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## Clinical Case Study

M.W. is a 44-year-old divorced African American woman living in rural Georgia. She is unemployed due to epilepsy, and lives in an apartment in her parents' home. She has had two brain surgeries, which reduced but did not eliminate her seizure activity. As a result, she remains unable to drive due to seizures. In addition to seizures, she experiences severe headaches and cognitive problems. The cognitive problems were worsened by her surgeries.

M.W. entered one of our distance-delivered groups to address depression in people with epilepsy. Our program is based upon mindfulness-based cognitive therapy (MBCT) for depression, with modifications for distance delivery and use among people with chronic disease. In the first session, when discussing factors that influence

mood, M.W. noted that her brain surgeries had affected her word-finding and speech capabilities, which she found embarrassing and difficult. In addition, she reported that she has three sons and a daughter in their late teens and twenties who live with their father and rarely visit. She said she believes he has told the children untruths about her and this, too, affects her mood.

In the second session, when working on identifying thoughts, M.W. identified the thought, "I'm stupid," as one that comes to her mind when she misspeaks or finds the wrong word. She received assistance from the group, and worked on modifying her thought to, "Look how much I can do in spite of what I have been through."

In the third session, which focuses on coping and relaxing, she responded positively to the body scan and reported that it helped her headaches. During the walking meditation in the fourth session, M.W. reported that she enjoys walking and often walks but had never really paid attention to the movement from one foot to the other. She was interested in the fact that it felt odd to be on one foot, a sensation she had never noticed. In the fifth session, M.W. reported that she had continued doing the body scan and it:

...makes the stress go away in my brain. And that means it helps the seizures sometimes...The stress is gone and I've been sleeping better, too...And when you're sleeping better, you know, the whole day can be so much easier to deal with when you're well rested for it. My girl even said, 'Mom, you're actin' different. You're not fussin'.' My mom and dad have also...noticed that, you know, I'm standing up for myself now. I look at them and

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I say, 'Look, I'm not a baby. I can do this. It takes me a minute to say words, but I can do it. Even though I can't say it fast enough, I can do it. Watch!' and I show them what I can do.

Session 6, which focuses upon the impermanence of thoughts, occurred just before Thanksgiving. In this session, M.W. reported that she had called her daughter to see if she would visit M.W. Instead of reaching her daughter, M.W.'s ex-husband had gotten on the phone and yelled at M.W., which left her distressed and she ended up having a seizure. During the session's meditation on mindfulness of sounds she found herself relaxing. She shared that she has difficulty with cognitive problem-solving because she gets confused, but she was able to use the mindfulness practice of letting the thoughts go and relax. In the following session she reported,

It's hard on all holidays because I don't ever get to see my children—they don't call me. But I, uh, this has helped me out on how to just let things go and how to be in this moment right here. It's helped my depression a lot.

Later in the session, when providing guidance to another participant she said, "You gotta put your mind to it..."

In the final session, participants complete a Relapse Action Plan and express thanks. In her Relapse Action Plan, M.W. gave as a reason for keeping up the practice, "It really helps my stress and it helps my seizures stay under control." During the wrap-up, one of the other participants commented, "I'd also like to thank M.W. especially. Just seeing her blossom over the last 2 months has been a wonderful experience," after which another participant chimed in, "and an inspiration." M.W. responded with, "...it comes kinda slow, but it comes. Um, I've been real badly depressed. But now, even after Thanksgiving, I just learned...how to just let things go—don't let it bother you. And I have done really good."

