

Mind Body Stress Reduction

5/6/2011 2:28 PM



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Introduction

This curriculum is based on the Mindfulness Based Stress Reduction program as developed by Jon Kabat-Zinn at the University of Massachusetts Medical Center and modified to meet the requirements of Lowell Correctional Institution which is a women's prison at Lowell, Florida that is operated by the Florida Department of Corrections. This modification closely parallels those modifications of the original program when presented to the Massachusetts Department of Corrections.

There are two significant additions to this program that were not a part of the program presented to the Massachusetts Department of Corrections. The first is the addition of a five day silent meditation retreat and the second is a programmed reinforcement of the material present over a 52 week period that includes three additional five or ten day meditation retreats. An additional reinforcement mechanism is the addition of five scheduled meditation periods each day.

The modification of the five daily counts to coincide with scheduled meditation periods and the addition of 2 five day retreats and 2 ten day retreats reinforces the practice of meditation. This addresses the shortcomings of the other three efforts to measure the impact of medication as a tool to reduce recidivism and shift the inmate's loci of action from a reactive mode to proactive mode. Only three other meditation programs in that the prison environment was not supportive of the inmates establishing a viable meditation practice.

The Curriculum and Background and Overview are copied word for word from the original documents so that prison wardens, educators and inspectors can familiarize themselves with the program prior to inspecting, reviewing or implementing the Florida version of the program. The name of the program presented to the Florida Department of Corrections has been changed to Mind Body Stress Reduction (MBSR) to avoid any confusion between the University of Massachusetts version and the program presented to the Florida Department of Corrections.

The Co-facilitators of this program have a combined experience of over 4 years presenting MBSR within the facilities of the Department of Corrections in Florida. Amber Kelly was trained in MBSR at Shands Hospital of the University of Florida in 2006. She has taught MBSR to both the general population and Modality program over the last year. Kinloch Walpole did an MBSR internship at the University of Massachusetts Medical Center in 1995. He has taught MBSR at Gadsden CI and Lowell CI to both Modality programs the general population over the last three years.

Background and Overview

Mindfulness-Based Stress Reduction

Jon Kabat-Zinn, PhD

Kabat-Zinn, J. Mindfulness Meditation: what It Is, What It Isn't, And It's Role In Health Care and Medicine In: Haruki, Y., Ishii, Y., and Suzuki, M. Comparative and psychological Study on Meditation. Eburon, Netherlands, 1996. Pg. 161-169.

Mindfulness-Based Stress Reduction (MBSR) is a well-defined and systematic patient-centered educational approach which uses relatively intensive training in mindfulness meditation as the core of a program to teach people how to take better care of themselves and live healthier and more adaptive lives. The prototype program was developed at the Stress Reduction Clinic at the University of Massachusetts Medical Center. This model has been successfully utilized with appropriate modifications in a number of other medical centers, as well as in non-medical settings such as schools, prisons, athletic training programs, professional programs, and the workplace. We emphasize that there are many different ways to structure and deliver mindfulness-based stress reduction programs. The optimal form and its delivery will depend critically on local factors and the level of experience and understanding of the people undertaking the teaching. Rather than “clone” or “franchise” one cookie-cutter approach, mindfulness ultimately requires the effective use of the present moment as the core indicator of the appropriateness of particular choices. However, there are key principles and aspects of MBSR which are universally important to consider and to embody within and context of teaching. These include:

- a) Making the experience a challenge rather than a chore and thus turning the observing of one's life manfully into an adventure in living rather than one more thing as “has” to do for oneself to be healthy.
- b) An emphasis on the importance of the individual effort and motivation and regular disciplined practice of the meditation in its various forms, whether one “feels” like practicing on a particular day or not.

- c) The immediate lifestyle change that is required to undertake formal mindfulness practice, since it requires a significant time commitment (in our clinic 45 minutes a day, six days a week minimally).
- d) The importance of making each moment count by consciously bringing it into awareness during practice, thus stepping out of clock time into the present moment.
- e) An educational rather than a therapeutic orientation, which makes use of relatively large “classes” of participants in a time-limited course structure to provide a community of learning and practice, and a “critical mass” to help in cultivating ongoing motivation, support, and feelings of acceptance and belonging. The social factors of emotional support and caring and not feeling isolated or alone in one’s efforts to cope and adapt and grow are in all likelihood extremely important factors in healing as well as for providing an optimal learning environment for ongoing growth and development in addition to the factors of individual effort and initiative and coping/problem solving.
- f) A medically heterogeneous environment, in which people with a broad range of medical conditions participate in classes together without segregation by diagnosis or conditions and specializations of intervention. This approach has the virtue of focusing on what people have in common rather than what is special about their particular disease (what is “right” with them rather than what is “wrong” with them), which is left to the attention of other dimensions of the health care team and to specialized support groups for specific classes of patients, where that is appropriate. It is in part from this orientation, which differs considerably from traditional medical or psychiatric models, which orient interventions as specifically as possible to particular diagnostic categories that the generic and universal qualities of MBSR stem. Of course, stress, pain, and illness are common experiences within the medical context, but beyond that, and even more fundamentally, the participants share being alive, having a body, breathing, thinking, feeling, perceiving, and incessant flow of mental states, including anxiety, worry, frustration, irritation and anger, depression, sorrow, helplessness, despair, joy, and satisfaction, and the

capacity to cultivate moment-to-moment awareness by directing attention in particular systematic ways. They also share, in our view, the capacity to access their own inner resources for learning, growing, and healing (as distinguished from curing) within the context of mindfulness practice.

In addition to these factors, which encourage flexibility and appropriate modification for non-hospital-based and non-medically-oriented, MBSR programs, there are minimal standards of form and content for medically-oriented, HMO and hospital-based programs to appropriately call themselves MBSRR. These are outline in detail in the following section.

While individual pre and post program interviews have not been used in all HMO-delivered programs, they are highly recommended as an integral and important part of the MBSR intervention. If omitted, as appropriate and thoughtful substitute must be included to ensure an effective “launch” of the MBSR experience for individual participants and the class as a whole.

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CURRICULUM OUTLINE

STRESS REDUCTION CLINIC

UNIVERSITY OF MASSACHUSETTS MEDICAL CENTER

PREPARED BY JON KABAT-ZINN, Ph.D. @1993

June, 1993

Introduction

The Stress Reduction Clinic is an outpatient service of the Division of Preventive and Behavioral Medicine in the Department of Medicine at the University of Massachusetts Medical School. It delivers an intervention which might best be called mindfulness-based stress reduction. The core program takes the form of an eight-week “course” to which medical patients are referred by their physicians and in which they undergo training in a class-like setting in the daily discipline of mindfulness meditation and its applications in everyday life. Prior to enrollment, each prospective participant is evaluated in an individual hour-long interview with a clinic staff person, during which time relevant history is obtained and the program and its challenging requirements outlined (see Kabat-Zinn and Chapman-Waldrop, 1988). A comprehensive description of the program and a detailed presentation of our approach to the meditation practice are provided in Full Catastrophe Living (1990, in Wherever You There You Are (1994) and in Heal Thy Self (1999).

Regarding the way we present the program, it is important to keep in mind that a curriculum of any kind needs to be seen as an overall guide, not a straightjacket. It is best seen as a dynamic system designed for continual adaptation for delivery under different circumstances and adaptable to the contingencies and requirements of the present moment. Only the fundamentals are invariant. This is particularly true of the teaching meditation. Although I teach the same thing over and over again, and stay fairly close to the format outline below, it is also accurate to say that I never teach the same class twice. Each class is unique, and

its qualities come in large part out of the participants and out of the uniqueness of the present moment.

This curriculum must be sensitive to the unique local conditions (social, economic, cultural) and to the explicitly defined short and long-term objectives of the intervention. For example, the UMMC Stress Reduction Clinic conducts eight-week programs in a satellite inner city stress reduction program in Worcester, and in a number of different prisons in Massachusetts in collaboration the Massachusetts Committee on Criminal Justice and the Massachusetts Department of Corrections. In each venue, the formal curriculum differs in some detail in important ways from that presented here, although all programs share the overall orientation of mindfulness-based stress reduction.

