Referral Gridlock

Primary Care Physicians and Mental Health Services

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BACKGROUND: Patients' barriers to mental health services are well documented and include social stigma, lack of adequate insurance coverage, and underdiagnosis by primary care physicians. Little is known, however, about challenges primary care physicians face arranging mental health referrals and hospitalizations.

OBJECTIVE: To examine how practice setting and environment influence primary care physicians' ability to refer patients for medically necessary mental health services.

DESIGN: Cross-sectional analysis using nationally representative survey data from the 1998 to 1999 Community Tracking Study physician survey. The overall survey response rate was 61%.

PARTICIPANTS: A 1998 to 1999 telephone survey of 6,586 primary care physicians.

MEASUREMENTS: Primary care physicians' report of whether they could obtain medically necessary referrals to high-quality mental health specialists or psychiatric admissions.

RESULTS: Overall, 54% of primary care physicians reported problems obtaining psychiatric hospital admissions, and 54% reported problems arranging outpatient mental health referrals. Primary care physicians practicing in staff and group model HMOs were much less apt to report difficulties than physicians in solo and small-group practices (P < .001). Reports of inadequate time with patients (P < .001) and smaller numbers of psychiatrists in a market area (P < .01) also were associated with problems obtaining mental health referrals. Pediatricians were more apt to report problems than general internists (P < .001).

CONCLUSIONS: Primary care physicians face greater hurdles obtaining mental health services than other medical services. Primary care is an important entry point for mental health services, yet inadequate referral systems between medical and mental health services may be hampering access.

KEY WORDS: access; primary care; psychiatric services; mental health; referrals; hospitalizations.

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Recently, concerns have been raised that under managed care for mental health services, parity of benefits may not be enough to ensure adequate access for those with coverage. 1,2 Under parity of benefits, mental health cov-

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erage would have the same copayments, deductibles, and limits as medical benefits. Burnam and Escarce observed that under managed care, restrictions such as gatekeeping and utilization review impose limits on access in place of financial incentives that influence patients' choices through out-of-pocket costs. They suggest that policy makers should monitor equity of access to care to determine the extent to which patients' access to mental health services is comparable to patients' access to medical services.

Patients with mental health problems may face several barriers to obtaining care. The patients themselves may choose to not seek care due to social stigma, minimization of the mental disorder, and financial barriers.³ In addition, patients seeking care may face problems obtaining care from their primary care physician. Evidence suggests that primary care physicians both undertreat^{4–7} and overtreat⁸ psychiatric disorders. However few, if any, of the studies critical of primary care physicians' management of psychiatric disorders have examined the difficulties primary care physicians face when attempting to refer their patients to mental health services.

Furthermore, while patients' access barriers to mental health services are well documented, less is known about barriers primary care physicians themselves face obtaining mental health services for their patients. When a physician identifies a patient as being in need of a mental health service, the primary care physician may choose to provide treatment himself when the care is within his scope of expertise and the physician has adequate time. Alternatively, the physician may choose to refer the patient for inpatient or outpatient services depending on the severity of the condition and other factors.

This study examines how the practice setting and environment are related to primary care physicians' reports of barriers to access to mental health services. First, we describe the extent to which primary care physicians report problems obtaining medically necessary mental health services (outpatient referrals and hospitalization) relative to medical services. Second, we examine the extent to which practice type and practice environment (such as time constraints and gatekeeping) affect primary care physicians' reports of problems obtaining mental health services for their patients. Finally, we consider the implications of these problems within the context of the primary care delivery system.

METHODS

Data Source

This study uses data from the Community Tracking Study (CTS) physician survey, a longitudinal data collection effort sponsored by The Robert Wood Johnson Foundation.⁹ The physician survey uses a clustered sample that is representative of direct patient care physicians in the continental United States, as well as in selected communities.^{10–12} The survey collects information on practice arrangements and ownership, sources of practice revenue and compensation, and physicians' views on their medical practice.