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## The Problem of Distance Delivery

### Reducing Problems Through Distance Delivery

In many respects, distance delivery is not a problem, but rather, a solution to other problems. M.W. exemplifies many of the reasons people may need

distance delivery of MBCT. Co-morbid mental and physical health problems are common; research has found that those with mental illness have a higher risk of chronic disease [1]. Furthermore, individuals with chronic physical illness have higher rates of depression, anxiety, and other mental disorders. Like many people with co-morbid mental and physical health problems, it is difficult for M.W. to get out for treatment. Depression alone reduces the motivation to leave home, as do other chronic health problems that leave one feeling unwell. In addition, mobility and transportation difficulties are a fact of life for many people with orthopedic or neurological disorders, including epilepsy. There are specific transportation limitations that M.W. experiences as a result of having active seizures; in all 50 states, people with active seizures are not allowed to drive. M.W.'s transportation and access to care are still further limited by her rural location, as well as economic factors. Like many people with chronic health problems, and particularly people with epilepsy, M.W. is unemployed. In addition, epilepsy is a highly stigmatized disease [2], and having M.W. attend treatment services at a mental health facility could add to the stigma she experiences. Distance delivery of mental health programs like MBCT addresses many of these barriers.

### Problems Associated with Distance Delivery

On the other hand, there are also problems associated with the distance delivery of programs like MBCT. General issues include technology concerns, professional practice issues, confidentiality issues, and limitations upon interpersonal communication. In addition, there are issues associated with MBCT, and with co-morbid mental and physical health problems that make distance delivery challenging.

### Technology Concerns

Distance delivery requires access to some form of technology such as a telephone, smart phone, or computer with Internet access. This contributes to disparities in access since not all populations have access to telephones, let alone smart phones or computers and the Internet. Furthermore, some

may have access, but be paying by the minute for phone calls or data usage, which can severely limit their use of the technology. Those who do have Internet access may have computers with varied capabilities and processing speeds. This will influence the timing of activities within a session. Also, with Internet delivery, participants must have the computer literacy to be able to navigate the program's platform; therefore, an orientation to the platform and troubleshooting assistance may be necessary. In addition, privacy concerns necessitate being aware of the type of equipment and technology being used by each participant and discussing the limitations with group members. For example, cordless phones are less secure than landlines, and the standard version of Skype is not HIPAA compatible.

With the use of technology comes the potential for technological failures. The Internet can be unavailable or go down, power outages can occur, and phones can run out of battery life before a session is concluded. These failures of technology can influence the timing and flow of the session, creating a late start or an abrupt ending. This, in turn, can impact the effectiveness of the program.

Telephone delivery differs from Internet delivery in that visual materials must be eliminated or provided ahead of time in person or by electronic or paper mail. For Internet delivery, materials must be uploaded in advance, with proper accommodations (e.g., transcripts for audio presentations), and tested to ensure that all elements of the program function properly. In order to provide all the materials a participant will need for an 8-session MBCT program, it may also be necessary to mail some of the materials (e.g., marble, stone, or bead) to those receiving Internet delivery. For either mode of delivery, these steps require a significant degree of advance planning to reduce costs.

### **Professional Practice Issues**

Professional licensing laws and policies also influence distance delivery. Most professionals are licensed at the state level, and when providing treatment, the professional must be licensed in the state in which the participant is receiving the treatment. Thus, if a professional who is licensed to practice in New Hampshire delivers

treatment to a participant who is residing across the state line in Vermont or vacationing in Florida, the professional is practicing beyond the scope of his or her license. There are some exceptions, however, where specific conditions are in place, e.g., compacts between states to accept each other's licensure. It is important to know the laws of any state to which you are distance delivering treatment.

Another important consideration is distance delivery within a state when a participant is severely depressed or at risk of suicide. Before distance delivering treatment, a professional should be aware of the available emergency resources within any community to which he or she is delivering care. It is good practice to make contact with these resources ahead of time to let them know you will be delivering care into the area. This will avoid unnecessary delays should you need to contact them in the event of an emergency.

### **Distance Confidentiality Issues**

At the beginning of each session, it is important to determine the location at which the participant is taking part in the session, and whether or not there are other people present in that location. With distance technology, it is possible for a participant to take part in a session in a public location, or with friends or family members in the room. If there are any identifiable limits upon confidentiality, all participants should be made aware of that fact.

