Available online at www.sciencedirect.com
ScienceDirect
Cognitive and Behavioral Practice 20 (2013) 33-46
Cognitive and Behavioral Practice
www.elsevier.com/locate/cabp

Acceptance and Mindfulness Techniques as Applied to Refugee and Ethnic Minority Populations With PTSD: Examples From "Culturally Adapted CBT"

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In this article we illustrate how we utilize acceptance and mindfulness techniques in our treatment (Culturally Adapted CBT, or CA-CBT) for traumatized refugees and ethnic minority populations. We present a Nodal Network Model (NNM) of Affect to explain the treatment's emphasis on body-centered mindfulness techniques and its focus on psychological flexibility. We explain the definition of mindfulness that guides our treatment, and we outline a typology of mindfulness states and show how many of the techniques in our treatment can be analyzed by these categories. We argue that acceptance and mindfulness are therapeutic for refugees and minority populations for several reasons. These include their increasing psychological flexibility, decreasing somatic distress, decreasing rumination, serving as emotion regulation techniques, decreasing the attentional bias to threat, and forming part of a new adaptive processing mode (which in CA-CBT centers on psychological flexibility). We describe the specific ways we teach acceptance and mindfulness with Latino and Southeast Asian refugee populations and present case examples of the treatment of a traumatized Latino and Cambodian patient.

We refer to our manualized 14-session treatment for traumatized refugees and ethnic minority populations as culturally adapted CBT, or CA-CBT (which might also be called culturally adapted flexibility-focused therapy, or CA-FT, for reasons that will be clear below). The treatment emphasizes emotion regulation techniques such as acceptance and mindfulness techniques. In CA-CBT, acceptance and mindfulness techniques are important parts of the anxiety, trauma, and anger protocols, with these protocols being practiced at the beginning of almost all sessions (see Table 1 for an overview of the treatment); and a mindfulness technique is taught at the end of every session that is further practiced on the way home (often this is multisensorial mindfulness, i.e., attending to one or more channels of sensorial experiencing: auditory, such as ambient sounds, and visual, such as certain visual images like the movements of leaves in the wind). Our treatment has been shown to be effective for traumatized ethnic minority (Latino) and refugee (Cambodian and Vietnamese) groups as compared to a waitlist condition (Hinton et al., 2004, 2005) and applied muscle relaxation (Hinton, Hofmann, Rivera, Otto, & Pollack, 2011).

Below we first discuss CA-CBT's treatment targets based on our "Nodal Network Model of Affective State" and describe the typology of mindfulness that guides our treatment, a treatment that aims to create a certain enduring mode of processing that is organized around the idea of psychological flexibility. We then adduce further reasons why we think acceptance and mindfulness techniques are effective treatment techniques among traumatized refugees and ethnic minority groups and provide examples from our treatment. We then describe in more detail the particular acceptance and mindfulness techniques we utilize and how we culturally adapt them, followed by two case examples.

Treatment Targets

There are several treatments available for PTSD, but they focus on repeated exposure to the trauma memory in order to attain extinction. The applicability of such an approach to educated native English speakers is being questioned because of high rates of dropout and concerns about worsening. There is evidence that minority populations tolerate such techniques even less well (for a review, see Hinton et al., in press). Moreover, these treatments do not target certain key aspects of trauma-related disorder that are important to address in

Keywords: acceptance; mindfulness; PTSD; cross-cultural

1077-7229/11/33-46$1.00/0

Table 1
Sessions in CA-CBT: Structure and Some Key Elements

Session number and name	Beginning section: exposure and practicing emotion regulation protocols	Main section	Stretching paired with self-statements of flexibility	Meditation practiced while returning home
Session 1: Education about Trauma-Related Disorder	None	Education about PTSD. Mood labeling and emotion distancing (cloud analogy). Multisensorial living-in-the-now as an emotion regulation strategy.	Shoulder, neck, and arm	Leaf movement awareness
Session 2: Muscle Relaxation and Stretching with Visualization	None	Toe-to-head muscle relaxation and stretching with visualization. Applied muscle relaxation and stretching. Candle imagery as flexibility primer.	Shoulder, neck, and arm	Leaf and cloud awareness (shape, color, movement)
Session 3: Applied Muscle Stretching with Visualization and Anxiety Protocol (AP)	Elicit anxiety episode and practice AP	Toe-to-head muscle relaxation and stretching with visualization. Applied stretching. Teach the AP (which includes applied muscle stretching with a visualization encoding flexibility).	Shoulder, neck, and arm	Loving-kindness
Session 4: Trauma Recall Protocol (TRP)	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Trauma Recall Protocol (which contains several protocols: multisensorial living-in-the-now; acceptance; loving-kindness; emotion shift; visualization with applied muscle relaxation).	Shoulder, neck, arm, wrist, and fingers	Loving-kindness
Session 5: Education about Trauma-Related Disorder and Modifying Catastrophic Cognitions	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Education about trauma recall and anxiety symptoms. Modify catastrophic cognitions about PTSD symptoms. Practice in emotion labeling and distancing. Smiling mindfulness.	Shoulder, neck, arms, and legs (standing)	Clouds and leaves. Smiling awareness.
Session 6: Interoceptive Exposure I: Head Rotation	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Interoceptive exposure: head rotation. Address catastrophic cognitions about head spinning and address trauma associations to and catastrophic cognitions about associated sensations such as dizziness. Create positive associations to sensations (some involving self-metaphors of flexibility). Practice emotion shifting by shifting through the *brahmavihara* (four positive emotions), one of which is emotion distancing.	Shoulder, neck, arms, and legs (standing)	Leaf and branch movement paired to a metaphor ("May I flexibly adjust as the leaf does to each breeze")
Session 7: Interoceptive Exposure II: Hyperventilation	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Interoceptive exposure: hyperventilation. Educate about breathing such as induced	Shoulder, neck, arms, and legs (standing)	Leaf and branch movement paired with a flexibility metaphor

