Treated Incidence of Mental Disorders in a Prepaid Group Practice Setting

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Abstract: We followed a cohort of 7,666 individuals enrolled continuously for five years in a prepaid group practice in Columbia, Maryland. Incidence rates of all diagnosed mental disorders were estimated at approximately 3.7 per cent, lower for adolescents and children (about 3 per cent), higher for adult males aged 20-49 (4.3 per cent), and highest for adult females (5.8 per cent). Diagnoses are primarily for acute mental disorders and show a tendency to recur at fairly high rates. (Am J Public Health 1984; 74:152-154.)

Introduction

As recently as 1978, the report of the President's Commission on Mental Health emphasized the need for increased study of the incidence of mental disorders in the United States.1 Despite the high estimates of prevalence of mental disorder (10-15 per cent) cited in that report, published studies of incidence based on cohorts of treated or untreated populations are lacking. Studies of the incidence of specific disorders, such as bipolar and nonbipolar depression have been made,2 but with few exceptions,3-7 no US studies of the incidence of minor psychiatric disorders have appeared. In a recent review of psychiatric epidemiologic findings, the Dohrenwends7 suggest that estimation of incidence rates should be an important component of future studies.

The purpose of this paper is to describe a study estimating the treated incidence rate of mental disorders in a population enrolled in a prepaid group practice.

Methods

The Columbia Medical Plan (CMP) is a prepaid group practice located in Columbia, Maryland, a new town situated between Baltimore and Washington, DC. Its population, organizational structure, and service use have been described elsewhere.8

To examine treated incidence of mental disorder, only those individuals enrolled continuously at the CMP for the five-year period 1973 through 1977 were included in these analyses (N = 7,666). Although the population is evenly divided between the sexes, the age distribution (as of July 1, 1975) is highly skewed toward younger individuals. When the study population was compared to the 16,417 individuals enrolled in CMP for all of 1975, no statistically significant differences on age or sex distributions were detected. Since 45 percent of the population is under 20, age-sex specific rates of disorder presented are age-standardized to the US population later in the paper.

The Department of Psychiatry is part of the comprehensive health care delivery system of the CMP. Its staff of therapists include: psychiatrists, psychologists, and social workers. During the study period, the staff grew from 3.5 full-time equivalent (FTEs) therapists to 8.3 in 1977. The department and utilization patterns during the study period are described in more detail elsewhere.8,9

For this paper, mental disorder diagnoses include any disorder found in the Second Edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-II).10 A treated incident case of mental disorder is operationally defined as a patient with a DSM-II diagnosis in the automated encounter-based information system who has not had a recent history of such diagnoses.

Results

Basic Data: Total Population

Figure 1 is a schematic representation of treated incidence of mental disorder by year for the entire study population. The total group of 7,666 individuals is split each year into two subgroups: those who receive any diagnoses of mental disorder (Y) and those who do not (N). For the five-year period, 32 unique subgroups are so defined. In this way incidence and recurrence of diagnosed disorder can be examined.

Of the total study group, 351 (4.6 per cent) received at least one DSM-II diagnosis during 1973. This figure combines new and continuing cases. Of the 7,315 individuals who did not receive any mental disorder diagnoses, 268 or 36.6 per 1000 person-years (s.d. = 2.2) were diagnosed during 1974. This is the first approximation to a treated incidence rate. In 1977, the estimate is 36.9 per 1000 person-years (s.d. = 2.3), almost identical to the 1974 estimate.

Mental disorder recurs at a high rate. Table 1 illustrates the importance of controlling for recorded history of mental disorder in the calculation of incidence.
### FIGURE 1—History of Mental Disorder Diagnosis in the Columbia Medical Plan, Continuous Enrollees: 1973–1977

Averaging estimates from 1976 to 1977 produces the age-sex specific treated incidence rates in Figure 2. Females have higher rates than males between the ages of 20 and 49, but basically equal rates at older and younger ages.

When the age distribution of the 1980 US Census is applied, the treated incidence estimate is 33.05 per 1000 person-years (which represents almost 7.5 million persons per year)*. With the exception of rates among the elderly, the relative differences in age and sex incidence rates roughly correspond to findings in the literature.

For the population as a whole, the personality disorders and the neuroses dominate those diagnosed early in the study period. The groups diagnosed later, more probably the incident cases, are far more likely to receive a diagnosis of transient situational disturbance, as did 79 per cent of the 1977 incident cases. Similarly, behavior disorders of children become less frequent as a diagnosis, although those children diagnosed in 1977 probably represent the incident cases for children.

These diagnostic patterns are quite similar for adult females and adult males, although the data also are not displayed. There appears to be a greater tendency among females to have a new case of disorder diagnosed as neurosis (38.5 per cent versus 28.6 per cent for males), whereas 12.7 per cent of adult males versus 10.3 per cent of adult females are diagnosed in 1977 as having a personality disorder.

**Discussion**

This study has a number of significant limitations, in addition to those mentioned previously. The estimate of basic rates of disorder are an approximate measure of incidence from an automated record system, not a clinical

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*The finding of dramatically lower rates among the older adults and elderly is somewhat surprising, but may be a cohort effect related to low rates of use of services among the elderly, or a reflection of the special characteristics of the CMP population rather than a true difference of this magnitude in incidence rates. The elderly in Columbia are generally gainfully employed, few are retired, few are chronically institutionalized, and few very old individuals would have moved into this area.

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**TABLE 1—Incidence and Mental Disorder History**

<table>
<thead>
<tr>
<th>No Mental Disorder DX For X Years</th>
<th>1973</th>
<th>1974</th>
<th>1975</th>
<th>1976</th>
<th>1977</th>
</tr>
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<td>4.72</td>
<td>6.22</td>
<td>6.74</td>
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<td>4.19</td>
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<td>4</td>
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<td></td>
<td>3.69</td>
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</tr>
</tbody>
</table>
of over 3 per cent still places a large proportion of a population cohort at risk for needing psychiatric care within a very few years. The need for mental health to be included as an important part of the health planning process has not decreased since the recent publication of the President’s Commission on Mental Health Report.1

REFERENCES

ACKNOWLEDGMENTS
The author would like to thank Drs. Janet R. Hankin, Jeffrey H. Boyd, William W. Eaton, and Barbara J. Burns and the reviewers for comments on earlier versions of this paper, and Paul Henderson for data assistance. The views expressed in this article are those of the author and no official endorsement by NIMH is intended nor should be inferred.