maintain present-focused attention. Trauma survivors with PTSD do not experience intrusive recollections of traumatic experiences as having occurred in the past. As Ehlers et al. (2004) explained, posttraumatic intrusions and reexperiencing symptoms are experienced as though they are occurring in the present, rather than having the time perspective of memories. Intrusions are distinct from other types of memories in several other ways. Posttraumatic intrusions are more typically sensory experiences than thoughts or memories. The sensory experiences reflect sounds, tastes, smells, or bodily sensations that occurred during the trauma. Ehlers et al. also pointed out that intrusive experiences lack the context of other memories—they do not change in response to new information that could alter the initial impression of an event. Frequently, intrusions are related to the worst moment of a traumatic experience, or the moment related to the onset of the event. These characteristics of intrusions make it difficult for traumatized persons to distinguish between present-moment and past experiences and feelings.

Avoidance in PTSD also interferes with the ability of traumatized persons to maintain present-moment attention. PTSD entails not just avoidance of places and people associated with traumatic experience, but also of trauma-related thoughts, feelings, and memories (Cloitre et al., 2014). Avoidance can include intentional avoidance behaviors but can also be nonvolitional, seeming to occur on its own in response to trauma triggers (Dalenberg & Carlson, 2012), leaving traumatized people feeling cut off and out of control of their own experience.

PTSD also constrains the types of thoughts and feelings a person has, with persistent negative emotions and difficulty experiencing positive emotions as a common feature. People with PTSD often have negative thoughts about themselves and their past, present, and future, and may be preoccupied with assigning blame for the trauma to themselves or others. In addition, traumatized people often have difficulty remembering important

parts of their trauma (Friedman et al., 2021). These alterations in memory, thinking, and feelings leave trauma survivors feeling out of touch with their present-moment experience. PTSD involves hyperarousal, such as hypervigilance and startle reaction, and behavioral reactivity, such as irritability, anger problems, and reckless behavior (Friedman et al., 2021), which by definition represent levels of arousal and reactivity that are out of proportion to present-moment events, leaving traumatized people with a pervasive sense of danger and threat.

Current conceptualizations of PTSD acknowledge the presence of either depersonalization or derealization (Friedman et al., 2021). However, research indicates that a range of other dissociative symptoms, in addition to depersonalization or derealization, are associated with the dissociative subtype, including gaps in awareness, sensory misperceptions, and cognitive and behavioral reexperiencing (Ross et al., 2018).

### How Responses to Trauma Triggers Maintain PTSD

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There are a variety of types of symptoms of PTSD, including intrusions, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity (Friedman et al., 2021). There has been much attention to the factors that account for the presence of these diverse symptoms after traumatic events. One of the goals of trauma-focused therapies, such as prolonged exposure therapy (McLean & Foa, 2011) and cognitive therapy for PTSD (Ehlers et al., 2005), is to help clients identify and address responses to trauma triggers, because these intrusions are thought to maintain PTSD by promoting avoidance, disordered arousal and mood, and negative views of the self.

Traumatized persons often experience intrusions without being aware of what prompted their distress or its connection to their traumatic experience. Some intrusion symptoms of PTSD are related to internal or external cues called trauma triggers. Trauma triggers are reminders of a traumatic event that provoke continued distress. One of the goals of trauma-focused therapies is to help clients identify and address responses to trauma triggers.

Learning theory explains how reminders of a broad range of stimuli that were present during a trauma can later trigger intense distress. According to McLean and Foa (2011), due to classical conditioning principles, during the traumatic event the person associates overwhelming distress with stimuli that were part of the event, such as sights, sounds, physical sensations, thoughts, and interactions with others, which then become conditioned stimuli. After the event, experiencing these conditioned stimuli evokes the conditioned response of intense distress.

#### *Case Example: Leona*

This case example illustrates how stimuli that were part of a traumatic event can later trigger reexperiencing distress. Leona was a European girl who became trapped in a building after it was bombed during a war. For hours she lay in the rubble, smelling gasoline that

was leaking from nearby cars that had been destroyed, terrified that they would catch fire. During the trauma, she associated the smell of gasoline with the overwhelming fear and pain she endured. Years later, as a teenager, Leona was out with friends who stopped at a gas station. The smell of gas triggered the same feelings and thoughts and even physical sensations that she had endured during the original trauma. She had a flashback of being trapped in the building and momentarily thought she was covered in rubble. She grew so frightened that she left the car and ran down the street while the car was still being fueled.

As this example illustrates, environmental stimuli that are similar to the original event can trigger posttraumatic intrusions, which result in the sense that the trauma is reoccurring. Over time, Leona's trauma triggers generalized to include environmental stimuli (multistory brick buildings), physical sensations (being in a small enclosed area such as a crowded elevator or the back of a crowded car), and also thoughts, feelings, and meanings (such as a sense of feeling emotionally trapped). Exposure to these trauma triggers evoked intense emotional distress for Leona, along with physiological arousal and attempts to avoid and escape the trauma reminders. Her reactions also caused Leona a great deal of shame, embarrassment, and the sense that she was not competent to deal with her reactions or the threats she sometimes encountered.

