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BOOK REVIEWS

ADHD in Adults is Real, After All

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ADHD in Adults: Characterization, Diagnosis, and Treatment, Jan K. Buitelaar, Cornelis C. Kan, and Philip Asherson (Eds.). (2011). Cambridge, UK: Cambridge University Press, 314 pp., $88.00 (HB).

Reviewed by Robert L. Mapou, Ph.D., ABPP-CN, *The Stixrud Group, LLC, Silver Spring, MD, USA.*

In the past four years there have been four new scholarly texts on attention-deficit/hyperactivity disorder (ADHD) in adults, illustrating increased attention to this disorder. These have included one volume summarizing the results of two large research studies (Barkley, Murphy, & Fisher, 2008); two volumes on evidence-based treatments (Ramsay and Rostain, 2008; Solanto, 2011); and one volume summarizing research on non-medication treatments (Ramsay, 2010). Unlike the other texts, *ADHD in Adults: Characterization, Diagnosis, and Treatment* presents research from across the globe and is a good response to skeptics who believe that ADHD is purely a phenomenon in the United States (US). The first two editors hail from the Netherlands, and the third is from the United Kingdom (UK). Most of the authors are researchers from the US, Canada, several countries in Europe, and Australia.

The book is organized into seven sections. Following a Preface, Section 1 (three chapters) focuses on the epidemiology of ADHD, including the course over the lifespan, prevalence, co-occurring disorders, and gender differences. Section 2 (four chapters) summarizes research on the genetics and pathophysiology of ADHD, including findings from structural and functional neuroimaging and electrophysiological methods. Section 3 (two chapters) focuses on assessment and diagnosis. Section 4, the largest section with seven chapters, covers psychiatric disorders that frequently co-occur with ADHD. These include mood, anxiety, substance use, personality, and tic disorders. Also covered are disorders in which ADHD symptoms may overlap or be confused with the symptoms of the primary disorder (so-called organic brain disorders, autism spectrum disorders, and intellectual disabilities). Section 5 has four chapters on psychopharmacological treatment. In addition to covering research on and treatment with stimulant and non-stimulant medications, there is a chapter on abuse potential and diversion of stimulant medications. The latter is an increasing problem on college campuses and even in some high schools, where "study drugs" are now used to help students get an academic edge. Section 6 has three chapters on psychological and social treatment strategies. Section 7, on alternative biological treatments, has a chapter on neurofeedback and another on alternative and complementary treatments. The book concludes with an Afterword on the need for a new definition of ADHD in adults for the DSM-V.

There are gems among these chapters that are worth the read. These cover topics that are in not covered in as much depth in other volumes or that cover material in a novel way. Chapter 4, by Asherson, Levy, and Faraone is an up-to-date chapter on genetics. The conclusions can be summarized in two statements: 1) ADHD is a highly heritable disorder, and 2) the genetics of ADHD are complex. I admit that as a genetics neophyte, I was often lost in the technical detail, as I am not familiar with the differences between quantitative and molecular genetics, and the differences between gene association studies, genome-wide linkage scans, and genome-wide association scans. But, there is a wealth of data for the better informed reader, Of particular interest to neuropsychologists is the discussion in the final section on the genetic basis for ADHD-associated cognitive impairments including reaction time slowing and variability, poor sustained attention, and poor response inhibition.

Section 4, on co-occurring disorders, has several of the most interesting chapters. Chapter 11 is a brief and refreshing look at anxiety and ADHD by Weiss, Gibbins, and Hunter. Although they acknowledge that research is limited, they provide an insightful description of how ADHD can cause anxiety and how anxiety can exacerbate difficulties due to ADHD. Their clinical observations and recommendations will be helpful to anyone working with this population. Chapter 12, by Wilens, summarizes the bidirectional relationship between ADHD and substance abuse The author shows that 1) both disorders commonly co-occur, 2) conduct disorder and bipolar disorder place individuals with ADHD at even higher risk of substance abuse, 3) early psychostimulant treatment may protect against substance abuse, 4) treatment of ADHD may be essential if substance abuse is to be treated effectively, and 5) treatment should consider carefully the contributing clinical issues, including the possibility of diversion or abuse of prescribed psychostimulants.