		symptoms and the effects of thoracic versus abdominal breathing. Address catastrophic cognitions about and trauma associations to hyperventilation-related sensations. Create positive association to those sensations.		
Session 8: Education about Breathing and Its Use for Relaxation	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Teach abdominal breathing. Teach mindful breathing. Review smiling mindfulness. Teach the tea/coffee meditation (color, weight, smell, taste, temperature).	Arm, wrist, finger, and legs (standing)	Cloud and kinesthetic awareness (walking meditation)
Session 9: Sleep Disturbance	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Sleep disturbance evaluation: assess for nightmare, sleep paralysis, and nocturnal panic. Address related catastrophic cognitions and trauma associations. Elicit nightmare content. Practice changing dream imagery.	Leg stretch while standing and sitting	Cloud and paired metaphor of distancing
Session 10: Generalized Anxiety Disorder	Elicit anxiety episode and practice AP. Elicit trauma recall and practice TRP.	Elicit worry topics and examine the firing sequence, including induced symptoms, catastrophic cognitions about and trauma associations to the somatic/mental symptoms. Teach the effects on mood of attentional focus. Use the tea meditation to teach the effects of attention (multisensorial awareness of tea or coffee drinking). Use multisensorial awareness, applied muscle relaxation and stretching, and various types of attention shift (e.g., tea meditation) to escape worry cycle.	Leg stretch while standing and sitting	Walking meditation. Smiling mindfulness (facial expression mindfulness).
Session 11: Anger and Anger Protocol	Elicit anxiety episodes and practice AP. Elicit anger episodes and practice Anger Protocol.	Elicit anger topics and firing sequence. Explore trauma associations to and catastrophic cognitions about anger. Teach anger protocol (which includes multisensorial living-in-the-now, emotion distancing, and applied stretching with self-metaphors of flexibility).	Leg stretch while standing and sitting	Leaf and branch movement paired with a flexibility metaphor. Leaf color and shape.
Session 12: Address Headache and Other Tension-Type Complaints (neck and shoulder tension and pain)	Elicit anxiety episodes and practice AP. Elicit anger episodes and practice Anger Protocol.	Ask about headache-focused dysphoria and panic as well as other muscular tension complaints, viz., neck and shoulder tension and pain. Elicit associated firing sequences, catastrophic cognitions, and trauma associations. Instruct to use applied stretching several times a day to prevent symptoms, focusing on the muscular	Leg stretch while standing and sitting	Surrounding sounds, loving-kindness

(continued on next page)

Table 1 (*continued*)

Session number and name	Beginning section: exposure and practicing emotion regulation protocols	Main section	Stretching paired with self-statements of flexibility	Meditation practiced while returning home
		groups involved. Emotion shift practice by shifting through the *brahmavihara* (four positive emotions), one of which is distancing.		
Session 13: Other Somatic Symptoms and Associated Panic	Elicit anxiety episodes and practice AP. Elicit anger episodes and practice Anger Protocol.	Evaluate other troublesome somatic symptoms in the manner described for session 11. Practice emotion labeling and distancing. Emotion shift practice by shifting through the *brahmavihara* (four positive emotions), one of which is distancing.	Leg stretch while standing and sitting	Leaf and branch movement paired with a flexibility metaphor. Leaf (or branch) color and shape.
Session 14: Cultural Syndromes and Ethnophysiology Related to Anxiety; Closing	Elicit anxiety episodes and practice AP. Elicit anger episodes and practice Anger Protocol.	Evaluate cultural syndromes related to anxiety and PTSD and the ethnophysiology related to anxiety and PTSD. Address catastrophic cognitions. Teach emotion labeling and distancing. Emotion shift practice by shifting through the *brahmavihara* (four positive emotions), one of which is distancing.	Shoulder, neck, and arms and then leg stretch while standing and sitting	Leaf and branch movement paired with a flexibility metaphor, loving-kindness

traumatized populations more generally (e.g., psychological flexibility) and others that are particularly important to address among traumatized refugees and minorities (e.g., somatic symptoms and worry). Our treatment is guided by a certain model of psychopathology and a certain conceptualization of mindfulness.

The Nodal Network Model of Affective State

We consider negative mood states to be maintained by multiple interacting systems, what we call a Nodal Network Model (NNM) of Affect (Figure 1), a model resembling Teasdale's (1996) Interactive Cognitive Subsystem (ICS) model. According to our model (Figure 1), trauma-related disorder is maintained by multiple interacting systems that include a certain psychological appraisal mode (a sense of being threatened and being inadequate to current challenges), attentional bias (attention to threat and insult), mental-content processing mode (tendency to ruminate/worry), a certain set-shift predisposition (poor set-shift ability), a certain decentering ability (overidentification with mental content, poor meta-cognitive awareness), action predisposition (withdrawal/perceived slight), self-image (a sense of being unable to adjust), muscle-based body state (rigidity, tenseness, negative posture), autonomic arousal state (chest tightness, shortness of breath, sweating, shortness of breath), mood state (fear, anger, depression), and memory recall bias (negative memory). Successful emotion regulation can be conceived as the ability to change the network nodes to more adaptive ones, with shifts in one node tending to change all the other nodes in the network. (For further description of the NNM, see Hinton et al., in press.)