A Word About Teaching: the delivery of mindfulness-based stress reduction in any location is virtually impossible without a skilled teacher who is grounded in the practice of mindfulness him or herself. The curriculum which follows is only a general guide and indicates the overall content we try to keep in mind in approaching each of the eight classes which make up the course in our hospital setting. In order for a class or for the program as a whole to have any meaning or vitality, the person who is delivering it must make every effort to embody the practice in his or her own life and teach out of personal experience and his or her own wisdom, not just in a cookbook fashion out of theory and out of the thinking mind. Otherwise, the instruction becomes a mechanical didactic exercise at best and the true virtues of the mindfulness approach will be lost. We never ask anything of our patients that we are not asking of ourselves to a greater degree, moment to moment and day by day.

A great deal of sensitivity to individual differences, to people who are in pain of one kind or another, to group dynamics, to one's own fears and attachments, motives and behaviors, to the reasons for asking participants to engage in various aspects of the work, and to the unique attributes of each location, time, and population in which one finds oneself is required of anyone hoping to take on such a role. Above all, a strong commitment to me's own daily meditation practice, an ability to use a vocabulary and idiom which connects with the people

rather than creates distance and resistance, and willingness to embrace in awareness and non-judgmentally those aspects of oneself that one is most highly defended against, are essential qualities for the successful pursuit of this work.

The UMMC stress reduction program can be thought of as a course designed to help people to recognize and mobilize their inner psychological resources for taking better care of themselves as a complement to the medical treatments they receive through more traditional health care routes. It is based on relatively intensive training in mindfulness meditation and its applications for coping with stress, pain, and the challenges of everyday life compounded by a chronic illness or life-threatening disease. Although, as outlined here, each class has a specific theme and makes use of diverse teaching devices and approaches, the formal and informal practice of mindfulness serves as the unifying thread, integrating all the themes into a coherent whole (Kabat-Zinn, 1990, 1993). The object is to keep things simple and clear. Mindfulness practice is a very narrow path, yet since it has to do with attention and wakefulness; it has the potential, if well taught, to impinge in a fundamental way on all aspects of our lives.

In the evaluation interview, patients are reminded that their decision to enroll amounts to a commitment to an immediate lifestyle change in the form of : (1) weekly attendance at 2,5 hour classes (the first and last class are 3 hours), with approximately 25-30 patents per class; (2) APPROXIMATELY ONE HOUR PER DAY, SIX DAYS PER WEEK MINIMUM DEVOTED TO FORMAL AND INFORMAL MEDITATIVE PRACTICES ASSIGNED FOR “HOMEWORK” OR “HOME PRACTICE” EACH WEEK; (3) attendance at a 7-hour silent retreat in the sixth week of the course (held on the weekend). Participants are also seen individually following completion of the program in another hour-long interview to discuss the course and its impact on the individual and the question of future goals and intentions. The individual interviews are the time points at which a range of pre- and post-intervention outcome data are obtained (see outcome measures section).

What follows below is a concise outline of the major themes, content, and home practice assignments for the UMMC course. Note that each participant receives two guided mindfulness meditation audiotapes, with each side 45 minutes in

length. Tape 1/Side 1 is a guided body scan meditation, and Tape 1/Side 2 a guided mindful hatha yoga sequence. Tape 2/Side 1 is a guided sitting meditation, and Tape2/Side 2 is a different guided mindful hatha yoga sequence. Tape 1 is given out in Class #1. Tape 2 is given out in Class #5. Participants are also given a Stress Reduction Workbook, in which are assigned additional mindfulness exercises and brief readings from week to week, and which participants bring to class each week.

References for this Section

Curriculum

Orientation

(6 May 2011)

Objective: motivate and involve the students in the program. I do this by getting them to invest themselves and then by emphasizing how this can help them. Two really big reference points are re-connecting with children and recidivism.

These are things that fit my way of doing business and may not work for everyone. However, for me the orientation is what makes or breaks the relationship and I want them invested in the program and also want them to think I am too weird to be true and as such they are willing to do what I ask of them. Don't really care about any experiential stuff to class one.

One of the things I like to do is to challenge inmates. The first challenge I make is to those inmates that are on second or more sentences to immediately point out anything I say that is wrong about recidivism. The second is to challenge any student with medical background to point out anything I say is wrong. This goes a long way to establishing credibility or so I think.

Outline

Introduction

Bad news:

1. 68% of you will return to prison within three years for an average sentence of 4.4 years.
2. 50% of you will return to DOC.
3. 18% will move on to federal prisons or other state prisons

Good news:

if you are lucky, you will have a chance to do this program again when you come back to prison.

KC's rules

- 1) No one enters or leaves the room without saying hello or good bye and shaking hands.
- 2) What you see here and what you hear here stays here when you leave here.
- 3) No one here needs to be fixed. Each and every one of you is perfect just the way you are. **Cause and effect**. Now, you may not like who you are but there is nothing to change until you can accept who and where you are.
- 4) Now, I want to know three things about each of you and then you can asked me any three things about myself.
 - a. What is the reason you are sucking air.
 - b. What is the cosmic glue that gives meaning to your life.
 - c. What is the most important thing I need to know about you. (don't care why you are here or anything embarrassing)

Time for the muddy water drill. For this you need an empty plastic bowl, spoon and cup of dirt.

Stress: As science gains greater insight into the consequences of stress on the brain, the picture that emerges is not a pretty one. A chronic overreaction to stress overloads the brain with powerful hormones that are intended only for short-term duty in emergency situations. Their cumulative effect damages and kills brain cells.

How Your Brain Responds to Stress: Did you know that the emotional and physical responses you have to stress are set in motion by a series of chemical releases and reactions? Find out what is really going on inside your body and why not all stress is bad.

Inside Homeostasis: When a danger finally passes or the perceived threat is over, your brain initiates a reverse course of action that releases a different bevy of biochemical throughout your body. Attempting to bring you back into balance, your brain seeks the holy grail of "homeostasis," that elusive state of metabolic

equilibrium between the stimulating and the tranquilizing chemical forces in your body. If either the one of the stimulating or tranquilizing chemical forces dominates the other without relief, and then you will experience an on-going state of internal imbalance. This condition is known as stress. And it can have serious consequences for your brain cells.

Stress is Not All Bad: Bear in mind that an appropriate stress response is a healthy and necessary part of life. One of the things it does is to release nor epinephrine, one of the principal excitatory neurotransmitters. Nor epinephrine is needed to create new memories. It improves mood. Problems feel more like challenges, which encourages creative thinking that stimulates your brain to grow new connections within itself. **Stress management is the key, not stress elimination.** **The challenge in this day and age is to not let the sympathetic nervous system stay chronically aroused. This may require knowledge of techniques that work to activate your relaxation response.**

Stress and Noise: Sudden sound is an urgent wake-up call that alerts and activates the stress response – a biological alarm that affects the brain in powerful ways.

Preconscious Response to Noise-Study: Because of the immediate need to respond to noise threats, the conscious mind is bypassed. It may not be fast enough to deal with a situation that could be a matter of life and death.

University College London researchers observed the process using functional MRI brain scans of human test subjects who had been stressed by an unpleasantly loud noise that was combined with visual images. Even when a fearful stimulus was present only at the unconscious level, the threat signal triggered activity in the attention center of the cerebral cortex, where the fear response is then channeled to other parts of the brain that prepare the body in the classic flight or fight reaction. Lead researcher Jorge Armony said, "It makes perfect sense – you can't stop and think about certain things, you have to react."³

Responding to Noise We Cannot Hear-Study: Even sounds you can't hear can have a powerful affect on your nervous system. One example is the "infrasound" in the roar of a tiger.

A tiger's intimidating roar has the power to paralyze animals. Even experienced human trainers are stunned. "We suspect that this is caused by the low frequencies and loudness of the sound," says Elizabeth von Muggenthaler, a bioacoustician from the Fauna Communications Research Institute in North Carolina. "Humans can hear frequencies from 20 hertz to 20,000 hertz, but whales, elephants, rhinos, and tigers can produce sounds below 20 hertz."

Stress and Memory: Chronic over-secretion of stress hormones adversely affects brain function, especially memory. Too much cortisol can prevent the brain from laying down a new memory, or from accessing already existing memories.

The renowned brain researcher, Robert M. Sapolsky, has shown that sustained stress can damage the hippocampus, the part of the limbic brain which is central to learning and memory. The culprits are "glucocorticoids," a class of steroid hormones secreted from the adrenal glands during stress. They are more commonly known as corticosteroids or cortisol.

During a perceived threat, the adrenal glands immediately release adrenalin. If the threat is severe or still persists after a couple of minutes, the adrenals then release cortisol. Once in the brain cortisol remains much longer than adrenalin, where it continues to affect brain cells.