Although Leona was able to readily identify the traumatic event that triggered her distress, Ehlers and Clark (2000) pointed out that there are intrusions that occur without specific memories of the event, as when the person experiences feelings or sensations associated with the traumatic event without recalling the event itself, an experience they refer to as *affect without recollection*.

Both prolonged exposure therapy and cognitive therapy for PTSD address disordered responses to trauma reminders. Prolonged exposure therapy promotes extinction of these conditioned fear responses by repeated review of details of the trauma memory and exposure to the conditioned stimuli in daily life so that the person can realize the trauma is a past event, rather than viewing it as indicative of incompetence for dealing with a pervasively dangerous world (McLean & Foa, 2011). Cognitive therapy for PTSD (Ehlers et al., 2005) emphasizes the importance of learning to identify trauma triggers. The therapy uses *stimulus discrimination training* to help clients differentiate between intrusive reexperiencing that is occurring in the present moment and the past traumatic event, so clients can learn that triggers do not mean the event is reoccurring or there is present-moment danger. The therapy helps clients to identify trauma triggers as they are happening and to observe the differences between the trigger—which is harmless in the here-and-now—and the similar stimuli that occurred during the trauma, so clients can experience that the triggers, however unpleasant, do not signal present danger.

## Complex PTSD

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Although most descriptions of PTSD seem to best address responses to single-event trauma, many people experience chronic traumatization, sometimes starting in childhood, and often involving interpersonal trauma (Briere & Scott, 2015). Manifestations of

chronic and early trauma are described by the diagnosis of complex PTSD (CPTSD). Cloitre and colleagues (2009, 2014) have described the diagnostic criteria for CPTSD, which include the PTSD symptoms of intrusions, avoidance, and disordered arousal in addition to symptoms that are reflective of chronic, early, and repeated trauma. These symptoms include disturbances in self-regulation involving emotion regulation, self-concept, and interpersonal relationships. Self-regulatory disturbances in CPTSD can manifest as problems with dissociation, aggression, social avoidance, anxious arousal, and anger.

### Trauma Disorder Comorbidities

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People with PTSD can have extensive comorbidities. Most have lifetime histories of at least one other mental disorder, particularly depressive, anxiety, and substance use disorders (Kessler et al., 1995). In addition to trauma- and stress-related disorders, decades of research have shown that a host of other disorders are associated with trauma exposures but represent alternate outcomes. Mood and anxiety disorders such as major depression and generalized anxiety disorder can directly result from trauma exposures and are distinguishable from PTSD (Grant et al., 2008). Borderline personality disorder and CPTSD can be differentiated from PTSD, although all three disorders are presumed to have traumatic etiologies (Cloitre et al., 2014). Although dissociative disorders can occur without prior trauma exposures, they are often associated with trauma (Stein et al., 2014). Persons diagnosed with psychotic disorders also have elevated trauma exposure, leading to questions about the role of trauma exposures in the onset of those disorders (Neria et al., 2002).

### Other Trauma Manifestations

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There are several trauma-related problems and conditions that can occur in the absence of diagnosed PTSD. Subthreshold PTSD, defined as having between one to four symptoms of PTSD without meeting the full diagnostic criteria for the disorder, is associated with impaired psychosocial functioning, comorbid anxiety and major depressive disorders, and suicidal ideation (Marshall et al., 2001). Subthreshold dysphoria, depression, anxiety, and sleep difficulties are also associated with trauma exposure (Grant et al., 2008).

In addition to mental disorders, exposure to traumatic stress is associated with poorer physical health; increased utilization of health care; the onset of a large number of problems such as cardiovascular, autoimmune, and gastrointestinal diseases, chronic fatigue syndrome, fibromyalgia; and premature death (Boscarino, 2004). Traumatization is associated with negative changes in religious or spiritual beliefs and participation that are associated with poorer functioning and heightened suicide risk (Raines et al., 2017).

In addition to these diverse outcomes of traumatic stressors, it is important to consider the traumatic impact of chronic exposures to severe adversity, racism-related stressors, and collective, historical, and institutionalized trauma. Such ongoing stressors result in persistently elevated physiological reactivity to stress (Blair, 2010), emotional

dysregulation (Cloitre et al., 2009), and PTSD (Waelde et al., 2010). Even microaggressions, sometimes referred to as everyday discrimination (Crusto et al., 2015), have been associated with PTSD symptoms (Waelde et al., 2010). Hate-based violence—experienced directly or vicariously—involves potentially traumatic events against persons because of their perceived group membership and can result in PTSD and other disorders (Ghafoori et al., 2019). These stress responses call attention to the important role of institutionalized racism and discrimination. Stressors are pervasive and impactful when the person is targeted because of perceived group membership related to their ethnoracial, religious, sexual orientation, or gender identities. For many clients, trauma exposure is not an experience that is entirely in the past, so therapy must address the ongoing impact of the context of discrimination, racism, and hatred.

Although trauma exposures commonly cause harm and suffering, these challenging experiences also have the potential to stimulate growth and development. The concept of posttraumatic growth refers to the potential for positive developments in personal strength, relating to others, new possibilities, spiritual change, and appreciation of life (Tedeschi & Blevins, 2015).

