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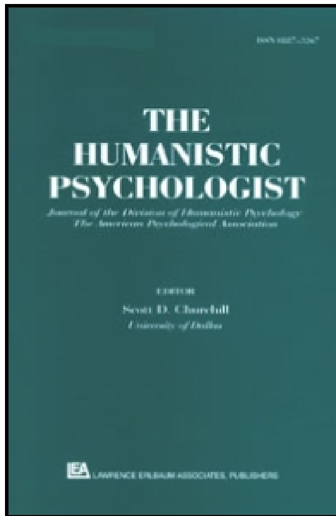

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Adaptation of Mindfulness-Based Stress Reduction Program for Addiction Relapse Prevention

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Adaptation of Mindfulness-Based Stress Reduction Program for Addiction Relapse Prevention

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The Mindfulness-Based Stress Reduction program (MBSR) was offered in a community-based addiction treatment setting to provide skills training for relapse prevention. The population consisted of highly marginalized and poor African American and Latina women with histories of trauma. Through an iterative feedback process, the more systematized MBSR practices were adapted to meet the specific needs of this population. Adaptations focused on the role of stress in relapse prevention and addressed the following common sequelae of addiction and trauma—shortened attention span and sensitivity of particular body areas to revived traumatic memories—as well as low literacy levels of the population served. With appropriate adaptations, MBSR can be implemented successfully for relapse prevention in early recovery. Client ratings indicated high levels of acceptability and satisfaction.

BACKGROUND

Researchers and treatment providers in the field of addictions have become increasingly aware of the strong relationship between substance abuse and

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stress. It has been shown that stress induces some individuals to use drugs (Dawes et al., 2000; Kosten, Rounsaville, & Kleber, 1986; Sinha, Fuse, Aubin, & O'Malley, 2000). In fact, substance abuse can be viewed as a maladaptive response to stress, discomfort, and emotional pain. In treatment, stress is one of the strongest predictors of drug craving, relapse, and continued drug use (Brewer, Catalano, Haggerty, Gainey, & Fleming, 1998; Dawes et al., 2000; Goeders, 2003; Kosten et al., 1986; Kreek & Koob, 1998; Leiden University, 2007; National Institute on Drug Abuse, 2002; Sinha et al., 2000). As a group, women with addictions face many stressors in early treatment, and most have high levels of depression, anxiety, and posttraumatic stress disorder (Amaro et al., 2005; Brady, Kileen, Saladen, Dansky, & Becker, 1994; Hien, Cohen, & Campbell, 2005; Stevens, Murphy, & McKnight, 2003; Weaver, Turner, & O'Dell, 2000).

In 2002, the Boston Consortium of Services for Families in Recovery (BCSFR), a collaborative of residential and outpatient substance abuse treatment programs for women, began exploring the possibility of using mindfulness-based practices as part of a new initiative aimed at developing positive coping skills and life habits for self-care in dealing with stress and preventing relapse. The Mindfulness-Based Stress Reduction (MBSR) Program at the Center for Mindfulness in Medicine, Healthcare, and Society (CFM) in Worcester was selected as the vehicle for teaching women how to do this.

In 2003, the BCSFR implemented the Mother's Hope, Mind, and Spirit Project, a 5-year service intervention and evaluation study to improve treatment outcomes and reduce HIV/AIDS risk behaviors among Latina and African American women in recovery from addiction. The BCSFR and the CFM collaborated in implementing the MBSR program with clients from four residential and one outpatient treatment program serving largely poor, inner-city African American and Latina women.

It was thought that improving ability to cope with and respond to stress would be an important skill in relapse prevention, and could even reduce the risk of HIV infection. From the outset, it was apparent to the program managers and developers that adaptations would be needed. For example, some community-based substance abuse treatment providers were hesitant to use meditation and yoga with people in early recovery (less than 6 months). Some of their concerns included the following:

1. The stillness required to do seated meditation may simply be impossible, because the body in the early stages of recovery is often still quite hyperactive;
2. Drugs prescribed to treat addiction, along with the very busy schedules in most treatment facilities, tend to induce sleep and/or attentiveness gaps any time the person closes the eyes even for a few moments;

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3. Sustained attention placed on previously abused parts of the body during the body scan can cause memories leading to retraumatization;
4. The loud mental noise present in early recovery can be amplified, instead of bringing serenity; and
5. Attention to bodily sensations might exacerbate the cravings and urges present immediately after detoxification treatment.

