

## THE EMERGING PROBLEM OF DIABETES IN THE SERIOUSLY MENTALLY ILL

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### SUMMARY

We describe the increasing prevalence of chronic illnesses such as obesity and type 2 diabetes have markedly increased in both developed and developing countries.

We describe the relationship between type 2 diabetes and mental illness. The extant literature suggests a critical need for innovative treatments targeted to individuals with comorbid diabetes and mental illness. Given the complexity and challenge of both of these disorders in tandem with the interactive challenges and burdens of psychiatric and medical comorbidity, it is essential that interventions address the issue of mental and medical health from the perspective of the individual with the disorder, engage individuals to actively participate in illness self-management, and include consideration of the multiple barriers to care.

**Key words:** serious mental illness - type 2 diabetes

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Over the past quarter century the prevalence of chronic illnesses such as obesity and type 2 diabetes have markedly increased in both developed and developing countries. It is estimated that more than 150 million persons worldwide had type 2 diabetes in 2000 with an increase of 46% (prevalence of 221 million) expected by 2010 (Zimmet et al. 2001). The rates of increase in diabetes prevalence range from 23% in the United States to 57% in parts of Asia (Zimmet et al. 2001). Increasing longevity and genetic predispositions in conjunction with changes in diet and lifestyle have combined to increase not only rates of clinical diabetes but also an increased prevalence of risk factors associated with an augmentation of cardiovascular morbidity and mortality. The increased risk for morbidity may begin several years before the onset of clinical diabetes (Haffner et al. 1990). Recent evidence supports the notion that type 2 diabetes is part of a broader set of disorders (metabolic syndrome: insulin resistance/hyperinsulinemia, visceral obesity, hypertension, abnormal lipid values, etc). Metabolic syndrome not only increases cardiovascular risk (Isomaa et al. 2001, Lorenzo et al. 2007) but incrementally predicts an increased risk for developing clinical diabetes beyond the presence of glucose intolerance (Lorenzo et al. 2007).

The prevalence and impact of diabetes among individuals with serious mental illness is a substantial and rapidly growing problem. Barnett et al. (2007) recently reviewed the literature on diabetes, obesity and dyslipidemia among patients with schizophrenia, and concluded that treatment-related metabolic disturbances are common, that the use of second generation antipsychotic medications compounds risk, and that widely prevalent unhealthy behaviors related to these medical conditions (smoking, reduced physical activity, poor diet and substance use) further contribute to

negative outcomes. Carney (Carney et al. 2006) found significantly higher odds ratio for having diabetes and for having medical complications because of diabetes (OR=2.11) among patients with schizophrenia. Van Winkle (van Winkel et al. 2008) found that 30% of individuals with bipolar disorder met criteria for diabetic or had pre-diabetic abnormalities.

Studies of diabetics underscore the relationship. For example, Banerjea (Banerjea et al. 2007) analyzed 485,893 claims from U.S. Medicare and the Veterans Health Administration and found that among those with diabetes, 31% were diagnosed with a mental disorder or substance abuse and that those with psychiatric illness had higher rates of diabetic complications. Medical comorbidity contributes to the increased mortality noted among the mentally ill (Hannerz et al. 2001). Jackson (Jackson et al. 2007) evaluated the impact of diabetes on mortality in psychiatric patients comorbid for substance abuse, and found that 21% had diabetes, and over a 12-year period, 41% with diabetes had died compared to 10% without diabetes.

Consistent with the evidence that serious mental illness and diabetes outcomes are bidirectional (Banerjea et al. 2007, Jackson et al. 2007, Druss et al. 2001), the great majority of individuals with serious mental illness (82%) believe that the status of their overall health is related to their recovery from mental disorder (Mental Health America 2008). Unfortunately, medical conditions are not typically addressed in many psychiatric clinical settings. A U. S. study found that with less than half of patients with serious mental illness noted that their psychiatrists had ever asked them about blood pressure, blood sugar, or cholesterol levels. There are suggestions that the medical morbidity from chronic conditions among psychiatric populations could be improved with better coordinated medical care. For

example, Druss (Druss et al. 2001) found that when a statistical adjustment is made for the lower quality of medical care provided to older seriously mentally ill patients, the relationship between mental disorders and increased mortality decreased.

In summary, the extant literature suggests a critical need for innovative treatments targeted to individuals with comorbid diabetes and mental illness. Given the complexity and challenge of both of these disorders in tandem with the interactive challenges and burdens of psychiatric and medical comorbidity, it is essential that interventions address the issue of mental and medical health from the perspective of the individual with the disorder, engage individuals to actively participate in illness self-management, and include consideration of the multiple barriers to care.

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