

# Mindfulness in Participatory Medicine: Context & Relevance

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## **Summary:**

**Background:** Therapeutic modalities involving the practice of mindfulness are gaining wide acceptance as effective interventions in medicine and psychotherapy. A growing library of well-designed research studies demonstrate significant and enduring improvements in a host of physical and mental health domains as a consequence of the practice. This effectiveness may be due in large part to the nature of mindfulness, which is an elemental dimension of proactive self-care.

**Intention:** In this review and position paper we outline and explore three decades of evidence for the relevance of mindfulness in the model of Participatory Medicine. Also included is a summary of one community's experience with a mindfulness-based intervention, Mindfulness-Based Stress Reduction (MBSR). The authors of this paper are community physicians, psychologists, therapists, patients, and teachers who have direct personal experience of mindfulness practice and/or observations of their patients who completed the MBSR program.

**Conclusions:** The authors conclude that with such rich evidence for its enhancement of health status and the parallel improvements in proactive self-care, mindfulness should be considered a fundamental principle in the evolving model of Participatory Medicine.

## **Mindfulness, Healing & Medicine**

One of the first mentions of the term participatory medicine in the medical literature was a paper in 2000 by Jon Kabat-Zinn. [1] He described the effects of mindfulness practice on patients undergoing standard medical treatment for psoriasis. Those who practiced mindfulness briefly during standard treatment showed a significant and unexpected medical improvement in their condition relative to a control group undergoing standard treatment. Patients acknowledged that they felt a sense of personal empowerment in the short, guided mindfulness practice.

Pondering these results Kabat-Zinn noted, "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."

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Tom Ferguson [2] recognized that when patients work collaboratively with one another and their caregivers there is this same sort of transformation in their level of personal engagement. He notes that this goes far beyond the tools of information and technology that are currently so abundant in medicine, including the model of Participatory Medicine. Shen [3] similarly noted that beyond the lure of technology, the social-cultural and biological dimensions of Participatory Medicine can enrich the model in fundamental ways. Johnson-Quijada [4] described the transformation that empowered her and her patients as she embraced self-care in participatory medical practice. This collaborative dimension of health and healing is interpersonal and is an important element of healing missing in the predominant models of healthcare so focused on disease management. Medical historian Ann Harrington reviewed the arc of historical narratives describing this often overlooked element of medicine as an effective, collaborative, and transformative aspect of human health. [5]

Neurobiologist and medical doctor Daniel Siegel also acknowledged that these interpersonal relationships are a fundamental source of health and well-being. [6] He added that our relationship with ourself, an intrapersonal relationship, is neurobiologically similar and occurs in tandem with this interpersonal dimension of health and well-being. Recent neurobiological research broadly supports this. [7] The fruits of mindfulness in the therapeutic setting are reviewed by Grossman, Niemann, Schmidt, & Walach, [8] who noted that the practice of mindfulness is a particularly suitable healing modality for helping people live with the complex biopsychosocial dimensions of

chronic illnesses with their significant components of comorbidity. These inter- and intrapersonal dimensions of mindfulness explain its natural compatibility with the model of Participatory Medicine.

### **Participatory Medicine, Participatory Authorship**

True to the model of Participatory Medicine we write this paper as a mutual expression of the integrative nature of mindfulness practice and as an embodiment of its value to health care. We are 15 authors and some of us work as clinicians in a diversity of organizations in one community, a medium-sized city in the state of Oregon. As clinicians we work in the fields of family medicine, internal medicine, integrative medicine, psychiatry, clinical psychology, clinical social work, teaching, physical therapy, and occupational therapy. We all have either learned mindfulness practice through the MBSR program, referred patients to the program or both.

We can personally acknowledge that the learning of mindfulness has been helpful for us and/or our patients. The particulars of the benefits of this practice are many and varied: changes in medical symptoms, relief from challenging emotional states, a greater sense of ability to engage challenges, and more. We review and discuss this thoroughly in this paper. While not a replacement for medical care or therapy, the practice of mindfulness has been a very effective complement. We believe it has huge potential to enhance models of health care that rely on patients caring for themselves in a proactive way while participating with those around them. We see in this practice the potential for broad benefits in medicine and society as McCabe-Ruff & Mackenzie [9] outline.