Nevertheless, the program developers believed that there was a way for people in early recovery to benefit from a well-designed stress-reduction program if mechanisms were put in place to minimize the risks.

BRIEF DESCRIPTION OF MBSR

At the CFM, the MBSR program consists of an 8-week course, offered weekly for 2.5 hr per class, with approximately 25–35 participants per class. Participants are trained in mindfulness meditation of 45 min duration, and carry out assigned exercises from a practice manual. They are also encouraged to bring mindfulness into their daily activities as best they can. Attendance at a 7-hr silent retreat in the sixth week of the session is part of the course. The core beliefs underpinning the program are the interconnectedness and wholeness inherent in human life, the understanding that, regardless of what is happening, there is always more right than wrong in any person's life, and the recognition of the boundless inner resources available at all times that could be used for healing (Kabat-Zinn, 1994, 2005; Santorelli, 1999).

The four main formal experiential practices of the MBSR program and the rationale underlying these practices are described in the following (Kabat-Zinn, 1990; Santorelli, 1999).

1. The Body Scan

The body scan exercise is used to reestablish conscious contact with the body. It consists of a systematic scanning of the different parts of the body to actually *feel* each region of focus, mentally exploring inner and outer sensations with curiosity and without judgment. This technique is effective for developing both concentration and flexibility of attention, and for training the mind to come back to the here-and-now through moment-to-moment awareness. Transformation and change occur by learning to be open and accepting of whatever is present—good, bad, or neutral; to be intentional in the way we pay attention; to skillfully relate to difficulties, distractions, and the wanderings of the mind, and to be more compassionate and befriending of whatever arises.

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2. Seated Meditation

In this exercise, participants are invited to consciously adopt an alert, dignified, and relaxed posture, and to bring the mind to the present moment by selecting an object of focus such as the breath, bodily sensations, sounds, emotions, or thoughts. Once participants are able to sustain their attention on the object for longer periods, they are invited to open their field of awareness to witness anything that arises inwardly. This is known as choiceless awareness. After a period of systematic practice, participants begin to observe the impermanence of all thoughts. People start to notice that they can witness their own thoughts objectively without having to act on them. This is particularly helpful in working with impulse control when a craving arises. It is also possible to realize that the part observing is not in pain, confused, or damaged. This silent witnessing allows participants to see unanticipated possibilities in managing adversity. Transformation and change occur by learning to anchor awareness in the present moment and to live life in a curious interested way, instead of the usual "I like" or "I don't like" mode.

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3. Mindful Hatha Yoga

Yoga means union of body and mind. The exercises are performed in a slow and mindful manner, keeping the mind focused on the parts of the body that are engaged in a particular exercise, and allowing the muscles that are not engaged to rest and relax. The aim of the exercise is to *notice the changing sensations,* not necessarily to do the exercise perfectly. Self-care is a central and repeated theme during the yoga exercises. Participants are encouraged to take responsibility for listening to the body and never to force the body to go beyond its limits. This attentive movement allows a discovery of the body's ability to gradually surpass initial limits of stamina and flexibility. Awareness of attempts to anesthetize feelings of anxiety and distress by overeating, overworking, drinking, and using drugs also increases. Transformation and change occur by learning to be aware of bodily experience and sensation and to see more clearly the extra "layer" added by feelings and thoughts of likes and dislikes.

4. Walking Meditation

This practice consists of focusing one's attention on the actual experience of walking while walking. Generally, the instruction is to start very slowly, focusing attention on sensations on the feet, the legs, and finally the entire body. This can be combined with respiration or the awareness of breathing. Attention is given to the intrusion of any thoughts or emotions and

returning attention to the bare sensations of movement. Transformation and change occur by using walking as a connection or bridge between periods of practice and daily life.

DEVELOPMENT OF MBRP

Initially, the overarching guideline was to maintain a high fidelity to the original MBSR program. The MBSR curriculum had already been adapted for use at an inner-city clinic in Worcester (Kabat-Zinn, Mumsford, Levi-Alvares, Santorelli, & Skillings, 1993).

