21st CENTURY
GLOBAL MENTAL HEALTH

Edited by
Eliot Sorel, MD, DLFAPA
George Washington University
School of Medicine and Health Sciences and
School of Public Health and Health Services
Washington, DC
To Christiane, Marc, Marie-Adele, and Jeremy
and
To my mentors, Maxwell Jones and Ruth and Ted Lidz
# contents

<table>
<thead>
<tr>
<th>Section One</th>
<th>Global Mental Health Epidemiology and Diagnostic Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter One</td>
<td>Global Mental Health Epidemiology</td>
</tr>
</tbody>
</table>

Ronald C. Kessler, PhD, Sergio Aguilar-Gaxiola, MD, PhD,
Jordi Alonso, MD, PhD, Somnath Chatterji, MD, Yanling He, MD,
Steve Heeringa, PhD, Sing Lee, MB, BS, FRCPsych, and
Johan Ormel, MA, PhD

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>The WHO World Mental Health (WMH) Survey Initiative</td>
<td>5</td>
</tr>
<tr>
<td>Disorder Prevalence Estimates in the WMH Surveys</td>
<td>7</td>
</tr>
<tr>
<td>Age-of-Onset Distributions</td>
<td>13</td>
</tr>
<tr>
<td>Cohort Effects</td>
<td>15</td>
</tr>
<tr>
<td>Course of Illness</td>
<td>15</td>
</tr>
<tr>
<td>Severity of Illness</td>
<td>16</td>
</tr>
<tr>
<td>Long-Term Adverse Effects of Mental Disorders</td>
<td>25</td>
</tr>
<tr>
<td>Short-Term Adverse Effects of Mental Disorders</td>
<td>25</td>
</tr>
<tr>
<td>Cost Effectiveness of Treatment</td>
<td>27</td>
</tr>
<tr>
<td>Conclusion</td>
<td>28</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>29</td>
</tr>
<tr>
<td>Competing Interests</td>
<td>31</td>
</tr>
<tr>
<td>References</td>
<td>31</td>
</tr>
</tbody>
</table>
Chapter Two  Comparison Between ICD and DSM Diagnostic Systems for Mental Disorders  
David Goldberg, DM, MSc, FRCP, FRCPsych  
Introduction  
The ICD and the DSM During the 20th Century  
The Problem of Comorbidity  
Current Revisions of Both Classifications  
Classifications of Mental Disorders Suitable for General Medical Practice  
Conclusion  
Acknowledgment  
References  

Chapter Three  New Directions in Diagnosis Research Domain Criteria and Global Mental Health  
Bruce N. Cuthbert, PhD, and Thomas R. Insel, MD  
Introduction  
The Need for Research Domain Criteria  
Defining the Research Domain Criteria  
Conclusion  
References  

Section Two  Determinants of Health and Mental Health  
Chapter Four  The Social Determinants of Mental Health  
David Satcher, MD, PhD, Martha Okafor, MPA, PhD, and Joyce H. Nottingham, MS, PhD  
Introduction  
The Impact of Social Determinants on Brain Development Before and During Pregnancy  
The Impact of Social Determinants of Health on the Development of the Brain and Mental Health During Childhood  
Social Determinants of Mental Health and Continuum of Mental Health and Mental Illness  
Social Determinants of Mental Health—Structural Drivers and Policy and Actions  
Policy and Actions for Improving Individual and Societal Development of Mental Health and Well-Being Through the Social Determinants Framework  
Conclusion  
References
### Chapter Eight  
**Global Disasters, War, Conflict, and Complex Emergencies:**  
**Caring for Special Populations**  
Allen R. Dyer, MD, PhD, and Subhasis Bhadra, MSW, PhD