### **Mindfulness & Mindfulness-Based Stress Reduction**

Mindfulness is a basic human capacity for attentiveness to the direct experience of living moment-to-moment. A very accessible and therapeutically relevant expression of mindfulness is ‘awareness, of present experience, with acceptance.’ [10] During times of acute stress, trauma or difficulty the body will appropriately adapt by shifting to a mode of high-alert. This mode may echo through a person’s life in some form as an ongoing state physiologically, neurologically and emotionally. External stressors may be gone, but the state may endure in the long term and decrease the capacity for ease and recuperation. Such lingering stress may take many forms such as pain, difficult physiological states, moods, and more. This can affect health over the long term, often in profound, destructive ways. [11] [12]

The practice of mindfulness meditation, a foundational element of self-care, can mitigate this lingering stress. It enhances the capacity for mindfulness, the ability to rest sustained awareness on the direct experiences of life: physical sensations, thoughts, sounds, affective states, churning of thought, and more. Being more capable of sustained attention on current experience enhances the capacity to discern the experience of unconscious reactivity and distraction from the capacity for intuitive choice and conscious attentiveness. As a consequence, there is a tendency to be more responsive and less reactive: physiologically, neurologically, emotionally and socially. As these burdens lift, people are potentially more healthy and capable of healing. Practitioners are more capable of compassionate and healthy inter- and intrapersonal relationships. The therapeutic consequences of this practice are substantial and are being well recognized in the fields

of medicine and psychotherapy in a variety of ways. [13] [14] [15]

Mindfulness-Based Stress Reduction (MBSR) is well-studied and a well-known mindfulness-based group-oriented learning intervention. It emerged as a complement to medical care in a hospital setting over 30 years ago. [11] It is an 8-week experiential education program for learning the practice of mindfulness involving over 20 hours of classroom participation and as many hours of homework. It introduces participants to a variety of modes of experiential practice: mindful movement (gentle, adaptive yoga), body awareness meditation (body scan), sitting mindfulness practice, mindful eating, mindful walking and more. The aim of the program is to help participants make the practice relevant to daily living and thereby helpful in the face of life's inevitable stressors. This elemental dimension of self-care is thus enhanced.

### **The Role of Mindfulness in Medicine**

Mindfulness practice is being recognized as an effective complement to medical care and therapy. Research shows that it alters the stress response and a number of biological markers including blood pressure, inflammation, and immune response. [16] [17] [18] Many recent studies show that significant alterations of brain structure and function associated with self-regulation, learning, memory, emotional regulation, perspective and self-referential processing are a consequence of mindfulness practice. [7] [19] A rapidly growing number of studies show that the practice of mindfulness is helpful for those who suffer a variety of medical and psychiatric disorders: arthritis [20] [21], anxiety [22], cancer [23] [24] [25], diabetes [26], fibromyalgia [27], HIV [28] [29], insomnia [30], irritable bowel syn-

drome [31], obesity [32], multiple sclerosis [33], pain [35] [36] [37] [38], PTSD [39], and tinnitus [40]. Likewise mindfulness has been shown helpful for life situations impacting health: aging [41], caregiver stress [42] [43], grieving [44], health care profession stress [45] [46] [47], incarceration [48], and military deployment [49].

A host of interventions that include the practice of mindfulness are now offered to patients in treatment and as preventive care including: Acceptance and Commitment Therapy (ACT [50]), Dialectical Behavior Therapy (DBT [51]), MBSR (e.g. [52]), Mindfulness-Based Childbirth and Parenting (MBCP[53]), Mindfulness-Based Cognitive Therapy (MBCT [54]), Mindfulness-Based Mind Fitness Training (MMFT [49] [55]), Mindfulness-Based Relapse Prevention (MBRP[56]), Mindfulness-Based Cancer Recovery (MBCR [57]), Mindfulness-Based Elder Care (MBEC [58]) and Mindfulness-Based Chronic Pain Management. [59]

Such an impressive array of studies and therapeutic interventions makes it tempting to place mindfulness on the cookbook list of treatment guidelines followed by healthcare providers in this fast-paced, supply-side culture of contemporary medicine focused on managing disease quickly and efficiently. This would be tangential to the intentions and value of mindfulness practice. The goal-oriented seeking of an outcome packaged routinely by a healthcare provider who has little personal experience of the practice is contrary to the nature of mindfulness and as a consequence may diminish beneficial outcomes. [60]

At the heart of the nature of mindfulness is proactive personal engagement, a willingness to make space in daily living for cultivating the intrapersonal relationship described by Siegel [6] that parallels

the interpersonal nature of healing relationships. A number of studies acknowledge that mindfulness does indeed measurably impact self-care in substantial ways. [15] [43] [46] [49] [61] [62]

### **An Example of Mindfulness in Participatory Care**

We conducted a naturalistic study of the clinical relevance of mindfulness for the model of Participatory Medicine for both patients and healthcare providers in one community over a four year period. [15] Nearly two hundred participants who completed an MBSR program were tracked for health status, self-care, continuity of mindfulness practice at pre-, post- and long-term followup. Clinicians who were known by participants of the program were asked if they had noticed a difference in their patients' attitudes and behaviors regarding self-care.