Yet it became clear even during the preimplementation period that these moderate adaptations would be insufficient. To educate staff about the role of mindfulness-based practices in stress reduction, the Mother's Hope, Mind, and Spirit staff was invited to participate in the 8-week MBSR intervention concurrently with implementing the first MBSR cycle with clients. Staff feedback on the sessions was mixed, but sufficiently negative to alert us to low buy-in among staff.

The main dissatisfaction with the MBSR program related, in part, to the apparent lack of direct relevance to issues of addiction and relapse, early recovery, trauma, mental illness, and literacy in the client population. With this information in mind, we began to reconceptualize the program, giving it a relapse prevention focus while continuing to gather information on the efficacy of our changes for addressing client needs. Thus, the goal of the initial implementation of the first few cycles was to learn about MBSR's feasibility, acceptability, and fit for the clinical populations and treatment settings, as well as helping the clients as much as possible. In the cycles that followed, adaptations were introduced while continually assessing and adapting them further.

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THE MBRP-W PROJECT

The most fundamental change was the reshaping and reorientation of MBSR into a mindfulness-based relapse prevention program whose central focus is the role of stress in relapse. Particular effort was made to take into account the women's history of trauma and their daily experiences of stress and then apply mindfulness-based skills to assist them in relapse prevention and early recovery. The goals of the adapted program (from hereon referred to as MBRP-W or Moment-by-Moment in Women's Recovery: A Mindfulness-Based Approach to Relapse Prevention) were to refine self-regulatory skills; increase relaxation and awareness skills; decrease

symptoms of stress and stress reactivity; and increase an overall sense of well-being to prevent relapse. These skills would be learned in part by becoming aware of the craving, observing it with a certain spaciousness and *affectionate curiosity* instead of reacting in habitual ways. The program also aimed to foster the recognition of early warning signs of relapse, teaching skills to come back to present, moment-by-moment awareness whenever the mind started to dwell in the past or future and teaching how to access inner resources through the acquisition of mindfulness skills. Within this context, the role of stress in the curriculum was reoriented to relate specifically to its impact on substance use, cravings, and relapse and its prevention among this population of women with a high rate of co-occurring disorders.

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Participants

The women attending the program had very distinct characteristics and needs. Most were very bright, creative, vivacious individuals whose lives had been severely damaged due to trauma, mental illness, and substance abuse. In most cases, they had lost the support of their families. Most women had not graduated from high school, had been homeless or imprisoned at least once, and had lost custody of their children. The fact that they had entered treatment was a huge accomplishment. After living with very little structure and few rules, participants found it very challenging to have to abide by the rules of residential treatment or outpatient substance abuse treatment, regardless of how warm and supportive their new surroundings were. Furthermore, living together with a large group of other women who were also in recovery, along with their children, and dealing with their children's interactions with other adults and children, all combined to test their resources to the limit.

In some instances, the courts had mandated the women into treatment. Most of the participants were concerned about regaining custody of their children and were motivated by that desire to be in treatment. A majority had a history of sexual and/or physical abuse and mental illness.

Design and Implementation of MBRP-W

Two MBRP-W classes per week–one in English and one in Spanish—were held for 9 weeks, during a period of 4 years. The two classes were back-to-back with a half-hour break in between. From May 2003 to May 2007, 262 women enrolled in the classes and 61% completed the intervention. Of those who started the intervention, 32 (12%) did not attend enough sessions to be considered completers; this was largely due to appointments

that conflicted with the scheduled groups. And 58 (22%) did not complete because they dropped out of the treatment programs.

Each class was divided into five segments comprising (a) a welcome meditation, (b) setting out the objectives of the class, (c) a brief didactic psychoeducational presentation based on each theme of the class, (d) experiential and formal practices, and (e) readings of recovery literature and poems by the participants and setting assignments for the next class.

Some of the class themes included learning to prevent relapse through mindfulness, responding creatively and developing positive coping mechanisms during recovery, and understanding how perceptions could compromise treatment and lead to relapse. Other themes were associated with learning how to use mindfulness skills to relate differently to difficult feelings such as anxiety, panic attacks, fear, guilt, and shame; to improve communication with oneself and others; and to manage anger, self-violence, and violence to others.

