The Neighborhood Health Center as a Mental Health Diagnostic Service

THE NEIGHBORHOOD HEALTH CENTER takes on special significance as a mental health resource in the light of what is already known about economically and socially disadvantaged populations. Although the risk of most mental and emotional disorders is much higher than in the general population among such groups, they are less likely to obtain adequate services (*1–6*).

Two explanations have been put forward to account for this need-service gap. Before the 1960s, the burden of responsibility tended to be placed upon the individual and his family for under-utilizing services that were presumed to be available, accessible, and appropriate (*7*). Much of the research on the gap between need and services was focused on the so-called culture of poverty (*8,9*). It directed attention to the prevalence (among the poor) of misconceptions about mental and emotional problems, to attitudes of stigma, and to cognitive orientations and lifestyles—all of which made their possessors less aware of and less receptive to prevailing psychotherapeutic services.

In the past decade, however, there has been a shift in focus from the dispositional characteristics of "hard-to-reach" clients to the organizational characteristics, policies, and practices of "hard-to-reach" agencies (*6, 10*). In practice, both explanations may help, in varying degrees, to account for the differential patterns in the use of services.

It is in this context that primary health care has been recognized as a potentially significant mental health resource, especially among the poor. It is commonly assumed that far less stigma is attached to seeking care for physical than for psychological problems and, by extension, far less stigma in accepting care for psychological (or nervous) disorders from medical personnel than from mental health personnel. Until recently, however, the potential of health services as a casefinding resource for mental and emotional problems was greatly diminished among the poor because this group's access to health care was limited and of uneven quality. It has been speculated that two developments of the past decade have radically transformed this state of affairs for many people of low or moderate income, namely, the neighborhood health center, which reformed the system of primary health care delivery, and the new third-party payment mechanisms such as Medicaid and Medicare, which minimized the cost barrier (*11–14*).

These speculations led us to the present inquiry, which was designed to assess a neighborhood health center's role—in contrast to the more traditional primary care modalities—in the diagnosis, referral, and treatment of mental and emotional problems as part of a network of community mental health services. This initial report is focused on the diagnostic services of such a health center.

Setting and Services of Center

The Columbia Point Health Center is located in a low-income housing development in Boston. In December 1965, when the center opened, there were 5,500 persons residing in 1,200 households in the development. About two-thirds of the population was under 20 years of age. Two-thirds of the persons 20 years and over were women. Forty-three percent of the households consisted of married couples, with or without children. Family income in this community was low: about three households in five had gross annual incomes under $4,200. Nearly two of every three households depended for their family income solely on sources other than earnings, including welfare and social security benefits. Until the center's inception, health and mental health care facilities were not easily accessible to the majority of these residents.

During the center's first 3 years, it offered comprehensive ambulatory care, which included a wide range of preventive and therapeutic services. These services were provided in a new way through three family health care groups, each consisting of an internist, a pediatrician, several community health nurses, social workers, and indigenous community residents (who had been trained as home health aides, social work assistants, nurse aides, and medical assistants). Psychiatric services were provided primarily by a staff psychiatrist, who served as a consultant to the health

care teams and was also a member of one of the teams. Although the center had a social service department, there was no formal mental health unit during this period.

The identification of suspected disorders was routinely done by all health team members. Psychiatric diagnoses, however, were made exclusively by staff physicians or the psychiatrist. Physicians largely exercised their own discretion with respect to both the diagnosis of and treatment for conditions of a manifestly less serious nature, that is, for those in which the symptoms were predominantly mild anxiety or depression. In such cases, when formal psychotherapy was deemed inappropriate or unnecessary (either in the physician's own judgment or after consultation with the psychiatrist), the patient was treated directly by the physician. Treatment consisted mainly of support and reassurance in conjunction with medication when necessary.

When cases were diagnostically more difficult or involved more serious disturbances, the patients were generally seen directly by the psychiatrist. Those in need of hospitalization were referred to the appropriate facility. Patients who could be managed on an outpatient basis were either treated by the psychiatrist or referred to other outpatient clinics. In many instances a comprehensive treatment approach was used in which several health team members participated. Often the locus of treatment was the home, where services were provided which, although they might be better characterized as social rather than psychiatric, were considered central to the patient's overall treatment plan. Since the focus of this paper is upon the center's role in the diagnosis of emotional disorders, a more extensive consideration of treatment services will be reserved for subsequent reports.

