The National Institute of Mental Health Epidemiologic Study: Implications for Family Practice

William R. Yates, MD
Iowa City, Iowa

The National Institute of Mental Health has begun a five-site epidemiologic study of the prevalence and incidence of common psychiatric illnesses. Preliminary results reveal a high prevalence of substance abuse disorders in men and a high prevalence of affective and anxiety disorders in women. Evaluation of health care provider utilization shows that women and elderly patients with mental health problems are more likely to visit primary care providers only for mental health problems. The results have important implications for the research and curriculum of family practice.

Family medicine is a unique discipline in its commitment to the primary care of patients of all ages. It shares an interest in the primary medical care of children and adults. Along with the treatment of medical problems, there is an emphasis on the relationship between physical illness and the importance of psychological components of medical care. This emphasis draws upon the knowledge that a large percentage of patients see their primary care physicians for mental health problems, especially when there are somatic symptoms related to the psychiatric illness.[1] As family physicians are frequently called upon to deal with common mental health problems, it is important for them to know the most common psychiatric diagnoses, criteria for these diagnoses, and proper treatment. Although there have been good surveys of the common diagnoses in the practice of family medicine,[2] there is still a need to define the prevalence of psychiatric disorders and to evaluate how patients present to the medical profession for treatment of these disorders.

The National Institute of Mental Health (NIMH) has embarked on a five-site epidemiologic study of mental illness. This study was designed to survey the prevalence and six-month incidence of common psychiatric diagnoses.[3,4] Along with information on the prevalence of psychiatric illness, data were collected to determine the use of ambulatory care services by the patient sample.[5] This information has important implications for family medicine. The collection of information regarding the prevalence of common psychiatric disorders will aid in determining curriculum content in psychiatry for family physicians. Along with aiding curriculum development, the information will give family practice educators information about which

From the Departments of Psychiatry and Preventive Medicine, University of Iowa Hospitals and Clinics, Iowa City, Iowa. Requests for reprints should be addressed to Dr. William R. Yates, Department of Psychiatry, University of Iowa Hospitals and Clinics, Iowa City, IA 52242.

TABLE 1. LIFETIME PREVALENCE OF PSYCHIATRIC DISORDERS

Rank	Disorder	Prevalence (%)
1	Substance abuse disorders	16.7
	Alcohol abuse or dependence	13.6
	Drug abuse or dependence	5.6
2	Anxiety and somatoform disorders	15.5
	Phobia	13.5
	Obsessive–compulsive	2.5
	Panic disorder	1.4
	Somatization disorder	0.1
3	Affective disorders	7.9
	Major depressive disorder	5.3
	Dysthymia	3.0
	Manic episode	0.9
4	Antisocial personality disorder	2.7
5	Schizophrenic or schizophreniform disorders	1.3
6	Cognitive impairment	1.2
7	Eating disorders—anorexia	0.1

Adapted from Robins et al.[3] Percentages are averages from three sites. Subtypes total may be greater than class total because subjects may have more than one diagnosis within a class

psychiatric illnesses are likely to be seen by primary care providers and which are more likely to be seen by other mental health care professionals. The prevalence of psychiatric illness and information of where patients receive care for these illnesses translate directly into the content of mental health problems seen by primary care providers. Since the NIMH study addresses both prevalence and use of medical services, it provides valuable information for family practice.

BACKGROUND OF THE NIMH EPIDEMIOLOGIC STUDY

The NIMH study was designed to determine the scope of psychiatric illness in five sites. These sites were chosen for two main reasons: to give a representative sample of the United States and to make use of investigators and institutions with resources to complete the study. The five sites chosen to participate in the study included New Haven, Connecticut; Baltimore, Maryland; St. Louis, Missouri; Durham, North Carolina; and Los Angeles, California. Both urban and rural populations were sampled to give information about the relationship of the living situation to mental illness. To date, information has been published about the preliminary results involving New Haven, St. Louis, and Baltimore.[3,4] Results from Durham and Los Angeles will be published in the future along with more detailed reports involving the previously reported sites. A longitudinal study is also part of the study design, the results of which will be reported in the future.