Outcomes of the program were evaluated with the use of structured interviews with individual participants conducted by the research staff at the initial phase, and at 6- and 12-month intervals. A separate paper is being prepared with those findings, which are not reported here. A participant-satisfaction form was collected by the research team at the last MBRP-W group session. In addition, instructors provided written observations on the specifics of how the groups had been implemented and about their perception of participants' responses.

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CHALLENGES AND EVOLUTION OF THE MBRP-W PROGRAM

Emergence of Challenges

During the first cycle, there were two classes—one for the clients and one for staff—to provide them with tools to cope effectively in a highly stressful environment and to familiarize them with the overall intervention. Attendance at both classes was poor, partly because there were many conflicting appointments with doctors and courts, for both clients and staff.

Other challenges related to the content and approach of the standard MBSR program. Initial adaptations to the curriculum were minor, primarily affecting the sequence and length of the exercises. However, serious concerns remained about the vast array of negative responses from participants. It had been hoped that most participants would come to derive some satisfaction as the course progressed, but often the opposite occurred. Many women expressed that they "just hated" coming to class. Anxiety and agitation often increased as the class progressed. For clients taking sedative medication for

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withdrawal, mindfulness practice increased drowsiness resulting in deep sleep during the class. Other participants were clearly upset by just being in the classroom. Participants had a strong negative association with the assigned homework of daily practice and no one did it. Almost universally, women resisted the meditations focused on awareness of breath as they found it anxiety provoking to be still and to connect with their bodies. Most women were unable to see the relevance of meditation to their recovery. Yoga was the only thing that almost everyone participated in and enjoyed.

It was apparent that the groups needed more structure. Attention span was relatively short, so the activities needed to be shorter and more varied to engage participants and facilitate learning. Participants needed more information about how stress reduction would help with relapse prevention and recovery. They needed to see the information on a flipchart, as well as to hear it to remember. More stimulation through movement was also required to meet the women where they were.

Evolution of MPRP-W

After the fifth cycle, a new curriculum was developed, taking into consideration the input of participants and staff. The revised program focused on specific stressors faced by women in the program. A more didactic approach was followed to teach clients about the relationship of stress to relapse and how mindfulness could be useful as a relapse prevention tool. Subsequently, there were significant positive changes in attendance, attitudes about the class, attention during the class, and written evaluations at the end of the intervention.

ADAPTATIONS TO THE MBSR-W PROGRAM

In this section, we discuss how the MBSR program was adapted for the MBSR-W project. The four practices employed in the traditional MBSR classes were used but the length, sequence, and ways of presenting them varied substantially. Additionally, the topics, examples, and exercises for applying mindfulness practices now relate more directly to specific stressors experienced by the participants in their recovery and to relapse risks.

The body scan has been shortened and changed drastically from the way it is presented in the MBSR program to reduce potential interference from trauma experiences. It is performed in a sitting or standing position, nonsequentially, and interspersed with yoga movements. The eyes are open to promote a sense of safety among women with a history of trauma. The scan begins with the feet and legs, followed by yoga for the feet and legs. This

process is repeated for all the different parts of the body. Instead of a detailed scan of the pelvic area and breasts, the revised body scan focuses on the abdominal area and the front of the chest. At times, the movement takes place first followed by the scanning.

Sometimes the body scan is preceded by very fast walking meditation, running, or jumping in place, decreasing the movement gradually and ending in the mountain pose. The goal is to meet the participants where they are, matching the movement to the agitation and pent-up energy they would exhibit, then to progressively slow down this practice. The importance of the 2-min body scan throughout the day as one of the main tools of mindfulness in daily life was emphasized and encouraged among the participants.

Seated guided meditation starts with awareness of sounds because participants are able to connect more easily with sounds than with body sensations or the breath. After sounds comes awareness of body sensations—primarily accessed through points of contact—and finally the breath. Initially, group members generally found it extremely difficult to focus on the breath. Participants often experienced it as boring and abstract. At times, it also triggered flashbacks for some of the women with trauma histories that included choking or a hand being held over their mouths. The adaptation was to shorten the guided meditations, performing them with eyes open if desired, and placing the hands on the abdomen to follow the rhythmic expanding and contracting of the breath.