Chapter 14, by Gillberg, Gillberg, Anckarsäter, and Råstam is an intriguing look at ADHD in autism spectrum disorders (ASDs). Although acknowledging that research is

limited, especially in adults, the authors make the case that the attentional and social communication difficulties associated with ADHD can be differentiated from those associated with ASDs. A particularly interesting finding from their longitudinal research is that children who meet criteria for ADHD and have co-occurring problems with perception and motor coordination are much more likely to be subsequently diagnosed with ASDs than those with ADHD alone. They also provide interesting examples of how children may be initially diagnosed with ASDs, but later determined to have ADHD and vice versa. In addition, they discuss the neuropsychological overlap between ADHD and ASDs. They conclude that the two disorders can co-occur and that ADHD should be treated when present. Their arguments, are compelling and worthy of consideration. Similarly, in Chapter 15, Xenitidis, Paliokosta, Pappas, and Branham provide data showing that ADHD can be diagnosed and treated in individuals with intellectual disabilities. Although they acknowledge the limitations of research, they conclude that when clearly present ADHD should be treated with medication because effective treatment can improve functioning.

Chapter 16, covering two personality disorders, is by van Dijk and Anckarsäter. In the first section, the authors summarize the large body of research (a table is included) showing a progression in some children with ADHD from hyperactivity to oppositional-defiant disorder to conduct disorder to anti-social personality disorder (ASPD) and criminal behavior. The literature shows clearly that children only with ADHD and few co-occurring conduct problems are unlikely to have ASPD as adults. Also, there appears to be no increased risk of antisocial behavior in those with the inattentive type of ADHD. However, as the severity of externalizing behaviors increases the likelihood of poor outcome and criminal behavior increases. The authors also reported that there is no evidence that treatment with psychostimulant medication or psychotherapy is preventive. This is disconcerting, because it implies that we do not know how to prevent poor outcome in these children. In the second section, the authors discuss similarities of ADHD symptoms (impulsivity, emotional dysregulation, mood lability) to those of borderline personality disorder (BPD). Although some studies have shown that individuals with ADHD develop BPD as adults, the literature is far smaller and plagued more by methodological problems than that on ASPD.

Chapter 23, by McDermott, is an excellent review of five key studies on psychosocial treatments, primarily cognitive-behavioral in orientation. In addition to summarizing each study's findings, strengths, and weaknesses, the author provides an excellent discussion that tries to tease out the differential impact of medication effects from therapy effects. The chapter is reasonably up-to-date, but most likely due to the publication date, did not include the two most recent studies (Safren et al., 2010; Solanto, 2010).

The Afterword, by Buitelaar, is the final gem. In addition to covering material from Barkley et al. (2008) and others showing that diagnostic threshold, age-of-onset criteria, and types of symptoms need to be modified for adults, the author presents data from his group in the Netherlands that support these conclusions. Yet, because it is more up-to-date than some of the others chapters, this chapter might have been included in Section 3 on assessment and diagnosis.

There are disappointments, as well. Chapter 10 covers mood disorders and ADHD. Although reasonably up-to-date, more space is devoted to definitions and epidemiology of mood disorders than to overlap with ADHD or differential diagnosis, a common problem. There is also a focus on treatment with medication but no discussion of psychotherapy, which is surprising because the author is a psychologist. It is puzzling that in 2012, Chapter 13 would refer to "organic brain disorders." This term has always been a pet-peeve of mine, and I encourage others to avoid it, because most of what we deal with in neuropsychology is "organic." However, the author seems to lament the loss of the term "organic brain syndromes" in the DSM-IV. Covered here are delirium, dementia, amnestic disorders, traumatic brain injury (TBI), psychotic symptoms, and tics. This is a puzzling chapter, because, as the author notes, differential diagnosis of these disorders and ADHD is straightforward. Also, the author incorrectly uses the term "postconcussional syndrome" to refer to the effects of severe TBI, although he correctly notes that psychostimulants have helped improve attention in individuals with severe TBI. Certainly tics and Tourette's disorder often co-occur with ADHD and can be exacerbated by psychostimulant medication. The author has good recommendations for treatment when both occur together, but coverage of the other disorders in a book on ADHD did not make much sense to me.

