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Preface

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Guest Editors

This issue of *Child and Adolescent Psychiatric Clinics of North America* is on the treatment of autism spectrum disorders (ASDs), also known as pervasive developmental disorders (PDDs). Typically diagnosed in childhood, these disorders cause lifelong and characteristic impairment in socialization, communication, and behavior. A number of specific "core" symptoms are found to varying degrees. These can include poor eye contact, deficits in other nonverbal behavior, social withdrawal, impairment in social interaction, echolalia, stereotypies, intense and circumscribed interests, and a preoccupation with parts of objects instead of the whole. These core impairments can range from mild to disabling. Autistic disorder (autism) is frequently associated with mental retardation, which contributes to impairment in functioning. Asperger's disorder and PDD not otherwise specified are less frequently associated with mental retardation. These three disorders represent the majority of patients seen clinically.

The increased prevalence of individuals receiving a diagnosis of an ASD has received widespread public attention and has led to occasional alarm about the emerging autism epidemic. Recent epidemiologic studies put prevalence rates at 0.6% for all ASDs, which is much higher than was thought to be 20 years ago [1]. Many experts in epidemiology believe that much of the increase can be accounted for by broadening or shifting diagnostic concepts, although this is not universally agreed upon. In essence, we may be diagnosing children who went undiagnosed or misdiagnosed in previous decades. This is underscored by some evidence suggesting that the most common

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ASD is actually PDD not otherwise specified [1]. Nevertheless, the high prevalence of these disorders makes it imperative that all physicians become aware of them so that they can make appropriate referrals for diagnosis, treatment, and services.

Child and adolescent psychiatrists and other mental health professionals will increasingly be called upon to provide treatment for children and adolescents with ASD. This may present challenges, as services for persons with developmental disabilities have frequently been administered and funded separately from those provided to persons with mental illness. Because there are often fewer resources for adults with ASDs, many child and adolescent psychiatrists continue to treat these individuals into adulthood.

The cause of autism is unknown. Evidence from twin and family studies indicates that autism is highly heritable. However, no single autism susceptibility gene has been consistently demonstrated to be important in a majority of cases [2]. Neurochemical investigations have identified abnormalities in monoamines, glutamate, gamma-amino hydroxybutyrate, and neuropeptides [3]. Functional neuroimaging studies are beginning to demonstrate differences between the brains of persons with autism and controls [4]. Brain regions potentially involved in ASDs are diverse and include the cerebellum [5], fusiform gyrus [6], amygdala [7], and prefrontal cortex [8,9].

This issue on ASDs is unique in that it is largely focused on treatment and less on the comprehensive characteristics and underlying neurobiology of autism. The reader interested in learning more on these topics may want to consult books by Volkmar and colleagues [10] and Moldin and Rubenstein [11], respectively. Instead, this issue delves into what we know about treating ASDs. It focuses on approaches to core symptoms and common behavioral problems and should serve as a resource for what treatments have been studied and what an appropriate treatment plan might include. The first six articles discuss various symptoms or aspects of autism that may be addressed with pharmacologic and medical approaches. The last six articles discuss behavioral and psychosocial interventions aimed at improving core deficits or problematic behaviors.

Drug treatments are not always necessary for every individual with an ASD. However, they frequently enhance the person's ability to benefit from educational and psychosocial interventions and can improve the quality of life for the individual and family [12]. Aman and colleagues [13] begin the issue with a review of medication treatments for inattention, overactivity, and impulsiveness. Surveys suggest that these "attention-deficit/hyperactivity disorder-like" symptoms are the most common problematic behaviors affecting youth with ASDs. Stigler and McDougle then review the research literature on the use of medications for irritability and associated aggression and self-injurious behavior. This research was integral in leading to Food and Drug Administration approval of the first medication specifically indicated for treating symptoms associated with autism, namely risperidone.

Interfering repetitive behaviors may also benefit from drug treatments. Soorya and colleageues describe these approaches in detail. Johnson and Malow then provide background on the characteristics of disordered sleep in autism and outline assessment and treatment principles. Posey and McDougle review challenges associated with conducting clinical trials of medication for social and communication impairment, as well as trials conducted for these core symptoms. Given the lack of effective treatments for the core symptoms of autism, it is little wonder that alternative treatments flourish. Finally, Levy and Hyman review the limited research literature on various alternative medical treatments that are so commonly sought by families.

Prior to considering medications for behavioral problems, clinicians should always attempt to implement behavioral therapy. Behavioral, educational, and psychosocial interventions are the cornerstone of treatment for individuals with ASDs. Experts in behavioral intervention are a crucial part of the multidisciplinary approach to autism. However, the dearth of suitably-trained behavioral therapists makes treatment planning difficult. Foxx reviews the principles of applied behavioral analysis, which are central to behavioral therapy and many other psychosocial interventions in autism.

The majority of children with ASDs will also need intensive and regular therapies aimed at improving their communication and socialization. Paul provides an overview of speech and language approaches aimed at improving communication in autism. Bellini and Peters describe the use of social skills training, which is especially helpful for individuals with higher-functioning ASDs.

Some behavioral problems in autism respond less well to drug interventions, making behavioral treatments even more necessary when addressing these problems. Self-injurious behavior (SIB) sometimes improves with medications aimed at reducing irritability, but many of our patients continue to exhibit severe SIB despite optimal medication use. Minshawi presents an article on the behavioral treatment of SIB that will be useful for all clinicians managing this difficult problem. Kodak and Piazza then provide behavioral approaches to treating disorders of feeding and sleeping.

One of the main challenges to quality treatment for children, adolescents, and adults with ASDs are the lack of professional care providers who have expertise in this area. Many families struggle with long waiting lists for appointments and lack of insurance reimbursement for particular treatments. The closing article by Swiezy and colleagues provides background and a hands-on model of training professional care providers that is both collaborative and practical.

This issue of the *Clinics* provides up-to-date reviews by experts in the area of ASDs treatment. It presents both psychopharmacologic and nonpharmacologic approaches. It dissects the myriad of problems individuals with ASD may present with into specific symptom areas that can be addressed through various treatment modalities. These symptom areas can then be addressed with an approach that is tailored to the specific situation of the individual.

It also will serve as a resource for child and adolescent psychiatrists and mental health professionals who treat these challenging disorders.

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