Comorbid Somatic Illnesses in Patients With Severe Mental Disorders: Clinical, Policy, and Research Challenges

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Background: An increasing body of evidence suggests that, in comparison to the general population, patients with severe mental illnesses such as schizophrenia or bipolar disorder have worse physical health and a far shorter life expectancy in developed countries, due primarily to premature cardiovascular disease.

Participants: This article is based on presentations and discussion on somatic comorbidity in psychiatric illnesses by a group of 37 international experts during 2 meetings held in 2006.

Consensus Process: At the preparatory meeting in Paris, France, the group determined key topics for presentations and group discussions. During the meeting in Vienna, Austria, on day 1, each set of presentations was followed by discussions in small groups with the meeting participants. On day 2, conclusions reached by each discussion group were presented and used as a platform for a consensus view adopted by the meeting participants. The presentations and discussions were collated into a draft that was revised and approved by each of the bylined authors.

Evidence: General health care needs are commonly neglected in patients with severe mental illness, with suboptimal integration of general somatic and psychiatric care services, current lack of consensus as to which health care professionals should be responsible for the prevention and management of comorbid somatic illnesses in patients with severe mental disorders, and, at least in some countries, a paucity of funding for general somatic care for patients with severe mental disorders, especially those in long-term psychiatric treatment.

Conclusions: The somatic health of patients with severe medical illnesses is too often neglected, thus contributing to an egregious health disparity. The reintegration of psychiatry and medicine, with an ultimate goal of providing optimal services to this vulnerable patient population, represents the most important challenge for psychiatry today, requiring urgent and comprehensive action from the profession toward achieving an optimal solution.

approximately 78 years; for males, approximately 75 years; for females, approximately 80 years), life expectancy for public sector patients with major mental disorders like schizophrenia and affective disorders is at least 30% shorter. The number of excess deaths is 1.6 to 3.0 times higher, with 38% of excess deaths associated with suicide and homicide, and the other 62% due to natural causes. The excess mortality reported among the persistently mentally ill population has been a consistent finding across heterogeneous studies. For example, in the recently published systematic review on mortality in schizophrenia, Saha et al. pooled data from 37 studies performed in 25 different countries. The median all-cause, all-cause standardized mortality ratio (SMR; compares mortality in people with schizophrenia vs. the general population) was 2.58 (95% CI = 1.18 to 5.76). In addition, the results show a statistically significant increase in all-cause mortality in recent decades (the median SMRs for the 1970s, 1980s, and 1990s were 1.84, 2.98, and 3.20, respectively; p = .03). Currently, most of the available research originates from developed countries, while specific evidence from developing countries is sparse. For example, 74% of SMR data sets used in the Saha et al. analysis were from developed countries; however, no statistically significant differences were found between the median all-cause SMRs for the least developed countries, emerging economies, and developed countries (2.02, 2.19, and 2.79, respectively), suggesting that excess mortality in people with schizophrenia could be a global phenomenon.

Although severe mental disorders have a chronic course associated with a high risk for development of comorbid somatic illnesses, general health care needs in this population are commonly neglected. Key problems include the stigmatization of mental illness leading to the discrimination of the mentally ill in all walks of life, including the provision of health care, suboptimal integration of general somatic and psychiatric care services, current lack of consensus as to which health care professionals should be responsible for the prevention and management of comorbid somatic illnesses in patients with severe mental disorders, and, at least in some countries, a paucity of funding of general somatic care for patients with severe mental disorders, especially those in long-term psychiatric treatment. In addition to simply being standard health care policy, parity in access to general medical health care, prevention, and physical health promotion represents a basic human right of patients with severe mental disorders.

Because the evidence for an increased risk of comorbid somatic illnesses, and in particular cardiovascular disease (CVD), is currently most extensive for patients with schizophrenia compared to those suffering from other severe mental disorders, this article will primarily focus on these data.

PARTICIPANTS AND CONSENSUS PROCESS

This article is based on presentations and discussion on somatic comorbidity in psychiatric illness by a group of 37 international experts during meetings held in 2006. At the preparatory meeting in Paris, France, the group determined key topics for presentations and group discussions. During the meeting in Vienna, Austria, on day 1, each set of presentations was followed by discussions in small groups with the meeting participants. On day 2, conclusions reached by each discussion group were presented and used as a platform for a consensus view adopted by the meeting participants. The presentations and discussion were collated into a draft that was revised and approved by each of the bylined authors.

