THE EVIDENCE-BASED PRACTICE

Methods, Models, and Tools for Mental Health Professionals

Edited by Chris E. Stout and Randy A. Hayes

John Wiley & Sons, Inc.

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To those who are able to navigate between the worlds of science, practice, and humanity, wanting to make a difference and willing to do so; and to the consumers who will ultimately benefit in an improved quality of life.

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Foreword

It is with great pleasure and professional pride that I accepted Randy Hayes's invitation to write this foreword. The implementation and successful use of evidence-based treatments, described in the following chapters, will assist both care providers and consumers in achieving a more satisfying quality of life. For consumers, this is data evident. For providers, nothing succeeds like success, and the satisfaction generated by concrete evidence that your work has helped others is the professional's ultimate level of satisfaction. This is, after all, basic to the mission of all behavioral healthcare treatment providers.

The Joint Commission on the Accreditation of Healthcare Organizations has long been a proponent of evidence-based treatment within healthcare settings. As an acknowledgment and celebration of Joint Commission accredited organizations that achieve a high level of evidence collection and use, the Joint Commission on the Accreditation of Healthcare Organizations established the Ernst A. Codman Award. This award, initiated in 1997, is presented to organizations and individuals for the use of process and outcomes measures to improve organization performance and quality of care and services as a model for others.

Both the volume editor and the subjects addressed in this volume are linked to the Codman Award by experience and focus. The first Codman Award given in the behavioral health field recognized the value of data use in community-based settings. The Center for Behavioral Health in Bloomington, Indiana, received the first Codman Award in behavioral healthcare for their project entitled "Transporting Evidence-Based Treatments into Behavioral Health Care Settings." Attending the 1999 ceremony when the Center for Behavioral Health received the Codman Award was Randy Hayes, one of the co-editors of this volume. Randy took back to his organization, Sinnissippi Centers, his excitement regarding this concept. Within 1 year, Sinnissippi Centers had submitted one of their evidence-based programs for consideration, and in another 2 years, in 2002, Sinnissippi was the recipient of the Codman Award. The protocols and suggestions for implementing evidence-based treatments within a community-based setting are thus based on his experience in the real word of community agencies and practices.

Indeed, the experience of all of the winners of the Codman Award, as well as the applicants for the award is either in applying evidence-based treatments or collecting evidence on their own treatment protocols to determine their effectiveness. These agencies, as well as other treatment providers who are involved in similar endeavors, are the living proof that evidence-based treatment protocols and methodologies, such as those found within this book, can be applied within community settings. Their experience is that evidence-based practices can not only be applied within community

settings, these practices can make significant improvements in the lives of the consumers who receive the evidence-based services.

I thus commend this work to you with the hope that it can inspire you and guide your practice, program, agency, leadership, and board in their approach to care and services and location of resources.

Mary Cesare-Murphy, PhD
Executive Director, Behavioral Health
Joint Commission on the Accreditation
of Healthcare Organizations

Acknowledgments

No book is ever the result of one person, and this effort is certainly a fine example. I would first like to thank my co-author and co-editor, Randy Hayes. His work as well as his many e-mail consultations were critical to the production and quality of this volume (as well as helping me keep perspective in spite of the stresses and strains associated with a project such as this). Similarly, Tracey Belmont and Peggy Alexander have been critically helpful from the very start when I first approached John Wiley & Sons, Inc. about executing this book.

I very much feel like I have been, metaphorically speaking, "standing on the shoulders of giants" in regard to the caliber of the contributing authors and the quality of their work herein. I wish to personally thank the contributing authors for their scholarship, their work, and for their commitment to others and to the field.

And of course, behind the scenes there are an outstanding cadre of colleagues who have guided me in the realm of evidence-based practice issues, including Leigh Steiner, Daniel Luchins, Pat Hanrahan, Christopher Fichtner, Peter Nierman, Richard Barton, and Charlotte Kauffman.

Paramount to my ability to function, and ironically, the first to sacrifice time in order for me to work during vacation, evenings, weekends, and early morning hours that this book necessitated, are my family, Karen, Grayson, and Annika—without whom I would not be able to function. My thanks to you all.

CHRIS E. STOUT

Kildeer, Illinois

Authors' Bios

William A. Anthony, PhD, is the director of Boston University's Center for Psychiatric Rehabilitation, and a professor in Sargent College of Health and Rehabilitation Sciences at Boston University. For the past 35 years, Anthony has worked in various roles in the field of psychiatric rehabilitation, and has been honored for his performance as a researcher, an educator, and a clinician. He is currently co-editor of the *Psychiatric Rehabilitation Journal.* In 1988, Anthony received the Distinguished Services Award from NAMI. Anthony has appeared on ABC's *Nightline,* which featured a rehabilitation program developed and implemented by Boston University's Center for Psychiatric Rehabilitation. In 1992, Anthony received the Distinguished Service Award from the president of the United States.

Anthony has authored over 100 articles in professional journals, 14 textbooks, and several dozen book chapters—the majority of these publications on the topic of psychiatric rehabilitation.

Susan J. Boust, MD, is a psychiatrist on an ACT team in Omaha, Nebraska. She is also the director of Public and Community Psychiatry for the University of Nebraska Medical Center Department of Psychiatry. She has worked as the Mental Health Clinical Leader with the Nebraska Department of Health and Human Services. Boust has also consulted with the state of Florida in their statewide implementation of Assertive Community Treatment.

