Review of *Pharmacotherapy of Child and Adolescent Psychiatric Disorders*, 3rd ed., by David R. Rosenberg and Samuel Gershon

Laurence Greenhill, MD

THE GOAL OF DAVID ROSENBERG AND SAMUEL GERSHON'S edited third edition of *Pharmacotherapy of Child and Adolescents Disorders* is to fulfill the need for an updated text on pediatric psychopharmacology that discusses recent medication treatment findings in the context of economic and political issues. The editors are justifiably proud that their new book is the "third edition of the first book published on pediatric psychopharmacology from renowned editors." Rosenberg and Gershon have successfully blended literature reviews and clinical expertise to make each chapter more palatable and user friendly for the prescribing child and adolescent psychiatrist.

The note on the back cover provides the best overview of the updates newly available in the third edition. Of greatest interest to me was the well-written and informative section on treatment of children who are at high risk of developing schizophrenia or bipolar disorders, but who do not yet meet diagnostic criteria for psychosis, which appears in Chapter 10, "Antipsychotic Agents," by Breana Rowles, John Hertzner, and Robert Findling. I was most impressed by Steve Pliszka's masterful review of the impact of the American Heart Association's guidelines for monitoring children on stimulants and other psychotropic medications in his superb chapter on psychostimulants (Chapter 6). Also new are the discussions of the United States Food and Drug Administration (FDA)'s boldface warnings that antidepressant medications are associated with increased rates of suicidality in youth, found in Chapter 8, "Selective Serotonin Reuptake Inhibitors (SSRIs)," by Dara Sakolsky and Boris Birmaher, and in Chapter 9, "Novel (Atypical) Antidepressants," by Heidi Bruty, Paul Emslie, and Graham Croarkin. The third edition introduces descriptions of the large National Institute of Mental Health (NIMH)-funded multisite, multimodal treatment studies of common pediatric psychiatric disorders, including obsessive compulsive disorder (OCD) (the Pediatric OCD Treatment Study, or POTS), depression (the Treatment of Adolescent Depression Study, or TADS), and anxiety disorders (the Children's Anxiety Multimodal Treatment Study, or CAMS), found in Sakolsky and Birmaher's chapter on SSRIs. The same chapter describes the approval of escitalopram for the acute treatment of adolescent depression (see Table 8.1). Also new is Chapter 17, "Combination Pharmacotherapy for Psychiatric Disorders in Children and Adolescents," by Gagan Joshi and Anna Georgiopoulos.

The book is organized into an introductory section, with Neal Ryan's conceptual Forward capturing some of the most important

research questions facing pediatric psychopharmacology, followed by Sam Gershon's "Historical Perspective on Child and Adolescent Psychopharmacology." Daniel Safer and Julie Zito then present a quick overview in Chapter 2 entitled "Pharmacoepidemiology of Psychotropic Medications in Youth," which reminds the reader that the major function of pharmacoepidemiology is to "analyze large computerized datasets in order to reveal patterns of medication treatment in community populations." These authors report the usage trends since the early 1990s for each major class of medication, by psychiatric use in the United States; increasingly used classes of medications; trends in polypharmacy; use in the preschool age group; and international differences in the prevalence of medication use. Safer and Zito's chapter is superbly and clearly written, and offers a wealth of information that can form the standard of care.

Chapter 3, C. Lindsay DeVane's "Off-Label Prescribing in Child and Adolescent Psychiatry," includes an excellent table of psychoactive drugs approved by the FDA according to the earliest age of labeled use and indication, and another table entitled "Recommendations to Follow When Considering Off-Label Prescribing."

Following this is Richard Shader and Christopher-Paul Milne's Chapter 4 entitled "The Use of Generic Drugs in Pediatric Psychopharmacology," which presents a brief but thorough history of the various congressional laws passed by Congress for the FDA, as well as the many abbreviations for acts guiding the FDA, which moved the focus of research and regulation to cover psychotropic medications for children. They reassure the reader that there are "few, if any, significant findings that suggest that children of an age that is appropriate for use of psychotropic drugs would handle a generic drug differently from the way they would handle an innovator drug."

The next 12 chapters are devoted to covering the separate drug classes. Writing styles vary greatly from chapter to chapter. As often is the case, the tribe of experts behind these chapters followed their own outline, probably not the template that the senior editors sent to them. Chapters differed in the number of tabled literature reviews, amount of pharmacology, attention to pharmacokinetics, listing of drug-drug interactions, and instructions to prescribers about starting treatment and titration.