Participants endorsed substantial improvements in many areas of health status such as coping, energy levels, activity levels, pain, medication use, and blood pressure. Many of these improvements endured over years. Participants indicated that their attitudes and behaviors toward self-care substantially improved as a consequence of the program and this is parallel to observations of the clinicians who referred them to the program. The study also documented a strong relationship between the continuity of mindfulness practice and levels self-care and stress. The vast majority of program participants reported a continued formal or informal mindfulness practice, which correlated significantly with decreased levels of stress and improved self-care in the long term.

We have included some comments from participants and clinicians to provide a qualitative and personal description of the experiences of the community of people who par-

ticipated with one another while learning mindfulness practice during this study (Table 1 & Table 2).

### **Mindfulness, Participatory Medicine and Standards of Care**

A growing library of quasi-experimental and controlled studies, meta-analyses and established mindfulness-based interventions provide abundant evidence for the generalized therapeutic value of the

practice of mindfulness in medicine and psychotherapy. It has proven to be broadly relevant for both patients and clinicians as it enhances the ability to meet the suffering that accompanies illness with proactive participation.

As our society moves from unsustainable fee-for-service care to an outcome-oriented way of managing health and illness, the model of Participatory Medicine becomes more practical and relevant. We believe that it is time to begin con-

sidering mindfulness as an elemental principle in standards of care in this model. We acknowledge that meeting a modern standard of care through specialist associations, government, or health care organizations is a daunting prospect and especially so as the most common source of standard of care criteria is the courtroom. [63] We postulate that evidence for the value of mindfulness practice we describe in this paper will soon meet the evidence-based founda-

#### **Table 1. Comments from referring clinicians about the value of mindfulness practice and MBSR to their patients.**

- "Mindfulness practice teaches my patients to dare to take their health and lives seriously. Carving out time to look within without judgment 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 helped 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
- "The opportunity to watch my patients unfold before me as empowered individuals actively participating in their own wellbeing and self-care brings me the greatest satisfaction of my entire career in medicine. I consider the graduates of MBSR to be the experts on how to integrate the mindfulness approach to everyday busy lives we all live." - MD, Family Practice, 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. They have a much enhanced ability to distinguish between the "good" pain of therapeutic movement, and the "bad" pain of illness or injury. This enhances their ability to tolerate and participate fully in treatment, without the increased pain that tension and anxiety provoke." - Physical Therapist, referring clinician

tional criteria for what is considered in many situations to be a best practice as participatory care and self care become more common and relevant. This will build momentum for a standard of care that includes mindfulness.

The next steps for the development of the role of mindfulness in the realm of medicine is to continue to weave together communities of clinicians and patients as we have documented here in order to further embody clinical relevance. As the outcomes are more tangible for patients and clinicians the standards of care we encourage will emerge

and will, in a fundamental way, help redefine the paradigm of medicine toward participatory care. This will be particularly relevant with the emergence of accountable care organizations and the fundamental dependence they will have on proactive patient self-care.

### Conclusions

Mindfulness is an inherent human quality and elemental dimension of self-care that is often diminished in the face of stress and illness. This in turn amplifies the medical, psychological, social and self-care dif-

ficulties of illness. Mindfulness-based interventions have proven to be effective complements to medical care and therapy that mitigate each of these difficulties in substantial and enduring ways. As such we believe that mindfulness should be considered a fundamental principle in the evolving model of Participatory Medicine and that mindfulness-based interventions should be included in development of standards of participatory medical care.

#### **Table 2. Comments from MBSR program participants about the value of mindfulness practice in their experience of health care.**

- “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
- “I had already endured years of chronic illness, multiple surgeries, and breast cancer with ever-dwindling inner resources to sustain me before discovering the MBSR 8-week course. This course gave me back my connection to healthy self that had been stripped of me over the course of my medical journey.” - cancer survivor, MBSR graduate
- “When I notice myself becoming stressed (especially at work) I have learned to stop, breathe, and center myself in the present moment. I accept it and move forward with increased calm and clarity.” - MBSR graduate
- “MBSR training gave me an exciting tool to share within the self-care opportunities offered to Occupational Therapists.” - Occupational Therapist and MBSR graduate
- “Due to my Crohn’s diagnosis my pregnancy was classified ‘high risk.’ MBSR was important in my taking time to recognize and relieve the effects of daily stressors and helping to reduce inflammation. My son was born healthy and unmedicated in a natural delivery.” - MBSR graduate

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**ADDENDUM: Graphical Summary of Health Status Changes Consequent to MBSR**

Table graphics summarizing results in Rogers, et al 2012 [15] table 4. 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 Profile subscores with the exception of PERCEIVED STRESS which is the PSS-10.