CARDIOVASCULAR DISORDERS IN PATIENTS WITH SCHIZOPHRENIA

In patients with schizophrenia, CVD is the leading cause of premature mortality. When compared to the general population in the U.S., adults with schizophrenia are about twice as likely to die of CVD. Some data even suggest that more than two thirds of adults with schizophrenia, compared with approximately one half in the general population, die of CVD. The prevalence of important risk factors for CVD, such as diabetes and obesity, is about 1.5 to 3.5 times higher in adults with schizophrenia than in the general population. While the prevalence of obesity is well documented, in particular in patients with schizophrenia treated with antipsychotic drugs, it appears that diabetes, which is frequently associated with obesity, is commonly underdiagnosed in this patient population. In addition, compared to the general population, patients with schizophrenia also have higher rates of other major risk factors for CVD, such as cigarette smoking (75% vs. 25% in the general population), dyslipidemia, insulin resistance, hypertension, a sedentary lifestyle, and a diet high in fat and low in fiber. It has been estimated that the metabolic syndrome, a constellation of risk factors associated with a significant increase in CVD in the general population, may affect up to 50% of patients with schizophrenia. Although the majority of these risk factors are modifiable, patients with severe mental disorders benefited little from the recent favorable trends in CVD treatment or reduced mortality due to somatic illnesses in the general population. The data also suggest that recognized cardiovascular risk factors (e.g., smoking, exercise, body mass index, blood pressure, serum total and high-density lipoprotein cholesterol) may not account for the entire hazard associated with somatic comorbidity and excess mortality in patients with schizophrenia, suggesting a possible multifactorial cause involving shared vulnerability, with important contributions due to socioeconomic factors and reduced
access to appropriate care, and speculation about as yet unidentified genetic factors. In addition, use of specific antipsychotic medications can result in either favorable or unfavorable changes in risk factors such as overweight/obesity, dyslipidemia, hyperglycemia, and hypertension. It is well recognized that other psychiatric disorders, such as major depressive disorder, also represent a risk factor for CVD, while the presence of anxiety and depression predicts major adverse cardiac events (such as cardiac death, myocardial infarction, cardiac arrest, or non-elective revascularization) risk in patients with stable coronary artery disease. Treatment with antidepressants or cognitive-behavioral therapy might reduce cardiovascular morbidity and mortality in depressed patients with a cardiovascular disease. Nevertheless, little is known about the possible relationship between schizophrenia and the development, course, and treatment outcome of comorbid CVD.

**OTHER SOMATIC COMORBIDITY IN PATIENTS WITH SCHIZOPHRENIA**

Patients with schizophrenia also suffer from a variety of comorbid somatic illnesses other than CVD. They are significantly more likely to have 1 or more of the following physical diseases (adjusted odds ratios and 95% CIs): hypothyroidism: 2.62 (2.09 to 3.28); chronic obstructive pulmonary disease: 1.88 (1.51 to 2.32); hepatitis C: 7.54 (3.55 to 15.99); and fluid/electrolyte disorders: 4.21 (3.25 to 5.44). Another systematic review of somatic illnesses in schizophrenia found strong evidence that schizophrenia is associated with an increased risk for human immunodeficiency virus (HIV) infection, tuberculosis, hepatitis B and C, and osteoporosis, as well as obesity, CVD, and a range of other disorders. Comorbidity of schizophrenia with life-threatening viral illnesses such as HIV infection, hepatitis C, or both is associated with a worse prognosis for both conditions and represents an important public health problem.

**DISPARITY IN HEALTH CARE PROVISION AND UTILIZATION IN PATIENTS WITH SCHIZOPHRENIA**

Patients with schizophrenia have limited access to general somatic health care and receive less somatic health care than patients without mental illness. Even when somatic health care is provided, it tends to be of a lower quality than that for patients without serious mental disorders. Taken together, this deficiency in health service delivery and treatment provision contributes to the underrecognition of diabetes, CVD, and other illnesses among patients with schizophrenia. However, lack of adequate somatic health care represents only one part of the broader picture: 32% of 191 countries in the world surveyed by the World Health Organization do not have a specified budget for mental health, while 21% of the countries spend less than 1% of their total health budget on mental health. The primary method of financing mental health care in most countries was tax-based (60.2%), but many low-income countries depended on out-of-pocket expenditure (16.4%). Federal allocation for mental health care in most countries was low compared to the burden of these disorders, with large disparities among countries and regions. In addition to obstacles imposed by silo-budgeting, with a disproportionate emphasis on “somatic” versus “mental” health care provision, internal dissentions among mental health care professionals arguing for a clear distinction between biological versus psychosocial treatments have also contributed to the current situation of neglect and lack of a holistic approach to the needs of patients with severe mental disorders.

In addition to the interplay of economic, cultural, and geographical factors substantially limiting access and provision of health care, the lack of integrated medical services providing both general somatic and mental health care, inadequate funding for somatic health care specific to this population, high rates of uninsured individuals, and patient-related factors (e.g., social isolation, cognitive impairment, suspiciousness, increased threshold for pain), as well as stigma, serious self-neglect, and a lifestyle detrimental to general somatic health, all play a significant role in suboptimal health care provision to this vulnerable population.