### **Limitations Upon Interpersonal Communication**

The degree to which distance delivery is limited with respect to interpersonal communication depends upon the technology being used. Email and discussion boards are solely dependent upon written communication. As a result, there are no voice inflections or tones and facial expressions to assist with interpreting the communication. Telecommunications provide vocal tone and inflection, but still lack facial expressions as an aid to interpreting the communication. Videoconferencing provides the greatest number of cues, allowing more accurate interpretation of comments and statements.

## Other Limitations

In addition to the distance delivery concerns raised above, there are some issues related to distance delivery of MBCT, in particular, since the exercises were developed for in-person delivery. There are also issues related to distance delivery to those with co-morbid mental disorders and physical disease, a population that is often in need of distance delivery. These modifications typically relate to the distribution of materials, working around visual cues, and attending to timing. They will be discussed in greater detail below, in the section on modifications.

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## Theoretical Rationale of MBCT

### For Distance Delivery

Cognitive behavioral therapy (CBT) is the most commonly reported distance-delivered form of psychotherapy [3, 4]. Early research found that computer-delivered CBT did not differ from therapist-delivered CBT and the effect was maintained at 2-month follow-up [5]. Furthermore, computerized CBT can improve evidence-based therapy access, while reducing the costs and lack of availability of face-to-face therapists [6]. It also has benefits for treating mood disorders among groups who may avoid face-to-face therapy due to stigma, but programs targeting these groups are rare [7]. Additional research has found no difference in the effect of face-to-face, video-delivered, or audio-delivered CBT upon process and outcome variables, and all modes of delivery were superior to an untreated control group [8]. Thus, CBT is a promising alternative when moving from face-to-face to distance delivery.

Considered part of the third wave of CBT, MBCT is particularly well-suited to distance delivery. One reason for this is that many of the exercises are derived from mindfulness-based stress reduction (MBSR) [9], which is taught as a course. As a result, the facilitator can easily lead many of the activities, and much of the participants' work is going on internally as they are led in these activities. This allows delivery via a

relatively basic level of technology. Furthermore, in terms of visual requirements, handouts are already created and available for MBCT and can be provided in hard copy or electronically ahead of time.

### For Co-morbid Mental and Physical Disease

MBCT is also well-suited for people with co-morbid mental and physical illness, since MBSR was designed to address stress in people with medical illness [10]. In addition to stress, people with chronic physical illness are at high risk of other mental disorders such as anxiety and depression [11]. In turn, these common mental disorders impact cognitive capabilities. Cognitive performance has been shown to have an inverse linear relationship with depression, while its relationship with anxiety is in the form of an inverted u; mild anxiety increases cognitive performance and severe anxiety impairs it [12, 13]. As already mentioned, an advantage of MBCT is that it may carry a lower cognitive burden than other CBT programs. In several of our studies of people with co-morbid depression and chronic disease, participants reported that the cognitive burden associated with challenging and changing thoughts through CBT was taxing. These participants found relief once we shifted toward MBCT. Thus, our experience suggests that "letting go" of a thought as taught in MBCT, although not simple, may be less cognitively demanding than holding and challenging a thought.

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## Modifications of MBCT

Although patterned after MBCT, our program, Project UPLIFT, is structured somewhat differently. In part, this is because it was first designed in response to a call for a home-based depression treatment program for people with epilepsy. We designed our program for delivery by telephone conference call or asynchronously via the Web. At the time we developed the program, MBCT

had not yet been studied as a first-line treatment program, but only as a program to prevent depression relapse after successful treatment. We were interested in using MBCT as a foundation for our program because cognitive difficulties are common among people with epilepsy and, as noted above, the cognitive burden associated with challenging and changing thoughts through CBT can be great. Having previously worked with mindfulness, we considered it possible that the mindfulness practice of “letting go” of a thought might prove to be a less cognitively demanding task. In the interest of ensuring adequate treatment, however, we began the eight-session Project UPLIFT program with an emphasis on CBT skills, which were already demonstrated to be effective for first-line treatment. In fact, UPLIFT is an acronym for Using Practice (referring to the practice of mindfulness) and Learning to Increase Favorable Thoughts (referring to CBT).