The NIMH study differs from previous epidemiologic studies of mental illness in several ways. First, the sampling was designed to give information involving representative populations of both institutionalized and noninstitutionalized adults. Second, trained interviewers were employed who interviewed the sample in their households. Third, a standardized structured interview, the Diagnostic Interview Schedule,[6] was used in all the sites. This instrument was used because of its reliability and its ability to determine lifelong diagnoses as established by both the *Diagnostic and Statistical Manual of Mental Disorders*[7] and other well-documented psychiatric classification systems. Along with the Diagnostic Interview Schedule, information was obtained to determine the frequency of medical care utilization. The type of mental health care provider was also determined to aid in interpreting the current use of mental health resources and planning for providing mental health services in the future.

The subjects interviewed in the study were randomly selected. Households from an identified geographical area were chosen on a random basis using census tract data. After households were identified, trained interviewers visited the households and systematically selected one subject to be interviewed within the family at that address. The demographic characteristics of each study site differed from each other, but overall the study population consisted of a combined total of over 9,500 subjects from the three sites. The sex

ratio was 47 percent male and 53 percent female. The racial breakdown revealed 17 percent of the subjects as black with the remaining 83 percent primarily white. About 17 percent had college degrees.

Although the NIMH study collected a great deal of information regarding the epidemiology of mental illness, there are limitations to the study. Personality disorders, except for antisocial personality disorder, were not covered in the interview. Along with little information on personality disorders, adjustment disorders were not included in the diagnoses. Behavioral disturbances such as marital discord or child abuse, which may play an important role in covering the scope of mental health problems of the family physician, were also not included. Finally, there is no information regarding children and mental health problems. Despite these limitations, the preliminary results have important implications that will be summarized.

TABLE 2. SIX-MONTH PREVALENCE OF PSYCHIATRIC DISORDERS

	Disorder	Prevalence (%)
Men (<65 years)	Alcohol abuse	9.7
	Phobia	5.3
	Drug abuse	3.8
Men (>65 years)	Cognitive impairment	5.5
	Phobia	5.1
	Alcohol abuse	3.2
Women (<65 years)	Phobia	11.7
	Major depression	4.5
	Dysthymia	4.1
Women (>65 years)	Phobia	7.1
	Cognitive impairment	4.2
	Dysthymia	2.0

Adapted from Myers et al[4]

PRELIMINARY RESULTS

The lifetime prevalence of the common psychiatric illnesses as determined from an average of the total 9,500 subjects interviewed at three reporting sites is listed in Table 1. The percentage of patients sampled who reported symptoms consistent with these diagnoses ranged from 16.7 percent for substance abuse to 0.1 percent for eating disorders. Nearly 33 percent of the sample reported at least one psychiatric illness during their lifetime. Both affective disorders and anxiety disorders are made up of several individual diagnoses that are grouped for the rank order rating.

In Table 2 the results of the six-month prevalence study are given as broken down by sex and age. The results of the six-month prevalence study are similar in rank order to the results of the lifetime prevalence. Previous epidemiologic studies had indicated that women are more likely than men to have diagnosable mental illness.[8] These studies have failed to consider substance abuse and antisocial personality. In general, men predominate in the categories of substance abuse and antisocial personality, while women are more likely to report major depressive disorder and phobias. When substance abuse (70 percent being alcohol abuse) and antisocial personality are taken into consideration, men and women have approximately equal prevalence of mental disorders.

Additional demographic information obtained did not reveal any dramatic difference between the races for total prevalence of any disorder. When psychiatric disorders were compared between groups with and without a college education, there was a tendency for the college-educated group to report less schizophrenia and phobias. In looking at the prevalence of psychiatric disorders in inner city, suburban, and rural populations, there was a tendency for less reported antisocial personality, substance abuse, and cognitive impairment in the rural populations. Whether this difference was due to an effect of the living environment on psychiatric illness or to a tendency for the psychiatric illness to influence the choice of living site cannot be determined from the data.

Whether the subjects reported visiting primary care providers or mental health specialists for their mental health problems varied by psychiatric diagnosis and the reporting site. Sites with a higher density of mental health providers had higher utilization of mental health professionals. In the

TABLE 3. PATIENT PSYCHIATRIC DIAGNOSES VISITING ONLY PRIMARY CARE PHYSICIAN

Rank	Disorder	Percentage
1	Cognitive impairment	46.9
2	Anxiety disorders	44.3
3	Affective disorders	43.9
4	Substance abuse	35.7
5	Antisocial personality disorder	26.7
6	Schizophrenia or schizophreniform	19.3

Adapted from Shapiro et al[5]

combined reporting sites there were 1.15 primary care providers per 1,000 population and 0.4 psychiatrists per 1,000 population. In the total sample population of over 9,500 patients, there were about 2.6 visits per patient for mental health reasons in a six-month period. Mental health visits were defined as visits for treatment of primarily mental or emotional problems. In the total sample, mental health visits comprised 20 percent of all ambulatory care visits. For patients who had a psychiatric diagnosis, there were about 4.5 visits for mental health reasons, about 35 percent of all their ambulatory care visits. In the total sample 44 percent of patients with mental health problems saw only their primary care physician for mental health care. Preliminary analysis does not provide information to separate the patients seeing family physicians from those seeing other primary care physicians.