In the first stage of sample selection, 60 sites (defined as counties or groups of counties using conventionally accepted definitions of economic areas) were randomly selected with probability in proportion to the population. Sites were first stratified by region of the country and according to medium and large metropolitan sites (200,000 persons or more), small metropolitan sites (less than 200,000 persons), and nonmetropolitan sites to ensure representation of these areas.

The sample of physicians was drawn from the master files of the American Medical Association and the American Osteopathic Association. The full sample included active nonfederal office and hospital-based physicians in selected specialties who spent at least 20 hours per week in direct patient care, but excluded radiology, anesthesiology, pathology, and a few nonpatient care specialties, such as legal medicine. Within the CTS physician survey sampling frame, primary care physicians were intentionally oversampled. Primary care included family practice, general practice, internal medicine, general pediatrics, general internal medicine/pediatrics, adolescent medicine, and geriatric medicine. Specialists within these self-designated specialty areas who reported spending more time practicing general internal medicine than practicing their subspecialty were categorized as primary care regardless of selfdesignated specialty. Thus, internists who were trained in a medical subspecialty and/or who self-identified as medical subspecialists, but who reported spending most of their practice time in general medicine were counted as general internists. Using these definitions, the analyses in this study were conducted using the subsample of primary care physicians.

All estimates presented in this article were weighted to be representative of nonfederal patient care physicians in the continental United States. Weights were constructed to produce nationally representative estimates from the 60 sites and to restore proportionality to the sample arising from survey nonresponse and the clustering of the sample into 60 sites of varying size and geographic location. All estimates were produced using SUDAAN software, which adjusted the standard errors of estimates to account for the complex sample design. ¹³

Dependent Variables

Ability to arrange mental health referrals and admissions was part of a series of questions physicians were asked regarding being able to obtain medically necessary services for their patients. For 6 types of services, physicians were asked how often they were able to obtain

medically necessary services with a 6-point response scale of always, almost always, frequently, sometimes, rarely, or never. For mental health, physicians were asked separately whether they could obtain high-quality inpatient mental health care and high-quality outpatient mental health services. Physicians also were asked about referrals to specialists, ancillary services, nonemergency hospital admissions, and diagnostic imaging. The mental health services questions were asked of primary care physicians only. ¹⁴

To categorize primary care physicians' reports of experiencing barriers to mental health services, the 6-point scale was dichotomized as never, rarely, or sometimes *versus* always, almost always, or frequently. Sensitivity analyses were conducted to confirm that the results did not change if the 6-point scale was dichotomized as never or rarely versus always, almost always, frequently or sometimes.

Independent Variables

The CTS physician survey elicited information on practice size, type of practice setting, ownership, and other information for each physician's practice. These characteristics were used to categorize physicians' type of practice into 5 mutually-exclusive categories: solo and small-group practice of fewer than 10 physicians, private groups of 10 or more physicians, physicians in staff or group model HMOs, physicians practicing in medical school or hospital-based practices, and other arrangements, such as clinic settings. Specialty was categorized into 3 areas: 1) pediatrics; 2) family practice and general practice; and 3) internal medicine, medicine-pediatrics, geriatrics, and other, which we refer to as "internal medicine and other."

The gatekeeper role for primary care physicians may expand the scope of care, in which they become largely responsible for managing common, uncomplicated mental and emotional problems.⁶ Prior studies have shown that gatekeeping mechanisms imposed in some managed care settings impede access to specialized mental health services. 15 In studies of pediatric referrals, however, gatekeeping was associated with higher rates of specialty referral. 16 For the CTS physician survey, gatekeeping was defined as insurance plans or medical groups requiring enrollees to obtain permission from a primary care physician before seeing a specialist. Primary care physicians were asked the percentage of their caseload for which they served in that role. Physicians reporting gatekeeping for less than 10% of the caseload were categorized separately to identify primary care physicians with little to no managed care practice. On the other end, physicians with gatekeeping responsibilities for 70% or more of the caseload were categorized separately to identify primary care physicians with all or almost all of their caseload under managed care.