The strength of this book is that it is very comprehensive. However, a notable weakness is that the latest references in most chapters are from 2006 and 2007. This is surprising for a book published in 2011, even with the usual lag time. Chapter 8, the primary chapter on ADHD diagnosis, has references mostly between 1999 and 2004. Key studies from 2008 were not included, although they were in the Afterward. The book also is unevenly edited. Too many chapters begin the same way, summarizing the prevalence and characteristics of ADHD in children and adults. After a while, I found myself skimming over the first sections of each chapter. Redundancy also was seen in the coverage of the same material in different chapters. For example, Chapter 19, on the "nuts and bolts" of medication management, covers material presented in Chapters 17 and 18, which summarize research on medications. The author also repeats her own statements on treatment approaches at different points in the chapter. Chapter 25 has a section on neurofeedback, which was covered in Chapter 24. With tighter editing, this book could have been shorter. Three chapters have little or no empirical support for their topics. Chapter 21 on psychoeducation and Chapter 22 on coaching are clinical and not based on research. Chapter 25, on alternative and complimentary treatments is long on speculation and short on empirical support. Ramsay (2010), in his chapter on the same topic, was far more cautious. I was also puzzled that in the opening paragraph, the authors suggested that patients might have interest in alternatives to behavioral treatments. Studies summarized in Chapter 23 and in Ramsay (2010) show that

these are effective and very promising treatments, especially in combination with medication.

This book will be most useful for neuropsychologists who would like a comprehensive introduction to ADHD in adults from different perspectives. However, it will be necessary to supplement the book with more recent articles and texts. Also, Ramsay (2010) covers similar material more concisely and might be a better option, if less detail is desired. Apart from the noted "gems," the book will be less useful for someone who regularly keeps up with the literature on adult ADHD. And, of course, it will not be of interest to neuropsychologists who do not see adults with ADHD as part of their regular practice.

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Seminal Treatise on Neuropsychological Practice with Veterans

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Neuropsychological Practice with Veterans, Shane S. Bush, Ph.D., ABPP, ABN (Ed.) Springer Publishing Company, May, 2012, 424 pages, $70.00.

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Traumatic brain injury (TBI) is often described as the "signature injury" of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). Neuropsychologists have made important contributions to our understanding of both the immediate and long-term impact of these injuries. Those working with active duty service members and veterans understand that care extends well beyond the assessment and treatment of these injuries alone. In addition to TBI, which afflicts approximately twenty percent of service members returning from duty in Iraq and Afghanistan (Vasterling and Dikmen, 2012), our veterans face a host of other psychological threats that uniquely impact neuropsychological functioning including Posttraumatic Stress Disorder (PTSD), depression, chronic pain, and substance abuse. The comorbidity rates among TBI and psychological distress are high, further complicating the clinical presentation of our service members. In addition, diagnosis of a condition believed to be related to military service includes the potential for financial gain within the Department of Veterans Affairs (VA) System, creating additional challenges with assessment and treatment. Bush's *Neuropsychological Practice with Veterans* is the first comprehensive account of the challenges with evaluating and treating this rapidly expanding population of patients.

Neuropsychological research, assessment, and treatment of veterans largely revolve around the VA. Building upon the writings of clinicians and researchers who have extensive experience working with service members in the VA system, this book is framed with an understanding of the unique culture of treatment with active duty service members and veterans and the necessity for specialized delivery of methods and procedures. The book benefits from the first-hand knowledge of the inner-workings of military medicine combined with an informative, to-the-point writing style. Bush, in highlighting the information that his audience needs to know while avoiding surplus, has created a resource that any provider to active duty service members and veterans can turn to again and again to find information immediately helpful to their practice.

The book is divided into three parts: In Part I, *Neuropsychological Assessment and Treatment*, Bush presents the unique aspects of working with service members and veterans, practicing within the VA system, and how this relates to neuropsychological assessment and treatment. This is the heart of the advances made by this book. Bush does a brilliant job of not just explaining how neuropsychological assessment and treatment within the military is different from working with a civilian population, but in explaining why such differences matter and how they can permeate every aspect of the patient's presentation. He draws to light many issues commonly seen in neuropsychological assessment of active duty service members and veterans, including: the complex interplay between neurocognitive and psychiatric symptoms; the prevalence of malingering or unintentional exaggeration of problems and the