Cortisol Affects Memory Formation and Retrieval: Have you ever forgotten something during a stressful situation that you should have remembered? Cortisol also interferes with the function of neurotransmitters, the chemicals that brain cells use to communicate with each other.

Excessive cortisol can make it difficult to think or retrieve long-term memories. That's why people get befuddled and confused in a severe crisis. Their mind goes blank because "the lines are down." They can't remember where the fire exit is, for example.

Why We Lose Our Memory: Stress hormones divert blood glucose to exercising muscles, therefore the amount of glucose – hence energy – that reaches the brain's hippocampus is diminished. This creates an energy crisis in the hippocampus which compromises its ability to create new memories.

Building Memories-Neurogenesis-StudyThe growth of new brain cells – a process called neurogenesis – is involved in new memory formation. Researchers at Princeton University report that, even in adulthood, thousands of hippocampal neurons were being generated per day.

In animal studies, the number of adult-generated neurons in the hippocampus of rats doubled after they performed specific behavioral tasks and training that involved associative learning. In contrast, tasks that did not require the hippocampus did not stimulate new cell growth.

All of the species we examined showed evidence of substantial neurogenesis in adulthood," Princeton's Elizabeth Gould said. "These findings indicate that adult-generated hippocampus neurons are specifically affected by, and potentially involved in, associative memory formation."

That may be why some people can't remember a very traumatic event, and why short-term memory is usually the first casualty of age-related memory loss resulting from a lifetime of stress.

Because loud noise often heralds bad news, animals and humans have evolved a rapid response to audio stressors: the roar of a carnivore, the crack of a falling tree, the scream of a child. More recently: the explosion of a weapon, the wail of a siren, the crash of the stock market

This is the lead into the program objectives and their inter-relationships with feelings and emotions.

Mind

Body

Communication

Emotions are commonly categorized as either positive or negative. *Positive emotions* are pleasant feelings, or feelings that tend to produce healthy behavior. They include happiness, elation, excitement, wonder, surprise, and enthusiasm. *Negative emotions* are unpleasant feelings, or feelings which tend to produce unhealthy behavior. They include anger, worry, fear, disgust, sadness, loneliness, and depression.

Our emotions are closely related to the way we think. Certain ways of thinking naturally produce either positive or negative emotions.

Negative thoughts – ruminating on past failures and painful memories, feeling pressured by current stresses, or contemplating future disasters or problems – arouse not only negative emotions but negative biological responses. These negative responses include increased blood pressure, increased gastric juices in the stomach (which can lead to ulcers), heart disease, and coronary artery disease. The lungs can be affected, resulting in asthma, attacks. The hypothalamus can be affected, which in turn depresses the body's immune system. These symptoms all belong to a class of health problems called *psychosomatic reactions*.

If negative thoughts can produce a negative impact on the body, it should not be surprising that positive thoughts can positively impact the body. Positive thinking can lead to the release of neurotransmitters (such as serotonin and noradrenalin), which stimulate clearer thinking, a relaxed mood, and a pleasurable sense of well-being. Positive emotions actually help to improve the functioning of the immune system, which helps to protect us from cancer and infections. Thus, emotions can have a powerful role to play in either extending or shortening our lives.

Reference points that are threaded through the program:

Recidivism (in over 12 years of watching people get out, I have never seen a plan A work)

Plan A

Plan B

Role of direction

How to re-establish themselves with family, friends and children with emphasis on children. Use the problem of GI's coming back from mid-east with same problem. Here the key is to listen and move into space as it is opened. Listening skills that come with meditation and not taking it personally.

The underlying dynamics and relationships of thinking-feelings-emotions.

Importance of doing homework

Show two DVD's

Helping Babies from the Bench (have yet to see an inmate that did not cry)

Anne Rudloe's "what I learned from Cancer"

Give out Mathew Tinney's book on mediation. Don't give out workbooks till first class.

Say good bye but first have them stack mats and cushions as well as come by one by one to say good-bye and shake hands. This is where I find out how good the contact is and their investment is.

Class 1

1ST Class

Theme: From our point of view, there is more right with you than wrong with you, no matter what your problems are. Problems can be worked with, and this course is an opportunity to do that in a supportive environment. Meditative awareness is fundamental in this work since the present moment is the only time anyone ever has to perceive, learn, grow or change.

1. Review key material from orientation.

- a. KC's rules
- b. Importance of homework.
 - i. No quick fixes for long term change (life time of commitment)
 - ii. Revolution change is destabilizing, evolutionary change is to build on a firm foundation.
 - iii. Questions
 - iv. Review Contract in front page of book
 - v. Review importance of withdrawal statement.

2. Introduce new vocabulary

- a. Learning:
 - i. Intellectual-books and thoughts-just more junk
 - ii. Wisdom-ability to process life's experiences and understand the inter-relationships of thinking-feelings and emotions.
- b. React, auto-pilot and co-dependent: taking your cues from someone else. Chasing after the feelings and emotions of life.
- c. Responsible behavior: where your thinking-feeling and emotions support the moment to moment activities of life.
- d. Direction:
- e. Acceptance
- f. Letting go
- g. Non-judging
- h. Mindlessness

- i. Mindfulness
- 3. **Raisin exercise:** first introduction to mindfulness meditation. Discussion of the experience, Point out the raisin's "belly button" and make tie into theme of interconnectedness..the raisin didn't come out of nowhere; it was connected to something larger which nourished its growth. Theme of interbeing (without necessarily using that term: can you see the sunlight, the cloud, the rain, the earth, the farmer, the trucker, in the raisin?)
- 4. **Tie the moment-**to-moment awareness of eating exercise (seeing, chewing, tasting, swallowing) to experiencing the breath in the same way. Get people down on the floor, focusing on the feeling of the abdomen rising and falling with the inbreath and the outbreath, "tasting" the breath in the same way that we tasted the raising...mindfully. Concept of "riding the waves" of one's own breathing from moment to moment...non-judgmentally; and bringing one's attention back to the breath and the present moment when it wanders.
- 5. **Body Scan** (finish with a discussion of people's experiences with the body scan.)
- 6. **Review Homework.**
 - a. 9 dot exercise
 - b. Needs assessment
 - c. Read upstream/down stream fable
 - d. Eat one meal this week mindfully

Class 2

Do guided body scan people on the floor: 30-45 minutes.

Small groups, then large group: Discuss the body scan experience of this morning; also discuss how it went practicing the body scan with the tape this week, with particular attention to how successful they were at making the time for it; problems and obstacles they encountered; how they worked with them or not; experiences and what people are learning (seeing) about themselves from it, if anything. Establish the universality of the wandering mind and the notion of working with it with acceptance and repeated re-focusing of attention; the coming back is as much a part of the meditation as the staying on the object of attention; noting where the mind goes and what is on one's mind; emphasize importance of desisting from repressing and suppressing thoughts or feelings or forcing things to be a certain way. Make analogy with going to sleep. Can't be forced. Best way to get somewhere is to not try to get anywhere...letting go. A new way of learning. The body has its own language and its own intelligence. Non-conceptual.

- a. Review New word list: Learning:
 - i. Intellectual-books and thoughts-just more junk
 - ii. Wisdom-ability to process life's experiences and understand the inter-relationships of thinking-feelings and emotions.
- b. React, auto-pilot and co-dependent: taking your cues from someone else. Chasing after the feelings and emotions of life.
- c. Responsible behavior: where your thinking-feeling and emotions support the moment to moment activities of life.
- d. Direction:
- e. Acceptance
- f. Letting go
- g. Non-judging

- h. Mindlessness
- i. Mindfulness

Theme: Perception and creative responding: how you see things (or don't see them) will determine in large measure how you will respond to them. This ties in with how people see their participation in the program; how they see their pain, their illness; the stress and pressures in their lives; the level of commitment they will bring to the program and to the personal discipline it requires. Make the connection to stress reactivity and recovery from acute stressors, and the principle that "It's not the stressors per se but how you handle them" which influences the short and long-term health effects they may have on your mind and your body.

Introduce sitting meditation with awareness of breathing as primary object of attention. Do a short (10-15 minutes) guided sitting.

Homework: Sitting meditation: 10 – 15 minutes per day

Workbook: fill out pleasant events calendar for the week- one entry per day.

Mindfulness of routine activities: brushing teeth, washing dishes, taking a shower, taking out garbage, shopping, reading to kids, eating.