In sum, trauma can manifest in many ways, some of which can be described by the diagnostic criteria for a mental disorder, such as PTSD, CPTSD, major depression, or substance use disorders. Thus, not all reactions to trauma exposure qualify for the PTSD diagnosis. Other outcomes of trauma and stress exposures can impact a person's functioning, physiological stress regulation, and meaning in life without constituting a mental disorder, though some of those problems and conditions are risk factors for later disorder. For example, chronically dysregulated physiological stress response is associated with PTSD (Thomas et al., 2012).

At the crux of these diverse manifestations of trauma exposure is impairment of cognitive, emotional, and physiological self-regulation in a way that maintains traumatization and diminishes psychosocial and physical functioning and quality of life. The developmental psychopathology perspective accounts for these diverse manifestations of trauma and explains how self-regulation deficits can contribute to and result from trauma. Not all persons who experience severe stress will develop a trauma disorder or experience ongoing distress and impairment. There are developmental pathways that lead from contexts of adversity to ongoing suffering after trauma; the purpose of therapy is to arc those pathways toward recovery and resilience (Cicchetti, 2010; Koenen, 2006; Masten & Cicchetti, 2010).

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### Finding a New Pathway from Trauma to Resilience

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There are several factors that are associated with PTSD as reviewed by Bomyea et al. (2012) and Koenen (2006). Genetic, environmental, and neurodevelopmental factors interact to convey risk and vulnerabilities to trauma. Environmental factors such as experiencing adverse living circumstances, familial psychopathology, and child abuse are risk factors for PTSD. Neurocognitive factors including aspects of executive functioning

related to emotion processing, attention regulation, and inhibitory control have also been associated with PTSD. Executive functioning deficits may contribute to poorer cognitive control over distressing thoughts and memories associated with trauma intrusions. In particular, negative attributional style, rumination, and fear of experiencing emotions may contribute to avoidance and prevent the resolution of trauma. Neuroendocrine factors, specifically hypothalamic–pituitary–adrenal (HPA) axis regulation of physiological reactions to stress, contribute to vulnerability to PTSD in the context of extreme stress.

Self-regulation deficits may be the central mechanism that links all these factors to PTSD (Koenen, 2006). Self-regulation refers to a set of capacities normally acquired during the course of human development in caring, nurturing families. It refers to “volitional and nonvolitional management of attention, emotion, and stress response physiology for the purpose of goal-directed action, primarily through executive function abilities” (Blair et al., 2015, p. 460). The development of self-regulation is interrupted by chronic stress and adversities such as poverty (Blair, 2010).

The concept of developmental cascades helps explain how deficits in self-regulation are associated with PTSD. Developmental cascades are the cumulative consequences of transactions between the individual and the environment (Cicchetti, 2010; Masten & Cicchetti, 2010). Stress, trauma, and ongoing adversity may result in negative cascades, with impacts on developmentally acquired capacities and physiological regulation of stress, leading to poorer functioning. Development occurs as a transaction with the environment, so although preexisting self-regulatory deficits create risk for PTSD, trauma exposure can also diminish existing self-regulation (Briere, Hodges, & Godbout, 2010).

Resilience, like psychopathology, is also understood to result from developmental cascades. Developmental pathways that lead to adaptation and thriving involve increasing competencies for self-regulation, self-agency, active rather than avoidant coping, positive emotionality, and a sense of mastery over stressful experiences (Cicchetti, 2010). MM practices can be used to foster the competencies needed to create developmental pathways to resilience.

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## MM for Self-Regulation and Trauma Symptoms

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There are several ways that MM training may help promote better self-regulation through its effects on the management of attention, emotion, and stress response physiology. Evidence exists that MM training fosters a range of self-regulatory capacities, such as attention regulation and reappraisal, increased body awareness, emotion regulation, and cognitive regulation (Hölzel et al., 2011). These capacities are deficit in traumatized clients, especially those with chronic trauma.

### MM for Attention, Emotion, and Stress Physiology Regulation

Trait mindfulness is associated with attention regulation or the ability to maintain present-moment awareness of physical sensations, thoughts and feelings, and external stimuli

such as people and things (Baer, 2011). Attention control and regulation are thought to be a primary mechanism of the emotion regulation benefits of MM training (Guendelman et al., 2017).

Recent work has shown that mindfulness-based attentional strategies promote exposure to and desensitization of negative emotional experience (Uusberg et al., 2016). Mindfulness skills offer alternatives to emotion dysregulation and avoidance by helping the practitioner to accept and tolerate their own experience (Fletcher et al., 2010; Gratz & Tull, 2010). Neuroimaging studies show that meditation practices are associated with better executive functioning and self-regulation (Fox et al., 2016). In addition, MM practices may improve physiological stress regulation and result in better management of hyperarousal. For example, even brief periods of breath-focused attention outside of any formal mindfulness training context can reduce hyperarousal and improve emotion regulation (Arch & Craske, 2006).

It may be that the self-regulatory benefits of MM account for its effects on PTSD-specific symptoms. The mechanisms of mindfulness seem to correspond to the targets of trauma treatment for regulating attention on the present, overcoming avoidance, promoting exposure to negative experiences, and improving physiological stress regulation. There are several reviews showing that MMBI are effective for PTSD (Boyd et al., 2018; Hilton et al., 2017). MMBI may reduce reactivity to thought content and thought suppression (Nitzan-Assayag et al., 2017), leading to better cognitive control and reduced avoidance. MM training may alter amygdala structure and function to convey better regulation in the face of stress (Taren et al., 2015). A recent meta-analysis indicated that there is a good match between the neurobiological models of PTSD and the effects of MMBI on neural mechanisms of emotional under- and overmodulation (Boyd et al., 2018).