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Results and Discussion

This paper is based upon computerized medical records of the Columbia Point Health Center for 3,400 persons who were in continuous residence in the community for at least 3 years following the center's inception. Initially we present, for a calendar year, the mental and emotional conditions diagnosed at the center, based on an average of the first 3 years of operation. These results are examined by age, sex, and major psychiatric diagnosis. After describing trends in annual prevalence for a 3-year period, we examine the cumulative 3-year experience for a cohort of persons in continuous community residence. Finally, consideration is given to the relationship of psychiatric diagnosis to patterns in the utilization of the neighborhood health care facility.

The diagnostic classifications used are based upon the International Classification of Diseases, Adapted, issued by the National Center for Health Statistics (PHS Publication No. 719, revised edition December 1962, reprinted March 1965). The broad categories used in our analysis correspond to those appearing in the eighth edition of the same publication.

We are aware of the many serious and legitimate questions that have been raised concerning the validity and efficacy of the existing psychiatric nosological systems. Since researchers and clinicians in the mental health field have made little progress in defining and measuring the phenomena with which they deal, a widely shared and explicit conception of mental illness has not yet emerged. We do not intend to suggest, therefore, that the results presented here provide an accurate picture of the true mental health status of this population. Rather, they should be interpreted as an

index of the prevalence of phenomena that the center's staff perceived as emotional disorders.

Prevalence of psychiatric diagnoses. At some time over the course of a year, 85 community residents per 1,000 had one or more mental or emotional problems diagnosed at the health center, based on an average of the first 3 years of the center's operation. A person might receive more than one specific diagnosis over time—either within a broad classification or among the major classifications. When our analysis was focused on the total prevalence of psychiatric diagnoses of any kind, only the first such diagnosis was counted. When our attention was focused on major classifications, the first diagnosis within each type was counted.

Rates were calculated on the basis of 1,000 persons in continuous community residence for the 3-year period covered by our analysis. The population denominator included all community residents, whether or not they visited the center during the specified period. An average of 18 percent of the persons residing in the community for a full year did not visit the center during that year. Of the persons who were in continuous residence for a 3-year period, however, only 5 percent failed to use the facility. Thus, our figures understate the prevalence of psychiatric diagnoses among users of the center. Some residents who did not receive a psychiatric diagnosis at the center may have had contact with other health or mental health services where a psychiatric diagnosis could have been made. Although the overwhelming majority of the residents reportedly obtained all or most of their primary health care from the center, some acknowledged receiving all primary care services or supplemental primary care services from other sources. Moreover, some residents may have been seen at mental health facilities or by psychiatric personnel in social service agencies elsewhere in the metropolitan area.

The rate of mental or emotional problems for females was higher than that for males, 105 per 1,000 females and 61 per 1,000 males. During a typical year, 109 of every 1,000 health center users (131 of every 1,000 females and 81 of every 1,000 males) received at least one psychiatric diagnosis.

The community prevalence of mental and emotional problems diagnosed at the health center varied sharply with age. The major differences for both males and females were between the age group under 20 and the other age groups. The rate of psychiatric diagnoses for both sexes combined for all community residents was 41 among the under 20 age group, 149 among persons 20 to 40, and 170 among those 40 and over. Rates rose much more steeply for females, especially in the middle-adult years, to a point where their rates greatly exceeded the corresponding male rates.

Six broad psychiatric diagnostic groupings were used in the analysis: chronic and acute brain disorders, psychophysiological disorders, mental deficiency, psychoses, psychoneuroses, and personality disorders. The first three groups have an organic component; the last three have been viewed as functional disorders.

Functional diagnoses accounted for 84 percent of all the psychiatric diagnoses made. Two major diagnostic groupings accounted for four-fifths of all such diagnoses: psychoneuroses (52 percent) and personality disorders (26 percent). Of the persons who received a psychiatric diagnosis, the vast majority (75 percent) received only one. Twenty percent received two different diagnoses; the balance, 5 percent, received three or more different ones during the course of a typical year. This pattern was similar for both sexes.