Primary care physicians may lack the requisite time to optimally manage emotional and behavioral health

problems.⁴ This limited time availability is often cited as a factor contributing to undertreatment of major depression in primary care practice.^{5,6,17,18} In the telephone survey, physicians were asked whether they agree strongly, agree somewhat, disagree somewhat, disagree strongly, or neither agree nor disagree with the statement "I have adequate time to spend with my patients during typical office/patient visits." For purposes of this analysis, physicians' perceptions of the adequacy of time with their patients was dichotomized and considered as "not sufficient time" if the physician "disagreed strongly."

The number of psychiatrists per 100,000 population in 1997 was obtained from the Area Resource File to reflect the availability of mental health resources at the market level. Unreliable and missing counts of psychiatric beds at the county level precluded its use as a measure in this model.

Other factors, such as physician caseload, physician characteristics, and market characteristics also may influence the likelihood that primary care physicians will report problems obtaining needed mental health services. In particular, patients' insurance coverage may limit their ability to obtain mental health services, especially for the uninsured, Medicaid, and Medicare patients. Psychiatrists who are in short supply may be less willing to accept Medicaid and Medicare patients. We therefore controlled for physicians who are in the top quartile of physicians in revenue for Medicaid (Medicaid revenue exceeds 25% of practice revenue) and the top quartile of physicians in revenue for Medicare (Medicare revenue exceeds 50% of practice revenue). To control for physicians who have caseloads with a higher percentage of uninsured, we identify physicians who provide more than 10 hours of charity care per month or who work in a community health center/clinic setting.

Our analysis also controlled for relevant personal and market characteristics. We controlled for gender using information obtained from the master files of the American Medical Association and the American Osteopathic Association. Controls for race reflect self-reports where a physician is classified as minority if they do not consider themselves to be white or Caucasian. Our model also controlled for how long the physician had been practicing, because physicians with fewer years of experience may have different skills and expectations about the scope of their practice. We also controlled for the market-level managed-care penetration in the each of the 60 CTS sites, using the site average for physician practices' percentage of managed care revenue.

Statistical Analysis

We used logistic regressions to model the likelihood that physicians reported problems obtaining outpatient services and inpatient care. Physicians were considered to have difficulties obtaining care if they reported never, rarely, or only sometimes being able to obtain the care sought.

Measures of years in practice, charity care provision, percentage of revenue from Medicare and Medicaid, extent of gatekeeping, managed care penetration, and the number of hospital beds and psychiatrists in a county were categorized to capture nonlinearities.

We report adjusted predicted means for each attribute in our analysis as our primary results. The adjusted predicted means were calculated from the predicted means from each logistic regression assuming all physicians in the sample had the attribute of interest, while all other characteristics were held to their original value. Statistical inferences were based on the underlying logistic regression coefficients. The full logistic regression results are also presented with the odds ratios adjusted to estimate relative risk. ¹⁹

RESULTS

Referrals to Mental Health Services

For the 1998 to 1999 round of the survey, physicians were surveyed by telephone from August 1998 to August 1999, with an overall response rate of 61%. Only primary care physicians in the 60 CTS sites were included in our multivariate analysis, with a final sample size of 6,586. Table 1 describes characteristics of our sample. Forty-four percent of our sample were female primary care physicians and 34% of the sample had begun their medical practice within the last 10 years. Half of the sample of primary care physicians worked in a solo or group practice with 9 or fewer physicians. In addition, 27% of the primary care physicians in the sample reported having a caseload in which they served as a gatekeeper for 70% or more of the caseload.

In 1998 to 1999, 53% of primary care physicians reported they could only sometimes, rarely, or never obtain referrals for high-quality outpatient mental health care (Table 2). Similarly, 53% reported problems obtaining referrals for high-quality inpatient mental health services. In contrast, 5% of primary care physicians reported problems obtaining medically necessary referrals to specialists and 21% reported problems obtaining non-emergency inpatient hospital admissions.