### **Research about IR for Stress Symptoms, Stress Physiology Regulation, and PTSD**

IR may have beneficial effects on stress regulation and stress symptoms, such as anxiety and depression. Diurnal cortisol slope is an indicator of physiological stress reactivity, with a flattened slope indicating HPA axis dysfunction and steeper slopes being associated with better health and less psychopathology (Burke et al., 2005). A randomized controlled trial (RCT) showed that chronically stressed women who participated in IR showed more improvement in diurnal cortisol slope and satisfaction with life than those in a psychoeducational and support control condition (Waelde et al., 2017). Another RCT showed that significantly more IR participants experienced remission from chronic depression diagnosis at the 9-month follow-up than the psychoeducation group. The IR group had 77% remission and no new onset major depression during the follow-up interval; the psychoeducation control had 36% remission and 21% new onset depression (Butler et al., 2008).

There is some suggestion that IR may promote healthy cognitive regulation. A one-sample pilot study of IR for chronically stressed family dementia caregivers found pre-post improvements in self-efficacy for dealing with upsetting thoughts. These advancements were accompanied by improvements in depression and anxiety (Waelde et al., 2004).



Some indication exists that IR produces better emotion regulation among persons with diagnosed PTSD. An RCT found that IR significantly increased functional connectivity between the parahippocampal gyrus and ventromedial prefrontal cortex in the IR group relative to a PTSD treatment preparation group (Williams et al., 2018). This study also found clinically significant pre–post reductions in PTSD symptoms in the IR group. Another RCT of IR for persons with PTSD found pre–post improvements in PTSD symptoms and significantly increased attention regulation in the IR group relative to the PTSD treatment preparation group (Waelde et al., 2015). A pilot study of IR for mental health workers in a disaster zone showed pre–post decreases in PTSD and anxiety symptoms (Waelde et al., 2008). Across studies, more between-session practice of the IR techniques was associated with less depression (Waelde et al., 2004, 2017), better ability to cope with stress (Waelde et al., 2017), and greater improvements in PTSD and anxiety symptoms (Waelde et al., 2008), thus strengthening the inference that the observed improvements were related to IR practice.

At the heart of the IR intervention is the recognition that people have natural capacities for growth that may have been derailed through trauma that they can reclaim through practicing and applying MM in their lives, especially to the challenges raised by trauma. IR includes a focus on the development of self-regulation and its application in trauma-specific ways to address challenges raised by ongoing trauma responses. As the next section describes, the MM practices in IR are arranged sequentially so that each new competence supports the development of new competencies in new domains, in order to turn negative developmental trajectories into positive ones.

## Building Self-Regulatory Capacities for Trauma in IR

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The IR intervention involves teaching a sequence of MM practices designed to foster self-regulatory capacities for attention regulation, emotional awareness and modulation, cognitive regulation, awareness of positive and negative emotion, and self-mastery. Throughout the sessions, there is an emphasis on using the practices in daily life to build resilience capacity and address trauma symptoms and problems in psychosocial functioning. IR is designed to increase self-monitoring, interfere with avoidance, and regulate responses to intrusion distress so that clients can identify intrusions as related to their traumatic experience and not as indications of ongoing threat, danger, or their own helplessness, craziness, or incompetence. Each session of the intervention introduces new MM practices, and each is intended to provide the foundation for future skills. Below, I outline concepts covered in the session chapters that follow Chapter 5.

### Sessions 1 and 2: Attention Regulation

Self-regulatory skills are built on a foundation of attention regulation. Many traumatized people feel unable to control their attention because they experience trauma-related intrusions that cause intense distress, often without knowing what triggered it (Brewin

et al., 1996; Ehlers & Clark, 2000). Because of the nature of their trauma, many clients are out of touch with their own physical sensations and may actively avoid awareness of their own bodily sensations (Cloitre et al., 2006). The ability to direct attention is needed to self-monitor, a critical skill for emotion regulation. Self-monitoring is needed to note signs of distress before they become overwhelming (Linehan, 1993).

The practice of breath-focused attention can have numerous possible benefits. The simple act of noticing the breath can directly alter autonomic tone and promote better regulation of physical stress reactions (Braboszcz et al., 2010). Breath-focused attention promotes better bodily awareness, helping trauma survivors get in touch with their bodies and physical sensations. Attention to distress as it arises can help clients self-monitor their reactions better, and act as a signal that active self-management is needed to stave off overwhelming distress or behavioral dysregulation. Better self-monitoring helps identify trauma triggers, conveying a sense of mastery in place of feeling crazy or out of control of one's experience (Waelde, 2015). It is important to note that not all uses of attention are the same. Therapists rated breath-focused attention as more effective at directing attention to the present moment and reducing distress than the practices of directing attention externally to features of their physical surroundings or to escape imagery (DeLuca, 2019).