Acceptance and mindfulness help to create a new adaptive default processing network centered on psychological flexibility. Recent studies of mindfulness postulate that such techniques create long-lasting neuronal networks that become part of the general top-down processing; that is, they become new default modes of processing (Kok & Fredrickson, 2010; Lutz, Slagter, Dunne, & Davidson, 2008). In our treatment, we try to create a nodal network centered on the notion of flexibility (cf. to the notion of

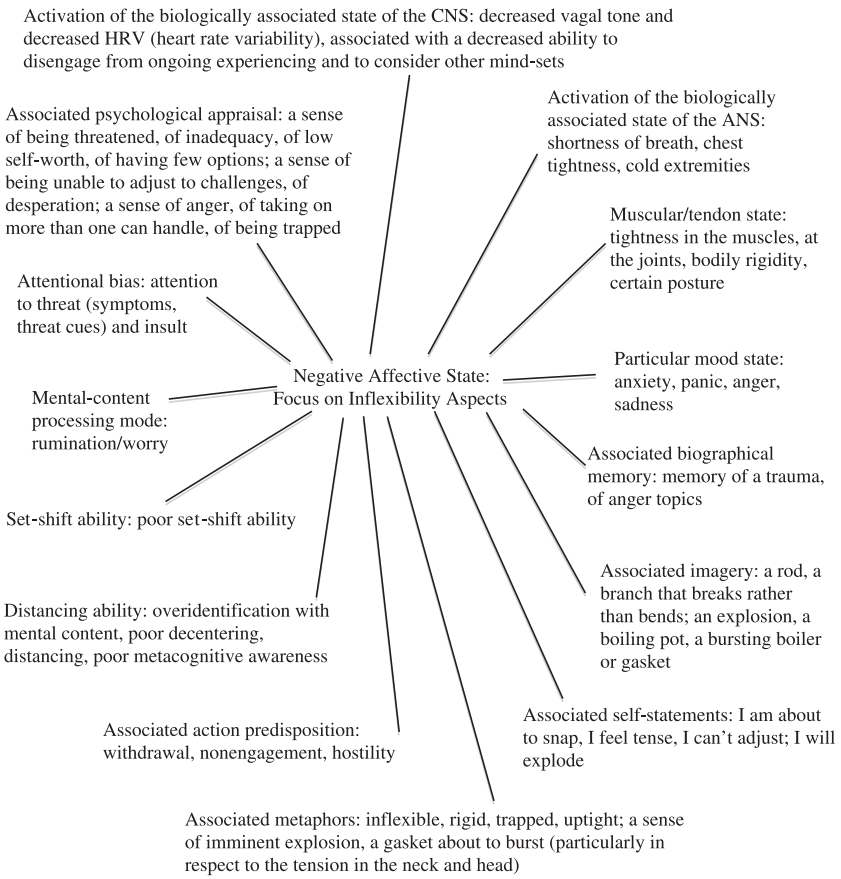

Figure 1. The Nodal Network Model of Negative Affect: Focus on Inflexibility Aspects. This is a nodal network model of negative affect, showing how multiple nodes interact to create a negative affective state. At one point in time, one or another node may be the object of attention or may be more active in determining the current mode of processing. As one node becomes active, all the other nodes tend to be activated as well; if one node shifts, all the others tend to as well.

schema: Clark & Beck, 2010). The flexibility nodal network may be activated by acceptance techniques, multisensorial meditation, stretching, or a slight smile. (We frame all these interventions in terms of flexibility during the treatment.)

Mindfulness States: Typology and Key Aspects

Our definition of mindfulness is based on our reading of the Buddhist and psychological literature (Bishop et al., 2004; Borkovec, 2002; Brown, Ryan, & Creswell, 2007; Grossman & Van Dam, in press; Lau et al., 2006; Lutz et al., 2008; Nhat Hanh, 1976; Shapiro, Carlson, Astin, & Freedman, 2006; Thera, 1962, p. 9–10). We define being "mindful" as the maintaining of one of several mind-sets that involve a present-oriented experiencing and that are beneficial to psychological well-being. To be mindful is to try to maintain one of the auspicious mind-sets in which a certain attentional object is viewed with a certain emotional attitude (see Table 2; cf. Shapiro et al., 2006). According to this definition, we consider mindfulness to be a set of related practices, what might be called mindful mind-sets, that differ enough that one cannot assume they will have the same effect through their practice (cf. Bishop et al., 2004; Brown, Ryan, & Creswell, 2007). In this broad definition, maintaining a slight smile or keeping flexible at a joint are also considered mindfulness in that they are mind-sets that aim to achieve a certain "body-set."

Further Reasons for the Efficacy of Acceptance and Mindfulness Techniques as Applied to Minority and Refugee Populations

Several acceptance and mindfulness techniques derived from the Buddhist tradition have been shown to be effective for many disorders and have been included in many treatment protocols such as those for traumatized populations (Roemer & Orsillo, 2009). Acceptance and mindfulness techniques should be very effective therapeutic methods for traumatized refugees and ethnic minority populations for the reasons described in the previous section and several additional reasons.

Acceptance and mindfulness techniques should help decrease somatic complaints, a key distress presentation and treatment target among ethnic minority and refugee populations (Hinton & Lewis-Fernández, in press). For one, mindfulness provides mind-sets that shift the attentional focus from a hypervigilant surveying of the body for somatic distress to another focus (Barsky, 1992). For example, in CA-CBT we teach exterior-focused multisensorial mindfulness, such as attending to surrounding sounds or images, and interior-focused multisensorial mindfulness, such as attending to the flow of the breath or the proprioceptive sense from walking. Second, mindfulness teaches an awareness of interior sensations such as muscle tension and joint inflexibility that can be used to prompt enactment of somatic-focused techniques such as applied muscle relaxation and applied stretching. Third, an attitude of acceptance has been shown to decrease pain and other complaints by creating an observational mode of nonelaborative observation (Veehof, Oskam, Schreurs, & Bohlmeijer, in press). And fourth, acceptance and mindfulness techniques serve as emotion regulation techniques that decrease arousal (Goldin & Gross, 2010) and hence somatic symptoms.

Psychological inflexibility has been shown to be associated with rumination, depression, and anxiety (e.g., Koster, De Lissnyder, Derakshan, & De Raedt, 2011). And psychological flexibility is a key skill for refugee and ethnic minority groups that better equips them to adjust to a new social, cultural, and linguistic context. For example, a Cambodian patient needs to switch between the English and Cambodian language and the American and Khmer cultures, and this switching between registers is particularly important in respect to dealing with children who are often highly acculturated and speak minimal Cambodian (Hinton, Rasmussen, et al., 2009). More generally, we consider psychological flexibility to be an adaptive processing mode in opposition to other negative modes such as a threat mode.

