

CLINICAL RESULTS

8-WEEK MINDFULNESS-BASED STRESS REDUCTION PROGRAM: 2007-2012

THE
STRESS
REDUCTION
CLINIC
@ YOGA HILLSBORO

ABSTRACT: Mindfulness-Based Stress Reduction (MBSR) is a clinical learning intervention designed to complement medical care and psychotherapy.¹ Clinical results of the 8-week MBSR programs taught by the Stress Reduction Clinic (SRC) from 2007 through 2011 showed large, highly significant positive changes in scores associated with better mental, social and physical health, stress levels and self-care up to four years after MBSR training. Local clinicians also reported that their patients who completed MBSR were taking better care of themselves. The results are parallel to decades of published research and thus affirm MBSR's effectiveness as a complement to medical care and psychotherapy. These data show that the SRC's program provides clinical results consistent with other long-established, well-documented MBSR programs.

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INTRODUCTION

The Stress Reduction Clinic (SRC) offers an 8-week Mindfulness-Based Stress Reduction (MBSR) program and related courses to residents of Washington County and greater Portland. Since 2007, over 300 people from as far away as Vancouver Washington, Eugene and the Oregon Coast have completed our program.

The intention of this evaluation is to illustrate the effectiveness of MBSR in our community and to compare the SRC's results with those reported by other well-established programs.

MBSR, SELF-CARE, MEDICINE & THERAPY

The Center for Mindfulness (CFM) at the University of Massachusetts Medical School is the center for research and training in MBSR.

MBSR is a learning intervention designed to complement medical care and therapy via experiential learning of the elemental form of self-care called mindfulness.^{2,3} A very accessible and therapeutically relevant definition of mindfulness is 'awareness, of present experience, with acceptance.'⁴ A growing library of published research documents the effectiveness of MBSR in the fields of medicine and psychotherapy.^{2,3,5,6}

During times of acute stress, trauma or difficulty the body appropriately adapts by shifting to a physiologic mode of 'high alert.' What is lesser known is that a subtle and largely unconscious residue of this high alert mode may remain long-term and substantially affect a person's physical, emotional and social health. External stressors may be gone but the the unconscious mode of stress may endure as chronic pain, amplified physiology, difficult moods, and more. This can adversely affect health in profound ways over the long term.⁶

The practice of mindfulness can mitigate the effects of this chronic stress by enhancing the ability to rest sustained awareness on the current experiences of life: physical sensations, thoughts, sounds, affective states, churning of thought, and more. This capacity for sustained attention on current experience improves the ability to notice the experiences of unconscious reactivity. As a consequence practitioners become more responsive and less reactive: physiologically, neurologically, emotionally and socially. This ability to notice and then intuitively respond instead of react often leads to measurable therapeutic consequences. MBSR is a particularly suitable healing modality for helping people live with the complex biopsychosocial dimensions of chronic illnesses with their significant components of comorbidity.⁷

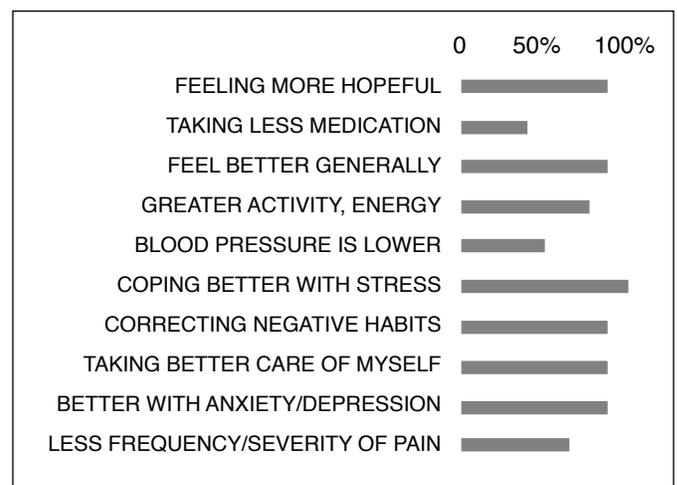


Figure 1. Participants' responses on a post-program self-assessment (FQ)¹¹ as a percentage of the number of such responses for each experience. (n=137)

HISTORY & CONTEXT OF MBSR

MBSR has been on the cutting edge of mind-body and integrative medical practice for over three decades. Dr. Jon Kabat-Zinn conceived MBSR as a learning intervention to complement medical care at Massachusetts General Hospital in Worcester.^{1,2} The intention was to serve patients who suffered in ways the medical system was unable to treat. MBSR has since spread around the globe. Physicians and therapists have referred most of the tens of thousands who have completed the course. Health care providers have often taken MBSR themselves.⁸ This is also true in the SRC's MBSR courses.