Class 3

Theme: There is pleasure and power in being present. You only have moments to live. Thoreau's "bloom of the present moment." Martha Graham's "make the moment vital and worth living...do not let it slip away unnoticed and unused."

Observation that we miss many of our pleasant moments, perhaps focusing only on the unpleasant ones. There of connection/belonging/contact brings an important element of pleasant moments. Also not wanting anything..just appreciating what you already have. Also that you can have pleasant moments in spite of being in a crisis or in pain. Tie in to body scan and to the experience of working with mind and body in the yoga.

Discuss the experience and assign for homework alternating yoga with the body scan. Emphasize the importance of getting down on the floor and working mindfully with your body every day, if only for a few moments.

Do guided sitting meditation with focus on awareness of breathing (maybe 20 minutes) and assign for homework.

Discuss the homework from last week: the body scan and the daily short sitting meditations. Importance of being embodied, in the meditation practice, in the oga, and in life. What does this mean?

Go over pleasant events calendar, with emphasis on mind/body connections, patterns, what people observe/learned about themselves. See if some of this can be tied in to experiences of pleasant moments during the body scan in the past week.

Finish class with a short (2-3 min) sitting:

Homework: Sitting meditation 20 minutes a day.

Workbook: unpleasant events calendar for the week, one entry per day.

Make an effort to “capture” your moments during the day.

Mindfulness of going on “automatic pilot” and under what circumstances it occurs.

What pulls you off center?

What do you most not want to look at?

Class 4

Theme: Awareness of being stuck in one's life and how to get unstuck. Dealing with the shadow side of stress and pain, and darkness.

Read/tell illustrative story, such as Grimm's The Water of Life. What happens to the two older brothers? The younger brother? (see Where ever you go there you are for an example of this discussion). Listening to and trusting one's own dwarf energy (inner wisdom). Tie in to the whole question of stress and stress.

Reactivity/automaticity/mindlessness/Thich Nhat Hanh's "watering the seeds of suffering." How people often cope by escape...the dark & shadow side: drugs, alcohol, suppression of feelings: people often cope by escape...the dark & shadow side: drugs, alcohol, suppression of feelings: suicide. Emphasize that "it's not the stress but how you handle it which dictates its effects on the mind and the body (within limits).

Explore with the class: What is stress? How does it influence mind, body, health? Discuss the unpleasant events calendar. Tie in to the question of what makes something unpleasant; patterns of behavior. Association with expectations, not getting one's own way (what is my way, anyway....and would I know it if I got it, and how long would it last?) Definitions of stress and stressors (Selye) and psychological stress (Lazarus) in workbook. Elicit list of what people find most stress in their lives and how they cope. Review notion of coping and definition (Lazarus). Go over reacting vs. responding schema in workbook. Best to bring it out in discussion rather than a straight lecture. Tie in to common experiences of stress reactivity in everyday living, and options for responding differently. Tie in to the meditation practice, and mindfulness in daily living. Connect mindfulness with

perception/appraisal in the critical moment, and with the arising of reactive emotions. Finish class with a short sitting (5 to 10 minutes).

Sitting meditation with focus on breath, body sensations, and body as a whole (30 Minutes).

Discuss homework: especially how things went with the yoga. Fine-tune the yoga instructions as required. Ask about the effect of doing the yoga on the body scan and doing the body scan on the yoga. What are people seeing, feeling, and learning? Small groups.

Note: Class 4 and 5 present the central core of the relationship of the meditation practice to stress.

Homework: Sitting meditation 20 min, sensations, body as a whole.

Read section on emotions on health

Be aware of stress reactions during the week, without trying to change them in any way.

Awareness of feeling stuck.

Awareness of blocking, numbing, shutting off to the moment when it happens this week.

Impulse Control: the Marshmallow Test

Just imagine you're four years old, and someone makes the following proposal: if you'll wait until after he runs an errand, you can have two marshmallows for a treat. If you can't wait until then, you can have only one-but you can have it right now. It is a challenge sure to try the soul of any four-year-old, a microcosm of the eternal battle between impulse and restraint, id and ego, desire and self-control, gratification and delay. Which of these choices a child makes is a telling test; it offers a quick reading not just of the character, but of the trajectory that child will probably take through life.

There is perhaps no psychological skill more fundamental than resisting impulse. It is the root of all emotional self-control, since all emotions, by their very nature, lead to one or another impulse to act. The root meaning of the emotion, remember, is "to move". The capacity to resist that impulse to act, to squelch the incipient movement, most likely translates at the level of the brain function into inhibition of limbic signals to the motor cortex, though such an interpretation must remain speculative for now.

At any rate, a remarkable study in which the marshmallow challenge was posed to four-year-olds shows just how fundamental is the ability to restrain the emotions and so delay impulse. Begun by psychologist Walter Mischel during the 1960s at a preschool on the Stanford University campus and involving mainly children of Stanford faculty, graduate students, and other employees, the study tracked down the four-year-olds as they were graduating from high school.

.....the diagnostic power of how this moment of impulse was handled became clear some twelve to fourteen years later, when these same children were tracked down as adolescents. The emotional and social difference between the grab-the-marshmallow preschoolers and their gratification-delaying peers was dramatic. Those that resisted temptation at four were now, as adolescents, more socially competent: personally effective, self-assertive, and better able to cope with the frustrations of life. They were less likely to go to pieces, freeze, or regress under stress, or become rattle and disorganized when pressured; they embraced challenges and pursued them instead of giving up even in the face of difficulties; they were self-reliant and confident, trustworthy and dependable; and they took the initiative and plunged into projects. And, more than a decade later, they were still able to delay gratification in pursuit of their goals. (Page 81 Emotional Intelligence)

Class 5

Note: Program half-over today. Discuss how it's been going so far. Pause and take stock: am I learning, growing, and changing? Where am I now? Am I doing it the way I committed to doing it? Am I doing it the best way I can at this time? Ask whether people are willing to recommit to the practice fully for the next half (new beginning). Note that growth is non-linear. Let go of expectations for second half based on experience of first half of course. Just practice and take each moment as a new beginning, a fresh opportunity to be fully engaged, fully alive.

Guided sitting meditation with particular attention to the observing and recognition of thoughts, as "events" in your consciousness, distinguishing the event from the content (30-to minutes). Emphasize stillness to the extent possible.

Discuss the meditation and yoga homework.

Discuss observations of reacting to stressful events during the week. Also life change events and their relationship to health. Discuss the importance of the meaning of the vents in people's lives as a moderating influence to health effects. Cite Laner and Rodin's nursing home study with plants, and theme of control/connectedness.

Theme: Reacting and responding to stress. Role of emotional reactivity in health and illness. Type A behavior and the expression of hostility and cynicism. Seligman's work on learned optimism and pessimism. Type C behavior and the suppression of emotion. Learning to honor one's feelings, anger, sadness, hurt, grief, and express them effectively to achieve one's purposes. Mindfulness of one's purpose in this regard and how we can compound our problems rather than find effective solutions. Review problems-focused and emotion-focused coping strategies. Role of mindfulness in both.

Finish with a short sitting meditation.

Homework: Fill out difficult communications calendar. Read entire section on passive, aggressive, assertive behaviors. Answer questions in workbook. Bring awareness to moments of reacting and explore options for responding with greater mindfulness and creativity. To this in the meditation practice as well. Practice opening up space for responding in the present moment. Use the breath to slow things down.

Class 6

Sitting meditation 30-45 minutes. Good place to introduce mountain meditation and/or lake meditation. These images are used to help people understand the practice on a deeper level, not to take them out of the present moment to some other place or time.

Discuss the homework.

Discuss the up-coming all day session and how to handle the periods of silent sitting. Tell people what to bring and what to expect: Lunch, loose fitting clothes (Layers), mat or pad.

Discuss difficult communications calendar and passive, aggressive, assertive patterns. Example of how one says “no” and resistance/difficulty in saying “no” to some people.

Theme: stressful communications; assertiveness: knowing your feelings; expressing your feelings effectively and barriers to doing so. Maintaining your center in interpersonal relationships, especially under conditions of acute or chronic stress (caring for an elderly parent or handicapped child), the strong expectations of others, past habits of emotional expression/suppression and the presentation of self in everyday life.