Timothy J. Bruce, PhD, is associate professor of clinical psychology in the Department of Psychiatry and Behavioral Medicine at the University of Illinois College of Medicine–Peoria, where he is also co-director of the Anxiety and Mood Disorders Clinic and director of Medical Student Education. A summa cum laude graduate of Indiana State University, he received his PhD in Clinical Psychology from the State University of New York at Albany and did his residency at Wilford Hall Medical Center, San Antonio, Texas. Bruce is a consultant to public and private mental health agencies on issues such as patient assessment and treatment, clinical training and supervision, and outcome management systems. He has been the principal or co-principle investigator on grants aimed at improving mental healthcare and service delivery systems. Bruce has authored several professional publications including professional journal articles, books, chapters, and professional educational materials in psychology and psychiatry. He has been cited frequently as an outstanding educator, having won more than a dozen awards for teaching excellence.

Judith A. Cook, PhD, is professor of psychiatry at the University of Illinois at Chicago (UIC), Department of Psychiatry. She received her PhD in sociology from the Ohio State University and completed a National Institute of Mental Health postdoctoral

training program in clinical research at the University of Chicago. Currently she directs the Mental Health Services Research Program (MHSRP) which houses several federally funded centers, two of which focus on employment and vocational rehabilitation services research. The UIC Coordinating Center for the Employment Intervention Demonstration Program is a federally funded (by the Center for Mental Health Services-CMHS) multisite study of vocational rehabilitation service interventions for persons with major mental disorders in eight states around the country. The UIC National Research and Training Center on Psychiatric Disability is funded (by CMHS and the U.S. Department of Education) for 5 years to conduct a series of research and training projects addressing self-determination in the areas of psychiatric disability, employment, and rehabilitation. Her published research includes studies of vocational rehabilitation outcomes, employer attitudes toward workers with psychiatric disabilities, multivariate statistical approaches to studying employment among mental health consumers, the role of work in recovery from serious mental illness, policy issues in disability income support programs, and postsecondary training and educational services for persons with mental illness. Cook is an expert consultant on employment and income supports for the president's New Freedom Commission on Mental Health. She also consults with a variety of federal agencies.

Patrick W. Corrigan, PsyD, is professor of psychiatry at the University of Chicago where he directs the Center for Psychiatric Rehabilitation—a research and training program dedicated to the needs of people with serious mental illness and their families. Corrigan has been principal investigator of federally funded studies on rehabilitation, team leadership, and consumer operated services. Two years ago, Corrigan became principal investigator of the Chicago Consortium for Stigma Research (CCSR), the only NIMH-funded research center examining the stigma of mental illness. CCSR comprises more than two dozen basic behavioral and mental health services researchers from 9 Chicago area universities and currently has more than 20 active investigations in this area. Corrigan has published more than 150 papers and seven books including *Don't Call Me Nuts! Coping with the Stigma of Mental Illness,* co-authored with Bob Lundin.

Lisa Dixon, MD, is a professor of psychiatry at the University of Maryland School of Medicine. She serves as director of the Division of Services Research in the School's Department of Psychiatry. Dixon is also the associate director for research of the VA Mental Illness Research, Education, and Clinical Center (MIRECC) in VISN 5, the Capitol Health Care Network. Dixon is a graduate of Harvard College and the Cornell University Medical School. She completed her psychiatric residency at the Payne Whitney Clinic/New York Hospital, a research fellowship at the Maryland Psychiatric Research Center, and a master's degree at the Johns Hopkins School of Public Health. Dixon is an active researcher with grants from the NIMH, NIDA, and the VA as well as numerous foundations. Her research activities have focused on improving the health outcomes of persons with severe mental illnesses and their families. She has published over 80 refereed papers and numerous book chapters. She was previously director of education and residency training in the Department of Psychiatry as well as ethical issues

in human research. She is currently a vice chair of the University of Maryland Institutional Review Board.

Marianne Farkas, ScD, is currently the director of training and international services at Boston University's Center for Psychiatric Rehabilitation, and a research associate professor in Sargent College of Health and Rehabilitation Sciences at Boston University. Farkas has authored and co-authored over 40 articles in professional journals, four textbooks, a dozen book chapters, and six multimedia training packages. Farkas's latest professional books were published in 2001 and 2002. For the past 25 years, Farkas has worked in various capacities in the field of psychiatric rehabilitation and has been recognized for her contributions to the field. Farkas is in charge of the World Health Organization Collaborating Center in Psychiatric Rehabilitation, providing training, consultation, and research expertise to the WHO network around the globe. She has developed training, consultation, and organizational change methodologies to support programs and systems in their efforts to adopt psychiatric rehabilitation and recovery innovations. She is currently on the editorial review board of journals ranging from *Psychiatric Services, la Riabilitazione Psichiatrica,* to the *Psychiatric Rehabilitation Journal.* Farkas has been elected for the past 16 years to the Board of the World Association of Psychosocial Rehabilitation, most recently chairing a committee on evidence base for PSR Programs. As an educator, Farkas received Boston University's Award of Merit in 1993. In 1998, Farkas received the John Beard Award from the International Association of Psychosocial Rehabilitation Services.