Acceptance and mindfulness techniques increase psychological flexibility (Hinton, Hofmann, et al., 2009). In keeping with a large emerging literature, we consider psychological flexibility as the ability to do the following: (a) to disengage/distance/decenter from a current mind-set to enter a state of contemplation of that mind-set rather than enacting it (this might be called a switch to a distancing mind-set); (b) to consider other possible mind-sets, in which the term "mind-set" is meant in a broad sense that includes affect-set (i.e., a certain emotion), action-set (i.e., performing a certain action, such as maintaining a smile or stretching), explanatory-set, and attentional-object set; and (c) to enact different mind-sets in the attempt to adapt to the situation (Bishop et al., 2004; Brown, Ryan, & Creswell, 2007; Lutz et al., 2008; Porges, 2007). Acceptance-type techniques help achieve a state of disengaging/decentering/distancing, and meditation techniques involve practice in mind-set shifting such as from verbal processing to sensorial experiencing, for example, from engaging in verbal-centered worries about a future event to attending to the flow of the breath (Goldin & Gross, 2010; Lutz et al., 2008).

Mindfulness reduces rumination, a major generator of psychopathology (Bennett & Wells, 2010; Roemer & Orsillo, 2009). Ethnic and minority populations often live in poor urban contexts and confront many stressors that range from finances to health problems to truancy/gang violence to personal-safety concerns (Hinton, Nickerson, & Bryant, 2011). Worry may greatly worsen PTSD (Hinton et al., 2011); worry episodes result in a threat-mode, in

Table 2
A Typology of Mindfulness Techniques Used in the Buddhist and Eastern Traditions and Adaptation for the Latino Population

Type of mindfulness	Attentional object	Induced emotion	Induced action tendency	Associated Buddhist imagery and metaphors	Associated Latino imagery and metaphors
Sensorial aspects of the body (i.e., contemplating the sensorial aspects of the body)	Sensorial experiencing in its various modalities (e.g., attending to the breath, kinesthetics [body movement in space], smells, sounds, or visual images [color, movement, shape])	Detached observation	Solitary and withdrawal	The soul as being with the body, not floating away from the body, giving a feeling of bodily weight rather than lightness. Attention that is not "broken," is not like a "monkey swinging from branch to branch."	Emphasize the multiple Spanish metaphors that celebrate sensorial experiencing (*gozar de todos los sentidos*) and terms for describing attention (*enfocarcase*). Translate the monkey metaphor.
Sensorial aspects of external objects (i.e., contemplating the sensorial qualities of external objects)	The sensorial properties of external objects, often with a focus on the visual aspect (e.g., the movement, color, or shape of a candle flame, clouds, or leaves)	Detached observation	Solitary and withdrawal	The mind as a spotlight. Attention that is not "broken," is not dispersed, is not like a "monkey swinging from branch to branch."	Translate the spotlight and monkey metaphor into Spanish.
Mood	Mood state, which is verbally labeled and distanced from	Detached observation	Solitary and withdrawal	Mood is often analogized to a cloud that enters and then leaves the mind, with the mind being compared to the sky.	Translate into Spanish the cloud metaphor.
Compassion (*karunaa*)	All beings, including oneself	Compassion for the suffering of all beings, including oneself	Interactional and interpersonal engagement	Something projected in all directions: water or warmth that spreads out from the heart. One of the fours faces of the Brahma.	A warmth and light projected in all directions, analogous to the image of the Sacred Heart of Jesus.
Loving-kindness (*Metta*)	All beings, including oneself	Love for all beings, including oneself	Interactional and interpersonal engagement	Something projected in all directions: water that spreads out from the heart. One of the four faces of the Brahma. Staying in the "middle."	A warmth and light projected in all directions, analogous to the image of the Sacred Heart of Jesus.
Sympathetic joy (*muditaa*)	The joy of others and the reason for their joy	Joy in the joy of others	Interactional and interpersonal engagement	One of the four faces of the Brahma.	Translate the idea of joy in the joy of others
Equanimity (*upekkha*) (this is very similar to mood mindfulness)	All emotions, mental objects, with all emotions and thoughts being verbally labeled and distanced from	Detached observation	Solitary and withdrawal	Staying in the middle. Mood is often analogized to a cloud that enters and then leaves the mind, with the mind being compared to the sky. One of the four faces of the Brahma.	Translate the cloud metaphor and the distancing metaphors
Smiling	Facial expression	Joyful	Interactional and interpersonal engagement	Loving-kindness imagery, a blooming-lotus analogy	Loving-kindness imagery, the blooming-flower analogy

irritability, and in panic-like autonomic arousal ("worry attacks") that may cause mental and somatic symptoms that give rise to catastrophic cognitions and trauma recall. Acceptance and mindfulness decrease rumination by serving as emotion regulation techniques that help the individual to stop the vicious cycle of rumination. (Some theories of worry consider it to result in decreased arousal in response to stressors [Borkovec & Hu, 1990]; however, studies indicate that patients with worry have high rates of arousal symptoms, are particularly hypervigilant to phasic changes in arousal symptoms, and are at increased risk for panic, including having panic triggered by worry episodes [Andor, Gerlach, & Rist, 2008].)