Table 2.1 presents a comparison of the eight sessions in our Project UPLIFT program with the eight sessions of MBCT. We devoted the first session to identifying thoughts, the second session to challenging and changing thoughts, and the third session to coping and relaxing. We introduced the Body Scan in the third session, as we shifted from CBT to MBCT. Sessions 4 through 7 were focused on different mindfulness techniques and the program wrapped up with relapse action planning.

**Table 2.1** Comparison of MBCT and UPLIFT sessions

MBCT session	UPLIFT sessions
1. Automatic pilot	1. Monitoring thoughts <sup>a</sup>
2. Dealing with barriers	2. Challenging and changing thoughts <sup>a</sup>
3. Mindfulness of the breath	3. Coping and relaxing
4. Staying present	4. Attention and mindfulness
5. Allowing/letting be	5. The present as a calm place
6. Thoughts are not facts	6. Thoughts as changeable and impermanent
7. How can I best take care of myself?	7. Pleasure and reinforcement <sup>a</sup>
8. Using what has been learned in the future	8. Relapse action plans

<sup>a</sup>Presentation of CBT skills

## Modifications for Distance Delivery

As noted previously, the modifications to MBCT that were required for distance delivery typically centered around the distribution of materials, working around visual cues, and the length of the exercises. For example, the raisin exercise presents an issue regarding distribution of materials. This exercise begins by having the facilitator go around the class to give each participant several “objects” (raisins) for use in the exercise. To conduct this exercise at a distance would require that we either mail each participant several raisins before the session in which the exercise took place, or ask that he or she purchase raisins for use in the session. In either case, participants need to have some raisins on hand for the session. Neither of these alternatives is satisfactory, especially when dealing with people with mobility, transportation, cognitive, or financial limitations. To address this issue, we modified the exercise to use gardening pebbles that looked similar to one another. These were sealed in a zip-lock bag and included in the notebooks that were mailed to the participants before the program began. They were instructed to have these notebooks with them during each session. We also moved this activity from the first session to a later session, to ensure that participants would be accustomed to having their materials with them.

The telephone version of Project UPLIFT necessitated that we work around visual material. For many activities, we provided handouts that were included in a notebook. Because of the visual limitation, however, we did not include activities like the presentation and discussion of the video *Healing from Within*.

The guided walking meditation also presented some challenges for distance delivery. The in-person version included in MBCT requires that the participant be able to hear the guided instructions while walking. This is easily done in a classroom setting, or by playing a digital audio file on the computer, but it becomes more difficult when using a telephone without a speaker option, especially when it is a landline with a short cord. We modified our instructions

to incorporate the possibility of holding a telephone and to allow pacing an area with a length of two to three strides.

In addition, the mindful walking and some of the other MBCT exercises also recommend continuing the exercise for 10–15 min. This duration of quiet in a distance-delivered session can lead to difficulties. While less problematic when meeting face-to-face, prolonged “dead air” during a videoconference or telephone call can cause some phones or computers to go into a “locked” or “hibernation” mode, or cause participants who are in a private location to become particularly drowsy or fall asleep. To address this issue, we shortened the duration of several activities and inserted periodic guiding statements by the facilitator. Participants were then encouraged to practice on their own for longer periods of time between sessions.

### **For Co-morbid Depression and Chronic Disease**

It is critical to understand the culture of the population to whom you are delivering MBCT, and whether or not specific MBCT activities are appropriate to this culture. Particular attention should be paid to the nature of the population’s disease. For example, raisins are dehydrated and, thus, more sugar-dense than their whole-grape counterparts. Consequently, consuming raisins may be unacceptable to people with diabetes. Similarly, for people with pulmonary diseases such as asthma, chronic obstructive pulmonary disease, or cystic fibrosis, a focus on the breath can be highly anxiety-provoking. In our work with cystic fibrosis, we found a focus on the skin to be acceptable. This point of focus was personal and ever-present, like the breath, but avoided a focus on disease-affected organ systems.