<table>
<thead>
<tr>
<th>Acknowledgments</th>
<th>172</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition of Complex Emergencies</td>
<td>172</td>
</tr>
<tr>
<td>Introduction</td>
<td>173</td>
</tr>
<tr>
<td>Lessons from the Scientific Study of Disasters</td>
<td>174</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>175</td>
</tr>
<tr>
<td>Stress, Trauma, PTSD, and Resilience</td>
<td>179</td>
</tr>
<tr>
<td>Approaches to Trauma Informed Care</td>
<td>184</td>
</tr>
<tr>
<td>IASC Guidelines</td>
<td>186</td>
</tr>
<tr>
<td>Psychological First Aid</td>
<td>186</td>
</tr>
<tr>
<td>Training of Trainers</td>
<td>187</td>
</tr>
<tr>
<td>Integration of Mental Health Care into Primary Care</td>
<td>188</td>
</tr>
<tr>
<td>Mental Health Gap</td>
<td>188</td>
</tr>
<tr>
<td>Child Friendly Spaces</td>
<td>189</td>
</tr>
<tr>
<td>Capacity Building</td>
<td>189</td>
</tr>
<tr>
<td>Case Study: Iraq</td>
<td>189</td>
</tr>
<tr>
<td>Resources for Healing Communities</td>
<td>191</td>
</tr>
<tr>
<td>Forgetting and Remembering</td>
<td>192</td>
</tr>
<tr>
<td>Caring for Special Populations</td>
<td>193</td>
</tr>
<tr>
<td>The End of War: Aftermath</td>
<td>197</td>
</tr>
<tr>
<td>Case Study: Gujarat After the Riots of 2002</td>
<td>199</td>
</tr>
<tr>
<td>Serving the Underserved—Policy Implications for Global Mental Health</td>
<td>200</td>
</tr>
<tr>
<td>Conclusion</td>
<td>203</td>
</tr>
<tr>
<td>References</td>
<td>203</td>
</tr>
</tbody>
</table>

### Appendix:  
Guide to Evidence-Based Practices on the Web  
209

---

### Chapter Nine  
**Attending to the Needs of the Severely and Persistently Mentally Ill**  
Tom K. J. Craig, MBBS, PhD, FRCPsych

<table>
<thead>
<tr>
<th>The Needs of the Severely and Persistently Mentally Ill</th>
<th>211</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending to Needs: What the Evidence Tells Us</td>
<td>212</td>
</tr>
<tr>
<td>Putting It All Together: Translating Evidence to Practice</td>
<td>220</td>
</tr>
<tr>
<td>Conclusion</td>
<td>223</td>
</tr>
<tr>
<td>References</td>
<td>224</td>
</tr>
</tbody>
</table>

### Chapter Ten  
**Mental Health and HIV in Africa**  
Bibilola Damilola Oladeji, MBBS, MSc, FSACP and  
Oye Gureje, MBBS, PhD, DSc, FRCPsych

<table>
<thead>
<tr>
<th>Introduction</th>
<th>229</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology of Mental Disorders</td>
<td>230</td>
</tr>
<tr>
<td>Burden of Mental Disorders</td>
<td>235</td>
</tr>
<tr>
<td>Interventions for Mental Disorders</td>
<td>239</td>
</tr>
</tbody>
</table>
Using Service Utilization Data 318
The Balanced Care Model 319
Feasible Interventions in Low- and Middle-Income Settings 330
Key Challenges in Implementing Community-Based Care 330
Conclusion 334
References 337

Chapter Fourteen  Mental Health System Development: The International Observatory of Mental Health Systems 345
Harry Minas, MBBS, BMedSc, DPM, FRANZCP
Introduction 346
The International Observatory on Mental Health Systems 348
Indicators 349
Strengthening Mental Health Systems Research Capacity 351
Organization of the Observatory 355
Conclusion 355
References 356

Section Five  Humans Rights, Stigma, Mental Health Policy, and the Media 359

Chapter Fifteen  Stigma, Discrimination, and Human Rights 361
Julio Arboleda-Flórez, MD, PhD, FRCPC, DABFP, and Heather Stuart, MA, PhD
Introduction 361
Origins of Stigma 362
Historical Legacy 363
Mental Health Reform 365
From Protection of Basic Rights to Social Neglect 367
Stigma 368
Denial of Rights 369
Powerlessness 369
Redress Through Legislative Reform 371
Redress Through Antistigma Programming 374
Conclusion 377
References 377
Appendix: 381
Useful International Websites 381
Useful National Antistigma Program Websites 382

Chapter Sixteen  Recent Trends in Mental Health Policy in the United States 383
Ronald W. Manderscheid, PhD
Introduction 383
Setting the Stage for National Mental Health Policy 384
Surgeon General Develops the Foundation for Modern De Facto Mental Health Policy 387
President’s New Freedom Commission Assesses Whether Field Performance Reflects De Facto Mental Health Policy 388
Institute of Medicine Develops a Practical Road Map for Implementing De Facto Mental Health Policy 389
Wellstone-Domenici Legislation Makes Parity a De Jure Mental Health Policy 390
Affordable Care Act Makes Care Integration a De Jure National Mental Health Policy 390
Observations on Modern National Mental Health Policy 391
Comparative Case Studies 393
Conclusion 394
References 395