Type of Practice

The primary care physician's specialty and the practice setting were important determinants of whether primary care physicians reported that they were able to obtain needed mental health services for their patients (Table 3). Pediatricians were more likely to report problems obtaining both outpatient and inpatient mental health services compared to family practitioners (outpatient, 60% vs 53%; P < .001; inpatient, 64% vs 54%; P < .001; Table 4).

Primary care physicians in group- and staff-model HMOs were much less likely to report problems obtaining high-quality outpatient mental health services compared to

Table 1. Characteristics of Primary Care Physicians and their Practices

	Proportion of Primary Care Physicians with Attribute*				
Attribute	Lower Confidence Limit	Mean	Upper Confidence Limi		
Physician characteristic/specialty					
Female	0.27	0.28	0.30		
Male	0.70	0.72	0.73		
White	0.76	0.78	0.80		
Minority	0.20	0.22	0.24		
Family/general practice	0.42	0.44	0.46		
Pediatrics	0.21	0.22	0.23		
Internal medicine and other	0.32	0.34	0.36		
0–9 years in practice	0.32	0.34	0.35		
10–19 years in practice	0.35	0.37	0.39		
>20 years in practice	0.28	0.30	0.31		
Patient insurance	0.20	0.00	0.01		
≤9 hours of charity care/mon	0.79	0.81	0.82		
≥10 hours of charity care/mon	0.18	0.19	0.21		
<25% revenue from Medicaid	0.74	0.76	0.79		
>25% revenue from Medicaid	0.21	0.24	0.26		
<50% revenue from Medicare	0.76	0.78	0.80		
>50% revenue from Medicare	0.20	0.22	0.24		
Size and type of setting	0.20	0.22	0.24		
Solo or practice with ≤9 physicians	0.48	0.50	0.51		
2 2	0.48	0.30	0.12		
Practice with ≥10 physicians	0.05	0.10	0.12		
Staff- or group-model HMO					
Medical school or hospital-based practice	0.18	0.20	0.22		
Other type of practice	0.12	0.14	0.15		
Practice environment	0.00	0.07	0.00		
Adequate time	0.86	0.87	0.88		
Inadequate time	0.12	0.13	0.14		
Gatekeeping for 0 to 9% of caseload	0.13	0.14	0.15		
Gatekeeping for 10%–69% of caseload	0.56	0.59	0.61		
Gatekeeping for ≥70% of caseload	0.25	0.27	0.30		
Market-level attributes					
Psychiatrists per 100,000 population, county					
0-4	0.17	0.20	0.24		
5-14	0.21	0.27	0.33		
15-29	0.34	0.42	0.50		
≥30	0.08	0.11	0.14		
Hospital beds per 10,000 population					
0-39	0.57	0.65	0.73		
40-49	0.02	0.11	0.20		
≥50	0.20	0.24	0.28		
Managed care market penetration					
<35%	0.14	0.20	0.26		
35% – 44%	0.21	0.31	0.41		
\geq 45%	0.40	0.49	0.58		

^{*} Based on a nationally representative sample of 6,586 primary care physicians, weighted.

physicians in solo and small-group practices (37% vs 56%; P < .001; Table 4). Findings were similar for high-quality inpatient mental health services (37% vs 56%; P < .001). Primary care physicians in large-group practices (excluding group- and staff-model HMOs) were only moderately less likely to report problems obtaining outpatient mental health services for their patients than physicians in solo or small-group practices (51% vs 56%; P < .01).

Practice Environment

Primary care physicians with moderate and heavy gatekeeping responsibilities (more than 10% of their case-

load) were more likely to report problems obtaining outpatient mental health services for their patients compared to those with lighter gatekeeping responsibilities (Tables 3 and 5). Only primary care physicians with "moderate" gatekeeping requirements were more likely to report problems obtaining needed inpatient mental health services.