Also, as already noted, cognitive difficulties are associated with anxiety and depression and can be exacerbated in the presence of co-morbid chronic diseases, particularly those affecting the nervous system. Participants with these difficulties may need shortened, repetitive, and/or rephrased instructions. Especially during the early sessions,

before their mindfulness skills have been enhanced, when left without prompting, participants may lose track of the activity under way. This, too, argues against prolonged periods of silence in the course of distance delivery of MBCT to this population.

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## **Evidence of Using MBCT for Distance Delivery**

### **Review of Studies**

Most research on distance delivery of psychological interventions has focused on CBT [3, 4]. Internet-based CBT interventions are efficacious and effective and, as mentioned above, may be particularly useful for reaching individuals who cannot receive treatment through traditional methods [4, 14, 15]. Meta-analyses suggest these interventions are effective for depression and anxiety [15, 16], as well as for a number of other mental health conditions [16]. Similarly, interventions delivered by computer are as effective as face-to-face interventions while reducing therapist time [15, 16]. The mechanisms through which distance-delivered CBT interventions influence outcomes are similar to those of face-to-face CBT, which likely contributes to the equivalence between modes of delivery [16]. Telephone delivery appears to have similar results to face-to-face delivery for individuals with less severe disorders [17]. However, one study reported that at 6-month follow-up, treatment outcomes may be better for face-to-face delivery [18].

Distance-delivered interventions may be delivered to a wide variety of client groups and settings [4]. On the other hand, Web-based interventions may exclude subgroups with reduced Web access and literacy [3]. Participants who receive distance-delivered interventions report similar levels of satisfaction for computer and face-to-face treatments [15]. Receiving CBT over the computer offers convenience, provides participants the opportunity to proceed at their preferred pace, is low cost, and allows for privacy [15]. Data from eight studies that included cost-effective analyses suggested that Internet-delivered CBT is a cost-effective intervention



when compared with no treatment [16]. Similar conclusions about cost-effectiveness have been suggested for telephone delivery [17].

One challenge of distance delivery of CBT is the high dropout rate. A meta-analysis of 40 studies identified a dropout rate of 57 % [4]. However, interventions that are supported by therapists (28 %) or administrators (38 %), rather than no support (74 %), had lower dropout levels. Additionally, Internet-based CBT interventions that are supported by therapists or administrators are more effective in treating depression than self-directed interventions [4, 14].

Few studies have evaluated distance delivery of MBCT programs. In addition to Project UPLIFT [19, 20], two other distance delivery of MBCT interventions have been evaluated [21–23]. The first study combined elements of MBSR and MBCT through an 8-week, online, mindfulness course. The interactive sessions were led by two mindfulness instructors, and participants completed the course at their own pace [23]. Immediately after and at 1-month follow-up, participants reported reduced levels of stress, anxiety, and depression. The effect sizes were similar to other interventions, such as face-to-face mindfulness courses and CBT for stress. The authors evaluated the amount of meditation that participants reported and found that increased meditation was related to greater improvements in stress, anxiety, and depression [23].

The second study, Mindful Mood Balance, evaluated web-based delivery of a mindfulness intervention that incorporated the core elements of MBCT for delivery over the Web, to reduce residual depressive symptoms [21, 22]. The eight-session intervention started by focusing on the principles of mindfulness for the first four sessions, followed by CBT principles for the last four sessions. The sessions were guided by online group leaders and lasted for 60–90 min. Participants were assigned home practice at the end of each session. The intervention was designed to have individuals work through the material on their own time. They could interact with other participants by posting anonymous questions. Through exit interviews and qualitative methods, the authors concluded

that the benefits of the web-based format included flexibility and comfortability of doing the program from home [21]. Compared with an in-person group, the web-based format lacked interactivity between the group leaders and participants. Participants indicated that they would have preferred adding a community component, such as participating in a Web-based group, and having the opportunity to receive feedback from a professional therapist [21]. The effectiveness of the intervention was assessed through an open trial of 100 participants and participants were matched to 100 participants receiving usual depression care [22]. Participants in the Mindful Mood Balance reported significantly reduced depressive severity that was sustained over 6 months. These studies have concluded that delivering MBCT over the Internet is feasible and promising for preventing depression relapse [21, 22].