Primary care providers were chosen by women more often than men for mental health problems. Elderly patients seeking services for mental health problems were also more likely to visit primary care physicians. In Table 3 the psychiatric illnesses are ranked by percentage choosing a primary care provider only for mental health visits. Patients with cognitive impairment, affective disorders, and anxiety disorders were the most likely to visit their primary care provider only, while patients with schizophrenia and substance abuse were most likely to see other mental health professionals for mental health visits. Whether part of this difference in preference for mental health care provider reflects a tendency for primary care physicians to refer certain patients is unknown.

CONCLUSIONS

The preliminary data from the NIMH study confirms that a large percentage of patients with mental health problems see only their primary care providers for care, probably for a variety of reasons. Primary care providers often are the most readily accessible medical personnel. Patients who have made contact and established a therapeutic relationship with their family physician will often feel comfortable in discussing mental health problems. Finally, mental health problems are often accompanied by somatic symptoms, which may cause patients to see their family physician or other primary care provider.

In the NIMH study substance abuse is the primary psychiatric disturbance in men. Substance abuse and its manifestations have important implications for the family physician. Substance abuse should be considered especially in men in the differential diagnosis of almost all presenting problems. Alcohol and other substances can be the primary cause of anxiety and depression symptoms.[9] The careful eliciting of a substance abuse history is important because of the high prevalence of the disorder and the effect it can have on the medical and emotional health of the patient as well as the effect upon the substance abuser's family.

The epidemiologic aspects of mental health problems in women are especially important to family physicians. Women are more likely than men to turn to their primary care provider as their only treatment source for mental health problems. In women anxiety disorders and affective disorders are the primary mental health problems and are important to consider. The high prevalence of these disorders makes them more likely to be found in several types of ambulatory care visits: health screening, somatic symptoms, and primary mental health complaints.

Finally, the early reports from the NIMH study provide some challenges for family practice research as well as for family practice education.

Studies are needed to determine the mental health profile of patients seeking care in a primary care setting. Looking specifically at the epidemiology of mental illness in patients seeking care through family physicians will provide valuable information including (1) how mental illness may present in primary care settings, (2) how identified mental illness in a patient affects medical utilization of the patient and family members, and (3) what mental health problems are suitable for treatment by primary care physicians.

Additional data will be presented in the future through the NIMH study. Continued awareness of the findings will allow family physician educators to develop better curriculum for training family physicians. It will also provide research direction in primary care aspects of mental illness. Finally, it will allow family physicians to provide for the mental health needs of patients who turn to primary care providers for help.

References

1. Regier DA, Goldberg ID, Burns BJ, et al: Specialist/generalist division of responsibility for patients with mental disorders. Arch Gen Psychiatry 1982; 39:219-224
2. Rosenblatt RA, Cherkin DC, Schneeweiss R, et al: The structure and content of family practice: Current status and future trends. J Fam Pract 1982; 15:681-722
3. Robins LN, Helzer JE, Weissman MM, et al: Lifetime prevalence of specific psychiatric disorders in three sites. Arch Gen Psychiatry 1984; 41:949-958
4. Myers JK, Weissman MM, Tischler GL, et al: Six month prevalence of psychiatric disorders in three communities. Arch Gen Psychiatry 1982; 41:959-967
5. Shapiro S, Skinner EA, Keisler LG, et al: Utilization of health and mental health services. Arch Gen Psychiatry 1984; 41:971-978
6. Robins LN, Helzer JE, Croughan J, et al: National Institute of Mental Health Diagnostic Interview Schedule: Its history, characteristics, and validity. Arch Gen Psychiatry 1981; 38:381-389
7. Diagnostic and Statistical Manual, ed 3. Washington DC, American Psychiatric Association, 1980
8. Srole L, Langer TS, Michael ST, et al: Mental Health in the Metropolis, II. Hagerstown Md, Harper & Row, 1977
9. Goodwin DW, Guze SB: Psychiatric Diagnosis. New York, Oxford University Press, 1984