Randy A. Hayes, MS, is the director of quality assurance for Sinnissippi Centers, Inc., Dixon, Illinois, a position he has held for the past 12 years. With experience in both child welfare and behavioral health, Hayes has 30 years' experience in human services and holds multiple certifications in addition to being a licensed clinical professional counselor. He is a contractual lecturer for the Joint Commission Resources in addition to lecturing and consulting around the United States. He is co-author of *A Handbook of Quality Change and Implementation for Behavioral Health* and has both professional and faith-based publications. Sinnissippi Centers, received the 2002 Joint Commission for the Accreditation of Healthcare Organizations' Ernst A. Codman Award for Behavioral Healthcare and the 2003 American Psychiatric Association's Psychiatric Services Award for one of their evidence-based programs for MISA consumers.

Thomas C. Jewell, PhD, is an assistant professor of psychiatry (psychology) at the University of Rochester School of Medicine and Dentistry, and the director of the Family Institute for Education, Practice, and Research in Rochester, New York. He received his PhD from Bowling Green State University (Ohio), completed his internship training at the University of Rochester Medical Center, and completed a postdoctoral fellowship in the psychiatric rehabilitation of schizophrenia at the University of Rochester Medical Center and the Rochester Psychiatric Center. Jewell's research activities focus on staff training in evidence-based practices, family interventions, and caregiving in severe mental illness, and behavioral treatments of schizophrenia. Jewell is currently directing a project that established the Family Institute for Education, Practice, and Research to teach mental health professionals in New York State how to work effectively with

families of people with severe mental illness. The Family Institute is a partnership between the New York State Office of Mental Health and the University of Rochester Medical Center's Department of Psychiatry, in collaboration with The Conference of Local Mental Hygiene Directors and the New York State Chapter of the National Alliance for the Mentally Ill. In addition, since 1994 Jewell has been conducting quantitative and qualitative research on the potential transfer of caregiving from aging parents to adult well siblings of people with severe mental illness. He has several publications in peer-reviewed journals and frequently presents his work at professional conferences throughout the United States.

Melody C. Kuhns, MS, has a master's degree in public administration and 20 years' experience developing services for persons with serious mental illness. She has worked both in a provider capacity for Tarrant County Mental Health and Mental Retardation in Ft. Worth, Texas, and as a program developer for the Texas Department of Mental Health. From 1994 to 1998, she served as the Texas state coordinator of Assertive Community Treatment. Recently, she worked with the Florida Department of Children and Families to coordinate a national cadre of PACT experts to help Florida with their statewide implementation of ACT.

John S. Lyons, PhD, is a professor of psychiatry and community medicine and the director of the Mental Health Services & Policy Program at Northwestern University's Feinberg School of Medicine. His research interests involve the use of assessment processes and findings to drive service system transformation. He has published nearly 200 peer-reviewed publications and four books.

Stanley G. McCracken, PhD, LCSW, is associate executive director at the University of Chicago Center for Psychiatric Rehabilitation and the Illinois MISA Institute. He holds joint appointments at the University of Chicago as associate professor of Clinical Psychiatry and as senior lecturer in the School of Social Service Administration. He has an MA and PhD in social work from the University of Chicago, School of Social Service Administration. He has conducted research at the Center for Psychiatric Rehabilitation and with the University of Chicago Human Behavioral Pharmacology Research Group. While with the latter group, McCracken conducted a series of research studies investigating the relationship between mood, mental illness, and drug taking behavior. He has published in the areas of psychiatric rehabilitation, chemical dependency, behavioral medicine, mental illness, and methods of staff training. He is a respected clinician with 25 years' experience working with individuals with mental illness, physical illness, and chemical dependence. He is a nationally known educator and teacher who has taught and supervised a variety of healthcare professionals. He has provided training, program development, and clinical consultation, throughout the United States to a number of inpatient and outpatient programs serving individuals with mental illness and substance abuse problems.

William R. McFarlane, MD, is professor of psychiatry at the University of Vermont, Department of Psychiatry, and director of research and former chairman, Department of Psychiatry of Maine Medical Center. Previously, he was director of the Biosocial Treatment Research Division of the New York State Psychiatric Institute and an associate

professor in the Department of Psychiatry, College of Physicians and Surgeons, Columbia University. He was director of family therapy training for the residency training program and the director of the Fellowship in Public Psychiatry at Columbia. He has been working with families of the mentally ill, especially in multiple family groups, since his training at Albert Einstein College of Medicine in Social and Community Psychiatry, from 1970 to 1975. He edited *Family Therapy in Schizophrenia,* published in 1983. He published *Multifamily Groups in the Treatment of Severe Psychiatric Disorders* in 2003. He is a graduate of Earlham College and Columbia University, College of Physicians and Surgeons. His main interests are in developing and testing family and psychosocial treatments for major mental illnesses and their application in the public sector. He has published more than 40 articles and book chapters, is an associate editor of *Family Process* and *Families, Systems and Health* and has served on the board of directors of the American Orthopsychiatric Association, on the Council of the Association for Clinical Psychosocial Research, and as president of the Maine Psychiatric Association.

Catherine McNeilly, PsyD, is the director of the MISA Institute at the University of Chicago Center for Psychiatric Rehabilitation. McNeilly has served as the manager for Mentally Ill Substance Abuser (MISA) programs for the Division of Alcoholism and Substance Abuse (DASA) in Illinois and was manager for clinical services in the Illinois Department of Children and Family Services. She also worked as project administrator and research associate at two federally funded programs that studied perinatal addiction and recovery. In addition, she was the project director at a federally funded program aimed at evaluating attachment between drug using mothers and their preschool children. McNeilly received her degree in clinical psychology from the Adler School of Professional Psychology in Chicago. She has extensive experience as a trainer, both nationally and locally. She is a certified drug and alcohol counselor who has worked in the field for 15 years.

