Role of Nonpsychiatrist Physicians in the Delivery of Mental Health Services: Implications from Three Studies

IRVING D. GOLDBERG, MPH, HAROUTUN M. BABIGIAN, MD, BEN Z. LOCKE, MS, and BEATRICE M. ROSEN, BS

IN PLANNING AND EVALUATING the delivery of mental health services, efforts have been directed almost entirely to services in psychiatric settings or to other mental health-related resources and facilities. Our purpose is to draw attention to the importance of nonpsychiatric settings and resources—specifically the general physician—in the provision of mental health services in a community.

In a series of three studies in Monroe County, N.Y., data were obtained on the recognition of patients' emotional problems by nonpsychiatrist physicians working in a variety of medical settings *(1–3)*. The physicians were internists and general practitioners in private office practice, industrial dispensaries, and general medical clinics of general hospitals. Subjects in the three studies were matched with the records of a population-based psychiatric case register of patients served by psychiatric facilities as well as psychiatrists in private office-based practice in the county to determine if

☐ *Three of the authors are with the Division of Biometry and Epidemiology, National Institute of Mental Health, Alcohol, Drug Abuse, and Mental Health Administration. Mr. Goldberg is chief, and Mrs. Rosen is assistant chief, of the Applied Biometrics Research Branch, and Mr. Locke is chief, Center for Epidemiologic Studies. Dr. Babigian is professor and acting chairman, Department of Psychiatry, University of Rochester School of Medicine and Dentistry.*

The paper is adapted from Mr. Goldberg's presentation, "Consideration of Nonpsychiatric Medical Settings in the Delivery of Mental Health Services," at the National Conference on Evaluation in Alcohol, Drug Abuse, and Mental Health Programs, held in Washington, D.C., on April 2, 1974.

Tearsheet requests to Irving D. Goldberg, National Institute of Mental Health, Room 18C-18, Parklawn Bldg., 5600 Fishers Lane, Rockville, Md. 20857.

study subjects, whether or not considered by their general physicians to have emotional problems, had also received care in a psychiatric setting. Data from this matching phase form the basis of this paper.

Source of Data and Procedure

Before presenting the results of the matching, we describe briefly the procedures used and the data collected in the three studies. The study groups were patients 15 years or older visiting (*a*) a sample of internists and general physicians in private office practice (subsequently referred to as the private physician sample), (*b*) major industrial dispensaries (patients were 20 to 64 years old), and (*c*) five general medical clinics of the county's general hospitals. Although the studies were conducted over intervals ranging from 5 to 9 months, each physician or clinic generally reported on all patients seen during 1 month.

The information reported pertained to the patient's first visit in the study period and was recorded at the time of the visit on a standard study form. The form provided demographic and medical information and a determination of whether the patient, at the time of the visit, had or had recovered from a psychiatric or emotional problem. If the patient was judged to be suffering from a psychiatric or emotional disorder, diagnostic and other information relative to the problem was also recorded by the physician.

Of the patients seen in these medical settings, the proportion judged to have a current emotional disorder was 17 percent of those in the private physician sample, 5 percent among industrial dispensary patients, and 22 percent of the patients in general hospital clinics. This information is summarized in table 1.

Table 1. Proportion of all patients in three medical settings judged to have a current emotional problem by the attending physician

Medical setting	Age of patients (years)	Number of patients [1]	Percent with current emotional problem
Private physician's office	15 or older	[2] 11,131	16.9
Industrial dispensary	20–64	3,166	4.8
General medical clinic	15 or older	1,412	22.1

[1] These numbers differ slightly from those in the published studies (11,144; 3,165; 1,413) due to minor corrections or data processing errors; differences can be ignored.
[2] White patients only.