**PLAN OF ACTION**

Available evidence regarding the extent and consequences of comorbid somatic illnesses in patients with serious mental disorders and associated disparity in health care provision poses an array of key clinical practice, policy, and research challenges to the psychiatric and general medical communities, policy makers, and affected patients and their caregivers. As a prerequisite for the efforts detailed below, combating stigma, discrimination, and negative attitudes associated with severe mental disorders, and in particular schizophrenia, will help in achieving parity in health care access and provision.

An alarming trend toward the demedicalization of psychiatry is present in some parts of the world. For example, in some South American countries, mental health care providers without medical training (e.g., psychoanalytically oriented psychotherapists) continue to be the first point of contact for patients with schizophrenia (M.C.-B., personal observation). In the United States, where some encouraging trends are seen, such as a recently developed platform for the comprehensive assessment and treatment of somatic illnesses in patients with serious mental
illness, there are also expanding efforts to allow the prescription of psychotropic medications by psychologists with cursory medical training. Due to differences between regions and countries (e.g., in the level of economic development, budgeting of health care, tradition, cultural influences, education of psychiatrists, and general health and mental health care systems, as well as possible differences in the pattern of comorbidity), the majority of actions should be adapted to the local (and in some situations regional) needs and circumstances.

The proposed actions that need to be taken across all countries can be clustered into 5 broad groups of activities:

1. **Taking Responsibility for the Patient**
   The organization of mental health and general somatic care services should take into account the severe and persistent nature of severe mental disorders such as schizophrenia and their substantial somatic health risks. Unless there is a clear provision of specific general somatic health care services for patients with severe mental disorders, whoever is the primary treating physician (i.e., either a generalist or a specialist) should assume responsibility for the mental and somatic health of their patients. Best practice medical management guidelines and standards developed for the general population should be applied to patients with severe mental illnesses such as schizophrenia.

2. **Implementing Systematic Education**
   Training initiatives are needed to increase general medical education in psychiatric training and increase psychiatric education in general medical training. To achieve these goals, diagnosis and management of comorbid somatic illnesses in patients with severe mental disorders should be included in an updated and harmonized core residency curriculum available at international and local levels (for example, World Psychiatric Organization Core Curriculum in Psychiatry for Medical Students and Core Training Curriculum for Psychiatry, Charter on Training of Medical Specialists in the European Community) and also reflected in textbooks for medical students and residency education.

   For practicing psychiatrists, symposia and workshops addressing somatic comorbidity, as well as implementation of available guidelines for assessment and treatment of such patients, should become obligatory and a regular part of educational programs at national or international congresses and continuing medical education activities.

   Especially in geographic areas where primary mental health care providers lack a medical background, appropriate in-service education and integration of psychiatric and general-care services should be prompted, and the psychiatric community should take a proactive role in ensuring that access to adequate medical care is provided to patients with severe mental disorders.

   Patients and caregivers should receive systematic education concerning relevant medical issues, including the importance of modifiable CVD risk factors. They should also be encouraged, when clinically appropriate, to assume responsibility or to help their affected relatives or friends assume responsibility for somatic health aspects of their care. Special emphasis should be placed on educational efforts aimed at implementing achievable reductions of risk factors for CVD and other somatic illnesses frequently seen in patients with schizophrenia.

3. **Improving Parity in Health Care Access and Provision**
   The somatic health of patients with severe medical illnesses is too often neglected, thus contributing to an egregious health disparity. As compared to the general population, these patients represent a particularly vulnerable population, with a significantly higher illness burden as a result of somatic morbidity and mortality. These increased somatic health care needs are all too often coupled with a marked and ubiquitous disparity in access and provision of general somatic health care. Therefore, psychiatrists need to address current disparity and work at the local level with policy makers and budget holders on improving the current situation.

   Parity in both somatic and mental health care provision is not simply a matter of best practices and optimal standards of care, but also represents a basic human right and should be put on the agenda of national health and mental health care authorities in developed and developing countries. Access to general somatic health care and appropriate insurance coverage should be provided for patients with severe mental disorders including schizophrenia, as well as support of provision and access to general somatic health care within psychiatric institutions and systems of mental health care. This can be achieved through choice and implementation of models of integrated somatic and mental health care to fit the local situation, one example of which is the program recently developed in the United States.

4. **Forging Collaborations With Other Medical Specialists**
   The psychiatric community must forge stronger collaborations with other medical specialists including cardiologists, diabetologists, endocrinologists, general practitioners, and other health care professionals. These collaborations should seek to develop comprehensive educational efforts aimed at improving the knowledge and skills of mental and medical health care providers (psychiatrists and physicians, as well as other professionals included in the provision of mental health care and everyday work with patients with serious mental disorders,
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