Do aikido-based “pushing exercises”, role-playing passive, passive-aggressive, aggressive, “stuck”, helpless, and assertive/blending/ “entering” options. Demonstrate first with a volunteer (choose carefully, trusting your intuition). Then have a whole class do it if there is time and people are willing. Importance of centering in the moment, taking a first stand, not running but not having to be in total control; the importance of stepping out of the way, of making contact (hand to wrist), or turning, of acknowledging the other person’s point of view; showing one’s own point of view; staying in the process without knowing where it is going or being fully in control; maintaining mindfulness, openness, staying grounded and centered.

Finish class with short sitting.

Homework: Pay attention to what you put in your body; where it comes from, how much; why' reactions and effects. Not just food; what we take in through eyes and ears and nose; diet of TV, newspapers, bad news, air pollution.

Class 7

Sometimes I begin this class by having people change seats several times. Look at the room from different perspectives. Is it the same room? Why did you choose to sit where you did when you came in? Choose a seat you think you won't like. What does that feel like? Them of being at home whenever you are. Also awareness of subtle things like choices of positioning oneself in a room, idea of taking one's seat in the meditation (taking a stand sitting, no matter where you are). Awareness of attachment to place. Where am I in my life-in this moment? Where am I going?.....Don't Know.

Sitting meditation: 30 minutes with choice less awareness, using the breath for an anchor if your get lost.

Discuss the all-day retreat: reactions and responses to it, likes and dislikes. Feelings afterwards. What you saw, what you learned about yourself. Responses to different teachers, to different aspects of the day. Tie in to the meditation practice this week, both formal and informal (daily life.). Emphasis on importance of making the practice one's own. This week, to tape for the homework. Encourage people to take same 45 minutes, and practice on their own. Then decide what, how much, etc.

Theme: How what we take in (diet in broadest sense of the term) affects our health and well-being Discuss fat in the American diet, relationship to CAD and cancer. Discuss Ornish's work with CAD regression with lifestyle changes including low-fat diet, yoga, meditation, and walking: expression of feelings: role of social isolation; social support. Mention chemicals in diet, in water supplies, cancer epidemiology in Massachusetts towns; pollution in food chain (PCB's, heavy metals, etc.) Importance of reading labels on foods. Studies relating total caloric intake to health and disease. Importance of mindfulness in making choices about diet. Emphasize "no right way."

Social significance of food and eating. These are simply areas t possible touch on. Again, the theme should be mindfulness of impulses around food and diet. Diets

of violence, low self-esteem, abuse, depression, anxiety included. How to move out of self-destructive patterns to healthier patterns. Mindfulness of obstacles to this, especially mind-patterns.

Homework: Practice the formal practice on one's own as best one can.

Informal practice (mindfulness in daily life) practiced on one's own in preparation for when course is over.

Pay attention to what you put into your body: how much: when; what; how often; fat content; cholesterol content; read labels. Know sources of food.

Class 8

Body scan for about 30 minutes (coming full circle, since that is what they started out with on day 1), everybody on the floor. Go from that into Sitting Meditation for another 30-40 minutes.

Small group discussion on floor; then large group discussion: examples of questions: (1) think back to why you came originally-expectations-and why you stayed; (2) what did you want/hope for? (3) What did you get out of it, if anything? What did you learn? (4) what sacrifices did you make? What were the costs to you? (5) What are your biggest obstacles to growth and healing? (6) What strategies might work to not get stuck?

Touch on how it went practicing without tapes this week. Invite people to say how they feel about the course ending.

Theme: Keeping up the momentum and discipline developed over the past 7 weeks in the meditation practice, both formal and informal. “the eighth week is the rest of your life.” Review range of supports to help in the process over time: books, tapes, graduate programs, free all-day sessions for all graduates 3 times per year; mention retreat centers. Have a closing ceremony in a circle at the end. Sitting, then holding hands around the circle, eyes closed.

Retreat

Glossary

a. **Learning:**

7. Intellectual-books and thoughts-just more junk
8. Wisdom-ability to process life's experiences and understand the inter-relationships of thinking-feelings and emotions.

b. **React**, auto-pilot and co-dependent: taking your cues from someone else. chasing after the feelings and emotions of life.

c. **Responsible** behavior: where your thinking-feeling and emotions support the moment to moment activities of life.

d. **Direction:**

e. **Acceptance:** Acceptance means seeing things as they actually are in the present. If you have a headache, accept that you have a headache. If you are overweight, why not accept it as a description of your body at this time? Sooner or later we have to come to terms with things as they are and accept them, whether it is a diagnosis of cancer or learning of someone's death. Often acceptance is only reached after we have gone through very emotion-filled periods of denial and then anger. These stages are a natural progression in the process of coming to terms with what is. They are all part of the healing process.

f. **Letting go:** The way that in India there is a particularly clever way of catching monkeys. As the story goes, hunters will cut a hole in a coconut that is just big enough for a monkey to put its hand through. Then they will drill two smaller holes in the other end, pass a wire through, and secure the coconut to the base of a tree. Then they put a banana inside the coconut and hide. The monkey comes down, puts his hand in and takes hold of the banana. The hole is crafted so that the open hand can go in but the fist cannot get out. All the monkey has to do to be free is to let go of the banana. But it seems most monkeys don't let go.

Often our minds get us caught in very much the same way in spite of all our intelligence. For this reason, cultivating the attitude of letting go, or non-attachment, is fundamental to the practice of mindfulness. When we start paying attention to our inner experiences, we rapidly discover that there are

certain thoughts and feeling and situations that the mind seems to want to hold on to. If they are pleasant, we try to prolong these thoughts or feelings or situations, stretch them out, and conjure them up again and again.

- g. **Non-judging:** Mindfulness is cultivated by assuming the stance of an impartial witness to your own experience. To do this requires that you become aware of the constant stream of judging and reacting to inner and outer experiences that we are all normally caught up in, and learn to step back from it. When we begin practicing paying attention to the activity of our own mind, it is common to discover and to be surprised by the fact that we are constantly generating judgments about our experience. Almost everything we see is labeled and categorized by the mind. We react to everything we experience in terms of what we think its value is to us. Some things, people, and events are judged as “good” because they make us feel good for some reason. Others are equally quickly condemned as “bad” because they make us feel bad. The rest is categorized as “neutral” because we don’t think it has much relevance. Neutral things, people, and events are almost completely tuned out of our consciousness. We usually find them the most boring to give attention to.
- h. **Mindlessness:** can be defined as a mental state in which an individual relies rigidly on categories and distinctions created in the past. Mindlessness involves acting on the basis of a formalized set of rules and attitudes. Each new event or situation is classified into a preexisting category. On the basis of that category, behavioral and attitudinal responses are prescribed.
- i. **Mindfulness:** Mindfulness, on the other hand, can be defined as a state of continuous category formation. A mindful individual creates new approaches to events and situations. He or she is not bound by previously formed rigid attitudes; rather, the mindful person, situated in the present, explores a situation from several perspectives (p. 107).
- j. **Trust:** Developing a basic trust in yourself and your feelings is an integral part of meditation training. It is far better to trust in your intuition and your own authority, even if you make some “mistakes” along the way, than always to look outside of yourself for guidance. If something doesn’t feel right to you, why not honor your feelings? Why should you discount them or write them off as invalid because some authority or some group of people think or say

differently? This attitude of trusting yourself and your own basic wisdom and goodness is very important in all aspects of the meditation practice. It will be particularly useful in the yoga. When practicing yoga, you will have to honor your own feelings when your body tells you to stop or to back off in a particular stretch. If you don't listen, you might injure yourself.