Treatment Overview

CA-CBT consists of 14 sessions of individual or group therapy, each lasting approximately an hour (see Table 1). The therapist can be a master's-level clinician. The sessions have a certain structure. Almost all sessions begin with elicitation of recent anxiety episodes, followed by the practice of an anxiety protocol (e.g., mindfulness and applied stretching with self-statements of flexibility), and from session 5–10, the elicitation of trauma memories followed by the trauma recall protocol (that protocol contains all the elements of the anxiety protocol plus others: acceptance and loving-kindness); and from sessions 11–14, there is elicitation of anger issues followed by the practicing of an anger protocol (a protocol that focuses on distancing, applied stretching, and reframing of appraisal). All sessions conclude with the teaching of applied stretching (this consists of yoga-like stretching of different bodily areas: shoulder, neck, arms, or legs) paired with self-statements of flexibility followed by instruction in a mindfulness technique, usually multisensorial mindfulness, which is further practiced while returning home.

Specific Acceptance and Mindfulness Techniques Used in CA-CBT

In the treatment, we use most all of the techniques detailed in Table 2. We present the patient with a tape we call the "toolbox" that includes all the techniques. Certain of these techniques are combined to form the protocols to be used during dysphoric states such as when anxious (Anxiety Protocol), when having unwanted recall of past trauma events (Trauma Recall Protocol), and when angry (Anger Protocol). These emotions are elicited and then the protocols are practiced. Below we discuss some of these techniques in more detail and end the section with some examples of adaptation for particular cultural groups.

Sensorial Mindfulness

In our treatment, we have the patient practice sensorial mindfulness at the end of almost all sessions (and during many sessions) and continue practicing it while returning home. If the session has been upsetting in any way, practicing the technique while returning home serves as emotion regulation. In different sessions we have the patient attend to different sensory modalities—visual, kinesthetic, olfactory, tactile, auditory—while returning home. We also teach awareness of muscle and joint-tendon tension as forms of mindfulness, with the recognition of tension serving as a reminder to do applied muscle relaxation and stretching (see Borkovec, 2002).

We teach breathing awareness, but in later sessions (Table 1). We first address panic disorder by modifying catastrophic cognitions, educating about how breathing and chest breathing induce harmless symptoms, and having the patient perform hyperventilation-type interoceptive exposure to decrease the degree of fear of breathing-related symptoms. We do this because breathing awareness often causes distress and panic in refugee and minority patients; this is because they often have high rates of panic attacks and panic disorder and they often have great fear of somatic sensations (Hinton & Lewis-Fernández, in press).

One of the sensorial mindfulness techniques we emphasize is a visual one: attending to leaf movements. We have the patient practice this form of mindfulness because it is easy to perform and because it primes to emotional and interpersonal flexibility. In one session, we specifically make this point, instructing the patient while doing leaf mindfulness to make the self-statement, "May I adjust to each situation just as the leaf is able to adjust to each new breeze." Each time the patient sees a leaf, this will remind him or her to adjust flexibly: the wind-moved leaf comes to serve as a frequently encountered "flexibility primer" (Hinton, 2008). In another session we have the patient try to be aware of the motion of candle flames and use this as another flexibility primer. (Analogously, some therapists have patients place dots around the house to serve as reminders to perform applied muscle relaxation; here we use a nature image and the candle flame as reminders to practice the flexibility mind-set.)

CA-CBT uses multisensorial mindfulness as one part of the anxiety, trauma, and anger protocols. In all the protocols we lead the patient through several sensorial modalities. In several sessions we use a tea example to teach multisensorial awareness rather than a raisin one that many other protocols utilize (Kabat-Zinn, 2005). We have the patient attend to the tea's appearance, that is, its color and the way it moves in the cup, the tea's smell, the tea's taste, and the tea cup's temperature and weight. This tea meditation serves as a prescribed pleasurable activity and an emotion regulation technique that can be used at any time (Smits & Otto, 2009).

We consider that a key part of sensorial mindfulness is that it is pleasurable and shifts from a mode of threat avoidance to pleasurable experiencing, an orientation to the world as source of pleasure rather than source of

threat—an activation of the behavioral approach system (Tortella-Feliu, Balle, & Sesé, in press). Multisensorial mindfulness is observation but in an aesthetic mode. This is the opposite of the typical mental state of the trauma victim who surveys the ambient environment for threat and is hypersensitive and reactive to matches between aspects of the past trauma events and the current experiential array: reactive to a person resembling a perpetrator, to a tree resembling one present at the time the trauma occurred, to a configuration of clouds resembling those in the sky at the time the trauma event occurred. We conceptualize mindfulness as breaking the cycle of rumination and threat-seeking by providing another attentional object and by shifting to a neutral and even euphoric mind-set. Mindfulness promotes psychological flexibility by practicing set-shifting in respect to the mode of processing, such as switching from verbal processing to sensorial processing; by practicing set-shifting in respect to submodes of sensorial processing, such as switching from visual to auditory processing; and by practicing set-shifting in respect to submodes of sensorial submodes, such as switching from one type of visual processing (attention to color) to another (attention to shape or movement). Additionally, these shifts teach a key lesson—that the attentional object profoundly shapes one's experiencing and mood.

Body-Set Mindfulness

We emphasize the maintaining of two body-sets in the treatment, with these body-sets (and paired metaphors) helping to shift from a negative mood state by changing multiple nodes as conceptualized in the NNM (Figure 1). These are bodily flexibility and a slight smile. We have patients do stretching of the body paired with self-statements of flexibility when they are anxious and every night before bed. We teach applied muscle relaxation but emphasize more stretching. Many protocols for alleviating psychological distress include yoga-type techniques (Kabat-Zinn, 2005). Bringing about bodily flexibility and pairing it with self-statements of flexibility has important effects that include counteracting the negative mind-set created by muscular tension and psychological inflexibility.

Another bodily-based mindfulness technique is to experiment maintaining a slight smile, a technique that has been described extensively by Nhat Hanh (1976). The smile is the bodily counterpart of loving-kindness (discussed below), so that a similar emotional state is entered by a change of bodily state rather than by a shift in cognitive appraisal; that is, the slight smile brings about the emotion of loving-kindness. The slight-smile technique serves as an important emotion regulation technique and promotes interpersonal engagement and positive experiencing. The smiling meditation helps to break dysfunctional social loops in which the patient frowns and others respond to this frowning by avoiding the patient or by taking umbrage because they consider the expression to indicate the patient's feelings about them. By adopting a smile in such situations, vicious circles of dysfunctional interpersonal interaction can be broken.