David J. Miklowitz, PhD, did his undergraduate work at Brandeis University, Waltham, Massachusetts, and his doctoral and postdoctoral work at University of California, Los Angeles. He was on the psychology faculty at the University of Colorado in Boulder from 1989 to 2003, and is now professor of psychology and director of clinical training at the University of North Carolina, Chapel Hill. His research focuses on family environmental factors and family psychoeducational treatments for adult-onset and childhood-onset bipolar disorder. Miklowitz has received the Joseph Gengerelli Dissertation Award from UCLA, the Young Investigator Award from the International Congress on Schizophrenia Research, the National Alliance for Research on Schizophrenia and Depression (NARSAD), a Research Faculty Award from the University of Colorado, and a Distinguished Investigator Award from NARSAD. He also has received funding for his research from the National Institute for Mental Health and the John D. and Catherine T. MacArthur Foundation. Miklowitz has published over 100 research articles and book chapters on bipolar disorder and schizophrenia. His articles have appeared in the *Archives of General Psychiatry,* the *British Journal of Psychiatry,* the *Journal of Nervous and Mental Disease, Biological Psychiatry,* the *Journal of Consulting and Clinical Psychology,* and the *Journal of Abnormal Psychology.* His book

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Purva H. Rawal is a doctoral student in clinical psychology in the Mental Health Services and Policy Program at Northwestern University's Feinberg School of Medicine. Her research interests are children's mental health service delivery and outcomes management.

Lisa A. Razzano, PhD, is a social psychologist and associate professor of psychiatry in the Department of Psychiatry, University of Illinois at Chicago. She is the director of research for the UIC National Research and Training Center on Psychiatric Disability, and she also is principal investigator (or co-PI) for several federally funded programs at the department's Mental Health Services Research Program (MHSRP). Since 1995, she has served as project coordinator for the Employment Intervention Demonstration Program (EIDP). Razzano has more than 14 years of experience in mental health services and rehabilitation research, including projects in areas such as psychosocial rehabilitation, vocational services and employment outcomes, and the mental health aspects of HIV/AIDS, with particular expertise in evaluation and biostatistics. Razzano is the author of numerous peer-reviewed journal articles, book chapters, technical reports, and training materials regarding psychiatric rehabilitation research, and has presented outcomes and results from her own projects, as well as those of the MHSRP, at more than 100 professional conferences, federal project meetings, and consumer/advocacy organizations.

E. Sally Rogers, PhD, is director of research at the Center for Psychiatric Rehabilitation at Boston University. The Center focuses on the rehabilitation and recovery of persons with psychiatric disability. Rogers joined the Center in 1981 as a research associate. Rogers currently serves as co-principal investigator for a Research and Training Center grant which is funded to carry out nine research studies on the recovery of individuals with mental illness. She was principal investigator of a postdoctoral fellowship award from NIDRR for 10 years and principal investigator of a grant to study consumer-operated services funded by the Center for Mental Health Services. Rogers is also a research associate professor at Boston University, Sargent College of Health and Rehabilitation Sciences where she teaches master's and doctoral-level research courses and seminars. She is the recipient of the Loeb Research Award from the International Association of Psychosocial Rehabilitation Services. Rogers has written more than 50 peer-reviewed papers on various topics related to the vocational rehabilitation, vocational assessment, and the recovery of persons with severe psychiatric disability.

Sy Atezaz Saeed, MD, is professor and chairman, Department of the Psychiatry Medicine, Brody School of Medicine at East Caroline University. Until recently, he served as Professor and Chairman, Department of the Psychiatry and Behavioral Medicine at the University of Illinois College of Medicine at Peoria where he was also the Clinical Director for the Comprehensive Community Mental Health Service netWork of North Central Illinois, a state-operated *netWork* serving seriously and

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William C. Sanderson, PhD, is professor of psychology at Hofstra University, Long Island, New York, where he directs the Anxiety and Depression Treatment Program. Sanderson received his PhD from the University of Albany, where he worked under the mentorship of Dr. David Barlow at the Center for Stress and Anxiety Disorders. He then completed a fellowship in Cognitive Therapy with Dr. Aaron T. Beck (the founder of Cognitive Therapy) at the Center for Cognitive Therapy, University of Pennsylvania. He has participated on numerous national committees, including the American Psychiatric Association's *DSM-IV* Anxiety Disorders Workgroup, and was recently the chair of the American Psychological Association Division of Clinical Psychology's Committee on Science and Practice (a Task Force aimed at identifying and promoting the practice of empirically supported psychological interventions). He has published six books and over 80 articles and chapters, primarily in the areas of anxiety, depression, personality disorders, and cognitive behavior therapy.