The practices introduced in Sessions 1 and 2 of IR are designed to help clients notice the flow of their breathing and bodily sensations. Because focused attention to breath and body can be challenging for clients with PTSD, the Guided Body Tour exercise in Session 1 offers additional structure and support in the form of breath-focused imagery. Clients use the Guided Body Tour to practice directing their attention by noticing successive body regions, visualizing the breath as flowing to each of them in turn, and linking the timing of inhalation and exhalation to redirections of attention to the next body region. Likewise, the Complete Breath exercise in Session 2 uses breath awareness, breath-focused imagery, and attention to bodily sensations of breathing to help stabilize attention. The additional structure of these practices supplements the traditional mindfulness practice of breath-focused attention in order to make the practice accessible for persons with trauma. These attention regulation skills assist clients in self-monitoring and modulating distress reactions and noticing the links between their triggered distress and the stimuli that triggered it.

### **Session 3: Emotion Regulation**

Better attention regulation supports the development of emotional awareness and regulation. Emotional awareness involves paying attention to one's own feeling, even when upset. Emotion regulation relies on emotional awareness and acceptance, which promote the abilities to modulate behavior when experiencing strong negative emotion and use flexible emotion management strategies (Gratz & Roemer, 2004). Traumatized persons often have difficulty with emotional awareness, which leads to difficulties in emotion regulation (Weiss et al., 2018). Emotion regulation difficulties are associated with repeated or childhood trauma, as distinct from single onset trauma, because those with

single-event trauma in adulthood have already had the opportunity to develop capacities for tolerating distress, good judgment, and satisfying interpersonal relationships (Cloitre et al., 2006). However, emotion regulation difficulties function as a common factor across a broad range of types of psychopathology, including depression, anxiety, dissociation, substance abuse, suicidality, and poor interpersonal functioning (Briere et al., 2010; Gámez et al., 2014), meaning that it is a useful treatment target for traumatized persons.

Gratz and Tull (2010) reviewed several aspects of MM practices that promote the development of emotion regulation. Mindful awareness of breath and bodily sensations interferes with the avoidance of negative emotions and sensations and promotes emotional awareness. Letting go of evaluations and reactions to emotions and taking a nonjudgmental stance toward experience increase emotional acceptance. MM practice may also promote the ability to modulate behavior in the face of distress by decoupling emotions and behavior. Increased emotional awareness and acceptance support the use of more flexible strategies, as connecting with emotions allows for more adaptive ways to respond to the environment.

Because MM practice interferes with emotional avoidance, clients need to have skills for actively managing emotional responses in order to tolerate their heightened awareness of distress. In Session 3 of IR, the Letting Go practice gives clients a way to actively manage distress as it arises spontaneously during periods of meditation and as triggered in their natural exposure to trauma reminders in the course of daily life. Letting Go gives clients an active, adaptive coping skill to replace avoidant emotional coping. Letting Go is not intended to control or suppress emotion, as efforts to control emotion are associated with intensifying emotion and emotional dysregulation (Gratz & Tull, 2010), but rather a way to experience emotions as they arise while modulating their intensity and duration.

Letting Go is practiced during sitting meditation and brought into daily life to enhance flexible responses to personal and situational demands. Letting Go does not entail analyzing the origins of emotions or the therapist's effort in making connections between patterns of distress and past events. That sort of attention would be contrary to an important principle of MM practice, which is to acknowledge experience without elaborating or suppressing it. However, with greater emotion modulation and more present-moment attention, clients sometimes recognize the traumatic nature of triggers for distress, which can promote proactive self-monitoring and regulation in the face of known triggers.

#### **Session 4: Cognitive Regulation**

Early stages of MM practice in IR emphasize learning to maintain FA and manage intrusive negative emotions. As the client begins to gain awareness of difficult emotions and some sense of mastery over triggered distress, they become more aware of how their pattern of thinking maintains their distress. PTSD is maintained by problematic cognitive processing styles that are intended to control the sense of threat, including thought suppression, selective attention to threat cues, rumination, dissociation, and avoidance

(Bomyea et al., 2012; Ehlers & Clark, 2000). These problematic cognitive processing styles, though they may appear to bring temporary relief, interfere with emotional processing of the trauma. In fact, rumination has been shown to account for the relations between emotion regulation and PTSD, indicating that rumination should be a primary target of trauma treatment (Pugach et al., 2020).

There is evidence that rumination is associated with increased activation of the default mode network, which is an association of brain regions associated with a resting, rather than task-engaged, state (Zhou et al., 2020). Mantra meditation is associated with deactivations of the default mode network, much like other forms of FA and OM, allowing for more present-centering awareness and less judgmental evaluation, self-related thoughts, and mind wandering (Simon et al., 2017).

Traumatized clients may experience that their thinking is out of their own control. Dysregulated cognitive processes such as rumination, dissociation, suppression, and avoidance may seem to occur on their own. Mantra and other MM practices may reduce rumination and other dysfunctional cognitive processes through decentering (King & Fresco, 2019). Decentering involves three processes: (1) meta-awareness, or the awareness of the present moment as a process; (2) disidentification, or the experience of internal states as passing events rather than as integral parts of the self; and (3) reduced reactivity to thought content (Bernstein et al., 2015).