As expected, physicians who felt that they didn't have adequate time with their patients for a typical visit were more likely to report problems obtaining needed mental health services (both inpatient and outpatient; Table 5). Over 70% of time-constrained primary care physicians (after controlling for other factors) reported

Table 2. Reported Frequency of Ability to Obtain Needed Services, %*

Type of Service	Never	Rarely	Sometimes	Frequently	Almost Always	Always	Categorized as Access Problem
Referrals to specialists of high quality when medically necessary	0.0	0.4	4.2	15.5	47.7	32.2	4.6
High-quality outpatient mental health services when medically necessary	2.0	16.8	34.8	21.4	16.5	8.5	53.6
Non-emergency hospital admissions when medically necessary	2.0	5.8	12.9	15.9	33.2	30.1	20.7
High-quality inpatient mental health care when medically necessary	3.8	18.3	31.2	18.0	18.5	10.11	53.3

 $^{^{*}}$ Based on a nationally representative sample of 6,586 primary care physicians, weighted.

difficulties compared to 51% of the remaining primary care physicians.

Supply

Primary care physicians practicing in counties with fewer psychiatrists (such as in rural areas) were somewhat more likely to report problems obtaining needed mental health services compared to primary care physicians practicing in counties with more psychiatrists (Tables 3 and 6). In counties with fewer than 5 psychiatrists per 100,000 population, roughly 62% of primary care physicians reported difficulties obtaining inpatient mental health services for their patients (P < .001) compared to

Table 3. Primary Care Physicians Reporting Never, Rarely, or Sometimes Obtaining Needed Mental Health Services

	Outpatient Mental Health Services (N = 6,319)			Inpatient Mental Health Services (N = 5,933)		
	Lower 95% CI	Odds Ratio	Upper 95% CI	Lower 95% CI	Odds Ratio	Upper 95% CI
Physician characteristic/specialty						
Male	0.59	0.67*	0.77	0.64	0.75*	0.88
Minority	0.59	0.69*	0.80	0.63	0.73*	0.84
Family/general practice	0.94	1.11	1.30	1.17	1.38*	1.63
Pediatrics	1.25	1.51*	1.83	1.85	2.17*	2.56
10-19 years in practice	0.96	1.08	1.22	0.96	1.10	1.26
>20 years in practice	0.64	0.74*	0.86	0.64	0.76*	0.91
Patient insurance						
>10 hours of charity care per month	0.91	1.07	1.27	0.83	1.00	1.20
≥25% revenue from Medicaid	0.99	1.13	1.29	0.82	0.93	1.06
>50% revenue from Medicare	0.87	1.03	1.21	0.83	0.97	1.13
Size and type of setting						
Practice with ≥10 physicians	0.69	0.81*	0.94	0.74	0.87	1.02
Staff- or group-model HMO	0.35	0.44*	0.56	0.36	0.45*	0.56
Medical school or hospital-based practice	0.85	1.00	1.17	0.71	0.85	1.01
Other type of practice	0.71	0.90	1.13	0.80	1.00	1.24
Practice environment						
Inadequate time	2.12	2.60*	3.20	1.89	2.32*	2.83
Gatekeeping for 10%-69% of caseload	1.24	1.54*	1.91	1.07	1.32*	1.63
Gatekeeping for >70% of caseload	1.04	1.34^\dagger	1.74	0.95	1.24	1.62
Market-level attributes						
Psychiatrists per 100,000 population, county						
5-14	0.57	0.75^{\dagger}	0.99	0.48	0.62*	0.79
15-29	0.59	0.78	1.03	0.53	0.69*	0.90
>30	0.49	0.66*	0.89	0.38	0.54*	0.77
Hospital beds per 10,000 population						
40-49	0.65	0.85	1.11	0.79	1.10	1.53
>50	0.78	0.96	1.19	0.71	0.89	1.11
Market penetration						
35% – 44%	0.61	0.96	1.50	0.75	1.10	1.63
>45%	0.64	1.00	1.56	0.73	1.06	1.56

^{*} P < .01.