Walking meditation often starts with fast-paced walking, not in a line or circle, but randomly, progressively decreasing to slow walking. Most of the participants were receptive to this practice if the walking was not *too* slow.

Yoga is the basic staple of the MBRP-W classes, and is performed in any of the segments if the mood of the participants is too lethargic or too distracted. The exercises are much the same as in a MBSR class. One exception is that there are no pelvic rocking exercises, because those triggered symptoms for the women who had been sexually abused.

At the core of the MBRP-W is the informal practice of mindfulness in everyday living. Participants are encouraged to frequently take moments to stop, to breathe, and to bring awareness to the body, the five senses, the breath, or whatever activity is being performed. The *triangle of awareness* (thoughts, emotions, and body sensations) is repeatedly emphasized. A drawing of a triangle with thoughts, feelings/emotions, and body sensations represented in a corresponding apex was presented in every class and created a visual tool that the women remembered easily.

The triangle of awareness is a framework for observing more clearly how the mind operates. By separating the emotions, bodily sensations, and thoughts, and paying attention to each of these individually in a systematic, moment-to-moment, non-judgmental way, participants begin to experience

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the freedom of choosing how to respond, instead of reacting in automatic habitual ways.

Most participants found this visual exercise helpful, and one participant explained how it helped her to deal with her feelings:

> Last week on Tuesday I heard that my best friend had died. By Friday I was so depressed! All I wanted was to go to bed, cover my head with a blanket, and disappear from the world. I walked to my bed, got inside the blankets, and then remembered that you had said that thoughts are just like clouds, that they come and go, and that I could just watch them and say "next." You said that I did not have to believe or behave the way I was thinking. So I got out of bed and the whole weekend kept saying "next" when a thought of going to bed or leaving the program was there. This is new. For years I have been going to bed and staying in bed for days when I feel horrible. This stuff works!

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In comparison with the MBSR classes, there needed to be much more flexibility with the curriculum in each class. Early warning signs of possible relapse had to be addressed. Even though the full curriculum may not be implemented in a particular class, ideally the instructor would still be able to teach mindfulness, underscoring what is unfolding with mindfulness tools, and also by embodying total presence, centeredness, and curiosity in responding to critical and immediate issues introduced to participants.

Additionally, the following considerations were taken into account in the formulation of adaptations:

1. If a participant relapses and/or drops out of the program, there is a strong impact on the group members. Instructors must cope with their own and the group's grief reaction and help the remaining participants to adjust to the changed dynamics.
2. Instead of a 7-hr retreat with participants bringing their own food, there is a 4-hr retreat with food provided. A body scan while lying on the floor for up to 40 min is part of the retreat.
3. Tapes/CD's with meditation of 5–7 or 15 min duration were available to support a daily practice.
4. Therapists were available after group sessions to help participants deal with feelings and reactions that came up during the class.
5. Group dynamics in the residence strongly influence the dynamics in MBRP-W sessions, and instructors were made aware that these feelings need to be addressed during class.
6. Especially in situations where the MBRP-W instructor is not a staff member at the treatment facility, the instructor's authority may be challenged by participants. Having a staff person from the facility assisting

or as a coinstructor reduced client resistance and helped to set clear expectations of behaviors and boundaries for participants.

7. Participants rarely completed homework, although they received much encouragement, so the emphasis on homework was decreased to avoid provoking shame and guilt. In addition, we found that use of the word *homework* brought back negative experiences in school and anticipated feelings of failure. In response, *homework* was changed to *daily practices*. A typical comment from the participants is: "I like what we are doing here but I hate the homework. I just don't like homework. Look, I did not graduate from high school because I refused to do homework."

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OUTCOMES AND PARTICIPANT FEEDBACK

Participant ratings on various dimensions of our mindfulness-based relapse program for women in addictions recovery were obtained from 161 women who completed the program. The majority of women who did not complete the program were ones who dropped out of substance abuse treatment (57% of 101 women who did not complete). The remainder who did not complete the program were not able to attend enough sessions to be considered completers—this was most often due to conflicting appointments.