A search of PsychInfo, Medline, and Google Scholar suggests that Project UPLIFT is the only distance-delivered MBCT program that has been assessed through randomized, controlled trials [3, 24]. To date, we have conducted two randomized, controlled trials of the program. The Centers for Disease Control and Prevention (CDC) funded the first study, which included development and initial testing of Project UPLIFT as a home-based depression treatment program for people with epilepsy [20, 25]. As previously mentioned, we designed the program for delivery by telephone conference call, or asynchronously via the Web. Using a crossover design, forty participants with epilepsy from Georgia were randomly assigned to one of four strata: Project UPLIFT via telephone, Project UPLIFT via Web, treatment-as-usual (TAU) followed by Project UPLIFT by telephone, or TAU followed by Project UPLIFT by Web. All groups were assessed at baseline, after intervening in the UPLIFT conditions but not in the TAU conditions (~8–12 weeks), and after intervening in the TAU conditions (~16–20 weeks). At the interim assessment (i.e., 8–12 weeks), knowledge and skills had increased significantly more and depressive symptoms had decreased significantly more in the UPLIFT

condition than in TAU. Telephone and Web groups did not differ. The decrease in depressive symptoms persisted for the additional 8 weeks of follow-up. On the basis of this study, CDC listed Project UPLIFT among evidence-based epilepsy self-management programs and the program was highlighted in the 2012 Institute of Medicine (IOM) report entitled *Epilepsy Across the Spectrum* [26].

The second, larger randomized, controlled trial of Project UPLIFT was funded by the National Institute for Minority Health and Health Disparities [NIMHD; 19]. This study was designed to determine whether Project UPLIFT could be used to *prevent*, rather than *treat*, depression among people with epilepsy. This study included 128 participants with epilepsy and mild/moderate depressive symptoms from Georgia, Michigan, Texas, and Washington. The design matched that of the first study with one exception: participants were randomized to UPLIFT or TAU and, within the conditions, they were allowed to self-select their mode of delivery since the modes had been shown not to differ in the prior study. About two-thirds of the participants did not have a preference for mode of delivery. The incidence of onset of major depressive disorder was significantly lower in the UPLIFT condition (0.0%) than in the TAU condition (10.7%). As in the first study, the program significantly increased knowledge and skills and reduced depressive symptoms when compared with TAU. In addition, the program significantly increased satisfaction with life and reduced reported number of seizures when compared with TAU [19].

In addition to the trials above, we have also completed a pilot study of Project UPLIFT for adults with cystic fibrosis. This study demonstrated that the program reduced both symptoms of depression and symptoms of anxiety (publication in preparation). Two other pilot studies of Project UPLIFT are currently in progress: one to reduce stress in women with heart disease and one for caregivers of people with epilepsy. At present, studies of the cultural appropriateness of our epilepsy version of UPLIFT for African Americans and for Hispanics are also in progress, funded by the CDC.