- k. **Assertive vs. Aggressive Behavior** Using assertive behavior results in positive outcomes. This is true in most situations, but especially ones involving anger. It is important to distinguish between assertive behavior and aggressive behavior. ***Assertive behavior*** involves standing up for personal rights and expressing yourself in direct ways that do not violate another person's rights. The goal of assertive behavior is communication with mutuality. ***Aggressive behavior*** involves standing up for personal rights as well, but in a manner that is indirect and in violation of the rights of others. Its goal tends to be domination and "winning." Some of the components of each are listed below:

a. **Assertive Style**

1. uses "I" statements and takes responsibility for one's feelings
2. negotiates clearly for what is wanted
3. cites specific problem behaviors and what changes are desired
4. avoids exaggerating with words such as always and never
5. repeats appropriate requests in a calm manner

b. **Aggressive Style**

1. uses "you" statements to blame or intimidate
2. uses threats, put-downs and name-calling
3. sets up "win-lose" situations instead of negotiating
4. does not listen to the other side
5. tries to use power to manipulate others

Review of Key Teaching Points

By Class

1. From our point of view, there is more right with you than wrong with you, no matter what your problems are.
2. Perception and creative responding: how you see things (or don't see them) will determine in large measure how you will respond to them.
3. There is pleasure and power in being present...Also that you can have pleasant moments in spite of being in a crisis or in pain.
4. Awareness of being stuck in one's life and how to get unstuck....Go over reacting vs. responding schema in workbook.
5. Reacting and responding to stress. Role of emotional reactivity in health and illness...behavior and suppression of emotion. Learning to honor one's feelings, anger, sadness, hurt, grief, and express them effectively to achieve one's purpose.
6. Stressful communications; assertiveness; knowing your feelings; expressing your feelings effectively and barriers to doing so. Maintaining your center in interpersonal relationships, especially under conditions of acute or chronic stress.
7. How what we take in (Diet in broadest sense of the term) affects our health and well-being.
8. Keeping up the momentum and discipline developed over the past 7 weeks in the meditation practice, both formal and informal.

The Prison Journal

DOI: 10.1177/0032885507303753

The Prison Journal 2007; 87; 254

Marlene Samuelson, James Carmody, Jon Kabat-Zinn and Michael A. Bratt
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<http://tpj.sagepub.com/cgi/content/abstract/87/2/254>

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**Mindfulness-Based Stress
Reduction in Massachusetts
Correctional Facilities**

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Mindfulness-based stress-reduction courses were offered in drug units in six Massachusetts Department of Corrections prisons. A total of 1,350 inmates completed the 113 courses. Evaluation assessments were held before and after each course, and highly significant pre- to post-course improvements were found on widely accepted self-report measures of hostility, self-esteem, and mood disturbance. Improvements for women were greater than those for men, and improvements were also greater for men in a minimum-security,

pre-release facility than for those in four medium-security facilities. The results encourage further study and wider use of mindfulness-based stress reduction in correctional facilities.

Keywords: *mindfulness-based stress reduction; meditation; stress reduction; substance abuse*

Individual criminal behavior has been attributed to an inadequate ability to effectively deal with severe stress, deprivation, and low self-esteem, and with peer pressure and the codes of behavior of groups such as gangs. These factors can be severely compounded by the injection or ingestion of drugs and alcohol, which offer the user relief from emotional discomfort by impairing or eliminating normal levels of awareness and impulse control.

The Prison Journal

Volume 87 Number 2

June 2007 254-268

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10.1177/0032885507303753

<http://tpj.sagepub.com>

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<http://online.sagepub.com>

Authors' Note: The authors would like to acknowledge Yunsheng, MA, PhD Anne Skillings,

MS Timothy Light, Tamara Parvizi, MA Joseph Kappel, Diana Kamila, MA and Joanna Bratt,

JD, for their involvement in analyzing or working with the data and Saki Santorelli, EdD, for commenting on the article.

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Under such circumstances, intense feelings such as fear, frustration, anger, and greed can rapidly result in antisocial behaviors, and the resultant incarceration in correctional institutions brings additional stress, with the possibility of further exacerbating these conditions (Fogel, 1993; Perkins, 1998).

The regular practice of meditation has been shown to help individuals cultivate deep and long-lasting experiences of inner calm, well-being, self-worth, and self-respect (Kabat-Zinn, 1993). For this reason, there has been increasing interest in recent years in the efficacy of meditation-based interventions in correctional institutions as a means of helping inmates deal with the stress of incarceration and to acquire life-long inner resources to decrease the likelihood of continuing criminal behavior and recidivism. The rationale

is that through the regular practice of meditation, inmates can grow to be less reactive to intense emotional states without resorting to the use of drugs or other chemical substances (Kabat-Zinn, 1993). There are reports of prisonbased studies of Vipassana meditation (Anonymous, 2000; Marlatt et al., 2004; Parks et al., 2003), transcendental meditation (TM; Alexander et al., 2003; Hawkins et al., 2003; Orme-Johnson & Moore, 2003; Shanmugam, 1992), and mindfulness meditation (Murphy, 1995; Perkins, 1998). The present study is based on a program of mindfulness meditation.

Mindfulness is a sustained nonreactive attention to one's ongoing mental contents and processes (physical sensations, perceptions, affective states, thoughts, and imagery) (Grossman, Niemann, Schmidt, & Walach, 2004; Kabat-Zinn, 2005; Miller, Fletcher, & Kabat-Zinn, 1995). Mindfulness is traditionally cultivated through formal training in mindfulness meditation, and the resultant stable, nonreactive awareness appears to act as a resource for more creative responding by bringing mental processes into greater conscious awareness and under greater voluntary control (Shapiro & Walsh, 2002). Moreover, because this natural capacity is under the individual's direct control, it can provide an experience of mastery (self-efficacy), so that thoughts and intense feelings no longer threaten to overwhelm (Teasdale, 1999; Teasdale et al., 2000). For many inmates, this may be their first experience of inner control of mind or body states.

Mindfulness-based stress reduction (MBSR) is an 8-week program of intensive training in mindfulness (moment-to-moment awareness) and its integration into everyday life. MBSR was developed at the University of Massachusetts (UMass) Medical Center in 1979 by Dr. Jon Kabat-Zinn (1990) to provide a coping resource for patients dealing with intense physical symptoms, chronic medical conditions, and difficult emotional situations (Kabat-Zinn, 1994). Since that time, more than 16,000 people with a wide range of disorders and difficult life situations have completed

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the ongoing program at UMass, and programs based on Kabat-Zinn's model are now widely available throughout the United States and in other countries. The MBSR program has also been used in stressful inner-city community settings (Roth & Creaser, 1997; Roth & Stanley, 2002) and in a therapeutic community for substance abuse treatment (Marcus et al., 2003). Reports have demonstrated a high level of adherence or compliance with the behavioral demands of MBSR (Kabat-Zinn & Chapman-Waldrop, 1988; Speca, Carlson, Goodey, & Angen, 2000; Williams, Kolar, Reger, &

Pearson, 2001), with about 85% of enrollees completing the program. A number of studies have demonstrated positive attitudinal, health, and behavioral changes associated with MBSR (Kabat-Zinn, 1982; Kabat-Zinn, Lipworth, & Burney, 1985; Miller et al., 1995). These changes include improvements in psychological and physical well-being and reductions in anxiety and depression (Kabat-Zinn, 1992; Kaplan, Goldenberg, & Galvin-Nadeau, 1993; Teasdale et al., 2000). The changes have been found to endure at 3-month follow-up (Williams et al., 2001), 6-month follow-up (Carlson, Ursuliak, Goodey, Angen, & Specia, 2001) and 4-year follow-up (Kabat-Zinn, Lipworth, Burney, & Sellers, 1987). The MBSR program has also been adapted and integrated into a variety of other clinical and nonclinical settings (Kristeller & Hallett, 1999; Linehan, 1993; Saxe et al., 2001; Teasdale et al., 2000).

Based on the belief that some of the psychological factors that lead to criminal behavior may be changed through the practice of mindfulness (Kabat-Zinn, 1993), the UMass Stress Reduction Clinic and the Massachusetts Council on Criminal Justice agreed to conduct a program of MBSR in prisons in the Massachusetts Department of Corrections system. The MBSR program was one of several options offered in a rehabilitation program for inmates incarcerated as a result of drug-related convictions. The program was not designed or conducted as a formal research study, and limitations imposed by administrative constraints, and the need to adapt to differences among the various prison settings, necessitated some modifications from the way in which MBSR programs are usually conducted at UMass (Kabat-Zinn, 1990) and elsewhere.

Method

MBSR

The foundations and methodology of MBSR have been described in detail elsewhere (Kabat-Zinn, 1990; Santorelli, 1999). Briefly, in the more usual clinical setting, approximately 20 participants attend 8 weekly, 2.5-hour classes and an all-day, mostly silent retreat or intensive experience during the sixth week. During these sessions, participants receive training in mindfulness through a body scan meditation, sitting meditation, and mindful stretching exercises. There is a good deal of group discussion on the integration of mindfulness into everyday life and the application of mindfulness as a method for noticing habitual reactions to stressful situations and more creatively responding (Kabat-Zinn, 1990). Some didactic material on the psychology and physiology of stress reactivity is also presented. Participants are expected to engage in formal mindfulness meditation practice for 45 minutes

per day outside of class, guided by audiotapes or CDs that are provided.

