A Descriptive Study of Psychiatric Consultations in a Community Primary Care Center

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Background: This retrospective chart review study describes on-site psychiatric consultations at a large, urban community primary care center. The referral population, diagnostic reliability of primary care providers (PCPs) and social workers, appropriateness of PCP-initiated treatment, impact of treatment recommendations, and outcomes are examined.

Method: Charts of all patients who received psychiatric consultations (N = 78) during an 8-month period (August 1996 to April 1997) were reviewed.

Results: Prereferral diagnoses by PCPs matched the psychiatrist's diagnosis based on DSM-IV diagnostic criteria approximately half the time. PCPs initiated psychopharmacology in half the referrals (39/78) and used generally appropriate medications (30/39) based on diagnosis by a psychiatrist, but at subtherapeutic doses (21/39). PCPs tended to continue medications recommended by the psychiatrist. At 1 year, PCPs clearly documented improvement in nearly a third of the consults (24/78).

Conclusion: Diagnostic disagreement of caregivers, inadequate PCP psychopharmacology practices, and patient nonadherence are 3 main problems that impede optimal care within the model of psychiatric consultation described in this study.

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Over the past decade, national and international concern about the prevalence, recognition, and treatment of psychiatric disorders in the primary care realm has continued to grow.[1–10] Half of all patients who present to primary care clinicians suffer some psychiatric morbidity, and almost 60% of all mental illness in the United States is treated in primary care settings.[1,2] Studies indicate, however, that primary care providers (PCPs) recognize and diagnose less than half of mental disorders present in their patients.[3–6]

While the argument can be made for the relative cost-effectiveness of specialty versus generalist care of psychiatric disorders, many patients may not elect to see a psychiatrist.[9] Using data from the Epidemiologic Catchment Area study, Shapiro et al.[10] found that of the adults in the community who specifically seek help for a diagnosable, mental disorder, only 24% to 38% go to a mental health professional. The movement toward a PCP-gatekeeper system in this country will likely increase this already large segment of society who seek mental health services in the general medical arena. Thus, it is crucial to develop models that will ensure high-quality, cost-effective, and clinically efficacious psychiatric care in the primary care setting.

Although there have been many textbooks published on the clinical treatment of psychiatric disorders in primary care, much of the research focuses narrowly on a particular diagnostic entity (e.g., depression), often using rigorous diagnostic criteria and standardized interview and outcomes tools. While this method is optimal from the research standpoint, it does not describe the clinical character or variety experienced in general medical practice.

Several descriptive reports both of the primary care patient population (and how this differs from the referral-based, psychiatric patient population) and of models for psychiatric services in the primary care setting are in existence.[11–15] The models have represented consultative or shared care. Consultative models provide mid-level mental health clinicians and a supervising psychiatrist to cover multisite satellite primary care clinics or a visiting psychiatrist to conduct sit-down rounds and patient consultations.[13,15] Shared care involves patient evaluation and ongoing clinical backup from a consultation psychiatrist in a hospital-based, primary care clinic.[14] Although pa-

tient and PCP satisfaction with each of these models has been high, little is known about their actual effectiveness, nor do these studies address the issues of PCP diagnostic reliability or the appropriateness of PCP-initiated treatment for psychiatric disorders. This article is a retrospective description of our experience with psychiatric consultations in a primary care center in which we attempt to address these issues.

THE SETTING

The East Boston Neighborhood Health Center (EBNHC) (Boston, Mass.) is a large, urban, community-based primary care center that serves the largely immigrant population of Boston's harbor area, with over 250,000 outpatient visits per year. Every patient has an assigned PCP who is responsible for the provision and coordination of care. A total of 35 PCPs, mostly physicians who are trained in internal medicine, are on staff. The PCPs include 29 physicians, 5 nurse practitioners, and 1 physician's assistant. The clinic also provides training for both psychiatry residents and primary care residents.