A cornerstone of MBSR is its dedication to measuring outcomes with well-established methodologies and publishing the results in scientific and medical journals. The result is an robust library of evidence showing that MBSR is consistently effective in helping participants face the most daunting challenges of life: chronic pain or illness, anxiety or panic, insomnia, cancer, high blood pressure, headaches, stress, fatigue, and more.^{5,6} Participants come from a variety of backgrounds and demographics, many of them with challenging medical or psychiatric conditions.

MBSR AT THE SRC

The SRC's 8-week MBSR program is closely modeled on the one at the CFM and is taught by an instructor certified by the CFM. The 8-week program involves 28 hours of classroom work and equal hours of homework. The curriculum includes learning a variety of formal mindfulness practices, mindful movement (gentle, adaptive yoga), stress management practices, group educational activities, and assignments that ask participants to bring mindfulness informally into daily life.

The SRC is actively involved in clinical research to help verify the effectiveness of our courses and to initiate new, more effective ways of offering mindfulness-based interventions. Our research is presented at international conferences and published in academic journals.^{5,9,10,11}

METHODS OF PROGRAM EVALUATION

Participants of the SRC's MBSR programs were asked to complete a variety of evaluation instruments: mental and health status (DUKE Health Profile¹², self-assessment - FQ¹¹), stress levels (PSS-10¹³), self-care (MSCI^{9,11}), adherence (MPQ¹¹). Most of these evaluations were completed pre-MBSR, post-MBSR and some up to 4 years post-MBSR. Also

local clinicians were asked how MBSR affected their patients' attitudes and behaviors toward self-care.

RESULTS

The post-program self-assessment, the FQ, asked participants to score the degree to which their work in the course had changed their life (Figure 1). Nearly all participants reported that they could better cope with stress and reported feeling better and more hopeful. Over 60% reported that they were more active and felt they had more energy. Of those who took medication nearly 40% reported taking less of it at the end of the program. Over 65% of those who came to the program with pain reported that they were in pain less frequently and that it was less severe. Half of those with high blood pressure reported that it had decreased.

Participants were also asked to score their change in attitudes and behaviors that were a direct result of participation in the Program. Every participant noted that they now were taking better care of themselves and were more confident they could improve their own health. Nearly every participant said they could better deal with anxiety and depression. Likewise, nearly everyone felt they could handle stress better and could more easily respond rather than react to stressful situations. Most said they were better at feeling assertive and more able to express their feelings in relationships.

One question asked participants to score the importance of the program for themselves on a scale of 1 to 10, 10 being very important. Average response was 8.9 at the end of the course and remained high at 7.8 up to four years later (n=94).

Results of health status testing showed that participants experienced significant and long-term benefit from MBSR (Table Graphics 1 & 2). The PSS-10 tests showed a highly significant decrease in perceived stress scores at the end of the 8-week program. The average decrease was 39% with the vast majority declining 20% to 80%. This endured long term. The DUKE Health Profile sub-scores also measured large, statistically significant and enduring positive change in a variety of scores for health.

The majority of participants reported taking better care of themselves through the followup survey years later.¹¹ Also, the healthcare providers who served these participants observed that the vast majority were taking better care of themselves as a consequence of the MBSR program. The majority of participants noted that they continued mindfulness practice in some form over the long-term. Table 1

