

Chapter 1

Introduction to the MGH Handbook of Behavioral Medicine

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Over the last few decades, a large body of research has clearly demonstrated that the traditional disease-focused, biomedical approach to illness management is less effective than a biopsychosocial, evidence-based, patient-centered approach. The utility of this more comprehensive approach has been evident for both a variety of chronic illnesses and, more recently, acute medical conditions. In contrast to the traditional biomedical model of illness, which typically reduces illness to a pathophysiological disease process, a biopsychosocial approach accounts for the complex interaction among biologic, psychological, social, and behavioral factors [1].

The field of Behavioral Medicine developed in response to the transition toward a biopsychosocial model and ever-growing evidence documenting the importance of psychosocial factors in the etiology, progression and outcomes of illness. Indeed, psychological factors influence adherence to medical regimens (e.g., [2–6, 16]), success of medical procedures (e.g., [7, 8]), physical functioning (e.g., [9]), mortality (e.g., [10, 11, 17]), recovery after injury [12], and overall quality of life (e.g., [13]). Psychosocial factors are also associated with increased service utilization and health care costs (e.g. [14]).

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The large body of research supporting the biopsychosocial model has led to the development of behavioral medicine interventions delivered as adjunct to medical treatment. Due to increased reliance on evidenced-based outcomes focused on cost and patient satisfaction, as well as on clinical efficacy and effectiveness, behavioral medicine interventions integrate the best available scientific evidence with clinician expertise in order to help patients prevent and cope with disease. Interventions are also patient centered, accounting for individual patient preferences, needs and values, while customizing treatments on the basis of informed, shared decision making, development of patient knowledge, enhancement of skills needed for self-management of illness and engagement in preventive behaviors.

The field of behavioral medicine has grown and expended over the last few decades to include treatments delivered in outpatient psychiatry departments by clinical psychologists as well as treatments integrated within inpatient or outpatient medical practices by clinical psychologists, social workers, other mental health professionals, and sometimes medical staff such as nurses or physician assistants. The field of behavioral medicine is malleable and aims to accommodate developments and changes within the larger health care system. Currently behavioral medicine interventions are delivered not only face to face, but also through videoconferencing, or over the telephone. Nurses and other medical providers are becoming more involved in the delivery of behavioral medicine interventions, sometimes with training from clinical psychologists or other behavioral health professionals. With the current emphasis on population-based medicine and developing “medical homes” focused on continuity and coordination of care for medical patients through multidisciplinary teams, it is expected that the field of behavioral medicine will continue growing, changing and expanding in years to come [15].

The Behavioral Medicine Service at Massachusetts General Hospital was developed by Dr. Steven Safren in 2004. After working for several years in the Cognitive Behavioral Therapy (CBT) program, which predominately supported the Department of Psychiatry, and treating many patients with comorbid psychological and medical conditions, Dr. Safren noticed that it would be important to meet the needs of the primary care and specialty practices in our system through a specialized Behavioral Medicine Service with clinicians trained specifically in addressing the psychological needs of medical patients. Dr. Safren had been conducting research and providing clinical care with the MGH HIV service, in which patient adherence to potentially life-saving medications was essential to optimal disease management. Additionally, many of the referrals that came through to the CBT program from the Infectious Disease Unit were for patients whose mental health or substance use problems interfered with them achieving their optimal disease-management self-care goals. Dr. Joseph Greer was the first postdoctoral fellow within the department in 2004, while Dr. Ana-Maria Vranceanu was the first Behavioral Medicine clinical fellow (pre-doctoral intern) in 2005. Over the years, Drs. Greer and Vranceanu advanced through the MGH and Harvard system, developing their own clinical and research programs within the Behavioral Medicine Program, specializing in psycho-oncology and pain management, behavioral health integration in specialty clinics, respectively. Dr. Greer is currently Program Director of the Center for Psychiatric

Oncology & Behavioral Sciences. Dr. Vranceanu is currently Assistant Director of Behavioral Health Integration within Behavioral Medicine, and Executive Director of Comprehensive Care for the Institute of Brain Health. Under the direction of Dr. Safren from its inception 2004 until 2015, the department has grown considerably and now encompasses 18 core clinical psychologists, two postdoctoral fellows and two pre-doctoral interns yearly. The department is currently led by Dr. Conall O’Cleirigh.

