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Edited by Fred R. Volkmar
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Autism and Pervasive Developmental Disorders

Third Edition

Edited by

Fred R. Volkmar

Yale University School of Medicine; Yale–New Haven Hospital



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Preface to 3rd Edition and Acknowledgments

It has now been over a decade since the second edition of this volume appeared and during that time there have been major advances in our understanding of autism and related conditions. Well over 30,000 papers on the topic have appeared, and the explosion of work hopefully will continue in the coming years. For the previous two editions of this volume, the goal has been to provide coverage of areas relevant to students, researchers, and educators. To this end, the current volume retains many of the same topics and authors from the previous editions but with some exceptions and changes that reflect new areas of activity in the field.

In the first chapter, my colleague Scott Jackson and I review some of the recent changes in diagnosis and classification and provide an overview of the instruments available to help in this effort. As we note, changes have not been without controversy and it will be interesting to see how the field deals with these challenges.

Fombonne and colleagues provide a concise and thoughtful review of work on the epidemiology of autism and related conditions. As they note, there have been some interesting, and sometimes troubling, trends that may have important implications for epidemiological studies of autism – these issues center around issues of intellectual ability, race/ethnicity, and social class. As they discuss there are particular challenges with regard to more cognitively able individuals, particularly those with lower levels of symptoms.

In the third chapter Vivanti, Yers, and Salomone review work on psychological factors in autism. As they point out, the past decade has seen a substantial increase in research on the relationship between psychological factors and core symptoms of autism. While much progress has been made many challenges remain, likely reflecting, in part the diverse processes that result in the similarly diverse phenotypes associated with autism. As they suggest there is some possibility that application of our knowledge of features of autism in early interventions programs may be important in optimizing outcome.

In the next chapter, Rhea Paul has kindly provided a revision of her earlier chapter on communication in autism. As she notes while there are a diverse set of communicative presentations and outcome, it is the impact of autism on social communication that is universal. As she summarizes, a number of advances have been made including in the area of fostering communication in individuals without speech. As she observes there is good reason to believe that earlier intervention that includes a specific focus on social communication skills is associated with better long-term outcome.

The fifth chapter of the book by Peter Szatmari and his colleagues provide an updated and comprehensive review of the genetics of autism. This has been an area in which knowledge has literally exploded over the past decade. While considerable knowledge has been gained, important questions remain in understanding the diversity of genetic factors. The relationship of these genes to multiple disorders remains a very important area of future work. The growing body of work in genetics may have important implications for understanding mechanisms of pathogenesis and potential treatments.

In the following chapter, Professor Christopher Gillberg and colleagues review our understanding of the neurobiology of autism (or as they suggest perhaps autisms is a better term). The large and diverse body of work has led to the potential for better understanding of basic mechanisms and better models for understanding the range of factors that contribute to the diverse clinical picture in autism.

The next series of chapters focuses on aspects of treatment and intervention. In their chapter on psychopharmacology, Mooney, Fostick, and Erickson summarize the important advances in pharmacological treatments that have been made in the past decade. Two agents have now been approved in the United States for the treatment of irritability in autism and a number of other agents have been used in the treatment of comorbid conditions like anxiety, depression, and attentional problems. Work on agents that might address the core social dysfunction of autism are underway and advances in genetics may point the way to new and more targeted treatments as well.

Chapter 8 is devoted to behavior and educational interventions in autism. Sam Odom and his colleagues provide a masterful summary of progress made in the field and treatments relevant to individuals of all ages. They also touch on the issue of controversial treatments, i.e., those that cannot be regarded as evidence based. As they note, the range of treatments that now can be regarded as evidence based is impressive and important challenges remain in selection and implementation of successful treatment programs.

Peter Doehring then undertakes the ambitious task of reviewing the impact of research on national policy. He uses the US experience as his exemplar – reflecting the substantial body of both research and clinical work and the long-standing mandates for schools to provide free and appropriate education to all children. In other countries, particularly developing countries, this area remains an important area for future work and he notes some of the challenges for this effort. As he observes although some progress has been made many challenges remain. Effectively the 50 US States provide varying models of intervention with little coordination and sometimes wide variability.

In the concluding chapter, Iliana Magiati and Patricia Howlin discuss issues of adult outcome in autism. They note the challenges for conducting outcome research including secular changes in treatment and diagnostic practice. But even with these factors taken into account there are reasons to be hopeful. Unfortunately for many adults appropriate support programs are not readily available. And as they observe research on outcome needs to focus on more complex and comprehensive approaches that assess the complex interactions between individual and environment. Remarkably little work has been conducted on older individuals with ASD and they point out that little is known about the issues faced by the growing number of aging individuals on the autism spectrum. It has been a great pleasure to work with this truly outstanding collection of contributors. It is also a pleasure to thank my editor at Cambridge University Press, Catherine Barnes, and her colleagues Jessica Papworth and Nigel Graves.