Chapter Seventeen Mental Health Policy and the Media 397
Rebecca G. Palpant, MS, Jane E. Bigham, MPH, and Thomas H. Bornemann, EdD
Overview 397
Rosalynn Carter Fellowships for Mental Health Journalism 398
Conclusion 410
References 411

Appendix Useful Links/Resources 413

Index 415
MISSION AND VISION

21st Century Global Mental Health is a textbook for graduate public health students, educators, professionals, and primary care practitioners.

This volume addresses the mental health of global populations, the progress made to date, and the challenges that remain. It does so through a systemic integration of epidemiologic evidence and evolving diagnostic systems; a well-documented review of the determinants of mental health and mental illness (a large cluster among noncommunicable diseases); the fragmentation of health/mental health systems, including solutions for strengthening them to enhance access, equity, quality, and care outcomes; the pervasive and persistent stigma and discrimination against mental illnesses and the mentally ill; and the catalytic roles of policy, policy makers, and the media for positive changes.

The textbook translates and transmits best practices applications of global mental health knowledge to populations’ mental health and health systems contexts. It meets the challenge of interest in global health—global mental health included—as evidenced by the current generation of U.S. graduate public health students and those around the world who are choosing public health careers in increasing numbers as their preferred course of study.

PROGRESS TO DATE

In response to the abundant evidence of the global burden of disease and disability caused by noncommunicable diseases (NCDs), inclusive of mental disorders, the mental health domain has made remarkable progress in knowledge generation and application, primarily in high-income countries (HIC) but also in some low- and middle-income countries (LMIC). Among
the notable scientific advances are the recently completed global mental health surveys in LMICs and HICs, the largest multinational survey ever done of its kind; new diagnostic systems based on the latest scientific evidence; groundbreaking advances in the neurosciences and psychopharmacology; illustrative outcome studies documenting the effectiveness of single and combined treatments; and an enhanced understanding of the role that culture and psychosocial dimensions play—both in times of health and illness—and their applications towards health promotion, protection, and illness prevention.

CHALLENGES REMAINING

Nearly 500,000,000 people worldwide suffer from neuropsychiatric disorders, representing, in aggregate, approximately 14% of the global burden of disease (GBD) in low- and middle-income countries (LMIC) and high-income countries (HIC). Cardiovascular and neuropsychiatric disorders lead among non-communicable diseases (NCDs) in the global burden of disease and contribute to significant levels of disability affecting work productivity and the quality of life for sufferers and their families. Neuropsychiatric disorders alone represent 25–35% of the global burden of disability. There are also high levels of comorbidity among mental disorders and other NCDs. Every year, approximately 900,000 people commit suicide worldwide.

Challenges still remain in knowledge translation, transmission, and application (inclusive of health promotion, protection, and illness prevention); access to care; the eradication of shame, stigma, and discrimination; the challenging aspects of comorbidity; the fragmentation of health systems; and the lack of mental health, primary care, and public health integration across LMIC and HIC. A special session of the UN General Assembly (New York, September 2011) included NCDs on its agenda, a remarkable but incomplete first in the UN’s history. Neuropsychiatric disorders were not included. This was, indeed, a very unfortunate and costly exclusion.\(^1\) Significant progress has been achieved since that time through successful advocacy with the WHO Executive Board (EB), who, in their January 2012 Resolution, included the recommendation that mental health and mental illness be included in all health systems. This Resolution will be debated and voted on in the WHO Assembly in Geneva, Switzerland, in May 2012. An integrated approach to NCDs that includes mental disorders will benefit populations’ health and strengthen health systems globally.
21st CENTURY GLOBAL MENTAL HEALTH

The volume is organized into five sections, as follows:

- Epidemiology, global burden of disease, and diagnostic systems
- Determinants of health/mental health
- Populations’ health/mental health
- Evaluating and strengthening health/mental health systems
- Human rights, stigma, mental health policy, and the media

21st Century Global Mental Health is systemic, systematic, and integrative in its content and design. It is well grounded in theory and evidence based, and it includes practical applications and implementations relevant to education and training, services, research, and policy.