The Monroe County Psychiatric Case Register, to which the study subjects were matched, receives reports on patient contacts from all inpatient and outpatient public or private psychiatric facilities, including about 85 percent of the psychiatrists in private office practice (*4*). All reports on a given person over time are linked to provide a longitudinal record of episodes of psychiatric care, so that the register provides a relatively complete picture of the extent to which persons in the general population of the county receive care in psychiatric settings. By matching the subjects in the three study populations to the register, it was possible to determine if study subjects—whether or not judged to have an emotional disorder by the physician—had received care in a psychiatric setting before or after their visit for general medical care.

At the time of matching, the register contained reports of persons receiving psychiatric care from January 1960, its date of origin, through 1967, a period of 8 years. The private physician study was conducted over a 9-month period beginning in February 1964, about 2 years earlier than the other two studies, so that the effective periods of followup for the three samples differed somewhat. Thus, the register history of episodes of psychiatric care covered periods averaging about 4½ to 6½ years before the study medical visit and about 1½ to 3½ years after the medical visit, as depicted in the chart.

Results of Matching Phase

In this paper, presentation of the

Survey periods of three studies compared to history of Monroe County Psychiatric Case Register

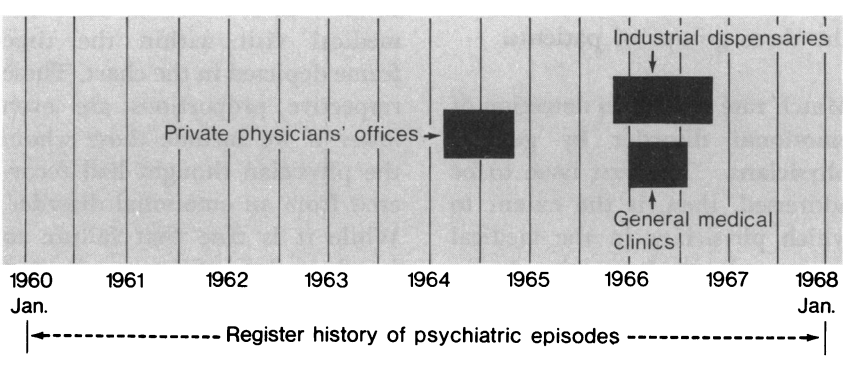

Table 2. Percentage of study patients in each medical setting who were on the psychiatric register according to whether emotional problem was detected at medical visit

Detection of emotional problem	Medical setting		
	Private physician's office	Industrial dispensary	General medical clinic
All patients	5.8	6.1	15.2
Current or past emotional problem detected	14.0	18.2	36.8
Current	14.3	37.9	37.8
Past	12.2	10.5	30.9
No current or past emotional problem detected	3.8	3.6	7.6

findings resulting from the matching to the register will be limited to a general overview of those data as they reflect the important role of the nonpsychiatrist physician in the detection, treatment, and referral of patients with emotional disorders. Therefore, we will not dwell on the interesting differences in results among the three medical settings, since these are differences in magnitude rather than direction and do not alter our general conclusions. It will suffice to note that, in general, there appeared to be a higher frequency or better detection of emotional disorders among patients of the general hospital clinics than in the other two settings, and the lowest rate of detection occurred in the industrial dispensaries. Some explanations for these observations are clear—for example, the pre-employment screening of the employee group and the different characteristics of the three groups of patients.

Match rate related to detection of emotional disorder by general physicians. The first issue to be addressed, then, is the extent to which physicians in the medical settings detected emotional disorders in patients not known to the register and, hence, presumably not under psychiatric care. (The term "psychiatric care" refers to care by a psychiatrist or other mental health specialist in a psychiatric setting.)

Table 2 summarizes the match rate to the register according to whether or not the study physicians detected emotional disorders in their patients. If the register's record is considered as validation of psychiatric contact, it is clear from these data, as anticipated, that medical patients who were judged to have an emotional problem were far more likely to have psychiatric care than those not so judged. Nevertheless, even among those thought by the attending physicians to have a current emotional problem, only some 14 percent of private physicians' patients and less than 40 percent of those in industrial dispensary and hospital-based clinic settings were known to have received psychiatric care before or after the medical visit within the time frame depicted in the chart. These respective proportions are even lower if we include those whom the physician thought had recovered from an emotional disorder. While it is true that failure to match to the register may in part reflect "over-detection" of emotional disorders by these physicians, available study data suggest that false positives do not explain the low match rate. For example, even among patients judged to have a current psychotic disorder, about one-third were not known to the psychiatric register.