Prevalence patterns for diagnosed psychiatric conditions differed by sex. The rates were higher for females than for males: for psychoneuroses—82 to 27, psychoses—6 to 2, psychophysiological disorders—7 to 3; the rates were about the same for brain disorders—6 to 5—and for mental deficiency—4 to 5. The rates were lower for females compared with males for personality disorders—22 to 32. The prevalence rates for all major diagnostic classifications except mental deficiency increased sharply with age for both males and females. These results are generally consistent with those reported elsewhere (*15–17*).

Examination of the annual rates of psychiatric diagnosis at the health center during its first 3 years disclosed certain suggestive trends (table 1). The overall rate of psychiatric diagnosis showed a similar pattern for both males and females: the rate rose sharply in the second year, as compared with the first, and fell in the third year. This pattern held by age, however, only for the two younger age groups. Among both men and women in the age group 40 years and over, the

Table 1. Average annual community rates for psychiatric disorders diagnosed at health center, by age and sex, 1966–68

Sex and age group	*1966*	*1967*	*1968*
Both sexes:			
All ages	70	98	86
Under 20	34	52	35
20–39	124	180	147
40 and over	143	172	198
Males:			
All ages	51	74	59
Under 20	45	59	39
20–39	72	93	74
40 and over	80	126	144
Females:			
All ages	86	119	110
Under 20	28	46	32
20–39	152	238	194
40 and over	174	199	228

NOTE: Rates are per 1,000 persons in continuous residence in the community for given year, including nonusers of health center.

Table 2. Annual community prevalence rates for psychiatric disorders diagnosed at health center, by major diagnosis, for both sexes combined, 1966–68

Diagnosis	1966	1967	1968
Brain disorders	6	7	2
Psychophysiological .	5	7	3
Mental deficiency ...	5	6	3
Psychoneuroses	45	66	60
Personality disorders	21	31	26
Psychoses	2	5	4

NOTE: Rates are per 1,000 persons in continuous residence in the community for given year, including nonusers of health center.

rate of psychiatric diagnosis in the third year rose rather than fell. This rise was accounted for mainly by one diagnostic category—the psychoneuroses.

An analysis by psychiatric diagnosis (table 2) revealed a substantial increment in the second year over the first for all six major classifications when the figures for both sexes were combined. In the third year, however, the rates for only three of the six groups conformed to the pattern just described, that is, fell to a level between the first and second years. The remaining three groups manifested rates which, after a second-year peak, fell below their corresponding first year rates.

The first three diagnostic categories represent functional disorders—psychoses, psychoneuroses, and personality disorders. The last three, which dropped to a new low level in the third year, consist of the "organic" classifications—mental deficiency, psychophysiological disorders, and brain disorders. This pattern suggests the possibility that in this low-income, medically disadvantaged community, a cumulative backlog of unrecognized or untreated psychiatric conditions, especially chronic conditions, had built up. The health center may have uncovered such psychiatric conditions and either successfully treated them or referred the patients elsewhere, thereby reducing the prevalence of such conditions in its active caseload. The discrepancy in trends between the functional and organic diagnoses may also reflect their differential incidence, both of new cases and of reoccurrences.

The patterns described in the prevalence of psychiatric diagnoses at the center are likely to have been affected by the way in which its services were used. We examined two aspects of utilization: how early in the health center's existence clients made an initial visit and the frequency of their contacts (table 3).

The persons who received a psychiatric diagnosis at some time over the 3-year period typically differed in both respects from those who had never had such a diagnosis. Among health center users, 74 percent of those who eventually were given a psychiatric diagnosis had made their first visit to the facility by the end of its first 6 months of operation, compared with only 58 percent of the patients who never received a psychiatric diagnosis. Thus, a substantial group of the persons perceived by the medical practitioners as having a mental or emotional condition were predisposed to seek help from a health facility, whether for a somatic condition, real or imagined, or explicitly for an emotional problem.