Mantra repetition is a structured way to observe the flow of thoughts without trying to stop or suppress them. The Hum Sah mantra, introduced in Session 4, links the repetition of the mantra to the flow of the breath. With practice, the client will notice that they continue to have a flow of discursive thoughts, noting that those thoughts arise and pass away without their having to become engaged with or reactive to them. The disidentification with thoughts promotes a sense of self-agency over mental contents. Rumination and negative thoughts may continue, but the client gains a sense of self-agency and decreased reactivity to thoughts by choosing how much to notice or react to them. As the client becomes better able to recognize the flow of thoughts, they also notice when there are disruptions and discontinuities, such as dissociation. In these circumstances, the client has a ready strategy for returning to the present moment by bringing attention back to the mantra and the natural flow of the breath. With this increasing mastery, the client becomes better able to tolerate the flow of their emotions and less likely to ruminate.

### **Session 5: Awareness of Positive and Negative Emotions**

Traumatized clients may experience that their emotions are chaotic, intense, and out of their own control. As Tull et al. (2020) reviewed, persons with PTSD have frequent and intense negative emotion and are not able to enjoy positive emotions. It may be difficult for traumatized clients to regulate their responses to emotions, and this sense of loss of control may lead to attempts to avoid both positive and negative emotions. Clients may use avoidance and escape strategies to avoid experiencing emotion; these strategies lead to further difficulties in experiencing positive emotion and may prevent exposure to corrective information and experiences. There is some indication that in response to in-session

intense negative emotion, therapists may unintentionally collude with clients' escape and avoidance efforts by offering distraction strategies (DeLuca, 2019).

In prior IR sessions, clients have developed skills for encountering and modulating negative emotion and triggered distress. Their developing cognitive regulation encourages awareness of emotional responses. In Session 5 of IR, clients have the opportunity to practice Heart Meditation, which is a practice designed to promote awareness and tolerance of positive emotions. Like the other practices, it begins with breath-focused attention, but the therapist also provides information about the heart area, in the center of the chest, being associated with feelings of love, gratitude, and happiness in many cultures. Because traumatized clients often have difficulty identifying any positive feeling, they are invited to notice whether they have any experiences of positive emotions in the present, even gratitude for the moment together in the group to meditate.

Heart Meditation is unlike other seemingly related practices such as kindness-based, self-compassion, or loving-kindness meditation (Galante et al., 2014; Kearney et al., 2013). In those practices, clients are asked to change their current condition to one of positive regard toward others and themselves. Although many positive outcomes of such interventions have been reported, there is some indication that they may increase the desire to be happy before clients have the skills to generate such feelings, making it a potentially challenging practice for those with less capacity for positive emotion (Galante et al., 2014). In addition, in the context of the emotion regulation problems that accompany PTSD, attempts to control emotion may lead to further avoidance and emotion dysregulation (Gratz & Tull, 2010).

In Heart Meditation, the aim is for clients to notice their current condition with respect to positive emotion, rather than attempting to change it. Clients are encouraged to use the practice in daily life, to note any experiences of happiness, love, or gratitude as they arise, understanding that their experience may be a mixture of positive and negative feelings.

Because the experience of feeling positive emotion can be initially dysregulating for traumatized clients (Tull et al., 2020), as a further point of psychoeducation, clients are told that they do not need to act on every positive impulse that arises; instead, the practice is intended to expose them to a broader range of their own experience, rather than to indicate issues that need to be resolved with others. The Letting Go practice is used as a way to self-regulate in the face of these new experiences, to encourage experiencing both positive and negative feelings as they arise and attenuate, rather than regarding positive feelings and impulses as a call to action. Heart Meditation is intended to encourage awareness and regulation of positive states so that clients can access them to be more present in social interactions, gain new experiences and information, and update their views of themselves and others.

## **Session 6: Active Self-Mastery**

Conceptualizations of self-regulation emphasize increasing competencies for self-agency and a sense of mastery over responses of stressful experiences (Cicchetti, 2010). In the

context of trauma, emotional avoidance and rumination are strategies associated with more emotion dysregulation and worse trauma symptoms. For traumatized people, improved emotion regulation is associated with a willingness to experience emotion, distress tolerance, and emotional clarity. However, conceptualizations of emotion regulation strategies useful in PTSD focus on the use of specific strategies in the moment to meet situational demands and individual goals (Tull et al., 2020). The purpose of Session 6 is to learn and practice strategies during sitting meditation that can be brought to bear during immediate demands for self-regulation, much like an athlete uses weight training to improve their performance during a sport.

The first five sessions of IR are focused on helping clients develop better cognitive and emotion regulation skills and capacities to meet the demands for in-the-moment adaptive responses. In the course of these sessions, clients have learned to regulate and direct their attention, reduce distress in the moment, and incorporate new information and understanding—updating the way they understand and interact with themselves and others.

Tension Release, introduced in Session 6, is a practice designed to bring together the accumulated skills for self-regulation into a period of sitting practice. This exercise is a way to develop healthy self-regulatory capacities during sitting practice that can be used in the moment, when the client encounters situations that tax their adaptive skills. In Tension Release, the client notes any experience of stress or tension and cultivates a wish to let go of it. The practice does not entail suppression of emotions themselves or the physiological stress reactions that accompany them. The practice does encourage active attempts at modulating the intensity of both negative and positive emotion and the accompanying hyperarousal to promote distress tolerance and decentering. The aim is to produce keener awareness of responses to stress and tension, along with a sense of efficacy for managing those responses.