Despite the authoritative reviews of medication types by top researchers in the field of pediatric psychopharmacology, I had several concerns after reading the book. The differences in approach, chapter

to chapter, make the book quite uneven. This unevenness makes different parts of the book best for different audiences. One chapter would be best for the quick coverage needed by a primary care practitioner, and other chapters are so rich and detailed that they are reference level. One example of differences is the coverage of FDA-approved SSRI antidepressants (Chapter 8), which covers childhood disorders, and novel antidepressants (Chapter 9), which is organized around specific drugs. I found that Chapter 9 took a more systematic approach, using the specific drug as the organizing principle, and providing much more consistent information about the properties of a specific medication (chemical class, pharmacokinetics, mechanism of action, dose ranges, adverse events, and drug–drug interactions). Some chapters had mostly dated references covering general concepts (Chapter 6), whereas others had many specific, up-to-date references (Chapters 8, 9, and 11). Although Chapter 11 (“Lithium,” by Garrett Sparks and David Axelson) had 168 references, it was dated, because it did not discuss the diagnostic controversies around bipolar disorder in terms of the chronic versus the episodic variety, gave very little information on the Collaborative Lithium Trials (CoLT) study, and did not mention disruptive mood dysregulation disorder as an important differential diagnosis when considering bipolar disorder. Chapters also varied in the of number and type tables. Chapter 10 (Rowles, Hertzner, and Findling) included an impressive 10 page table of antipsychotic agent studies, which will stand as a reference for an academician looking for an authoritative review of the field, whereas Chapter 8 (Dara Sakolsky and Boris Birmaher) had no table of studies that could help the reader through the lengthy descriptions of the studies mentioned in the text. Chapter 7 is a masterful review of tricyclic antidepressants and monoamine oxidase (MAO) inhibitors with 132 references, even though these medications are not indicated for treatment in children and adolescents, and are not used off label by child and adolescent psychiatrists. I am disappointed that there was no chapter by David Rosenberg, an expert on OCD. Neal Ryan’s eloquent Forward ends by expressing hope that the next edition will include pharmacogenomics or neuroimaging that will enhance personalized medication. This was a very wise comment, because the book does not address either.

How does it compare to other textbooks on pediatric psychopharmacology? At 485 pages, it is shorter than the 840 page, encyclopedic, 2011 Oxford hardcover (selling for \$167.73 on Amazon), *Pediatric Psychopharmacology*, edited by Andres Martin, Lawrence

Seahill, and Christopher Kratochvil. It is much more recent than the classic 1999 edition of John Werry and Michael Aman’s, 500 page *Practitioner’s Guide to Psychoactive Drugs for Children and Adolescents* published by Plenum Press, or Molly McVoy and Robert Findling’s, 475 page *Clinical Manual of Child and Adolescent Psychiatry*, published by American Psychiatric Publishing in 2013. This hallmark text was organized by psychiatric disorder, making it more difficult to find information on any one medication.

Pharmacotherapy of Child and Adolescent Psychiatric Disorders is available on Amazon for \$98.90 in hardcover, and for \$61.99 in a Kindle edition. Its 485 pages are organized into 17 chapters, each written by a clinician researcher with an international reputation. Most of the chapters have an extensive bibliography, and there is a useful 14 page index followed by 10 blank pages for taking notes.

Overall, the book does a solid job of covering the field of pediatric psychopharmacology. It presents, to date, the largest number of key pediatric psychopharmacology researchers in this field found in one volume covering specific medications. All the chapters are well written, interesting, and informative. My favorite chapters are Pliszka’s chapter on psychostimulants, Emslie’s chapter on novel antidepressants, Findling’s chapter on neuroleptics, Safer and Zito’s coverage of pharmacoepidemiology, Tandon and Luby’s chapter on psychopharmacology in preschool children (Chapter 16), and Joshi and Georgiopoulos chapter entitled “Combination Pharmacotherapy for Psychiatric Disorders in Children and Adolescents” (Chapter 17). This book’s blend of clinical expertise and reviews of publications span the gap between standard psychopharmacology textbooks and practice parameters. I will use it both for teaching and for practice.

Address correspondence to:
Laurence Greenhill, MD
Department of Clinical Psychiatry
Columbia University
NYS Psychiatric Institute
Division of Child and Adolescent Psychiatry
1051 Riverside Drive
Room 2B-2307
New York, NY 10032
E-mail: llg2@columbia.edu