

Cognitive Impairment in Schizophrenia: Characteristics, Assessment, and Treatment

edited by Philip D. Harvey. Cambridge University Press, Cambridge, UK, 2013, 324 pages, \$95.00 (hardcover).

Cognitive Impairment in Schizophrenia is a well-written, authoritative book covering all aspects of cognition in schizophrenia. The editor is a highly respected scientist who has recruited 42 authors to contribute a total of 16 chapters to this book.

The chapters are grouped in 4 main sections. The first section provides detailed information about characteristics of cognitive impairment in schizophrenia, such as cognition as a central illness feature in schizophrenia, the profile of cognitive impairment in schizophrenia, comparison of cognitive impairment across schizophrenia and bipolar disorder, and the relationship between cognitive impairment and symptom dimensions in psychosis.

The second section deals with functional implications and course of cognitive impairment in schizophrenia, covering several topics: neurocognition and functional outcome in schizophrenia, cognition and work functioning in schizophrenia, details of cognition and functional status in adults and older patients with schizophrenia, relationships between social cognition and neurocognition, and, lastly, a review and meta-analysis of cognitive functioning and awareness of illness in schizophrenia.

The third section includes chapters discussing genetic and biological contributions to cognitive impairment and entails genetic influences on cognition in schizophrenia, neurobiological determinants of cognition, and translational aspects of cognitive neuroscience of schizophrenia.

The fourth and last section of the book concerns the assessment and treatment of cognitive impairment and related features and spans 4 chapters that include assessment of cognition in schizophrenia treatment studies, performance-based measures of functioning in schizophrenia, pharmacologic approaches to cognitive enhancement, and, finally, details about computerized cognitive training in schizophrenia.

As indicated earlier, the book is extremely well written and expertly edited. I will briefly discuss some of the chapters that were of interest to me personally. In the chapter on cognition as a central illness feature in schizophrenia, Drs Heinrichs, Miles, Ammari, and

Muharib provide a detailed and historical overview of cognition in schizophrenia from the original description of Kraepelin to the current DSM-5 criteria for schizophrenia. In the chapter entitled "Comparative Impairments Across Schizophrenia and Bipolar Disorder," Drs Bowie, Holshausen, and Gupta review and contrast the cognitive impairments in schizophrenia and bipolar disorder from the early 1960s to the 2010 studies. In the chapter on cognition and work functioning in schizophrenia, Drs McGurk and Mueser review the reasons for poor vocational functioning and its high global burden on subjects with schizophrenia, their families, and society in general. In the chapter entitled "Genetic Influences on Cognition in Schizophrenia," authored by Drs Burdick, Glicksberg, and Donohoe, the important role of genes in development of schizophrenia is discussed. Specifically, the contribution of risk genes *DTNBP1*, *ZNF804A*, and *CACNA1C* to cognitive function in schizophrenia is elaborated and detailed. It would have been beneficial to include other important genes and their protein products that impact synaptic plasticity, such as reelin or FMRP, in this chapter. However, this is a well-written chapter on the role of genes in cognition in schizophrenia. Finally, in the chapter on pharmacologic approaches to cognitive enhancement, written by Dr Harvey, the author reviews in detail the role of various important neurotransmitters such as dopamine, glutamate, GABA, and acetylcholine as well as general pharmacologic agents in the treatment of cognitive impairment in schizophrenia and provides an analysis of their efficacy in this disorder.

Overall, this is a well-written and well-organized book that I recommend to psychiatrists who are interested in treatment of cognitive deficits in schizophrenia. The editor and authors should be congratulated for providing us with this excellent book.

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Potential conflicts of interest: Dr Fatemi has received grant/research support and honoraria (as a reviewer) from the National Institute of Mental Health, National Institute on Drug Abuse, and Eunice Kennedy Shriver National Institute of Child Health and Human Development and has received patents related to reelin as a diagnostic marker for psychiatric disorders (unpaid).

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