Correctional Institution Settings, Environment, and Program

Approximately 2,000 inmates participated in the MBSR program in six correctional institutions in Massachusetts between 1992 and 1996. The programs were offered in the Massachusetts women's prison at Framingham and in five correctional institutions for men—the four medium-security facilities at Shirley, Gardner, Norfolk, and Old Colony and at the minimum-security, pre-release facility at Shirley. The MBSR program was offered as one of a variety of options, in 6- to 8-week blocks, to inmates in drug units within these institutions. The other options included smoking cessation, literacy training, and exercise and walking programs. All were aimed at providing inmates with nondestructive outlets, with the potential to enrich their lives both in prison and after release. Inmates who completed one of the offered rehabilitation programs could earn earlier release.

Each MBSR course was limited to 12 to 20 participants. Facilities and conditions differed somewhat in each institution. At one extreme, there was a quiet private room dedicated to the MBSR program; at the other extreme, classes were held in the corner of a large open gym where other inmates were exercising during the MBSR classes. In the medium-security institutions, inmates were escorted to each class by a correctional officer who, in some settings, remained throughout the classes. Exercise mats, for the mindful stretching, and meditation cushions were not always available in all settings. Depending on each institution's overall program schedule, class sessions varied from 1 to 1.5 hours. In some cases, where individual classes were shorter, two sessions were held per week. Course lengths varied from 6 to 8 weeks. In no case was there an opportunity for the all-day retreat or intensive experience. Opportunities for independent daily meditation practice outside of class were minimal, and shared cells and other constraints of

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prison life limited the ability to practice alone and in relative quiet.

Institutional regulations prevented the use of tape players in cells, but one tape and one player were made available for group practice outside of class. Although no records were kept, many inmates reported using the techniques informally.

Evaluation

During a 30-minute orientation session held 1 week prior to the start of each course cycle, the demands and possible benefits of participation in the MBSR program were explained to inmates. Following this session, inmates completed the set of self-report psychosocial measures described below.

Responses obtained at this time were designated “pre-course.” A second set of these measures was completed at the end of each course and was designated “postcourse.” Only data for inmates with appropriate paired pre- and postcourse self-report measures and an intervening course were included in analyses of course completers. Completion of the course was defined as having attended at least 80% of the classes in the cycle.

Because this program was not conducted as a formal research project, there were no formal controls. However, in some of the settings, institutionspecific scheduling and administrative circumstances resulted in significant numbers of inmates completing paired self-report measures (with an intervening period equivalent to that of the MBSR course), without having participated in an MBSR course during that time.¹ A subset of this group then participated in an MBSR course in the following cycle and subsequently completed a third set, post-course, of the self-report measures at the end of the course. These inmates provided the data for what may be characterized as “quasi–waitlist controls.”

Another subset of inmates who had completed the usual paired pre- and post-program self-report measures with an intervening MBSR course subsequently completed a third set of evaluation measures after a further course-length interval but without a second intervening MBSR course. These inmates provided the data for what may be characterized as a “quasi–follow-up group.”

The following instruments were used in the evaluation.

Cook and Medley Hostility Scale

Derived from items in the MMPI, the Cook and Medley Hostility Scale (Barefoot, Dodge, Peterson, Dahlstrom, & Williams, 1989), a 50-item
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scale, assesses cognitive, affective, and behavioral components of hostility. Higher scores indicate greater hostility, reflecting distrust, cynicism, and a tendency to respond aggressively. Although the data were analyzed for the six subscales—Hostile Attribution, Hostile Affect, Hostile Aggression, Aggressive Responding, Cynicism, and Social Avoidance—for reasons of space, only total scores are reported.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale (Rosenberg, 1979) is a widely used, 10-item, unidimensional measure of global self-esteem, defined as a favorable or unfavorable attitude or feelings toward oneself. Higher scores indicate greater self-esteem.

Profile of Mood States

Profile of Mood States (McNair, Lorr, & Droppelman, 1992) is a measure of a person's awareness of his or her state of mental buoyancy or distress. The scale assesses the respondent's transient, fluctuating affective states by asking how well each of 65 adjectives describe the respondent's feelings in the past week. Higher scores indicate greater mood disturbance. The scale has been shown to be responsive to MBSR programs (Carlson et al., 2001; Kabat-Zinn, 1982; Kabat-Zinn et al., 1985; Speca et al., 2000) and to other meditation and yoga interventions (Woolery, Myers, Sternlieb, & Zeltzer, 2004). Although data were analyzed from the subscales assessing six dimensions of mood (tension/anxiety, anger/hostility, vigor/activity, depression/dejection, fatigue/inertia, and confusion/bewilderment), for reasons of space, only total mood disturbance (TMD) is presented here.

Statistical Analyses

Change scores were calculated between pre- and post-program values for all variables, and paired *t* tests were performed to determine within-group differences.

Results

Table 1 shows that records were kept on 1,953 inmates enrolled in 113 MBSR course cycles offered in the drug units within the six correctional settings. The 86 courses offered in the men's units included 66 at the four medium-security facilities and 20 at the minimum-security, pre-release facility. In addition, 27 courses were offered at the women's facility at Framingham. Also shown are course completion rates; for the 1,953 inmates who attended a first class, 1,350 (69%) met the criteria for course completion. Results for the Cook and Medley Hostility Scale are shown in Table 2.2. Similar pre-course scores were found at all sites, and post-course scores showed significant reductions ($p = .0001$) at all sites, suggesting reduced hostility in these inmates. The reductions were greater for the women (9.2%) than for the men (7.0%). The reduction in hostility scores for inmates in the men's minimum-security facility (9.4%) was significantly ($p = .05$) greater than that of the men in the medium-security facilities (6.4%). All six subscales showed statistically significant post-MBSR course improvement (data not shown). Changes in scores on the Rosenberg Self-Esteem Scale are shown in Table 3. Statistically significant increases (suggesting increased self-esteem) were found in all settings. A significantly ($p = .006$) greater percentage increase (8.3%) was found in the women's facility than for all the

men (3.8%). Men in the minimum-security, pre-release facility showed greater improvement in self-esteem scores (6.8%) than did the men in the medium-security facilities (3.1%).

As shown in Table 4, improvements in the TMD scores on the Profile of Mood States Scale were the most dramatic. Greater mean baseline distress was found for the women inmates ($M = 63.4$) than for the men at either the minimum-security, pre-release site ($M = 47.6$) or the medium-security sites ($M = 45.6$). Although the women's post-course scores remained relatively high ($M = 39$), their percentage reductions (38.5%), were significantly greater ($p = .0001$) than those for the men (28.4%). Total percentage reductions in

Table 1

Program Enrollment and Completion

Men Women Total

n % n % n %

Number of courses offered (all sites) 86 27 113

Initial enrollment 1,486 467 1,953

Completion (attending 80% or more of classes in a course) 1,050 71 300 64 1,350 69

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mood disturbance for the men at the minimum-security, pre-release facility (31.0%) were greater than those of the men in the medium-security facilities (27.7%). All six subscales also showed statistically significant improvements following inmates' completion of the MBSR course (data not shown).

Scores for the subset of inmates whose pattern of participation in the program and sequence of evaluations qualified them as quasi–waitlist controls are shown in Table 5. No significant change ($p > .05$) on any of the three measures was found in the period prior to participation in the MBSR course, but significant changes, comparable to those already described in Tables 2, 3, and 4, were seen in scores following completion of a course. These scores

Table 2

Cook and Medley Hostility Scale

Pre-MBSR Post-MBSR

n M SD M SD % Change p

All sites 948 25.4 8.1 23.5 8.7 7.5 .0001

Women 201 25.4 8.2 23.0 9.1 9.2 .0001

Men 747 25.4 8.0 23.6 8.6 7.0 .0001

Men, minimum 147 25.6 7.9 23.2 9.0 9.4 .0001

Men, medium 600 25.3 8.1 23.7 8.5 6.4 .0001

Note: MBSR = mindfulness-based stress reduction.

Table 3

Rosenberg Self-Esteem Scale

Pre-MBSR Post-MBSR

n M SD M SD % Change p

All sites 955 29.3 6.4 30.7 6.7 4.7 .0001

Women 202 28.4 5.6 30.8 5.7 8.3 .0001

Men 753 29.5 6.6 30.6 6.9 3.8 .0001

Men, minimum 147 30.3 5.5 32.4 6.0 6.8 .0001

Men, medium 606 29.3 6.8 30.2 7.0 3.1 .0002

Note: MBSR = mindfulness-based stress reduction.