Ours is an innovative volume with scientific contributions from a distinguished team of global mental health’s and public health’s leading scholars, educators, practitioners, researchers, and health policy experts from Africa, Asia, Australia, Europe, and the Americas.

REFERENCES

I gratefully acknowledge the scholarly contributions to this volume in the order in which they appear in the book, with equal gratitude to all:


I also wish to express my appreciation to the Jones & Bartlett Learning editorial and production teams including Michael Brown, publisher, Maro Gartsise, managing editor, Kayla Dos Santos, editorial assistant, Chloe Favlivene, editorial assistant, Tracey McCrea, production manager, for their dedication and attention to detail that made my leadership tasks as Editor of this groundbreaking volume bearable, and even enjoyable.
contributors

Sergio Aguilar-Gaxiola, MD, PhD  
University of California, Davis Center for Reducing Health Disparities, School of Medicine, Sacramento, California

Jordi Alonso, MD, PhD  
Health Services Research Unit, IMIM (Hospital del Mar Research Institute), and CIBER en Epidemiología y Salud Pública (CIBERESP), Barcelona, Spain

Julio Arboleda-Flórez, MD, PhD, FRCPC, DABFP  
Queen’s University, Kingston, Ontario, Canada

Myron L. Belfer, MD, MPA  
Professor of Psychiatry in the Department of Psychiatry, Harvard School of Medicine, Senior Associate in Psychiatry, Children’s Hospital, Boston, Massachusetts

Subhasis Bhadra, MSW, PhD  
Assistant Professor, School of Social Sciences, Gautam Buddha University, Greater NOIDA, UP, Delhi, India

Jane E. Bigham, MPH  
The Rosalynn Carter Fellowships for Mental Health Journalism, The Carter Center Mental Health Program, Atlanta, Georgia

Thomas H. Bornemann, EdD  
The Rosalynn Carter Fellowships for Mental Health Journalism, The Carter Center Mental Health Program, Atlanta, Georgia

Somnath Chatterji, MD  
World Health Organization, Geneva, Switzerland

Tom K. J. Craig, MBBS, PhD, FRCPsych  
Professor Social Psychiatry, King’s College, London Institute of Psychiatry, De Crespigny Park, London, England

Bruce N. Cuthbert, PhD  
National Institute of Mental Health, Bethesda, Maryland

Vincenzo Di Nicola, MPhil, MD, PhD, FRCPC, FAPA  
Department of Psychiatry, University of Montreal, Montreal, Canada
Monika dos Santos, PhD(Psy)
Foundation for Professional Development,
Johannesburg Area, South Africa

Allen R. Dyer, MD, PhD
Senior Health Advisor, International
Medical Corps, Washington, DC

David Goldberg, DM, MSc, FRCP,
FRCPsych
Professor Emeritus, Institute of Psychiatry,
King’s College, London, England

Oye Gureje, MBBS, PhD, DSc, FRCPsych
Department of Psychiatry, University of
Ibadan, Ibadan, Nigeria

Yanling He, MD
Shanghai Mental Health Center,
Shanghai, China

Steve Heeringa, PhD
University of Michigan, Institute for
Social Research, Ann Arbor, Michigan

Marcela Horvitz-Lennon, MD, MPH
Physician Scientist, RAND Corporation,
Pittsburgh, Pennsylvania

Thomas R. Insel, MD
Director, National Institute of Mental
Health, Bethesda, Maryland

Ronald C. Kessler, PhD
Department of Health Care Policy,
Harvard Medical School,
Boston, Massachusetts

Sing Lee, MB, BS, FRCPsych
The Chinese University of Hong Kong,
Shatin, NT, Hong Kong SAR

Keh-Ming Lin, MD, MPH
Professor Emeritus, Department of
Psychiatry and Biobehavioral Sciences,
UCLA School of Medicine,
Menlo Park, California

Wen-Ling Lin, PhD
Clinical Psychologist, San Francisco,
California

Ronald W. Manderscheid, PhD
Executive Director, National Association
of County Behavioral Health and
Developmental Disability Directors; and
Adjunct Professor, Department of Mental
Health, Johns Hopkins School of Public
Health, Baltimore, Maryland

Harry Minas, MBBS, BMedSc,
DPM, FRANZCP
Centre for International Mental Health,
Melbourne School of Population Health,
The University of Melbourne,
Parkville, Australia