Moreover, the patients who received a psychiatric diagnosis not only tended to show up sooner but to make more frequent use of the health center facilities than nonpsychiatric patients. Only 1 percent of the nonpsychiatric patients made 100 or more visits to the health center over the 3 years, compared with 12 percent of the psychiatric patients. Since, incidentally, visits in which a psychiatric diagnosis was involved are excluded from these figures, they understate the difference in volume of utilization between these two kinds of patients. In short, psychiatric patients made greater use of services for conditions or complaints that ostensibly were somatic.

These results lend themselves to several possible explanations. Patients with mental or emotional problems may also have a higher incidence of somatic conditions that are either of psychogenic origin or have psychological consequences. Possibly, also, physicians, for a variety of reasons, tend to use a psychiatric classification as a residual diagnosis after ruling out an organic basis for symptoms.

In this connection, the frequency (and, presumably, the continuity) of contact may affect the risk of, or opportunity for, a psychiatric diagnosis. Looking at the utilization data in a different way, we see that a psychiatric diagnosis was more common among the persons who made more frequent use of the health center. Among the persons who over a 3-year period had less than six encounters with the center, only 6 percent received a psychiatric diagnosis. The psychiatric diagnosis rate increased only slightly, to 8 percent, among

Table 3. Cumulative percentages of patients with psychiatric diagnoses and with nonpsychiatric diagnoses, by month first seen at health center, 1966–68

Month first seen at health center [1]	Psychiatric diagnosis (N = 641)	Nonpsychiatric diagnosis (N = 2,617)
1st	25.9	18.3
3d	50.7	40.1
6th	73.5	58.4
9th	85.6	73.8
12th	92.4	79.7
15th	94.5	85.1
18th	96.7	89.5
21st	98.0	92.3
24th	98.3	94.8
27th	98.6	96.7
30th	99.1	97.6
33d	99.8	99.0
36th	100.0	100.0

[1] Month from inception of health center.

NOTE: Percentages are based only on persons in continuous residence in community during 36-month period.

those who had from 6 to 12 encounters, but rose more sharply to 25 percent among those with from 13 to 99 encounters and mounted steeply to 76 percent among those with at least 100 encounters. On the one hand, frequency and continuity of contact may permit the emergence of the highly sensitive personal information that is so essential for a psychiatric diagnosis. Patients may feel freer to disclose such information, and physicians may thus obtain a more complete knowledge of the patient. On the other hand, frequency and continuity of care may allow the somatically oriented physician to exhaustively rule out all plausible medical conditions and arrive at a psychiatric diagnosis by labeling the patient a "crock." Subsequent analysis, in which the nature of the medical diagnosis is considered, may shed further light on these alternative explanations.

The ways that health care services are used may help to account, at least in part, for the patterns in the prevalence of psychiatric diagnosis by age and sex. Health service contact appears to bear a curvilinear relationship to age: there is a relatively high use of health services during early childhood, a sharply diminished use during adolescence, and an increased use thereafter, but at different rates for men and women. Women tend to be far more disposed than men to use health care services—at least in our society—because of pregnancy, childbirth, and their primary responsibility for child care.

The greater use by a patient of health services provides a greater opportunity for receiving a psychiatric diagnosis, but the frequency of patients' contacts does not afford a full explanation for the rates of psychiatric diagnoses. Do variations in psychiatric rates by sex reflect differences in actual mental and emotional problems, differences in the ways that various groups are encouraged to deal with their discontent, or the ideological biases of the diagnostician (*18*)?

Finally, the probability of a psychiatric diagnosis at a health facility and the kind of diagnosis made may be affected by the nature of any presenting medical conditions. In addition, patients' psychic states may be affected by the persistence of somatic complaints and how the health facility manages them.

Conclusions

Among the persons who patronized the Columbia Point Health Center, those who received a psychiatric diagnosis were more likely than those who did not to have sought care earlier in terms of the center's opening date and to have made a much greater demand on its services, even for nonpsychiatric conditions. Although it seems likely that those with a psychiatric diagnosis were, as a group, preoccupied with somatic symptoms, real or imagined, virtually all such patients also received a medical diagnosis within the same year that a psychiatric diagnosis was made. No information is available on how many of the persons with mental or emotional problems turned explicitly to the health center for help with such difficulties and how many obtained it incidental to the care that they sought for somatic complaints. In either case, a health facility is an appropriate setting for diagnostic services that will effectively identify such mental health needs.

