Comorbidity Profile and Healthcare Utilization in Elderly Patients with Serious Mental Illnesses

Hugh C. Hendrie, M.B., Ch.B., D.Sc., Donald Lindgren, L.C.S.W., Donald P. Hay, M.D., Kathleen A. Lane, M.S., Sujuan Gao, Ph.D., Christianna Purnell, B.A., Stephanie Munger, M.P.H., Faye Smith, M.A., Jeanne Dickens, M.D., Malaz A. Boustani, M.D., M.P.H., Christopher M. Callahan, M.D.

Objectives: *Patients with serious mental illness are living longer. Yet, there remain few studies that focus on healthcare utilization and its relationship with comorbidities in these elderly mentally ill patients.* **Design:** *Comparative study. Information on demographics, comorbidities, and healthcare utilization was taken from an electronic medical record system.* **Setting:** *Wishard Health Services senior care and community mental health clinics.* **Participants:** *Patients age 65 years and older—255 patients with serious mental illness (schizophrenia, major recurrent depression, and bipolar illness) attending a mental health clinic and a representative sample of 533 nondemented patients without serious mental illness attending primary care clinics.* **Results:** *Patients having serious mental illness had significantly higher rates of medical emergency department visits ($p = 0.0027$) and significantly longer lengths of medical hospitalizations ($p < 0.0001$) than did the primary care control group. The frequency of medical comorbidities such as diabetes, coronary artery disease, congestive heart failure, chronic obstructive pulmonary disease, thyroid disease, and cancer was not significantly different between the groups. Hypertension was lower in the mentally ill group ($p < 0.0001$). Reported falls ($p < 0.0001$), diagnoses of substance abuse ($p = 0.02$), and alcoholism ($p = 0.0016$) were higher in the seriously mentally ill. The differences in healthcare utilization between the groups remained significant after adjusting for comorbidity levels, lifestyle factors, and attending primary care.* **Conclusions:** *Our findings of higher rates of emergency care, longer hospitalizations, and increased frequency of falls, substance abuse, and alcoholism suggest that seriously mentally ill older adults remain a vulnerable population requiring an integrated model of healthcare.* (Am J Geriatr Psychiatry 2013; 21:1267–1276)

Key Words: Comorbidity, elderly patients, healthcare utilization, serious mental illness

Received October 24, 2011; revised March 12, 2012; accepted June 27, 2012. From the Indiana University School of Medicine (HCH, MAB, CMC), Indiana University Center for Aging Research (HCH, SM, MAB, CMC), Regenstrief Institute Inc. (HCH, CP, SM, FS, MAB, CMC), Indiana University Department of Psychiatry (HCH, DPH, JD), Indiana University Department of Biostatistics (KAL, SG), and MidTown Community Health Center (DPH, JD, DL), Indianapolis. Send correspondence and reprint requests to Hugh C. Hendrie, M.B., Ch.B., D.Sc., Indiana University Center for Aging Research, 410 W. 10th St., Ste. 2000, Indianapolis, IN 46202. e-mail: hhendri@iupui.edu

http://dx.doi.org/10.1016/j.jagp.2013.01.056

Previous studies on patients with serious mental illnesses, such as chronic schizophrenia, bipolar illness, or chronic recurrent depression, have indicated that these patients have higher mortality rates than persons without serious mental illness.[1–5] This discrepancy is, at least in part, generally explained as being caused by increases in comorbid medical conditions in the mentally ill, particularly chronic illnesses such as diabetes[6,7,8,9] and cardiovascular disease.[2,10–14] To alleviate these problems, there have been reports of clinical interventions to improve healthcare in the seriously mentally ill with some success.[15,16] However, a recent Cochrane Systematic Review remained unconvinced stating "Guidance and practice are based upon expert consensus, clinical experience, and good intentions, rather than high quality evidence."[17]

Until recently, most of these studies have focused on relatively younger patients with serious mental illness, a presumption being that because of the magnitude of mortality differences estimated as leading to a 13–30-year shortened life expectancy, few of these patients would survive until old age.[1]

However, there is now evidence that the number of these elderly mentally ill survivors is increasing, a trend that is likely to continue in the coming decades. A number of recent studies have suggested that these elderly survivors are now facing aging-associated health problems in addition to their mental illness including cognitive decline.[15,16,18–24] One study reported that the greatest expenditures of Medicare/Medicaid were in elderly patients with schizophrenia primarily due to nursing home costs.[25]

This article describes the results of an analysis of the comorbidity levels and healthcare utilization of a group of elderly patients with lifelong serious mental illness attending a community mental health center by comparing them with a group of elderly primary care patients without serious mental illness attending the same hospital. This analysis was conducted as part of a project designed to improve a system of integrated medical care for these patients. As dementia management is a separate program in this health system, patients with a diagnosis of dementia were excluded from this analysis.

METHODS

Facilities

The patients for this study were all attendees of Wishard Health Services. Wishard Health Services is an urban healthcare system with a 350-bed inpatient service as well as 8 community-based primary care practice centers staffed by faculty and residents of the Indiana University School of Medicine. It has a senior care center that functions both as a specialty geriatric referral clinic and as a primary care clinic for selected patients. It also has an array of specialty clinics. In addition, Wishard Health Services includes a large community mental health center, the Midtown Community Mental Health Center. Older adults with mental illnesses are seen primarily in the Older Adult Services (OAS) division of the Midtown Community Mental Health Center, a multidisciplinary clinic staffed by caseworkers, social workers, clinical nurse specialists, and pharmacists, in addition to geriatric psychiatrists.

Subjects

We identified two groups of patients in this study: 1) older adults with a history of lifelong serious mental illness attending OAS and 2) older adults without serious mental illness attending the primary care practices at Wishard Health Services.

Patients with serious mental illness. The seriously mentally ill group included patients with schizophrenia, bipolar illness, and severe recurrent depression identified by the OAS faculty (DL and DH) because they met the following criteria:

1. Older than 65 years
2. Evidence that the mental illness began in early adult life
3. No diagnosis of dementia.

A total of 339 patients met these criteria. Because the comparative group consisted of patients attending Wishard primary care clinics, we decided to include in this study only the 255 (75.2%) mentally ill patients who also attended Wishard ambulatory care clinics during either in 2008 or in 2009. This included 119 (46.7%) patients diagnosed with severe