Chris E. Stout, PsyD, is a licensed clinical psychologist and a clinical professor at the University of Illinois College of Medicine's Department of Psychiatry. He holds a joint governmental appointment and serves as Illinois' first chief of psychological services for the Department of Human Services/Division of Mental Health. He also holds an academic appointment in the Northwestern University Feinberg Medical School, Department of Psychiatry and Behavioral Sciences' Mental Health Services and Policy Program, and is a visiting professor in the Department of Health Systems Management at Rush University. He was appointed by the Secretary of the U.S. Department of Commerce to the Board of Examiners for the Baldrige National Quality Award, he served on Mrs. Gore's *White House Conference on Mental Health,* and he served as an advisor to the White House on national education matters. He holds the distinction of being one of only 100 worldwide leaders appointed to the World Economic Forum's Global Leaders of Tomorrow 2000, and he was an invited faculty at the Annual Meeting in Davos, Switzerland. Stout is a fellow of the American Psychological Association,

past-president of the Illinois Psychological Association, and a distinguished practitioner in the National Academies of Practice. Stout has published or presented over 300 papers and 29 books/manuals on various topics in psychology. His works have been translated into six languages. He has lectured across the nation and internationally in 10 countries, visited six continents and over 60 countries. He was noted as being "one of the most frequently cited psychologists in the scientific literature" in a study by Hartwick College. He is one of only four psychologists to have won the American Psychological Association's International Humanitarian Award.

Lynette Studer, MA, received her master's degree in social work from the University of Wisconsin-Madison and specialized in assertive community treatment. For the past 12 years, she has been working as a team leader with Dr. William Knoedler in Green County's Assertive Community Treatment program in Monroe, Wisconsin, the third oldest ACT team and the first rural team in the nation. Over the past 6 years, Studer has also been a PACT consultant in several states including Florida, Nebraska, Pennsylvania, and Alabama, focusing on issues of implementation specific to the team leader role, team based service delivery, rural ACT and consumer-centered treatment planning. Her team in Wisconsin is a national training model, hosting people who want to see a high fidelity model team.

James H. Zahniser, PhD, is assistant professor of psychology at Greenville College, Illinois. He has extensive experience in mental health services research and in the evaluation of psychiatric rehabilitation programs. He also has worked with psychiatric rehabilitation programs in articulating their program models, developing new psychosocial rehabilitation interventions, defining the appropriate outcomes of psychosocial rehabilitation services, and training consumers and nonconsumer providers in the delivery of psychosocial rehabilitation and recovery-oriented interventions. Zahniser served on the Federal Center for Mental Health Services panel, which identified competencies for working with adults diagnosed with serious mental illnesses in a managed care environment. He currently is working with the National Empowerment Center to evaluate the Personal Assistance in Community Existence (PACE) program, a consumer-driven model.

CHAPTER 1

Introduction to Evidence-Based Practices

Randy A. Hayes

Simply stated, evidence-based treatment is the use of treatment methodologies for which there is scientifically collected evidence that the treatment works. Much of this book discusses treatments for which there is an overwhelming set of evidence for their effectiveness. But before learning about these evidence-based treatments, before discovering the necessary prerequisites for establishing these treatments within a clinic, agency, or practice, we review the history of evidence-based treatment and discuss the reasons why evidence-based practice has come to the forefront at this time.

EARLY BEGINNINGS

Evidence-based treatment had its earliest contemporary beginnings in the collection of evidence regarding the causes of disease—epidemiology. But in a larger sense, evidence-based therapy began at the start of Western medical care with Hippocrates. The Hippocratic Oath has *beneficence* at its core—to help or at least do no harm. Perhaps the originator of this oath was considering overt acts of harm, indicating a point that would not be argued even to this day. The healthcare provider shall not knowingly provide a service whose purpose is ultimately harmful rather than helpful. On the one hand, this oath is exceptionally simple. Healthcare providers of any of the myriad of iterations of the past or current healthcare related professions did not, would not, do not provide services or treatments that they believe would ultimately be harmful to their patients, a few notable exceptions aside. However, as often is the case, simplicity can be deceptive and lead the professional down a twisted road: How does the healthcare professional know that the services they provide are ultimately helpful or hurtful?

For centuries, the decision as to the helpfulness or harmfulness of any treatment was dependent primarily on the practitioner's ethical intent, as well as his or her judgment of the effectiveness of the treatment. However, is ethical intent (that is, the clear intent toward beneficence) and individual observation as to effectiveness sufficient for the judgment of harm or helpfulness of treatment? Sufficient or not, for centuries, ethical intent and individual observation were the only tools available to the healthcare practitioner.

As medical instruction became organized and eventually institutionalized, beneficence in terms of treatment could be considered as following the practices learned as part of the medical education. However, much of the history of such medical education

preceded the development of modern scientific understandings and methodologies, including not only bacteriology and epidemiology (and thus the understanding of disease causation) but also the modern methods of collecting evidence in support of scientific theories. Thus, the practices taught in these early times, although beneficent in intent, may not have been beneficent in actual practice. Before the development of these scientific practices, there was no available methodology to determine the beneficence of actual practice. Patients simply got better or they got worse and died. The methodology, including the theoretical thought sets, necessary for the determination of practice beneficence (as compared to intent beneficence), did not exist.

It was not until scientific understanding, methods, and practices came together that *practice beneficence* had its beginnings. There is no better illustration of this point than the life and work of Florence Nightingale (1820–1910). Nightingale used the collection, analysis, and graphical display of healthcare data from the Crimean War to change the face of healthcare in the United Kingdom.