The Massachusetts General Hospital’s Behavioral Medicine Service has the primary goal of addressing the psychosocial needs of medical outpatients and fostering multidisciplinary collaborations to improve the clinical care of patients with medical illness. Consistent with the biopsychosocial model, the treatment philosophy assumes the presence of a physical problem that can be influenced by behavioral and psychological factors. Treatment seeks to identify, control and limit the potentially negative influence these factors can have on a patient’s medical problem. To this end, a variety of evidence-based behavioral and cognitive-behavioral treatments and techniques are used within a general CBT framework. Treatments are time-limited, problem-focused, directly linked to the medical need, and actively involve the patient in his or her own treatment. Engaging individual patients in treatment occurs in at least two ways. First, the patient monitors the status of the presenting concern in between sessions. Second, the patient learns and practices evidence-based techniques that modify and limit the negative effects of certain cognitive and behavioral factors. These techniques may include problem-solving training, relaxation training, cognitive restructuring, communication skills, contingency management, motivational enhancement, and behavioral assessment and modification. Regular communication with medical team is essential to this approach.

The MGH Handbook of Behavioral Medicine outlines the importance of biopsychosocial factors in improving medical care and illustrates evidence-based, state-of-the-art interventions for patients with a variety of medical conditions. Each chapter is focused on a particular health concern or illness, which is described both in terms of prevalence and frequent psychological and psychiatric comorbidities that may present to clinicians working with these populations. Unified by a focus on the biopsychosocial model, each health concern has unique challenges, which are addressed in each chapter. Consistent with an evidence-based approach to care, relevant research on the efficacy of the various treatments is presented, to support their continued use and dissemination. To accommodate the needs of clinicians, we describe population-specific approaches to treatment, including goal setting, therapeutic interventions, as well as strategies to assess and monitor progress. To facilitate learning, each chapter contains one or more case examples that explicate the interventions and illustrate patient improvement within a behavioral medicine protocol. Each chapter also includes resources in the form of books and websites to gain additional knowledge and detail as needed. We have selected authors who are either currently part of the Behavioral Medicine Service at MGH, or who have trained within our department and are now practicing in other settings. Either the first or senior author on each chapter is an expert in the specific topic of the chapter, ensuring that the information presented is recent and of high quality.

The book is organized into three main parts. The first part is concerned with health-risk behaviors that directly impact physical and/or psychological functioning, including chapters focused on smoking cessation, obesity/weight conditions, and substance abuse. The second part addresses the treatment of chronic conditions and includes chapters on chronic pain, diabetes, HIV, cardiovascular issues, cancer, epilepsy/other neurological conditions, and gastro-intestinal conditions. The third and final part includes more recent developments in the field of behavioral medicine, with chapters focused on women's health, palliative care and end-of-life concerns, cultural considerations, and the delivery of behavioral medicine interventions in resource poor global settings.

We believe that this handbook will be of equal relevance to clinicians, researchers, academicians and graduate students in clinical psychology. The detailed presentation should facilitate the ability of clinicians and other mental health providers to treat diverse populations with health-risk concerns and chronic illnesses more effectively. Moreover, the specific elements of the presented treatments may inform investigators about salient clinical issues in need of empirical testing and support. Lastly, the detailed explanations of the research and various behavioral medicine interventions targeting health-risk behaviors and chronic illnesses make this handbook an ideal teaching tool for clinical psychology graduate programs.