We refer to these techniques that involve body manipulations as mindfulness because that is how they are referred to in the Buddhist literature (Nhat Hanh, 1976) and by scholars (Borkovec, 2002) and because they involve an emphasis on in-the-moment sensorial awareness. But it should be recognized that they involve the enacting of body-based emotion regulation techniques—namely, changing the emotions through changing the body—and that they involve switching from one to another bodily state. These body-based emotion regulation techniques will have important positive effects because the current emotional and processing state is driven by the state of the body (e.g., Fairholme, Boisseau, Ellard, Ehrenreich, & Barlow, 2010; Teasdale, 1996). If certain metaphors are paired to body motions, such as pairing stretching to self-statements of "flexibility," then these bodily techniques produce a positive self-image, mood state, and processing mode that is characterized by flexible adjustment. These self-images then promote flexibility and increase the predisposition to distance from current mind-sets and adopt other mind-sets such as a different affect-set or explanatory-set.

Compassion and Loving-Kindness Meditation Techniques

In the psychological and Buddhist literature, compassion and loving-kindness are usually considered to be forms of mindfulness meditation (Kabat-Zinn, 2005, p. 285; Roemer & Orsillo, 2009, p. 22, 128; Siegel, 2007, p. 62; Thera, 1962, p. 76–77). Whereas several mindfulness meditation practices involve a nonjudgmental awareness that focuses on breathing or other sensory modalities, these two other mindfulness modes involve having a certain feeling towards others: in compassion meditation (CM), a feeling of compassion for the suffering of others; and in loving-kindness meditation (LKM), a feeling of love for all beings.

In certain sessions of CA-CBT we teach the patient to radiate CM and LKM to him- or herself and in all directions to all beings, and in several sessions we have the patient practice projecting loving-kindness while returning home. This helps to decrease anger among other effects (Lutz et al., 2009). Compassion meditation is part of our trauma protocol. This promotes acceptance in that the individual stays with the sense of pain and the reality of the trauma event but does so with a sense of compassion. This serves as exposure to and reprocessing of the trauma network because the patient relives the event but with a different affect and cognitive frame. There is a shift from a cognitive appraisal of hopelessness, self-blame, self-hatred, and other-directed hatred to that of compassion.

Acceptance Techniques

Many of the mindfulness techniques serve as emotion regulation techniques and increase the ability to tolerate negative affect. In the trauma recall protocol, the patient first accepts that it was difficult to pass through the event and then shifts to an attitude of compassion for him- or herself and others for enduring such an event; next, the patient shifts to a state of loving-kindness; and then the patient practices multisensorial mindfulness. During these first two stages, the patient is practicing acceptance: the individual must tolerate the affect and not flee from it, must hold the mood in question in an observation mode. We also teach labeling of and distancing from mental content, in which the patient is told to monitor emotion and mental content, which includes labeling the content ("This is anger") and observing its effects, such as anger-producing muscle tension in the neck and feelings of hostility (see Tables 1 and 2). We use a cloud metaphor to teach acceptance, a metaphor commonly used in Buddhism. As indicated in Table 2, acceptance/distancing is a skill that is highly emphasized in the Buddhist tradition. Distancing from affect and mental content is one of the four virtues that one is supposed to cultivate, a virtue referred to as *upekkha* (Kraus & Sears, 2009). This is often translated as "equanimity," a state characterized by the acceptance of emotion and mental content—with distancing.

Some Examples of Cultural Adaptation

Many Asian cultures have a particular term for "mindfulness" that is derived from the Pali and Sanskrit term in the original Buddhist texts, and that term should be used when treating members of that cultural group in order to promote acceptability. For example, Cambodians use the Pali term for mindfulness, *satdi*. For other cultural groups that lack a specific term for mindfulness, sensorial mindfulness can be presented simply as "living-in-the-moment with all the senses." All cultures have certain aesthetic ways of describing sensorial experience, and these can be used to promote engagement in this processing mode. For example, in the Latino-Caribbean culture, this aesthetic is strongly emphasized through the valuation of experiencing the senses, or *sentidos*. When teaching sensorial mindfulness, specific drinks or foods used in that culture can serve as useful examples. In our treatment, we have used a tea example to teach multi-sensorial mindfulness instead of the typical raisin example, specifying the preferred tea for the culture in question: jasmine tea among Cambodian refugees, and among Latino patients, jasmine, tilo, lavender, or manzanilla. For other cultural groups, another drink can be specified (e.g., coffee).

We change loving-kindness imagery depending on the group. During loving-kindness meditation we have Latino patients conjure the image of a light and heat emanating from the heart. This image is an extremely prominent aspect of the iconography in the Latin-American religious tradition, in which it is referred to as the Sacred Heart of Jesus, or Sagrado Corazón de Jésus. For Buddhist Asian populations we have the patient visualize water and coolness flowing from the heart and body. In the Buddhist context, cooling and water evoke ideas of merit, centered mind, and freedom from anger or other negative states, and water has a wide range of resonances. Two of the most common and celebrated scenes of the Buddhist iconography are the Buddha pointing to the ground to summon the Earth Goddess and the Earth Goddess wringing a torrent of water from her hair. (In a Cambodian temple, the central Buddha image is usually in this posture and often there is an image of the Earth Goddess wringing her hair.) These images celebrate the moment Siddhartha reached *Nirvana*. When attacked by Mara and his demons, Buddha pointed to the ground to request that the Earth Goddess give witness to all the good deeds he had done in his previous lives; in accordance with the Indic tradition, he had poured a little water on the ground each time he made merit in this way. Responding to the request, the Earth Goddess then appeared and wrung her hair and water flowed down in a flood to drown Mara and all his legions.