### **Sessions 7–9: Using MM Skills in Daily Life to Generalize and Maintain Treatment Gains**

It has often been observed that traumatized clients are not motivated to overcome avoidance. For that reason, trauma-focused treatments typically include formalized procedures for reviewing details of the traumatic experiences so the avoidance can be addressed, and the trauma memories and reactions can be processed and resolved. Whether the therapy is intended to be trauma-focused or not, clients still have trauma-specific symptoms, such as reactions to trauma triggers, and symptoms that are related more generally to self-regulation problems. Although IR does not include formal procedures for making detailed disclosures of traumatic events, the intervention does emphasize using the practices to address trauma-specific symptoms directly. The success of the intervention for mastering trauma-specific symptoms relies on the client's ability to use the techniques to develop better self-regulation. Early success at self-mastery empowers the client to try new styles and behaviors that are more challenging and trauma specific.

*Case Example: Casey*

This following case example illustrates the use of IR practices to muster better self-regulation in the face of threat. Casey was a White American male combat veteran who had struggled for many years with difficulties managing anger and aggression, which had led to two felony convictions for assault that occurred during road rage episodes. In one instance, he had followed a driver until he parked his car and then punched him through his open car window. Because of the habitual offender laws in Casey's state, he was aware that if he committed another felony, he could be facing decades in prison. When Casey left his second IR session, he was stopped by a police officer for having an expired license plate on his car. Casey had to wait for an extended time while the police officer checked his records for any outstanding legal issues. Casey was growing increasingly angry with the wait and was thinking that he wanted to punch the officer through the window of his car, much as he had punched the last person who had provoked him during a drive. When Casey saw an additional police car arrive, he assumed they had decided to arrest him, and he was so enraged that he decided he wouldn't be taken into custody without causing harm to one or both of the police officers. As he began mentally rehearsing how he would attack the police officers, he became aware that he was becoming extremely upset and decided to watch his breathing. In the course of watching his breathing, the thought occurred to him that he could use the Letting Go practice to reduce his anger. As he began practicing, Casey noticed that his level of arousal and anger had begun to decrease. He started to question the wisdom of assaulting two police officers with the possible result of spending the rest of his life in prison. When the second police officer knocked loudly on his car window, startling him, Casey decided to take a deep breath and let go of the rage he felt. That moment of relief—of taking a deep breath and deliberately letting the rage pass rather than acting it out—brought Casey so much happiness that he smiled at the officer and thanked him for his time. The officer apologized for the long wait and said that in appreciation for his patience, he wouldn't write a ticket for the expired plate. At the next IR session, Casey said, "I was one breath away from life in prison." He added, "If I did that once, I know I can do it any time."

As Casey's example illustrates, traumatized people can have ongoing difficulty with anger that manifests pervasively in many domains of their lives in ways that they are unable to predict or avoid. The MM practices in IR gave Casey a way to better self-monitor his rising rage so that he could make active efforts to modulate it rather than acting it out.

Throughout the intervention, clients are encouraged to use the practices in daily life to manage stress and dysregulation as it arises. The early sessions (1–3) emphasize establishing a daily practice in order to develop the self-regulatory capacities needed for trauma-specific applications. The middle phase, Sessions 4 through 6, emphasizes the continued development of specific skills and capacities in order to support better regulation and attention to target trauma symptoms. IR is a client-driven intervention, meaning that the clients select specific symptom and problem targets, rather than following a specific list of trauma-related problem domains to address.

In the last phase of treatment (Session 7–9), clients have developed better self-regulation—including the abilities to manage both undermodulations, such as fear, anxiety, anger, and sleep difficulties, and overmodulations, such as numbness and dissociation (Boyd et al., 2018). The last phase of treatment makes use of these heightened capacities in order to address trauma symptoms more directly. In this phase of treatment, clients have become aware of discontinuities and disruptions of their attention, and times when their experience of situations does not seem to be fully grounded in the present moment but may be driven by past trauma. The therapist supports clients in using the practices outside of the session to help maintain a present-moment focus, even in the face of trauma-related intrusions and disruptions.

*Case Example: Ja’Nia*

This case example shows how clients can use IR practice to address trauma-specific symptoms. Ja’Nia was an African American woman veteran who had been sexually assaulted in the military. Shortly after she moved into a new apartment, she experienced that people were repeatedly entering her apartment at night, after she had gone to bed. She decided that sleeping in the bedroom was too risky, because she might not see the people who were entering her apartment until it was too late to escape. She started sleeping on the sofa during some parts of each night. Her daughter had repeatedly told her that there were no intruders in the apartment, but because Ja’Nia resisted this assessment, the daughter brought her mother for treatment because she was concerned that Ja’Nia might be experiencing the onset of a psychotic disturbance.