References

1. Engel GL. The need for a new medical model: a challenge for biomedicine. *Science*. 1977;196:129–36. doi:[10.1126/science.847460](https://doi.org/10.1126/science.847460). ISSN 0036-8075 (print)/ISSN 1095-9203 (web).
2. DiMatteo MR, Lepper HS, Croghan TW. Depression is a risk factor for noncompliance with medical treatment: meta-analysis of the effects of anxiety and depression on patient adherence. *Arch Intern Med*. 2000;160(14):2101–7.
3. Gonzalez JS, Peyrot M, McCarl LA, Collins EM, Serpa L, Mimiaga MJ, Safren SA. Depression and diabetes treatment nonadherence: a meta-analysis. *Diabetes Care*. 2008;31(12):2398–403.
4. Greer JA, Pirl WF, Park ER, Lynch TJ, Temel JS. Behavioral and psychological predictors of chemotherapy adherence in patients with advanced non-small cell lung cancer. *J Psychosom Res*. 2008;65(6):549–52.
5. Mitchell AJ, Chan M, Bhatti H, Halton M, Grassi L, Johansen C, Meader N. Prevalence of depression, anxiety, and adjustment disorder in oncological, haematological, and palliative-care settings: a meta-analysis of 94 interview-based studies. *Lancet Oncol*. 2011;12(2):160–74.
6. Traeger L, Greer JA, Fernandez-Robles C, Temel JS, Pirl WF. Evidence-based treatment of anxiety in patients with cancer. *J Clin Oncol*. 2012;30(11):1197–205.
7. Adogwa O, Parker SL, Shau DN, Mendenhall SK, Aaronson O, Cheng JS, Devin CJ, McGirt MJ. Cost per quality-adjusted life year gained of revision neural decompression and instrumented fusion for same-level recurrent lumbar stenosis: defining the value of surgical intervention. *J Neurosurg Spine*. 2012;16:135–40.
8. Vranceanu AM, Ring D. Predictors of disability after minor hand surgery. *J Bone Joint Surg*. 2010;12:123–45.

9. Stegenga BT, Geerlings MI, Torres-González F, Xavier M, Svab I, Penninx BW, Nazareth I, King M. Risk factors for onset of multiple or long major depressive episodes versus single and short episodes. *Soc Psychiatry Psychiatr Epidemiol*. 2013;48(7):1067–75.
10. Cook JA, Grey D, Burke J, Cohen MH, Gurtman AC, Richardson JL, Hessel NA. Depressive symptoms and AIDS-related mortality among a multisite cohort of HIV-positive women. *Am J Public Health*. 2004;94(7):1133–40.
11. Pirl WF, Temel JS, Billings A, Dahlin C, Jackson V, Prigerson HG, Greer J, Lynch TJ. Depression after diagnosis of advanced non-small cell lung cancer and survival: a pilot study. *Psychosomatics*. 2008;49(3):218–24.
12. Vranceanu AM, Hageman M, Strooker J, ter Meulen D, Vrahas M, Ring D. A preliminary RCT of a mind body intervention in patients with acute trauma at risk for chronic pain and disability. *Injury*. 2015;46(4):552–7.
13. Rapaport MH, Clary C, Fayyad R, Endicott J. Quality-of-life impairment in depressive and anxiety disorders. *Am J Psychiatr*. 2005;162(6):1171–8.
14. McLaughlin TP, Khandker RK, Kruzikas DT, Tummala R. Overlap of anxiety and depression in a managed care population: prevalence and association with resource utilization. *J Clin Psychiatry*. 2006;67(8):1187–93.
15. Keefe FJ. Behavioral medicine: a voyage to the future. *Ann Behav Med*. 2011;41(2):141–51.
16. Kronish IM, Rieckmann N, Halm EA, Shimbo D, Vorchheimer D, Haas DC, Davidson KW. Persistent depression affects adherence to secondary prevention behaviors after acute coronary syndromes. *Journal of General Internal Medicine*. 2006;21:1178–1183. doi:[10.1111/j.1525-1497.2006.00586.x](https://doi.org/10.1111/j.1525-1497.2006.00586.x).
17. Katon WJ, Von Korff M, Lin EH, et al. The Pathways Study: a randomized trial of collaborative care in patients with diabetes and depression. *Arch Gen Psychiatry*. 2004;61:1042–1049.