Thus, these data support the observation of others, in particular the findings by Shepherd and associates in Great Britain (*5, 6*), that general physicians, in the course of their medical practice, see a significant proportion of the population with emotional disorders, many of whom apparently do not come to the attention of psychiatrists.

Adequacy of mental health services delivered by general physicians. Although data in the three studies indicate that physicians detect emotional disorder in a large proportion of affected patients who are not known to psychiatric settings, not enough is known about the amount and kind of care that nonpsychiatrist physicians provide to patients for their emotional problems. The questions of who should give appropriate specific care and how to determine what care is appropriate for the specific persons are subjects for debate and resolution, but these issues must be addressed. Findings in this analysis certainly indicate the importance of assuring that physicians in general medical practice are adequately trained to recognize their patients' emotional disorders and to be knowledgeable about their proper management. The training should enable them to give early, proper care and to recognize when psychiatric referral of a mental health problem is indicated.

Although we do not know the extent and nature of the referral process by which patients in these medical settings may have sought

care from a psychiatrist or other mental health specialist, the study data do illustrate the important role that general physicians can play in this process. Among all persons seen in each of the study settings, the number whose first register-validated psychiatric contact occurred within 1 year following the medical visit represents what might be considered the annual new incidence of care in psychiatric settings. As shown in table 3, this new incidence rate for all patients ranged from 1 to 2 percent among the three settings. This rate is remarkably similar to the annual new incidence rate of 1 percent, as reported to the psychiatric register, for the entire Monroe County population of similar age over the same years (source—unpublished data of H. M. Babigian on the Monroe County Psychiatric Case Register from the final report to the National Institute of Mental Health under Contract HSM-42-71-3, April 1973). However, among those who were judged to have a current emotional problem at the medical visit, the new reported incidence rate of care in psychiatric settings was appreciably higher, ranging from about 2½ to 4½ percent. The extent to which the physicians brought about referral is unknown, but it seems reasonable to assume that such physicians can and do function as important casefinders. Presumably this skill can be enhanced with better training in the detection and management of patients with existing or emerging psychiatric problems.

Table 3. Percentage of study patients in each medical setting who were first reported to the psychiatric register within 1 year following the medical visit, according to detection of emotional problem at that visit

Detection of emotional problem	Medical setting		
	Private physician's office	Industrial dispensary	General medical clinic
All patients	1.0	0.8	2.1
Current emotional problem detected	2.5	4.6	4.2
No current emotional problem detected	0.7	0.6	1.5

Physicians' failure to detect emotional disorders. It is enlightening to look at the results of the matching phase from another point of view, namely, the physicians' failure to detect emotional disorders in patients who were known to have received psychiatric care as evidenced by the register. All study subjects who appeared on the register were classified roughly by severity of psychiatric condition. Psychiatric diagnosis, type of psychiatric care received (inpatient or outpatient), and recency of psychiatric contact as determined from the register were the criteria used in classifying them.

In general, the more serious or current the condition, the more likely the physician was to detect an emotional problem in a patient. However, as shown in table 4, among all study subjects who were also on the register—and, hence, with a validated psychiatric contact—only about one-half (more or less depending on the setting) were judged to have a current or past history of emotional disorder by the attending physi-

Table 4. Proportion of study patients with register record of psychiatric contact judged to have an emotional problem by a physician in one of the medical settings

Physician's judgment of study patient at visit	Private physician's office		Industrial dispensary		General medical clinic	
	Number	Percent	Number	Percent	Number	Percent
On psychiatric register						
Total patients	643	100.0	193	100.0	214	100.0
Patient had current or past emotional problem	306	47.6	99	51.3	135	63.1
Current psychiatric contact on register [1]						
Total patients	292	100.0	92	100.0	103	100.0
Patient had current or past emotional problem	166	56.8	52	56.5	72	69.9
Patient had current emotional problem	156	53.4	39	42.4	66	64.1

[1] Register record of contact with psychiatric setting within 1 year before or after study medical visit.