THE MODEL

The primary care–driven model evolved from limited psychiatric resources at EBNHC. Under this model, primary care patients do not receive ongoing psychiatric treatment from a psychiatrist but from their PCPs who are assisted by psychiatrists. Psychiatric services include formal evaluation and stabilization by a psychiatrist, informal consultation between PCP and psychiatrist without the patient present (i.e., a "curbside" consultation), brief consultation by a psychiatrist with the patient and the PCP during the patient's primary care appointment, behavioral treatment planning for difficult-to-manage patients, and facilitation of referral for outside psychiatric services, if ongoing treatment is necessary. When patients are evaluated and stabilized over several visits to psychiatric services, they return to the PCP for ongoing management according to the treatment recommendations of the psychiatrist. Patients who have been seen previously may be reevaluated by the psychiatrist when there is a change (e.g., recurrence of symptoms, medication side effects). Other mental health services include goal-oriented, short-term individual or group therapy with masters-level clinicians in the primary care clinical areas. Patients who are not recommended for PCP management include those who have inherently unstable conditions, require complicated medication regimens, or need close monitoring, such as patients with bipolar or psychotic disorders, severe personality disorders, primary substance abuse, or active suicidal ideation.

Communication between PCPs and mental health providers (within EBNHC) is an important feature of the model and does not require signed releases because both groups of clinicians are part of the circle of care. Patients are also informed of the psychiatrist's consultative relationship with the PCP. Photocopies of all psychiatric notes and evaluations are sent to the PCP, as well as placed in the regular medical record. Mental health notes are color-coded, so that they may be removed from a general medical release of information.

METHOD

Charts of consecutive psychiatric consultations for 78 patients, which occurred within an 8-month period (from 8/8/1996 to 4/7/1997), were reviewed retrospectively and data were evaluated for 1 year after the initial consultation. This time period was chosen because the model had been established long enough to have fairly consistent referral processes, evaluations, and record keeping. Consults were identified using the EBNHC Mental Health Services' psychiatry referral log book. The patients' primary, secondary, and tertiary psychiatric disorders were recorded for prevalence statistics, but only the primary diagnoses were used for interdisciplinary comparison of diagnostic agreement. Guidelines for appropriateness of medications for specific psychiatric disorders were derived from *The MGH Guide to Psychiatry in Primary Care*.[16] Because previous studies noted possible problems with using standard psychiatric scales in measuring outcome in the primary care setting, the PCPs' problem list at 1 year was used as an indicator of outcome. At EBNHC, PCPs chart all of a patient's active "problems," or medical complaints, in a problem list that usually contains text about the course of a complaint.

Three psychiatrists who worked in this system reviewed the 78 charts. Six questions in the chart review tool required some clinical judgment (e.g., "Would you have started the same medicine in this case?"), and these questions were reviewed by all 3 reviewers for 14 (17.9%) of the charts for interrater reliability.

RESULTS

A total of 1024 requests for social services occurred at EBNHC over the 8-month period. Nine hundred of these requests were for mental health services. There did not appear to be any substantial differences in referral rates among physicians, nurse practitioners, and the physician's assistant. Most patients (N = 872) accepted the referral for mental health evaluations. Two hundred thirty-five (27.0%) were referred to clinicians outside the system.

Of the 637 patients who received mental health services at EBNHC, 127 were referred for psychiatry consultations. Only 6 (< 1%) were referred out immediately. Thirty-five (27.6%) of the referrals did not present

for evaluation. They either were not interested or did not keep their scheduled appointments. Eighty-six patients were seen by psychiatrists at EBNHC, 78 within our 8-month study period.

Demographics

Most of the patients were women (59/78, 75.6%), middle-aged (mean age = 40.5 years; range, 20–76 years), and living in neighborhoods within the catchment area (56/78, 71.8%). Despite the ethnic diversity of the community, most of the patients were white (58/78, 74.0%) and primarily English speaking (65/78, 83.3%). However, there were a substantial percentage of Latin American or Puerto Rican patients (15/78, 19.2%), and 12 patients (15.4%) who spoke only Spanish. Most of the patients had health insurance, including Medicare and Medicaid (54/78, 69.2%). A third of the patients were working full-time jobs (25/78, 32.1%), and over one third were unemployed (29/78, 37.2%).

For most of the consults, this psychiatry evaluation was the patient's first contact with psychiatry. Fifty-six (71.8%) had not seen psychiatrists before. Five patients (6.4%), however, had been hospitalized previously for psychiatric reasons. Forty-eight (61.5%) were first evaluated by social workers at EBNHC before being referred to psychiatry.

Few patients were evaluated who had recent symptom onset: Only 4 (5.1%) had symptoms 1 month or less. Nineteen (24.4%) had symptoms 1 to 6 months, 22 (28.2%) had symptoms 6 months to 1 year, and 33 (42.3%) had symptoms for over 1 year.