When teaching acceptance techniques to patients from Buddhist cultures, one should use the term derived from the Buddhist tradition that depicts the concept of decentering/distancing/acceptance. The term for this idea of equanimity in the Pali language is *uppekha*, a term often referred to as "staying in the center," a highly emphasized concept in Buddhist cultures. We use techniques for teaching acceptance to make them easily understood by persons with little education, for example, by using the cloud analogy and other easily understood metaphors from Buddhism, such as the idea of "staying in the middle," that is, watching one's thoughts and moods and staying distanced from them. We also use proverbs and images to improve recall of the concept. In the anger module, we use a well-known Buddhist proverb that is easily understood by patients of all cultures: "If you can control your anger one time, you gain a hundred days of happiness." We also use the metaphor of acting immediately on an emotion as being a slave to it, and we analogize anger to a fire, and describe getting angry with someone who is also angry as like adding fire to another fire and warn that "Soon your house may burn down." (This last metaphor is particularly effective in many Buddhist cultures in which "coolness" is a highly desired quality indicating control, harmony, and auspiciousness.)

If the patient espouses Buddhism, then practicing sensorial mindfulness and other forms of mindfulness, including loving-kindness and equanimity, can be framed as "making merit" that can be shared with others, including

the deceased. "Merit" is considered to be a "fund" of good deeds that promotes well-being by supernatural means. Sharing merit alleviates survival guilt and promotes a sense of agency and self-esteem; it also greatly decreases suicidality because the patient has the duty to make "merit" for deceased relatives and so ensure their rebirth into a more prosperous state.

Cases

Case 1: Maria, a Latina Patient

Maria was born in Puerto Rico and came to the United States when she was 8 years old, and she was 44 years old at the beginning of treatment. She was living with her 3 children, ages 10 to 18, and had been separated from the children's father for many years. She was not working. At the beginning of treatment Maria had severe PTSD, as evidenced by an extremely high score (75) on the PTSD checklist (PCL; Miles, Marshall, & Schell, 2008). She had poor ability to distance from affects, as rated by the Emotion Flexibility Scale (Hinton, Hofmann, et al., 2011), and experienced frequent panic attacks, great anxiety, and monthly *ataque de nervios*. She also often hallucinated a threatening voice. Maria had been on a maximally tolerated dosage of an SSRI for several years.

During one of the initial sessions (for an overview of the treatment, see Table 1), Maria disclosed that she had had an *ataque de nervios* when in bed thinking about having to be in a scanner for an upcoming MRI; she had been unable to tolerate the procedure once before. The *ataque* consisted of cramps (*calambres*), heat in the head (*calentón en la cabeza*), chest tightness, and palpitations. We reminded Maria that these were just anxiety symptoms and that breathing fast from the chest caused cramps, chest tightness, and her other symptoms; and we explained that when your heart runs rapidly it exercises the heart muscle and that people do running and other exercises that cause the heart to run rapidly in order to get the heart in better shape. To tolerate the scan, we suggested that she use multisensorial mindfulness with an emphasis on following the breath while breathing from the stomach rather than the chest. She used these techniques and tolerated the scan well.

Maria did not initially share any trauma experiences during the sections that involved eliciting trauma events and then practicing the trauma protocol (see Table 1). But in the third session Maria first disclosed having been sexually abused as a child and remarked that the hallucinated voice was a reliving of the voice of the perpetrator. She had previously described to her therapist being physically abused by a former boyfriend, but had been too afraid to disclose the information about the sexual abuse.

As the treatment progressed Maria decided to create a special room in her house to practice multisensorial awareness, applied stretching, and applied muscle relaxation. She also lit a candle when in the room practicing those techniques. As described above, the flame of a candle is used as a flexibility primer in the treatment; its flexile form serves as a reminder to flexibly adjust to each new situation. At the end of treatment Maria no longer had hallucinations or *ataques* and rarely had panic attacks. She had a 35-point drop in her PCL score (a drop of 10 in the PCL is considered clinically significant [Monson et al., 2008]) and she was able to distance from affects as assessed by the Emotion Flexibility Scale. At 1-year follow-up she had maintained these gains.

Case 2: Sokha, a Cambodian Patient

Sokha was a 51-year-old Cambodian woman receiving disability benefits and living with her three children who were ages 17 to 26. She had severe PTSD as assessed by the PCL score (67) and had great difficulty distancing from negative affects as rated by the Emotion Flexibility Scale. She had severe worry about current life issues such as not being able to pay the rent, her son not finishing high school, and her health, including fears that her panic symptoms indicated the presence of a dangerous illness. These worry episodes often led to arousal, panic, and trauma recall, and during the episodes she feared death from a *khyâl* attack. Cambodian refugees often attribute symptoms of anxiety such as cold extremities, palpitations, and shortness of breath to a disordered flow of blood and *khyâl* (a windlike substance) in the body, and they fear that disturbance in flow will cause various bodily disasters ranging from stroke to heart attack to fatal syncope (Hinton, Pich, Marques, Nickerson, & Pollack, 2010). Sokha had multiple somatic symptoms and slept poorly. The flashback was usually about her husband and left her deeply upset and unable to sleep the rest of the night. She had these complaints despite having taken an SSRI for several years along with clonazepam.

Sokha's husband was a high-ranking army official. The United States government was going to fly him and Sokha out of the country in 1975 when the communists took over the country. She and her husband boarded a plane to leave Cambodia; however, she ran off the plane, saying that she didn't want to leave the country. Her husband left the plane to join her. For a while, they survived in the Pol Pot period, pretending to be poor farmers. Sokha's husband often was sent far away to do dam building. One day he came back from such an assignment and gave her some fish. The next day, she saw him and a friend being led away by the Khmer Rouge. He did not return to their hut that evening. She snuck out to where most killings were done to see if she could locate his body. The stench was overwhelming. She found his body, which had been decapitated. (Anyone who was even a low-ranking

soldier in the former regime was killed by the Khmer Rouge; her husband had a very high rank was most likely tortured before being killed.)