An indication of the health center's role as a casefinding service for mental and emotional problems is provided by statistics on the psychiatric diagnoses at the center during its first 3 years of operation. On the average, about 10 percent of the community annually received a psychiatric diagnosis at the center during this period. The prevalence of psychiatric diagnoses varied among community residents classified by age and sex, ranging from a low of 4 percent to a high of 20 percent. The cumulative 3-year prevalence rates were almost exactly double the annual average rates.

There is every reason to suppose that these figures on psychiatric diagnosis represent a more effective performance by the health center in identifying mental and emotional problems as compared with the alternative modes of primary health care available at that time (*19–21*). The center tended to reach people who previously had been medically disadvantaged, and it brought about substantial improvements in the use of services, improvements that enhanced the likelihood that mental health problems would be diagnosed (*11*). Undoubtedly, because of the center, a much greater proportion of the community had contact with a health facility and sought care earlier and more regularly for prevention and treatment. Moreover, in a random sample of the community households, the residents acknowledged that care at the center was more personal and that communication between physician and patients was better.

Despite these achievements, the statistics cited on the mental and emotional problems diagnosed at the center probably understate its potential as a casefinding service. The center's effectiveness depended upon the primary care staff, who were the gatekeepers to the specialty services within and outside the center. The Columbia Point Health Center was the first of a new generation of innovative primary health care delivery systems, and its first 3 years were marked by the stresses associated with a new and evolving program. A more sustained and systematic inservice mental health training program for the staff, combined with an educational program for the community, would likely enhance the health center's effectiveness in dealing with the mental and emotional conditions presented by its patients.

The prevalence figures cited for psychiatric diagnoses also underestimate the role of health services generally as a mental health resource, since they do not include psychiatric diagnoses that may have been made at primary health care facilities other than the health center (*19–21*). Those who patronized alternative sources tended to be among such population subgroups as older people, subgroups which also are at higher risk of mental health problems.

Further improvements in mental health services at the center promise to yield other benefits. Mental and emotional problems are associated with a greater use of health services, even when encounters involving a psychiatric condition as a primary or secondary diagnosis are excluded. Insofar as there is an apparent lag in the recognition of some psychopathology, the reduction or elimination of such lags should not only assure patients more satisfactory care but also result in a net saving, since inappropriate use of health services would be less frequent. According to the service utilization experience of nonpsychiatric patients, inappropriate use constitutes an estimated 5 to 10 percent of total demand (*19*).

The obvious value of a neighborhood health center as a diagnostic and referral resource for mental and emotional problems leaves the question of what should be the scope of its responsibilities for meeting community mental health needs unsettled. Given the paucity of existing health care services in this neighborhood and its relative geographic and social isolation from alternative sources of care, the Columbia Point Health Center took upon itself the responsibility for meeting the comprehensive physical health needs of an entire community of about 5,500 persons, both in terms of treatment and prevention. Although its resources were devoted mainly to direct client services, it also addressed itself, in cooperation with the local community health association, to aspects of the social and physical environment that were inimical to life and good health. Whether the center can or should undertake similar responsibilities with respect to mental health needs is an issue that requires further consideration.

This question cannot be answered without a comprehensive, system-oriented inquiry into the mental health needs and resources of the entire population to be served, whether of a neighborhood or some larger social entity (*10, 22*). Such an assessment involves complex issues of a philosophical, social, and technical nature that go far beyond the data available about the community that we have studied.

Despite their limitations, the data presently available on the nature, prevalence, and distribution of the mental and emotional problems diagnosed at the Columbia Point Health Center afford a useful point of entry to these larger questions. They also provide a preliminary basis for mental health planning—for allocating scarce resources among competing needs for services (or even for research) in terms of a scheme of rationally ordered priorities (*22*).

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