Diagnoses

Thirty-eight patients (48.7%), almost half of the referrals, met DSM-IV criteria for major depressive disorder. Other disorders included anxiety disorders (24/78, 30.8%), adjustment disorders (10/78, 12.8%), substance abuse (5/78, 6.4%), bipolar disorder (1/78, 1.3%), eating disorders (1/78, 1.3%), and dementia (1/78, 1.3%). One patient, coded as "other psychiatric disorder," was diagnosed with personality change due to a general medical condition. No patients were diagnosed with psychotic disorders.

Patients were usually referred with psychiatric diagnoses made by their PCP or by a social worker. The evaluating psychiatrist agreed with the PCPs' diagnosis for the primary psychiatric diagnosis in only 32 cases (42.1% of the time). Agreement was greater (44, 57.9%) for the broader diagnostic category, such as anxiety disorder rather than panic disorder. Two patients were referred by the PCPs for psychiatric evaluation without a diagnosis. When social workers evaluated the patients first, the psychiatrists tended to agree with them more often, but this difference was not statistically significant. Nine patients (18.8%), however, were referred by social workers for further evaluation without a preliminary diagnosis. The evaluating psychiatrists agreed with the social workers' impression of the primary psychiatric diagnosis in 22 (56.4%) of 39 cases for the specific diagnosis and in 25 (64.1%) of 39 cases for the diagnostic category.

Medications

Half of the patients (N = 39) were started on psychotropic medications by their PCPs before seeing the psychiatrist. These medications were appropriate for the psychiatric diagnosis by the PCP in 36 (92.3%) of 39 cases, but only in 30 of these patients (76.9%) for the diagnosis given by the psychiatrist. In 18 cases (46.2%), the psychiatrist would have started the same exact medication with a high rate of interrater reliability; the mean percent agreement among raters was 84.2%. Even when the PCP medication choices were appropriate, only about half (21/39, 53.8%) were prescribed in therapeutic dose ranges; the remainder were dosed too low. Seven patients (17.9%) were found to be nonadherent to the medication regimen started by their PCP.

After consulting with a psychiatrist, the PCPs followed the recommendations for prescribing medication without making any changes over the course of the year in 52 patients (66.7%). Psychiatrist raters agreed with the time course of the medications in only 40 (51.3%) of the cases. However, the psychiatrists' agreement with the PCPs' time course for medications was confounded by lack of patient adherence in 22 patients (28.2%) who stopped their medications on their own and a poor interrater reliability for judgment about time course (65.4% mean percent agreement among raters).

Psychotherapy

Over half (47/78, 60.3%) of the study patients were in psychotherapy at the time of the evaluation. Most of these (40/47, 85.1%) were in therapy at EBNHC. Twenty-two patients (22/31,71.0%) who were not already in therapy were referred to psychotherapy as part of their treatment recommendations. Most (17/22, 77.3%) of these patients were referred to social workers at EBNHC. Fewer than half (7/17, 41.2%) of these patients, however, actually followed up with their therapy referral. Of the consults in therapy at EBNHC, the mean number of visits over 1 year was 8.6, with a range of 1 to 48 visits.

Outcomes

The mean number of psychiatry visits for the year was 2.4, with a range of 1 to 8 visits. Most of the consult patients (63/78, 80.8%) were not referred back to psychiatry within a year. Nineteen patients (24.4%) were later judged to need ongoing regular psychiatric care and were referred outside EBNHC. These patients were usually referred out after 2 to 3 appointments with the psychiatrist (mean = 2.6 visits; range, 1 to 8 visits).

At 1 year after the initial consult, the PCP's problem list was examined both for the inclusion of the patient's

psychiatric complaints and for text about their course. The psychiatric problem remained in the problem list in 63 patients (80.8%). Twenty-four patients (31.0%) had the problem in the list with text about improvement. Fourteen (17.9%) had text about the psychiatric problem staying the same, and 10 (12.8%) had text about the problem worsening. Fifteen (19.2%) of the patients had the psychiatric problem listed without text.

DISCUSSION

Our consult population appeared similar to the populations seen in other primary care psychiatry models in terms of both referral diagnoses and sociodemographics.[14,15] The majority of patients referred had depressive disorders and tended to be middle-aged women. One major difference in our sample population is a lower prevalence of substance abuse. This is not surprising given our initial triaging of obvious substance abuse problems to ongoing treatment outside of EBNHC.