## Mechanisms of Change

As a part of the first study of Project UPLIFT, we developed an instrument to assess knowledge and skills. The knowledge instrument assessed knowledge about depression, its relationship to thoughts, and factors that can influence mood. The skills we assessed were directly linked to those included in our program and included: *cognitive skills* such as monitoring thoughts, remembering that thoughts are not facts, and letting thoughts pass; *mindful awareness skills* such as paying attention during everyday activities, focusing on the present moment, and attending to the breath; and *behavioral skills* such as practicing seeing and hearing meditations, performing pleasurable activities, and activating behavior. Using structural equation modeling, we assessed the path from participation in our program, to score on the knowledge and skills assessment, to score on a standardized depression assessment. In doing so, we found that participation in our program influenced change in depression score indirectly, through a change in knowledge and skills [19]. Thus, the change in depression resulting from our distance-delivered program was a result of a change in the knowledge and skills of our participants.

It appears that mindfulness, in particular, may have been an important element of our program. In addition to reducing their depression, Project UPLIFT also produced a significant increase in participants' satisfaction with life [19]; the satisfaction of those receiving our program increased significantly compared to those receiving TAU. This is particularly noteworthy because, during the course of the study, the physical health of those participating in Project UPLIFT did not change and, if anything, declined. The physical health of the TAU group did not change, either. Thus, our finding that the life satisfaction increased for those who took part in Project UPLIFT is consistent with the premises of mindfulness. Through attention, we can see the ways in which we attach thoughts to suffering that exacerbate it; by letting go of these thoughts, we reduce suffering [9].



## **Practical Considerations of MBCT for Distance Delivery**

### **Participant Selection and Number**

There are some participant selection criteria that are important considerations when using distance delivery. First and foremost, we want to ensure the safety of participants. Thus, distance delivery should not be considered for those with active suicidal ideation or a suicide plan, unless there are no in-person services available locally. In the case where no local services are available, the facilitator must ensure that back-up safety services are available in close proximity to the participant, and that visual contact with the participant is part of the delivery in order to monitor safety and affect. For distance delivery, we also want to ensure that participants are not so depressed that they cannot actively take part in the group activities. We found distance delivery to be effective for people who scored in the severe range of depression on baseline screening tests, but the degree of effectiveness of the program appeared to decline somewhat at very high levels of depression.

Our program was co-facilitated by a trainee and a person with the same chronic disease as the participants and our groups were restricted to seven or fewer participants. With two facilitators, seven participants were almost too many for everyone to participate in the activities of the telephone groups; four to six appeared to be the ideal size to allow people sufficient time to participate. In contrast, seven participants was too small a number for our asynchronous Web-based groups. Having groups in the size range of 14–15 would have reduced the time participants had to wait until someone other than a facilitator responded to their posts. The longer participants had to wait for responses, the more disappointed they became.

### **Facilitator Training**

Project UPLIFT is a manualized program. When we train facilitators, we provide them with facilitator manuals, participant manuals, and CDs

containing the recordings of our meditations and exercises. The telephone facilitator's manual includes a script that can be followed, and the same script is provided through the text and recordings in the Web version. The part of the manual that cannot be scripted is the response to participant discussion. During our training, each trainee is responsible for co-facilitating at least one UPLIFT session and is provided with feedback regarding his or her responses.

An important aspect of the training of our facilitators and co-facilitators is in mindfulness. It is important that they understand what mindfulness is and is not, and how to respond to participants in such a way as to teach them this distinction, as well. Without care in this area, mindfulness can be misinterpreted as "positive thinking" or "thinking a happy thought," rather than becoming aware of our thinking and of our ability to remove our attention from thoughts, or to let them go. While the professionals-in-training who facilitated for us were selected for their prior exposure to the study of mindfulness, mindfulness training was an especially important component of the training of our co-facilitators, i.e., the peers with the chronic disease being addressed. As Project UPLIFT has been disseminated to professionals in additional states, we have also had to ensure this understanding of mindfulness among the professionals, as well.