Nightingale used data (that is to say, evidence) to prove that conditions at the time in military hospitals were not beneficent, but in fact harmful to the lives of the soldiers being treated (Small, 1998). Inventing new forms of graphical representation of statistical analysis, Nightingale showed a statistically significant number of preventable deaths. Much of her data analysis showed the deleterious effects of uncleanliness in terms of healthcare survival. Many of the improvements she instituted based on this evidence had to do with improved cleanliness. Further, Nightingale used this evidence to successfully campaign for improved conditions in military hospitals and in general hospitals. It is interesting to note that illness from lack of cleanliness, now called nosocomial infections, is still cited, some 150 years following Nightingale's irrefutable proof of the potentially devastating effects of uncleanliness in healthcare, as a significant negative contributor to public health. See Martinez, Ruthazer, Hansjosten, Barefoot, and Snydman (2003) for one example of this continuing concern.

The collection of data regarding the cause, spread, and eventual containment of infectious disease developed slowly into the science of epidemiology during the nineteenth and twentieth centuries. Wade Hampton Front, MD, became the first American professor of epidemiology in 1921 at the Johns Hopkins School of Hygiene and Public Health (Stolley & Lasky, 1995). Joseph Goldberger moved the science solely from the realm of infectious diseases into the study of noninfectious diseases with his concentration on the effects of diet on public health (Stolley & Lasky, 1995) during the same time period. The investigation of the causes of lung cancer was included in the data collection efforts of the epidemiologists also during the early and mid-twentieth century leading eventually to the link with cigarette smoking. Epidemiology as a science held the collection and analysis of disease-related data in terms of the causes and containment of disease as its standard. However, it did not include treatment effectiveness, as such, as a focus.

The collection of medical and health-related data in terms of treatment effectiveness came to the fore, albeit briefly, with the systems of Ernst A. Codman, MD, during the turn of the past century as the science of epidemiology was developing. A graduate of Harvard Medical School in 1895, Codman had a keen interest in all of the aspects of the effectiveness of medical treatment (Brauer, 2001). Codman, an avid collector of data of all kinds, believed that the outcomes of surgery should be openly documented,

monitored, and reported. Developing an elaborate system of recording the results of his own surgeries using a card system, he encouraged other physicians to do the same. Calling his system the "End Results System" (Brauer, 2001). Codman was strongly influenced by engineering concepts and was a friend of efficiency expert Frank Gilbreth. In 1911, Codman opened his own 20-bed hospital in Boston to fully apply his system of tracking the outcomes of the care he provided. Continuing the use of the index card system, each patient was categorized in terms of presenting symptoms, diagnoses (initial and discharge), complications while in the hospital, and status one year following hospitalization. Further, Codman developed a system for identifying medical errors and adverse outcomes, which he not only published, but gave to patients before their treatment (Brauer, 2001). Codman encouraged other physicians and hospitals to follow the same course.

Codman's "End Results System" processes were way ahead of his time. Perhaps because of Codman's fierce advocacy of his system, he angered many of his fellow physicians and eventually left the local medical society. His hospital closed due to lack of referrals from his colleagues. Codman then practiced medicine in Nova Scotia and in the army. Eventually returning to Boston and reuniting with Massachusetts General Hospital, he studied the Registry of Bone Sarcoma—a registry that he had initiated. Codman recognized that his "End Result" concepts would not come to fruition in his lifetime. He died in 1940 (Brauer, 2001) although the ideas did not die with him.

Some 32 years following the death of Codman, the cause of evidence-based treatment was taken up by an epidemiologist in the United Kingdom. In 1972, the Nuffield Provincial Hospitals Trust (NPHT) published the landmark work of A. L. Cochrane, MD. The NPHT had invited Cochrane, a well-known and highly respected epidemiologist, to evaluate the United Kingdom's National Health Service. Titling his work *Effectiveness and Efficiency: Random Reflections on Health Services,* Cochrane called for the use of evidence-based treatment practices.

Cochrane's evaluation of healthcare services, by his own admission, was crude due to the lack of properly collected evidence. Nevertheless, Cochrane used the techniques available to an epidemiologist, for example, demographics and mortality rates, and so on. He analyzed healthcare services/treatments as compared to healthcare costs and found a huge gap—increased national funding for healthcare services had not led to increased positive outcomes for patients (Cochrane, 1972/1999).

Based on these findings, Cochrane made a series of recommendations regarding the improvement of outcomes by improving treatment. These recommendations focused on the use of applied medical research in the form of random controlled trials to determine those treatments that produced improved health. It is interesting and informative to note that Cochrane discusses both in his introduction and through his evaluation the differences between pure research and applied research. He further devotes one entire chapter to the use of evidence, and another on exploring and defining the meaning of both effectiveness and efficiency as they relate to healthcare services.

The need for these discussions, begun three decades ago, continues to this day both in the field of medical services and behavioral healthcare services. In doing training for the Joint Commission Resources, both on implementing evidence-based practices in behavioral healthcare and in the use of data in this field, the problems noted by Cochrane

30 years ago, as well as Codman 80 years ago, continue to be evident in healthcare and behavioral healthcare. Few clinicians, either in medicine or behavioral healthcare, have had sufficient and meaningful training in research design or data analysis to negate the need for elementary discussion and training so that the healthcare professional who is not a professional researcher, can appreciate, understand, and properly apply the findings of research to their practice or agency. This book, in part, exists to help overcome this continuing need.