Table 5. Measures of diagnosed prevalence of emotional disorders of patients seen in medical settings, in percentages

Prevalence of emotional problems	Private physician's office	Industrial dispensary	General medical clinic
Number of patients	11,131	3,166	1,412
Total "lifetime diagnosed prevalence"	21.1	[1]19.4	[1]30.0
Known to psychiatric register before medical visit	3.4	5.1	12.0
Not previously known to psychiatric register but judged to have current or past emotional problem at medical visit	17.7	14.4	17.9
Total "annual diagnosed prevalence"	16.8	5.4	20.2
Register-validated psychiatric contact within 1 year before medical visit	1.6	2.1	5.2
Not previously known to psychiatric register but judged to have current emotional problem at medical visit	15.2	3.3	15.0

[1] Total differs from sum due to rounding of percentages.

cian. If we limit consideration to those with a validated record of current psychiatric care—that is, those on the register with a psychiatric contact within 1 year before or after the medical visit—again only about one-half were judged to have an existing emotional problem and only about 60 percent an existing or past problem at the time of the medical visit. Thus, a current emotional problem went undetected by the general physician in some 40 percent of his or her patients who were so affected. While this proportion seems high, there is no clear answer as to the extent to which physicians in their normal medical practice should be aware of existing or emerging psychiatric problems in their patients. However, this question of physicians' awareness of emotional problems should be raised and answered if medical and psychiatric practice are to be joined in the total health care of the patient.

Magnitude of mental health problems. To put the foregoing discussion of the outcome of the matching process into perspective, it is of interest to look at the study data in table 5, which deals with measurement of the magnitude of mental health problems. Among all persons visiting the three medical settings, some 20 to 30 percent were either already known to the psychiatric register at the time of the medical visit or were judged by the attending physician to have had an emotional problem, current or past. Within the limitations of the register's duration and the completeness of patient histories in the study data, this proportion may be considered as a crude measure of "lifetime diagnosed prevalence." The prevalence of 20 to 30 percent, which includes persons diagnosed in nonpsychiatric medical settings, was 2½ to 6 times as great as the prevalence derived solely from the register of persons treated in psychiatric settings.

Similarly, if we consider only those who had either a register-validated psychiatric contact within 1 year before the medical visit or who were otherwise judged to have a current emotional problem at the visit, we obtain a measure of recent or current diagnosed prevalence which may be interpreted as a minimal estimate of "annual diagnosed prevalence" in this patient population. (Excluded are study patients not on the register who were diagnosed with emotional disorder by their general physicians within a year preceding the study medical visit but who were judged to be free of such disorder at the time of that visit.) This prevalence ranged from about 5 to 20 percent of all patients in the study medical settings—a proportion 2½ to 10 times as great as that derived from the register data alone. It is strikingly clear, therefore, that any measure of the magnitude of mental health problems which excludes those detected or treated by the general physician not only will greatly understate the known prevalence, but will be an unreliable basis for planning the total mental health care needs of the population.

Comment

Of significance from a national perspective and in policymaking, in view of the issues just discussed, is the fact that more than one-half of the patient visits to office-based physicians in the United States in which a mental disorder is diagnosed are visits to nonpsychiatrist physicians (7). The implications of this statistic appear to be recognized in the Health Professions Educational Assistance Act of 1976 (Public Law 94-484) which provides support for a psychosocial component in the training of primary care physicians.

Further, the National Institute of Mental Health recently included mental health training of primary care providers as one of four new manpower initiatives in mental health services (*8*).

In summary, the delivery of mental health services is not limited to the psychiatric setting. The patient's initial contact, regardless of medical discipline, must be able to detect emotional illness and to treat or refer the patient if necessary.