As in previous research, this study raises concerns about PCPs' abilities to diagnose and treat psychiatric disorders. The generally poor diagnostic agreement between members of the patient's treatment team may be cause for concern, or may merely reflect the high prevalence of patients referred because of diagnostic uncertainty (61.5%). This suggests that when PCPs are uncertain of the diagnosis, they refer patients for psychiatric consultation. Although it might also seem that patients in need of psychiatric treatment might not be referred because of missed diagnoses, previous studies suggest that highly symptomatic, more severely distressed patients are not overlooked by their PCPs.

An interesting finding was the relatively better performance of PCPs in treating, rather than diagnosing, psychiatric disorders. Despite the diagnosis, they prescribed potentially effective medications for their patients' disorders. There are several possible explanations for this phenomenon. First, some medications, such as antidepressants, can be used for different disorders. The high prevalence of substance abuse in this particular community has sensitized PCPs to the risks and dangers of treating emotional distress with benzodiazepines. This, along with formal and informal education by the in-house psychiatrist, may explain the greater use of selective serotonin reuptake inhibitors (SSRIs) for both depression and anxiety. These general diagnostic categories (i.e., depressive and anxiety disorders) accounted for over 75% of the nonadjustment disorder diagnoses. Also, PCPs were encouraged to "curbside" the psychiatrist; the study does not capture the incidence of such informal consultation prior to PCP initiation of psychotropic medication. Another explanation may also be the broad definition of "appropriate class of medication." For example, amitriptyline would be an appropriate medication for depression, but not an appropriate choice for a specific case. When it came to evaluating the individual cases with their own specific clinical factors (drug interactions, probability of intolerable side effects, etc.), however, only about half of the time would the psychiatrists have chosen the same medication as the PCP. If these more stringent criteria were used to indicate appropriate choice of medication, the PCP performance in this study would more closely approximate the findings in other primary care studies.[4]

It may also seem that PCP medication treatment was not appropriate because almost half of the PCP-initiated medications were prescribed at ineffectively low doses. However, the medication may have been initiated while patients waited for psychiatric consultation and may not have been considered a stable dose.

Patient adherence was found to be a problem throughout the referral and treatment process. Substantial numbers of patients did not present for evaluation, were found to be noncompliant with their psychiatric medications at their initial evaluation, took themselves off their medications, and did not follow up with therapy referrals. Perhaps the consultation nature of the psychiatric care and infrequent visits to PCPs (mean of 3 visits per year) contributed to poor patient adherence. Alternatively, patient improvement could account for treatment discontinuation. Other studies suggest that many primary care patients present with acute distress that resolves with relatively little treatment (e.g., short courses of low-dose medication).[4,7]

This study showed acceptable rates of improvement for patients treated utilizing the primary care–driven model. Few patients were referred back or outside the system, and almost a third had improvement documented in the PCP problem list. Although descriptions on the problem list are not standardized and are the observations of the PCPs and not the psychiatrists, they do provide some data about perceived outcomes. This is similar to the improvement rate (29%) reported in other studies using the Brief Psychiatric Rating Scale.[13,17] The problem list, however, may underestimate the actual number of patients who showed improvement. If the psychiatric problem was not on the problem list at 1 year, the problem either may have been overlooked by the PCP at that visit or may have resolved. One would also expect that some of the patients who still had the problem on their list without any text may have had improvement as well.

CONCLUSION

Changing health care systems require creative models of psychiatry in primary care settings. Today's streamlining of medical practice requires PCPs to screen for physical and psychiatric illnesses, as well as initiate appropriate treatment. In a fast-paced clinic, PCPs may have little time to attend to complicated psychiatric issues. Similar to previous research, this study raises some ques-

tions about the ability of PCPs to diagnose and treat common psychiatric conditions and highlights the complexities overshadowed by the reductionistic model of PCPs as all things to all patients.

The model of psychiatric consultation described in this study can enhance the psychiatric treatment provided by PCPs. However, 3 main problems were identified that impede optimal care: (1) diagnostic disagreement of caregivers, (2) inadequate PCP psychopharmacology practices, and (3) patient nonadherence. The first 2 problems might be addressed by more PCP education, either through feedback and discussions about particular cases or through more formal teaching sessions. The other impediment, patient adherence, is a difficult problem that exists in all models of psychiatric care and requires more research. In this model, possible interventions, such as closer follow-up, more psychoeducation, or a case manager system, may lead to improved adherence to treatment recommendations.

Although our study findings are suggestive of improving care, the retrospective nature of the study limits the evaluation of this integrative model. More research, especially prospective studies looking at outcomes and interventions, needs to be done on this and other models of psychiatric services in primary care settings.

Drug name: amitriptyline (Elavil and others).

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