For both facilitators, it has also been important to provide training in distance delivery. This includes concerns regarding safety. For example, it was important to obtain the name of a designated contact person for each person with epilepsy in our phone groups, in case someone experienced a seizure during a conference call. If this were to happen, one of the facilitators would drop off the conference call to make contact with the designated person while the other facilitator continued on the call. In addition to safety, training about distance delivery included how to encourage participation and group cohesion. This was more difficult for asynchronous Web groups; in these, the facilitators had to have a strong presence throughout the discussion and assist the participants in seeing the commonality among their comments. For the phone groups, the skills

required of the facilitator included drawing similar parallels, but also assisting people who got spoken over, since there are no visual cues about who is speaking via telephone. Moreover, training in the timing of pauses during meditations and other activities has been key. As previously discussed, long lapses can be problematic with distance delivery.

The third important area of training is with regard to the disease being addressed. Some disease-specific concerns affect both modes of delivery, Web and telephone. Since some of the particular diseases may have their particular mental health effects, it is important that the facilitators have a sense of these issues, to reduce the number of surprises during a session. There are additional disease-related concerns that seem to be more important for the training of phone facilitators who are working in “real time.” For example, in working with people with epilepsy, it was important that facilitators understand some of the cognitive struggles the participants might encounter. It was also important that they know that an absence seizure can take the form of an interruption or pause as a person is speaking. With cystic fibrosis, it was important that the facilitators be aware of the participants’ need for coughing, although it might be disruptive during some exercises. The co-facilitators were very helpful in contributing to this portion of the training.

## Home Practice

We did not stress home practice in our groups because the feedback from our focus groups was that it felt daunting. We made assignments from session to session, for what we termed “on-your-own” practice. We also asked people to report on their past week’s on-your-own practice during our check-ins, but we did not track the amount of practice or put other emphasis on it. Instead, we encouraged people in the small ways they could practice, and emphasized that any practice is better than none. The longest practice we suggested during our program was 20 min. We also provided guided CDs to assist participants between sessions.

## Web-Specific Issues

There are some particular practical issues related to delivery via the Web. In the section on technology concerns, we mentioned that different types of equipment have differing capabilities. This may mean that a page does not display as it was designed, or that some participants are not seeing what others are seeing. It is important to pilot test your Websites with a wide range of participants like those you wish to reach. One of the biggest practical issues for Web-based delivery is the significant cost of developing an interactive Website. Frequently, by the time the materials are developed, uploaded, and beta tested, technology has changed sufficiently to necessitate a new version. Furthermore, it can be difficult to find a permanent home for a site, and the resources to keep it up to date. A feasible solution may be to employ Web-based videoconference delivery, with a simple site from which participants can download program materials. Videoconferencing may help to overcome some of the drawbacks of asynchronous Web delivery by enabling greater interaction among the participants.

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## Summary/Conclusions

Overall, distance-delivered MBCT provides the opportunity to bring this evidence-based form of therapy to people whose physical and/or mental health would not allow them to attend it in person. Distance delivery can overcome barriers related to distance, transportation, mobility, high risk of infection, and stigma. It can also reduce the costs associated with delivery of MBCT. For many of these reasons, distance delivery offers particular benefits to those with co-morbid chronic disease.

Evidence has found distance-delivered MBCT to be effective in reducing symptoms of depression and anxiety, preventing relapse, and improving physical symptoms and satisfaction with life [19, 22]. Furthermore, the qualitative responses from participants have been positive across authors and studies, including words like “func-

tional,” “practical,” and “flexible” [21, 25]. In the words of one Project UPLIFT participant, “Thank you for helping me because I have been depressed and now I can cope” [25].

While these results are promising, offering the potential to provide service to populations that might otherwise be neglected, there are a variety of issues to be considered before undertaking distance delivery. While interpersonal communication can be difficult under the best of circumstances, it is further complicated with distance delivery in the absence of visual and auditory cues. Moreover, there are technology-related concerns related to access, cost, and privacy, as well as failure of the technology. There are also professional practice issues related to state-level licensing, client safety at a distance, and the need for back-up services in areas from which one is distant. In addition, there are confidentiality issues related to both the technology in use and the inability to determine from a distance exactly who is present. These are important issues to tackle as we move forward with the promising practice of providing MBCT at a distance.

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