What is needed is a health care system that leads to early detection of emotional problems and, when necessary, referral of the patient to a psychiatric setting. Adequately trained physicians, capable of playing an effective role in such a system, are essential. The total health care delivery system must be examined to determine how the mental and general health components can best complement each other in achieving total health care of the population. The need for such an examination is heightened by current efforts to effect a national health insurance program. If such a program is enacted, demand for whatever mental health services are covered is likely to increase and create a corresponding demand for primary care physicians who can manage and refer patients with mental health problems.

References

1. Locke, B. Z., and Gardner, E. A.: Psychiatric disorders among the patients of general practitioners and internists. Public Health Rep 84: 167–173, February 1969.
2. Rosen, B. M., Locke, B. Z., Goldberg, I. D., and Babigian, H. M.: Identifying emotional disturbance in persons seen in industrial dispensaries. Ment Hyg 54: 271–279, April 1970.
3. Rosen, B. M., Locke, B. Z., Goldberg, I. D., and Babigian, H. M.: Identification of emotional disturbance in patients seen in general medical clinics. Hosp Community Psychiatry 23: 364–370, December 1972.
4. Gardner, E. A., and Babigian, H. M.: A longitudinal comparison of psychiatric service to selected socioeconomic areas of Monroe County, New York. Am J Orthopsychiatry 36: 818–828, October 1966.
5. Shepherd, M., Cooper, B., Brown, A. C., and Kalton, G. W.: Psychiatric illness in general practice. Oxford University Press, London, 1969.
6. Shepherd, M.: General practice, mental illness, and the British National Health Service. Am J Public Health 64: 230–232, March 1974.
7. Regier, D. A., and Goldberg, I. D.: National health insurance and the mental health services equilibrium. Presented at the annual meeting of the American Psychiatric Association, Miami, Fla., May 13, 1976.
8. Brown, B. S., and Regier, D. A.: How NIMH now views the primary care practitioner. Practical Psychology for Physicians 4: 12–14, May 1977.

SYNOPSIS

GOLDBERG, IRVING D. (National Institute of Mental Health), BABIGIAN, HAROUTUN M., LOCKE, BEN Z., AND ROSEN, BEATRICE M.: *Role of nonpsychiatrist physicians in the delivery of mental health services: Implications from three studies. Public Health Reports, Vol. 93, May-June 1978, pp. 240–245.*

In a series of three studies in Monroe County, N.Y., data were obtained on the extent to which nonpsychiatrist physicians in a variety of medical settings detected emotional problems in their patients. The disciplines and settings included internists and general physicians in private office practice, industrial dispensaries, and general medical clinics of general hospitals. A population-based psychiatric case register, which receives reports on patients of psychiatric facilities and psychiatrists in private office practice in the county, made it possible to match the subjects in the three studies to that register to determine if those considered to have, or not to have, an emotional problem by their general physicians were also known to the register.

Findings indicated that patients judged by their general physicians to have emotional disorders are much more likely than other patients to receive care in a specialty psychiatric setting for the first time within a year following the medical visit. Nevertheless, only 14 to 38 percent of patients judged to have an emotional disorder received care from specialty psychiatric settings within periods up to 6½ years before and 3½ years after the medical visit. Further, for the three groups of study patients, the estimated "annual diagnosed prevalence" of mental health problems, including persons diagnosed in the nonpsychiatric medical settings, was at least 2½ to 10 times as great as that based solely on those who received care in psychiatric settings; the estimated "lifetime diagnosed prevalence" was 2½ to 6 times as great.

Thus, a significant proportion of the persons seen by nonpsychiatrist physicians have identifiable emotional disorders requiring care, yet many of those so diagnosed are not seen in specialized psychiatric settings. Planning of community mental health services should take into account the training and role of the nonpsychiatrist physician in the detection, management, and referral of persons with mental health problems. This patient management function of nonpsychiatrist physicians takes on additional importance when considering delivery of mental health services under a future national health insurance program.