

of genetics and environment on the development of emotional-behavioral disorders of children and adolescents. The book includes sections entitled "Basic Principles of Developmental Psychopathology," "General Concepts of Gene-Environmental Interactions on Child Development," "Disorder-Based Examples of the Study of Gene-Environmental Interaction," and "The Future of the Study of Developmental Psychopathology in Genetics and Clinical Settings." Understanding of developmental psychopathology has been advanced by new techniques in genomic investigation, epidemiology, and neuroimaging. Dr Hudziak and colleagues extend this knowledge in their investigations and clinical strategies for understanding wellness and prevention of psychopathology in children and adolescents.

This book is an excellent overview of the history and current research on this topic, and it offers views of the future of this field. The authors of the chapters are pioneers in promoting the concepts of developmental psychopathology, and they have used various methods of studying this important paradigm of human development and psychopathology.

The important first chapter by Michael Rutter, MD, offers clear historical understanding of the development of relevant concepts. He notes that Thomas M. Achenbach, PhD, initially proposed the term *developmental psychopathology*. Subsequently, in the 1980s, paradigms for developmental psychopathology were more established, and a lifespan perspective was considered essential. Dr Rutter indicates that "there is co-action between genes and environments, and it is misleading to conceptualize effects as due to either nature or nurture" (page 11). He notes that the pioneering research of Caspi and Moffitt empirically demonstrates the effects of gene-environmental interactions on psychopathological outcomes. Other researchers have demonstrated that "environments can change gene expression."^{1(p12)} Dr Rutter emphasizes that "development of somatic systems is designed to be adapted to the environmental circumstances prevailing at the time of the peak development of the relevant systems."^{1(p12)} This chapter also outlines a blueprint for future research on developmental psychopathology. In the next chapter, Dr Achenbach discusses how he proposed the term *developmental psychopathology* in his book of the same title.² In that book, he proposes that developmental dimensions should constitute the primary basis for research on developmental psychopathology. In the current volume, he describes his pioneering empirical studies highlighting the importance of age, gender, informant, and cultural aspects of variance of developmental psychopathology. Detailed explanations of how "social context may shape the meanings of experiences"^{1(p50)} are described by Ezra Susser, MD, Dr PH, and Dana March, MPH.

The second section focuses on personality, temperament, cognition, and sex. For example, Adrian Angold, MD, proposes that sex involves a developmental process that confers sex differences in psychopathology. Other chapters focus on temperament (David C. Rettew, MD) and personality and cognition (Margaret J. Wright, PhD, and Nicholas G. Martin, MD).

Section 3 offers examples of studies of gene-environmental interactions on the development of psychopathology. The empirical research of Joan Kauffman, PhD, suggests that gene-environmental interactions predict outcomes among maltreated children and that social support appears to protect these children from adverse outcomes. An important concept derived from her investigations is that early adverse experiences alone need not produce permanent negative outcomes, because the effects are mediated by gene-environmental interactions. Other psychopathologies involving this paradigm are described by Dorret I. Boomsma, PhD, and Dr Hudziak and their colleagues (anxious/depression), Angela M. Reiersen, MD, MPE, Richard D. Todd, MD, PhD, and their colleagues (ADHD), and John N. Constantino, MD, and Dr Todd (pervasive developmental disorders) and Frank C. Verhulst, MD (antisocial behavior).

Developmental Psychopathology and Wellness: Genetic and Environmental Influences

edited by James J. Hudziak, MD. American Psychiatric Publishing, Inc, Washington, DC, 2008, 300 pages, \$64.00 (paper).

Developmental Psychopathology and Wellness: Genetic and Environmental Influences was conceived as a compendium of lectures presented at the 97th Annual Meeting of the American Psychopathological Association in March 2007, when James J. Hudziak, MD, was president of this association. The focus of this volume is to highlight a new paradigm involving the effects of interactions

In the last section, Stephen V. Faraone, PhD, discusses the application of statistical and molecular genetic techniques to studies of developmental psychopathology. In the last chapter, Dr Hudziak and Meike Bartels, PhD, discuss the gene-environmental family-based approach used in their clinic to treat children and adolescents. Their unique approach defines wellness as an important outcome and identifies factors, including sports, religion, and family, that are a means to achieving this outcome. Their concepts of clinical care are derived from their understanding of research on developmental psychopathology and outcomes of gene-environmental interactions.

The term *developmental psychopathology* implies that lifespan processes account for human emotional-behavioral functioning, and the valuable contributions to *Developmental Psychopathology and Wellness: Genetic and Environmental Influences* reflect this emphasis. This book is recommended to psychiatry residents, psychology students, experienced clinicians, and research investigators.

It offers a clear view of the complexities of this paradigm of gene-environmental interactions, evolving strategies for future research, and new clinical opportunities to enhance wellness and prevent psychiatric pathologies among children and adolescents.

REFERENCES

1. Hudziak JJ, ed. *Developmental Psychopathology and Wellness: Genetic and Environmental Influences*. Washington, DC: American Psychiatric Publishing; 2008.
2. Achenbach TM. *Developmental Psychopathology*. New York, NY: Wiley; 1974.

Cynthia R. Pfeffer, MD
cpfeffer@med.cornell.edu

Author affiliation: Weill Cornell Medical College, New York, New York.

Potential conflicts of interest: None reported.

doi:10.4088/JCP.09bk05749whi

© Copyright 2010 Physicians Postgraduate Press, Inc.