Alberto Minoletti, MD, FRCPS
Professor of School of Public Health,
Faculty of Medicine, University of Chile
Santiago, Chile

Joyce H. Nottingham, MS, PhD
Director, Communications Satcher Health
Leadership Institute, Morehouse School
of Medicine, Atlanta, Georgia

Martha Okafor, MPA, PhD
Director, Division of Behavioral Health,
Satcher Health Leadership Institute,
Morehouse School of Medicine,
Atlanta, Georgia
Bibilola Damilola Oladeji, MBBS, MSc, FWACP
Department of Psychiatry, University of Ibadan, Ibadan, Nigeria

Johan Ormel, MA, PhD
Interdisciplinary Center for Psychiatric Epidemiology, Department of Psychiatry, University Medical Center Groningen, University of Groningen, The Netherlands

Rebecca G. Palpant, MS
The Rosalynn Carter Fellowships for Mental Health Journalism, The Carter Center Mental Health Program, Atlanta, Georgia

Lusanda Rataemane, MSc, MPhil(Psy)
Mental Health and Addiction Centre, South Africa

Solomon Rataemane, MBCHB, Dipl. Child Psychiatry, FFPsych(SA)
Department of Psychiatry, University of Limpopo, Limpopo Province, South Africa

Graciela Rojas, Dr. Med.
Professor, Faculty of Medicine, University of Chile, Santiago, Chile

David Satcher, MD, PhD
Director, Satcher Health Leadership Institute, Morehouse School of Medicine, Atlanta, Georgia

Heather Stuart, MA, PhD
Professor, Community Health and Epidemiology, Queen’s University, Kingston, Ontario, Canada

Michele Tansella, MD
Dean of the Medical School, Professor of Psychiatry and Clinical Psychology, Department of Public Health and Community Medicine, University of Verona, Verona, Italy

Graham Thornicroft, MB, BS, MSc, PhD, FRPsych
Professor of Community Psychiatry, Head of Health Service and Population Research Department, Institute of Psychiatry, King’s College London, De Crespigny Park, London, England
Eliot Sorel, MD, DLFAPA, is an internationally recognized medical leader, educator, health systems policy adviser, and practicing physician. He is co-chair of the noncommunicable diseases and integrated care task force of the World Psychiatric Association (WPA) and co-chair of the scientific committee of the WPA 2013 Bucharest Congress on integrating primary care, mental health, and public health for Eurasia and Southeast Europe, to take place in Bucharest, Romania, in April 2013. He has professorial appointments in Global Health, Health Services Management, and Leadership in the School of Public Health, as well as in Psychiatry and Behavioral Sciences in the School of Medicine at George Washington University. Dr. Sorel is the founder of the Conflict Management and Conflict Resolution Section of the World Psychiatric Association and of the World Youth Democracy Forum at the Elliott School of International Affairs of the George Washington University. He is the senior adviser to the Ion Ratiu Democracy Award at the Woodrow Wilson International Center for Scholars in Washington, DC.

Dr. Sorel is a former president of the Medical Society of the District of Columbia, the World Association for Social Psychiatry, and the Washington Psychiatric Society. He also has served as a U.S. National Institutes of Health/Fogarty International Center grants reviewer. Dr. Sorel is a Life Member of the American Medical Association, a Fellow of the American College of Psychiatrists, and a Distinguished Life Fellow of the American Psychiatric Association. He did his psychiatric training at Yale University and received his medical degree from the State University of New York. He has developed and led health systems in North America and the Caribbean and has consulted and taught in more than 20 countries in Africa, Asia, Europe, and the Americas. Dr. Sorel is the author of more than 60 scientific papers and book chapters, and the editor of six books. His most recent scientific paper, “Psychiatry and Primary Care Integration,” was published in the International Review of Psychiatry, in February 2011. Prior to his current 21st Century

In June 2008, Dr. Sorel participated as Pan American Health Organization/World Health Organization adviser in the WHO European Ministerial Conference on Health Systems, “Health Systems, Health and Wealth,” in Tallinn, Estonia, where the Tallinn Charter was ratified.

In October 2009, Dr. Sorel was awarded the doctor honoris causa by Carol Davila Medical University, in Bucharest, Romania. In 2004, the president of Romania awarded Dr. Sorel the Star of Romania Order of Commander.