Cochrane discussed a third metric—equity—that may be coming more into play this first decade of the new millennium. *Equity* means effective and efficient healthcare services for all who need them. Cochrane was discussing the disparity of services that were available through the National Health Service in the United Kingdom. This had been a concern discussed a century earlier by Nightingale (Small, 1998). During Nightingale's time, public hospitals were solely for the poor and indigent. People with means were seen and treated in their homes. By Cochrane's time, although not as evident as during Nightingale's time, a disparity of treatment continued, not only between social classes, noted Cochrane, but also between geographic areas.

Although far beyond the scope of this book to discuss in length, equity of services for all people in all places may be becoming an area of concern within the United States. With the severe state budgetary crises following the tragedy of September 11, 2001, many publicly supported behavioral healthcare agencies have seen significant reductions in funding. These reductions have forced agencies to limit both the numbers of and types of consumers who receive healthcare and behavioral healthcare services.

These budgetary restrictions have also limited the staff devoted to evidence collection and analysis in service of evidence-based practice development. At a recent workshop conducted by the author on data analysis, one participant disclosed that his agency was forced to eliminate its research and analysis staff in order to provide basic behavioral health services.

Because of budgetary restrictions and limitations, the use of proven treatments, that is, evidence-based treatments, is absolutely critical, and yet agencies and practices who were in the forefront of the field in terms of having staff to do this needed work, are having to reduce or eliminate staff who are capable of doing this needed work. At some point, directors and boards of agencies will need to ask the same or similar questions Codman and Cochrane were asking many years ago. Can agencies or practices save money by providing treatment that may not be producing any effect? Is it efficient to provide treatment that has not been proven to be effective? Is it efficient in tight budgetary times to either not hire, or to reduce the professional staff who are able to provide the research necessary to "prove" what treatments actually produce statistically significant results? We hope to help you answer these questions, or minimally, understand better the importance of these questions.

Some 40 years following the death of Codman, and within a decade of Cochrane's work, McMaster University in Hamilton, Ontario Canada, took up the cause by producing a series of articles that helped the healthcare professional begin to address these questions.

The Department of Epidemiology and Biostatistics published a series of five articles in the *Canadian Medical Association Journal* in 1981 [(124) 5–9] from March

through May entitled "How to read clinical journals." The series of articles had following subtitles: I. Why to read them and how to start reading them critically; II. To learn about a diagnostic test; III. To learn the clinical course and prognosis of a disease; IV. To determine etiology or causation; and V. To distinguish useful from useless or even harmful therapy (1981a, 1981b, 1981c, 1981d, 1981e). This series is credited (Baker & Kleijnen cited in Rowland & Goss, 2000) as being the actual starting point of the type of evidence-based therapy that this book addresses.

From McMaster University, the advance of evidence-based treatment was pursued vigorously in the United Kingdom as part of a redesign of the National Health Service in 1991 (Baker & Kleijnen as cited in Rowland & Goss, 2000). Not only has the British National Health Service adopted evidence-based practices for medical care, the institution has adopted, as of 2001, a set of evidence-based practices for behavioral health (Department of Health, 2001). These guidelines list the evidence for various treatment methodologies for the following diagnoses: depressive disorders, panic disorder and/or agoraphobia, social phobia, generalized anxiety disorder, posttraumatic stress disorder, obsessive compulsive disorder, eating disorder, somatic complaints, personality disorders, and deliberate self-harm. Also reviewed are "other factors" that impact behavioral health therapy. These practices are available not only for clinicians working within the Department of Health but an abbreviated version is available for potential consumers of the services.

Within the United Kingdom are a number of centers that promote evidence-based treatment research, including the Cochrane Collaboration, a Web site instituted for "preparing, maintaining and promoting the accessibility of systematic reviews of the effects of health care interventions" (http://www.cochrane.de). This collaboration reviews research, based on a set of principles, and makes the reviews available to subscribers. It also conducts workshops and training on this topic. A similar British institution is the Centre for Evidence Based Medicine.

DATA COLLECTION AND APPLICATION: THE RECENT PRESENT

Although data or evidence-collection methodologies have been in use for a variety of scientific endeavors for decades, the application of scientific methodology to prove the effectiveness of various medical treatments has been a long time coming. Further, even as effectiveness evidence has been collected, it has not been used in the healthcare field.

For example, the University of Sheffield evidence-based Web site references a study done in 1963 (Forsyth, 1963) of medical practitioners' use of prescription medicine. The two-week study indicated that only 9.3% of prescriptions written during the period were specific for the condition for which they were intended. Another investigation in 1973 (Wennberg & Gittelsohn, 1973) documented "serious and inexplicable regional variations in health care providers' clinical practices." Thirteen years later, the situation had not changed. The Lohr study (1986) documented the inappropriate overuse or underuse of healthcare services. A study by Brook (1989) called into question the effectiveness of many medical interventions. Six years later, the Rosen study (Rosen, Proctor, Morrow-Howell, & Staudt, 1995) indicated that fewer than 1% of the practice decisions of social

work were justified by empirical findings. In the October 12, 1998, issue of *Time* magazine, Dr. Robert Califf, director of the Duke University Clinical Research Institute estimated that less than 15% of U.S. healthcare is evidence-based.

As recently as 2002, the *CNS News: Neurology and Psychiatry* journal indicated that the American Psychiatric Association's bipolar disorder best-practice guidelines were not being followed. Reporting on a 1999 APA Practice Research Network Study of Psychiatric Patients and Treatments, 20% of these patients did not receive treatment with a mood stabilizer and 40% did not receive any sort of psychotherapy, both of which are recommended in the APA's best-practice guidelines ("Bipolar Treatment Guidelines," 2002).