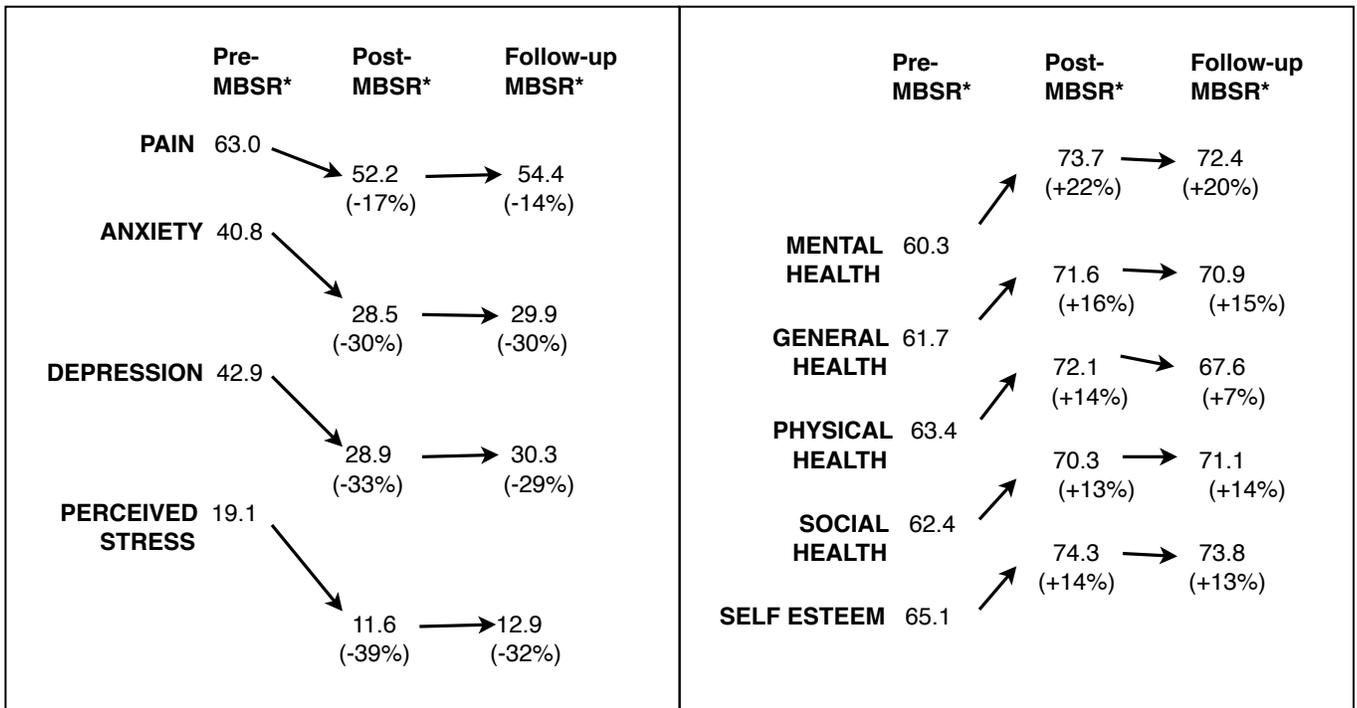


Table Graphics 1 & 2 (from Rogers, et al 2012^{10,11}) Statistically significant and enduring changes in health status score testing from pre-MBSR through follow-up testing up to 4 years later (n=94). *All scores are DUKE Health Profile¹² subscores with the exception of PERCEIVED STRESS which is the PSS-10.¹³

lists a number comments from MBSR participants and referring clinicians describing their experience of the program.

DISCUSSION

The results of programs at the SRC measured positive outcomes for MBSR participants in two general ways: improved multiple dimensions of health status and a transformation in attitudes and behaviors toward self-care. Similar positive results for participants in other studies over the past two decades have driven the recent, and we feel very appropriate, exponential growth in studies investigating the effectiveness of mindfulness training as an intervention for a variety of illnesses.^{3,6}

In an early study about the effects of mindfulness in medicine Jon Kabat-Zinn describes the effects of mindfulness practice on patients undergoing standard medical treatment.¹⁴ Those who practiced mindfulness briefly during standard treatment showed a significant and unexpected medical improvement in their condition relative to a control group undergoing regular standard treatment. These patients also acknowledged that they felt a sense of personal empowerment about their health as a consequence of the mindfulness practice.

Pondering these results Kabat-Zinn notes, “As care-givers, we have to remind ourselves of what we of course already know, namely that all human beings, including ourselves and our patients have, to varying degrees but almost always, far more than we suspect, deep and life-long inner resources for learning, growing, healing and personal transformation.”

The clinical results at the SRC measure and strongly echo these results. Beyond the data summarized here we find that MBSR participants continue say that they find a tangible way of meeting life in a generous and compassionate way even in the most difficult of circumstances.