Participant ratings on 13 items were compared between those of the first year of implementation (prior to the adaptation to a relapse prevention approach) and those in the fourth year of implementation (after the adaptation to relapse prevention approach). All but two items showed statistically significant improvements from 2003, the first year of implementation, to 2006, the next to last year of implementation for which data were collected. Overall, the results indicate high rates of satisfaction and acceptability, especially with the adapted model.

Participant responses to several open-ended items provide additional insight as to what women liked most about the group, what they liked least about the group and what they would tell other women in recovery about this group. Many of the responses were written in Spanish and have been translated into English here.

Common responses to what women liked most about the group included learning about specific practices taught in the sessions such as "awareness of the breath," "learning to be mindful about the breath," and learning the body scan, meditation, and yoga exercises. Participants also responded with observations about what they had gained as a result of the group such as "I learned to know myself," "learning how to release stress," "I learned to concentrate and get in touch with my inner self," "being able to meditate brings

me closer to my higher power," and "learning to be mindful and live in the present moment."

To the open-ended question about what women liked least about the group, most who responded to this item said "nothing." Others noted that they liked least "sitting still for long periods;" a few felt that "it was too long," yet others felt that "it could have been longer."

The open-ended item that received the most responses and the most specific observations was the question that asked participants about what they would tell other women in recovery about the group. Typical responses to this item were: "I'll tell them that I learned to sit with myself and notice my body signals and my mind signals. How these two worked out differently at times or they can work together at times." "How to identify your addiction when it comes to you, and there are a lot of ways (feelings) that the addiction comes to you and mindfulness teaches you how to deal with those feelings—that they are only feelings that come and go." "To be mindful helps you to deal with your feelings and you don't have to stay stuck. Being compassionate with yourself is very important."

The final open-ended item invited women to share any other comments and also resulted in many responses. Most of these were directed to the group instructors and expressed gratitude for their dedication, their calm approach, and the teachings they had shared. Several typical examples are "Thank you both for such an experience. And I will use this meditation for the rest of my life. I LOVE YOU BOTH!!!" "May God bless the instructors." Some of the women's comments underscored their interest in continuing to participate in groups: "I'd like to take the class again so I can be more patient with myself." "I really enjoyed it." and "You need to continue funding this program so more women can heal properly."

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CONCLUSIONS

In this article, we described our experiences in implementing the MBRP-W program with women in treatment for addictions recovery within community-based programs serving primarily African American and Latina women in residential and outpatient modalities. We have not focused on the outcome evaluation findings, which will be reported separately. Rather, we wanted to describe the process of implementation and adaptation; share lessons learned regarding acceptability, fit, and feasibility; and give a snapshot of some of the positive results that the participants reported.

Our experiences lead us to conclude that the mindfulness-based stress reduction approaches, such as the one described here, are feasible within the setting described. However, we found that adaptations were needed to

help women see the program as relevant to their recovery in terms of relating the skills learned to the stress they experience and in applying the practices learned to their everyday life.

A major lesson learned was the importance of reframing the approach to focus on relapse prevention. We described a number of ways in which we did this with what appears to be significant success, as reflected in participant ratings and feedback. These changes included spending more time explaining the relationship of stress to craving and relapse, and relating key aspects of the intervention to relapse prevention and the situations that can be triggers for cravings and relapse.

A second lesson was related to the adaptations needed to adjust to participants' trauma histories, short attention span, and low literacy. Modifications included refocusing the body scan away from areas of the body that are common targets of assault, shortening the length of sitting and walking meditations, and adapting the walking meditations to a fast-to-slow pace. We took great care to simplify the language, eliminate jargon, repeatedly explain key terminology, and used visual aids with handouts as much as possible. We also simplified homework assignments so that participants could engage with them within their limited free time. Stressing the role of informal practices rather than focusing on formal practices was also an important modification.

A third lesson pertains to the adjustments needed to cater for the women in residential settings, where they have highly demanding treatment schedules during the day and responsibilities for community tasks and for the care of their children during evenings and weekends. To the extent possible, it would be useful if residential settings rework treatment schedules to ensure fewer conflicting appointments, create quiet practice places and times for participants, and integrate short practice times with other treatment activities.

In summary, ratings and open-ended comments on satisfaction surveys from participants suggest that the program was well received, and that satisfaction with the intervention increased after the adaptations were put in place.

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