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provide strong support for the conclusion that the described pre- to postcourse improvements are attributable to participation in an MBSR course.

Table 6 shows the results for the subset of inmates characterized above as a quasi-follow-up group. Following completion of the course, this group also showed improvements on all scales (statistically significant for all scales except the Rosenberg) comparable to those described in Tables 2, 3, and 4. The absence of further significant change on any of the measures in the follow-up period suggests that the improvements previously described were maintained in spite of an additional 6 to 8 weeks of incarceration.

Table 4

Profile of Mood States—Total Mood Disturbance

Pre-MBSR Post-MBSR

n M SD M SD % Change p

All sites 907 49.8 39.7 34.2 36.7 31.2 .0001

Women 196 63.4 43.5 39.0 38.5 38.5 .0001

Men 711 46.0 37.8 32.9 36.1 28.4 .0001

Men, minimum 147 47.6 36.8 32.8 35.3 31.0 .0001

Men, medium 564 45.6 38.0 33.0 36.3 27.7 .0001

Note: MBSR = mindfulness-based stress reduction.

Table 5

Quasi-Waitlist Comparison Group

n Mean Change % Change p

Cook and Medley Hostility

Pre-MBSR (8-week interval) 180 -0.6 2.4 .17

MBSR course outcomes 180 -2.14 8.6 .0001

Rosenberg Self-Esteem

Pre-MBSR (8-week interval) 181 0.48 1.6 .39

MBSR course outcomes 181 2.05 6.8 .0001

Profile of Mood States—TMD

Pre-MBSR (8-week interval) 161 -2.12 5.0 .37

MBSR course outcomes 161 -12.21 30.6 .0001

Note: MBSR = mindfulness-based stress reduction; TMD = total mood disturbance.

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Discussion

The results described herein provide strong support for the feasibility and effectiveness of meditation-based interventions in correctional settings. Particularly important is the fact that these significant improvements were found on widely accepted measures of hostility, self-esteem, and mood disturbance.

The pre-course hostility scale scores for both the men and women (25.4), shown in Table 2, are close to one standard deviation above the norm for the general population and similar to those found in psychiatric populations (Han, Weed, Calhoun, & Butcher, 1995). This finding is not surprising given the circumstances of and leading to incarceration. Given the fact that a prison environment can be a very hostile environment, the demonstration of significantly decreased hostility scores in the 6% to 9% range following participation in an MBSR program in these correctional settings is encouraging. In another study, mindfulness meditation led to small reductions in self-reported anger on the State-Trait Anger Expression Inventory, with a slight decrease in aggressive responding at 1-month follow-up (Murphy, 1995). Although none of the other reported studies of meditation in correctional settings used the Cook and Medley Hostility Scale employed here, a number of them provided evidence of reduced hostile and aggressive attitudes and behaviors for participating inmates.

Vipassana meditation training was found to increase more positive behaviors in Tihar Jail in India (Kishore, Verma, & Dhar, 1996), and decreased

Table 6

Quasi-Follow-Up Group

n Mean Change % Change *p*

Cook and Medley Hostility

MBSR course outcomes 127 -1.46 5.8 .01

Follow-up (8-week interval) 127 -0.04 0.17 .94

Rosenberg Self-Esteem

MBSR course outcomes 121 0.84 2.8 .08

Follow-up (8-week interval) 121 0.96 3.1 .11

Profile of Mood States—TMD

MBSR course outcomes 117 -17.1 32 .0001

Follow-up (8-week interval) 117 +2.37 6.5 .37

Note: MBSR = mindfulness-based stress reduction; TMD = total mood disturbance.

Downloaded from <http://tpj.sagepub.com> by guest on October 14, 2009 hostility (Brief Symptom Inventory) in the North Rehabilitation Facility near Seattle (Parks et al., 2003). Similarly, participation in TM programs in a correctional institution led to a decrease in aggression measured on the Buss-Durkee Hostility Inventory (Hawkins et al., 2003) and to decreased aggression (Special Hospitals Assessment of Personality and Socialization Scale) at the maximum-security prison in Walpole, Massachusetts (Alexander et al., 2003).

The significant post-MBSR course improvements (Table 3) in self-esteem provide encouragement that this dimension can also be improved for incarcerated individuals through training in mindfulness meditation. The present findings are similar to results reported for a correctional institution–based TM program, where self-esteem (measured on an ad hoc scale) was shown to increase following program participation (Hawkins et al., 2003).

Baseline TMD scores (46.0) on the Profile of Mood States Scale (Table 4) for male inmates are comparable to those found by Reddon, Marceau, and Holden (1985) for male inmates in a maximum-security psychiatric hospital. The improvements in TMD reported here (38.5% for women and 28.4% for men) are striking and suggest that the affective state of these inmates can be improved substantially by participation in an MBSR program. However, it is noteworthy that even though the women showed a greater percentage of postcourse improvement on the TMD scores; their postcourse scores remained higher (39.0) than those of the men (32.9).

The scores for the subset of inmates characterized as a quasi–waitlist control group are contained in Table 5. There was no significant change for this group on any of the three measures during the interval prior to participating in the MBSR course. During this time, these inmates may or may not have been participating in other activity options, such as the smoking cessation program or the walking program. Improvements in all three measures were observed following participation in the MBSR course, and the change may reasonably be attributed to participation in the program.

Although the follow-up times in this program were shorter than those reported for the MBSR in clinical settings (Carlson et al., 2001; Kabat-Zinn et al., 1987; Williams et al., 2001), the finding that the improvements associated

with participation in the program in this setting were maintained for an additional 6 to 8 weeks (Table 6) in the stressful correctional institution environment holds promise for the longer-term endurance of the effects of MBSR programs in supporting inmates in these settings.

Greater improvements were observed for the incarcerated women than for the men on all three of the self-report measures used in this study. 264 The Prison Journal

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study, and this is consistent with studies of MBSR in noncorrectional populations (Kabat-Zinn, 1984). It is also evident that the improvements on all of the self-report measures for the men incarcerated in the minimum-security, pre-release facility were greater than those observed for the men in the medium-security facilities. A number of factors might be involved in this finding. The minimum-security, pre-release institution staff demonstrated greater cooperation in implementing the MBSR program in their facility. Also, the minimum-security and prerelease facility houses a combination of less serious offenders and inmates who, though previously housed in medium-security facilities, were awaiting or were near release from their incarceration. These factors might have resulted in greater participant motivation and/or an environment more conducive to the MBSR intervention.

The improvements associated with participation in the MBSR program that were found on all three self-report measures (Tables 2, 3, and 4) and the maintenance of those gains on most of the dimensions for at least 6 to 8 weeks (Table 6) are impressive and very encouraging. Nevertheless, these findings have a number of limitations. The scores are derived from self-report, and respondents might have been inclined to “fake good” from a fear that frank responses might at some point count against them in the institution. We had no records of inmates’ compliance with the out-of-class program demands. In addition, our study did not include any examination of inmates’ behavior before, during, and after their participation in the MBSR program or of the effects of the program on their substance abuse attitudes, such as cravings. Also, we did not have access to inmate demographics (other than their being incarcerated in drug units) and were not able to follow the participating inmates during a longer period. Nor were we able to measure impacts on recidivism rates.

More compelling will be studies measuring recidivism and the extent of involvement with drugs and alcohol after release, as has been done following participation in a Vipassana meditation program (Marlatt et al., 2004; Parks et al., 2003) and TM interventions in two maximum-security institutions

(Alexander et al., 2003; Rainforth, Alexander, & Cavanaugh, 2003). Nevertheless, because this study had the advantage of involving a very large number of participants in multiple correctional sites, including men in medium- and minimum-security facilities and women in another facility, our findings offer considerable promise for the wider use of MBSR programs in prison settings and will hopefully serve as a stimulus for future development of formal research studies of MBSR in correctional settings.

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Notes

1. These individuals may or may not have been participating in one of the other program options during that time.
2. The numbers of participants reflected in Tables 2, 3, and 4 vary and are considerably less than the number of program participants shown in Table 1. This is because of the rejection of unpaired questionnaires and the rejection of both the pre- and post-course questionnaires if one of them was unreadable, was incomplete, contained multiple answers for questions, or exhibited a simplistic, regular pattern.

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