After a careful assessment of Ja’Nia, with her daughter indicating that Ja’Nia was not likely to be in present danger from intruders, she was referred to an IR group. As part of trauma psychoeducation, the therapist explained that sounds experienced in the present that are similar to those a person experienced during a trauma can be misperceived as indicating that a traumatic event is about to recur. MM can be used, the therapist explained, to pay attention to our reactions to these triggers so that we can differentiate the memory of a past trauma from a current threat. The therapist did not label Ja’Nia’s experiences as invalid or delusional or suggest that they should be ignored or suppressed. Instead, she suggested that Ja’Nia first ensure her own safety to the extent she felt possible. Then, when the sounds occur, she might pay close attention to the experience of hearing the sounds and her reaction to them, using the Letting Go practice to manage the fear the sounds triggered.

Ja’Nia decided to do her sitting meditation practice in the evening, on her sofa, so that she could be more aware of the sounds and feel safer in the event that there was anyone entering her home. The first evening Ja’Nia practiced meditation, she noticed the sounds of an intruder. She decided to use the Letting Go practice to cope with her rising sense of alarm, to practice relaxed alertness rather than being hyperalert. She opened her eyes and noticed the sounds again, but still there was no evidence of an intruder. She began to experience that her sense of alarm was very real but not related to the presence of an actual intruder. As she continued to practice with her eyes open, she heard the sound again, this



time quite loud. She opened her front door and saw her neighbor picking up a newspaper from their doormat. Ja’Nia then realized that the sounds she had heard were her neighbors opening and closing their doors in the hallway. She remembered that the sound of a door opening and closing was one that she heard right before her assault, as her commanding officer entered her quarters. Ja’Nia quickly realized that she could use the MM practices to be aware of her rising distress and note the stimuli that trigger it. Keeping her attention in the present moment helped her identify and test her beliefs about trauma triggers. An immediate benefit was that she no longer believed she was in danger from intruders and returned to sleeping in her room.

As Ja’Nia’s experience shows, confronting situations that trigger distress requires the ability to manage fear and arousal so that an avoided situation can be experienced without unmanageable distress. Ja’Nia developed the capacity to manage her fear of intruders in her home through several weeks of IR sessions and between-session practice. Like Ja’Nia, in the face of successful *in vivo* exposure to a trauma trigger, many clients quickly realize the connection between the trigger and some aspect of their traumatic experience. Being able to identify discontinuities of present-moment attention, both intrusive and dissociative, helps clients make active plans to modulate reactions using their MM skills and gain a new understanding of their trauma triggers.

### Some Potential Concerns about MM for Trauma

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MM practices should be a good match for the needs of traumatized people because it appears that they address issues that are hallmark in PTSD. However, the very qualities that would make MM seem indicated for trauma might also make it very challenging for traumatized people.

There is some concern in the field that MM practice itself could encourage clients’ dissociation and other forms of avoidance (as reviewed by Waelde, 2015). MM practices are usually silent activities, and it can be difficult to determine what a client is experiencing during periods of practice. Is it possible that clients would use MM practices, even those as simple as a few minutes of breath-focused attention, as a form of dissociation or avoidance rather than as a means to attend to and accept present-moment experience? To the extent that MM practices foster present-moment attention, they should not encourage dissociation and avoidance. However, as will be discussed in Chapter 3, traumatized clients need specialized approaches to MM instruction that include careful ongoing assessment of their practice experiences to ensure that practice periods are not fostering rumination, dissociation, fantasy, or other forms of posttraumatic avoidance and dysregulation. There are many different types of practices included under the umbrella of mindfulness practice, including grounding, distraction, escape imagery, and breath modification (Batten et al., 2005; Najavits, 2002). It is important to consider the potential mechanisms of each of these different kinds of practice and the aims they serve in trauma treatment. A review found that trait mindfulness and acceptance were associated

with resiliency to trauma exposure (Thompson et al., 2011), a potential benefit that may not extend to practices such as distraction (Uusberg et al., 2016).

A second concern is the demands of mindfulness practice. MM practices are designed to interfere with avoidance by directing attention to the flow of present-moment experience. It seems that by definition, severely traumatized clients should not be able to tolerate that sort of activity. A recent review of the topic offered the caveat that severely dysregulated clients not be offered MM training at all, or at least not for periods longer than 5 to 10 minutes (Vujanovic et al., 2011). Long periods of silent unguided practice may not be tolerable for some persons who have severe emotional, cognitive, and physiological dysregulation. MMBIs vary with respect to the amount of time actually allocated to within-session and between-session practice of the techniques. It is likely that not all MMBIs provide adequate MM “dosing” in the form of time spent learning and practicing the techniques. In IR, more than half of the session time is allocated to MM practice, and clients are supported in developing a daily MM practice. IR is designed to include adequate structure to support the client’s engagement and tolerance for the practices. The IR practices are offered in a sequence so that one skill builds on another, culminating in the ability to engage in periods of self-guided meditation. In IR, the therapist helps the client find a match of MM techniques to fit their needs and capacities, rather than applying them in a generic way. It may be that the issue is not *whether* traumatized persons can use MM, but rather *what types* of MM practice are useful. Adequate structure, training time, and technique matching may best suit the needs of traumatized persons.

Traumatized clients require a specialized approach to care that reflects an understanding of the outcomes of exposures to extreme stress, whether as a single event or as a result of a lifetime of adversity, and the possible pathways to recovery. IR was designed to utilize MM practices to match the needs and capacities of persons who struggle with the results of stress and trauma. The next chapter provides specific guidance about how to assess clients and plan treatment in a way that best serves the growth and development of each.