Sokha's flashback, which occurred weekly, was of her husband's death. She was able to tolerate vividly recounting the flashback over two sessions, although recounting the event caused considerable distress. Each time she became highly distressed, we had her practice the trauma recall protocol, which involves a sequential enactment of acceptance, compassion, loving-kindness, multisensorial awareness, and applied stretching paired with a self-metaphor of flexibility. We learned that her flashback consisted of the following: She vividly recalled her husband coming to visit her and giving her some of the fish that he had stolen, and then she remembered going out at night to search for his body. She went to the area where people were killed and buried. If she had been caught there she would have been killed by Khmer Rouge soldiers. Sokha saw two mounds, freshly dug. From one, legs were sticking out. It looked like her husband's legs; she recognized the clothes. She dug where his head should have been, but he had been decapitated. She has this flashback several times a week, sometimes triggered by worry episodes.

Sokkha completed the treatment well. We taught her to do the anxiety, trauma, and anger protocols, which include multisensorial awareness, and taught her the loving-kindness meditation as well as the other acceptance and mindfulness techniques detailed above. We reminded her that performing mindfulness and loving-kindness was merit-making, and that she could share the merit from this with her husband who had died, helping him to have a good rebirth. Through the treatment, Sokha's survival guilt greatly improved, partly by allowing her to share the merit with the deceased. Her worry improved, and no longer triggered trauma recall. She stopped having flashbacks. She stopped having panic attacks, and had minimal somatic symptoms. At posttreatment, her PCL score had dropped 31 points and she was able to distance from negative affects as assessed by the Emotion Flexibility Scale.

Conclusion

In this article we discussed how acceptance and mindfulness techniques can be successfully used with minority and refugee populations, using examples from CA-CBT, and explained why these techniques should be efficacious (e.g., through the the discussion of the NNM and the typology of mindfulness states). The techniques increase psychological flexibility, decrease somatic distress, decrease rumination, serve as emotional regulation techniques, decrease the attentional bias to threat, and form part of a new adaptive processing mode characterized by psychological flexibility. We have used these acceptance and mindfulness techniques in several controlled trials with Latino and Southeast Asian refugee populations (Hinton, Hofmann, et al., 2011; Hinton et al., 2004, 2005). In this article we provided examples of treatment adaptations of acceptance and mindfulness for Latino and Southeast Asian patients, but these techniques can be adapted for other groups. For the culture in question one needs to determine the local terms to express the idea of distancing/decentering and multisensorial awareness, the best culture-based means to demonstrate mindfulness such as mindful sipping of a favored drink in that culture, cultural imagery that might be used to express the idea of loving-kindness, and local examples of flexibility primers.

We used the NNM of Affect to indicate the treatment targets of CA-CBT (what we also call culturally adapted flexibility-focused therapy, or CA-FT) and to illustrate how the treatment brings about improvement. We presented this model and showed how the treatment creates a nodal network centered on psychological flexibility. Therapeutic techniques to attain that goal include the following: teaching how to achieve muscle relaxation along with joint flexibility; pairing muscle relaxation/joint flexibility with self-statements of flexibility and flexibility-encoding self-imagery; practicing set-shifting within mindfulness modes, such as attending to one and then another sensory modality; practicing set-shifting from a certain dysphoric state to the mindfulness mind-set, such as from dysphoric affect to loving-kindness; practicing set-shifting during the anxiety, trauma, and anger protocols; cultivating the ability to distance from affect and mental content, which is a core aspect of psychological flexibility (Hinton, Hofmann, et al., 2009); and teaching to attend to various types of flexibility primers—the image of the leaf and that of the candle flame. We have argued that the flexibility nodal network forms an alternative processing mode to that of the threat mode and that the nodal network influences general top-down processing and becomes a new alternative default mode. (Other treatment developers also present evidence that acceptance and mindfulness promote psychological flexibility; see, e.g., Hayes, Stroshal & Wilson, 1999.)

We also presented the typology of mindfulness that guides our treatment. According to that typology, mindfulness is characterized by a certain object of attention. There are sensorial-sets, such as attending to the color of leaves or their movement or to one's breath; object-sets, such as observing the motion of a candle flame; verbal-sets, such as the self-repetition of a phrase such as "I will adapt flexibly like a leaf adjusts to each breeze"; image-sets, such as maintaining in mind a certain visualized image (e.g., the lotus-flower image or the Sacred Heart of Jesus); and body-sets, such as maintaining the body in a certain state: flexibility in the joints. (In some cases, two

attentional objects are simultaneously held in mind such as when stretching of the leg muscles is paired with self-statements of flexibility.) And according to that typology, mindfulness is characterized by a certain emotional attitude toward the attentional object, for example, an attitude of curiosity, distanced contemplation, or loving-kindness.

In terms of future directions, because increasing psychological flexibility (by techniques like acceptance and mindfulness) is hypothesized to be a key part of CA-CBT, a study should investigate whether psychological flexibility mediates improvement (Gratz & Roemer, 2004; Hinton, Hofmann, et al., 2009). Studies of CA-CBT have found a measure of emotion regulation capacity that taps that aspect of the construct most closely related to psychological flexibility, namely, the ability to distance from negative affect, to have large effect sizes across treatment (Hinton, Hofmann, et al., 2009, 2011), but those studies did not track the flexibility measure repeatedly across treatment. Dismantling studies should be conducted to gain further insight into whether acceptance and mindfulness add to the efficacy of CA-CBT (Borkovec & Miranda, 1999). Studies should be done to examine the efficacy of the treatment with groups other than Southeast Asians and Latinos. Future studies should assess the transdiagnostic efficacy of CA-CBT, given that psychological flexibility, a key target of the treatment, is found to be a key problem across diagnostic categories.

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Received: July 8 2010
Accepted: September 7 2011
Available online 17 October 2011