Current Research on Co-occurring Substance-Use Disorder in Schizophrenia

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The 5 excellent articles in this section stand on their own as scientific contributions and together highlight important progress in schizophrenia research. The first 2 articles, by Caton and colleagues and by Mueser and colleagues, clarify unique features of 2 co-occurring disorders subgroups and may help us to understand the development and heterogeneity of co-occurrence in ways that lead to prevention and treatment. Caton documents that many individuals who appear to present with substance-induced psychosis also have some traditional risk factors for schizophrenia and are at high risk for psychosis 1 year later and for converting to a diagnosis of primary psychosis. Like the research of Caspi and colleagues,1 her article suggests that genetic vulnerability can combine with substance use in important ways to increase the likelihood of primary psychosis. Mueser’s article suggests that childhood conduct disorder may be a key to understanding some of the variance in the co-occurring disorders population. Consistent with earlier research,2 his article suggests that conduct disorder and antisocial behaviors may be key vulnerability markers for substance-use disorder during the prepsychotic phase of schizophrenic illness.

The next 2 articles, by Brunette and colleagues and by Petrakis and colleagues, describe pharmacologic research that may lead to clues regarding both the treatment and the neurobiology of co-occurring disorders. Brunette’s article shows that medications may be critical in the relapse prevention stage of substance-abuse treatment and that clozapine continues to demonstrate unique properties among antipsychotic medications as a treatment for schizophrenia and co-occurring substance-use disorder. Petrakis’ article, which describes one of the few randomized controlled trials to test medications for alcoholism, such as disulfiram and naltrexone, in patients with co-occurring disorders, suggests that these medications are probably effective for those with psychotic disorders. The final article by McHugo and colleagues reviews several methodological implications drawn from intervention research on co-occurrence over the past 20 years. McHugo’s suggestions may help the field begin to standardize research approaches and develop more robust clinical trials, ones that are feasible and applicable to the large population of patients with co-occurring disorders.

Considering these articles in relation to the larger field of co-occurring disorders invokes several scientific trends. Because animal and human studies expand, theories of co-occurrence will likely become more refined. It is now clear that patients with schizophrenia have heightened vulnerability to substance abuse before and after they become psychotic.3 Both the genetic profiles and the neurocognitive features of patients with schizophrenia may lead to enhanced sensitivity to substances of abuse and almost certainly predispose them to high rates of substance-use disorder. This could imply converging neurobiological vulnerabilities (to schizophrenia and to substance abuse), perhaps within the brain reward circuit, consistent with a common mechanism for the dual effects of clozapine.4,5 Prepsychotic neurocognitive deficits also lead to an abundance of established socioenvironmental risk factors for substance-use disorder, such as educational, social, and vocational deficits.6 The rapidly developing understanding of the genetics and pathophysiology of schizophrenia and substance-use disorder may lead to more specific pharmacological treatments, but these will need to be used in concert with psychosocial interventions that address cognitive, social, and environmental realities.

While pharmacology offers hope for the future, psychosocial treatments have already proliferated and demonstrated effectiveness. There are now over 50 controlled trials of psychosocial interventions that involve integrating mental health and substance-abuse treatments.7 These studies show that patients with co-occurring disorders benefit in the usual ways from most interventions, eg, assertive community treatment decreases institutionalization and improves community tenure. Further, several interventions, such as group-based cognitive-behavioral treatment, contingency management, and long-term residential treatment, have emerged as effective for ameliorating substance-use disorder in schizophrenic patients. At the same time, epidemiologic evidence continues to indicate that people with co-occurring disorders are highly unlikely to receive any treatment for

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the 2 disorders,8 and the need to disseminate and provide integrated treatments remains prominent.9

Expanding research on schizophrenia and co-occurring substance-use disorder is particularly critical because these patients have traditionally been excluded from clinical trials even though they represent at least half of all patients with schizophrenia and many of those with the most serious adverse outcomes. This issue of Schizophrenia Bulletin has focused attention on this subgroup of patients; we look forward to other special sections of the Bulletin in which we hope to describe further progress in developing understanding of the basis of co-occurring disorders and of their optimal treatment.

References