This article mirrors the findings of "Mental Health: Report of the Surgeon General" (USDHHS, 1999). This extensive report summarized the current state of mental health treatment models, pointing out that there were numerous psychiatric and/or psychological treatments that were of proven value for even the most severe cases of mental illness. The findings also emphasized, however, that these state-of-the-art treatments refined through years of research were not being transferred into actual practice in community settings. Calling this lack of transfer "a gap" that exists between research and application, the report concludes, in part, indicating the reasons this application gap exists. Foremost among the reasons listed for the practice gap is the practitioners' lack of knowledge of research results. Other reasons cited are the lag time between reporting of research results and translation into practice and the cost of introducing innovations into the various healthcare systems.

Adding to the so-called transfer gap is the response of behavioral healthcare clinicians themselves to the collection and use of data, as well as the use of evidence-based guidelines within their practices. Azocar, Brian, Goldman, and McCarter (2003) studied the use of evidence-based guidelines within managed behavioral healthcare organizations using random control trial methodology. Participants in the study ($N = 443$) either received guidelines for the treatment of major depression from a general mailing (independently practicing clinicians); received the guidelines from a targeted mailing (client/patient receiving treatment from an independently practicing clinician); or received no guideline (i.e., neither clinician nor client/patient received the guideline). The study showed no effects of the guideline dissemination, either through clinician or client/patient self-report or through analysis of claim data, and so on. We suggest that dissemination strategies other than mailings should be examined to improve the standard of care.

A later study published in the same year may shed some light on this possible reluctance to use evidence-based practice guidelines. Garland, Kruse, and Aaron (2003) studied the attitudes regarding the use of standard outcome measures in practice. Fifty behavioral healthcare practitioners were interviewed individually or in focus groups as to their attitudes regarding the use of outcome measurements. The findings of this study are quite telling: Although all practitioners interviewed received some type of scored assessment profiles on their patients/clients at the initiation of assessment treatment, the vast majority reported that they did not use the measures as part of their treatment planning or monitoring. Further, the clinicians reported that outcome measures were not believed to be clinically useful.

The reader might conclude that clinician/practitioner attitudes regarding receptive uses of evidence-based treatment guidelines as well as the measurement sets that play a significant part of these guidelines, could play a significant role in whether such guidelines would be used. Evidence-based guideline usage may not be swayed by the preponderance of evidence as to the effectiveness of the guideline as much as by the individual clinicians attitude toward the use and usefulness of evidence and guidelines in general. This is one area in terms of the adoption of evidence-based practices that could benefit from significant research.

The so-called transfer gap helps explain the purposes and outline of this book. Six evidence-based practices (sometimes known as the *Tool Kit*) follow this introductory chapter. These are all practices that have been extensively researched using controlled scientific methodology. These are all practices that have shown outstanding outcomes when applied within the research settings. These practices have all shown exceptional outcomes when applied in a variety of practice and agency settings.

In terms of clinician acceptance, this volume also presents first the various general considerations regarding the state and use of evidence-based treatments within both private practices and behavioral healthcare agencies. A second series of chapters by this author outlines some of the very practical considerations that need to be considered before and during the attempts at implementation of evidence-based practices.

The need for the latter is highlighted by Frances Cotter, MA, MPH (personal communication, September 24, 2003) team leader—Science to Service Program, Center for Substance Abuse Treatment-Division of Services Improvement, the federal sponsor of the Tool Kit development. Cotter has pointed out the need for an examination of the processes within an agency in which evidence-based practices are being installed. "Too often, the substance abuse field has neglected looking into the black box in which we want to place evidence-based practices. If we want to increase the success of these practices, we need to understand what is occurring within the organization and how the organization can support and sustain the evidence-based practices."

Thus, the last chapters provide an initial look into the "black box" with suggestions for understanding and overcoming possible resistance to evidence-based treatment implementation. CSAT and the Robert Wood Johnson Foundation are in the process of researching both barriers to best practice implementation as well as promising practices for treatment engagement and retention within the substance abuse field. This author's agency, Sinnissippi Centers, Dixon, Illinois, is part of that research effort. Further, and more to the point of this volume, we present suggestions based on the experiences at this agency in designing and implementing data collection for the development of evidence-based practices regarding treatment of the mentally ill substance abusing client/patient/consumer. These are practices that have been awarded the Joint Commission on the Accreditation of Healthcare 2002 Ernst A. Codman Behavioral Healthcare Award (Hayes, Andrews, Baron-Jeffrey, Conley, Gridley, et al., 2003) and the 2003 American Psychiatric Association's Bronze Psychiatric Services Award.

The call for the use of evidence-based practices both in healthcare in general, and in behavioral healthcare specifically, has been long in development. From the ancient practitioner's intuitive collection of the "evidence" of what worked and what did not work through trial and error to the current use of scientific methodologies to discover

what treatment methodologies work and which do not work has been a long and sometimes arduous journey. It has been a journey replete with heroines and heroes, working against the practices and thought patterns of their day to begin the current movement toward evidence-based practices. It is a journey that continues to have heroes and heroines, both in researching the treatment methodologies, and in attempting to implement those proven treatment methods within their own practices and agencies. And it is a journey that we welcome you to join, as we, in our own practices, attempt to live out the oath promulgated so long ago: To help, or at least to do no harm.

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