CONCLUSIONS

Thankfully medicine is rapidly evolving from a fee for service business model to one of Participatory Medicine with patients, families, and health care providers collaborating.¹⁵ MBSR offers a well-studied, practical and accessible path toward proactive self-care to benefit everyone involved in this evolution of health care in the region served by the SRC.

Table 1. Some comments from participants and clinicians about the value they found in the MBSR Program (from Rogers, et al 2012⁵).

- "Mindfulness practice teaches my patients to dare to take their health and lives seriously. Carving out time to look within without judgement or agenda helps us all distinguish between the pain and loss that is an irreducible part of being human from the pain we volunteer for by living anywhere but the present, driven by the imperatives of our cultural programming." *MD, Psychiatrist, referring physician*
- "I find that those of my patients who participated in the MBSR course had better awareness and attitude toward their symptoms. In their own personal ways, this positive internal shift of attention helped them gain new understanding of their symptoms (i.e., pain, anxiety, etc.) and even help them in times of more severe symptomatology. In some cases, this skill has helped them become less dependent on pharmacologic therapy and more willing to adopt other self-care methods." *MD, Internist, referring physician*
- "Overall, I am calmer with my clients and sharing what I have learned with them is helping them to change their views of depression, anxiety, and other mental health challenges. - *LCSW, MBSR graduate and referring clinician*
- "I find that my clients who participated in mindfulness training perceive their bodily sensations in a more healthy way. This enhances their ability to tolerate and participate fully in treatment without the increased pain that tension and anxiety provoke." *PT, referring clinician*
- "The body aches and discomforts that the medical doctors couldn't even explain, much less fix, MBSR has alleviated." – *MBSR graduate, public school teacher*
- "I had just finished chemotherapy when the class began. Several months later I realized what an impact MBSR had made on my life. I was using so many of the principles as I went about my day to day experiences. I was accepting the limitations of my body and the frustrations. Rather than becoming sad and depressed, I was living in the moment. My job was stressful, but now I had ways to cope." - *cancer survivor, MBSR graduate*

SELECTED REFERENCES

Ludwig, D. and J. Kabat-Zinn (2008) Mindfulness in medicine. JAMA 300(11): 1350-1352. doi: 10.1001/jama.300.11.1350

Krasner, M. et al. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. JAMA 302(12), 1284-1293. doi:10.1001/jama.2009.1384

CITED REFERENCES

1. Kabat-Zinn, J. (1990) Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness. Delta.
2. Ludwig, D. and J. Kabat-Zinn (2008) Mindfulness in medicine. JAMA 300(11): 1350-1352.
3. Didonna, F. (2009) Clinical Handbook of Mindfulness. Springer.
4. Germer, C. K., Siegel, R. D., Fulton, P. R. (Eds.). (2005). Mindfulness and psychotherapy. Guilford Press.
5. Rogers B, et al. (2012) Mindfulness in Participatory Medicine: Context & Relevance. Jour Participatory Med (under review)
6. Baer R A. (Ed.). (2006). Mindfulness-Based Treatment Approaches: Clinician's Guide to Evidence Base and Applications. Burlington, MA: Elsevier.
7. Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits: A meta-analysis. Journal of Psychosomatic Research, 57, 35-43.
8. Krasner, M. S., (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. JAMA 302(12), 1284-1293. doi:10.1001/jama.2009.1384
9. Sunbay-Bilgen, Z, Christopher, M, & Rogers, B (2012). Examining a proactive self-care index in a Mindfulness-Based Stress Reduction program. J Participat Med. 2012 4:e22.
10. Rogers B, Sunbay-Bilgen Z, Christopher M. (2012) Mindfulness, self-care and participatory medicine. 10th Annual Scientific Conference, Center for Mindfulness, UMass Medical School
11. Rogers B, Christopher M, Sunbay-Bilgen Z. (2012) Mindfulness, self-care and participatory medicine: a community's clinical evidence. Jour Participatory Med (under review)
12. Parkerson, G. (2002) The Duke Health Profile (DUKE). Dept. Comm. and Family Medicine, Duke University Medical Center.
13. Cohen, S. et al. (1983) A global measure of perceived stress. Jour. Health Soc. Behav. 24: 385-396
14. Kabat-Zinn, J. (2000) Participatory medicine. Journal of the European Academy of Dermatology and Venereology, 14, 239-240. doi:10.1046/j.1468-3083.2000.00062.x
15. Society for Participatory Medicine. <http://participatorymedicine.org/>. Newburyport, MA