[†] P < .05.

Table 4. Adjusted Proportions of Primary Care Physicians Reporting Difficulty Obtaining Needed Mental Health Services by Specialty and Size and Setting of Practice*

Type of Practice	Outpatient Mental Health Services ($N = 6.319$)	Inpatient Mental Health Services ($N = 5,933$)
Specialty		
Family practice	53% (reference group)	54% (reference group)
Pediatrics	60% (P < .001)	64% (P < .001)
General internists and other	50% (<i>P</i> < .001)	46% (<i>P</i> < .001)
Size and setting of practice		
Solo and small group	56% (reference group)	56% (reference group)
Large group (10+)	51% (P = .006)	52% (P = .087)
НМО	37% (<i>P</i> < .001)	37% (<i>P</i> < .001)
Hospital-based	56% (<i>P</i> = .948)	52% (P = .051)
Other	53% (<i>P</i> = .365)	56% (<i>P</i> = .924)

^{*} Adjusted proportions are based on logistic regressions using the full sample but holding all other characteristics constant. Characteristics held constant in this model are sex, minority status, years of practice, extent of charity care provided per month, percent revenue from Medicaid, percent revenue from Medicare, perceptions of adequacy of time with patients, extent of gatekeeping in practice, psychiatrists per 100,000 population, hospital beds per 10,000 population and managed care market penetration.

47% of those in areas with 30 or more psychiatrists per 100,000 population. Findings were similar for inpatient mental health services. In particular, physicians in counties with more than 30 psychiatrists per 100,000 population were less apt to report difficulties than those in counties with fewer than 5 psychiatrists per 100,000 population (62% vs 47%; P < .001).

DISCUSSION

Our findings suggest that concerns about adequate access to mental health services are warranted, given that primary care physicians are substantially more likely to report having problems arranging referrals for mental health services than for medical services. Previous research has identified lack of insurance coverage as an important barrier to mental health services, and has led to the current policy debate on parity of benefits. Other research has focused on underdiagnosis by primary care physicians and has encouraged a debate about who provides the best quality of mental health care. The findings from this study highlight yet another important barrier to access that occurs within the divide between medical and mental health services.

Our study also provides some insight into potential factors that might be operating to influence primary care physicians' ability to arrange mental health referrals. Primary care physicians working in group- and staff-model HMOs report fewer difficulties obtaining mental health services for their patients compared to primary care physicians in solo and small-group practices. Meredith et al. observed more accessible mental health referrals within staff- and group-model HMOs, presumably because the physicians and mental health specialists are employed by the same entity and frequently practice in the same physical location, thereby facilitating coordination efforts. 17 Established referral patterns and accessible mental health professionals within the same practice setting may explain the large difference found between primary care physicians in staff- and group-model HMOs compared to primary care physicians in solo and small-group practices.

Alternatively, the differential between physicians in solo and small-group practices compared to those in staff-and group-model HMOs may reflect the increased use of mental health carve-outs. That is, physicians in solo and small-group practices may have more difficulties obtaining referrals, because their patients' mental health services are managed by a separate entity with which the primary care

Table 5. Adjusted Proportions of Primary Care Physicians Reporting Difficulty Obtaining Needed Mental Health Services by Gatekeeping and Time with Patient Categories*

Practice Environment	Outpatient Mental Health Services (N = 6,319)	Inpatient Mental Health Services (N = 5,933)
Gatekeeping		
<10% of caseload	46% (reference group)	48% (reference group)
10%-69% of caseload	56% (P < .001)	55% (P = .008)
≥70%	$52\% \ (P = .028)$	$53\% \ (P = .133)$
Time with patients		
Not adequate time	72% (<i>P</i> < .001)	70% (<i>P</i> < .001)
Adequate time	51% (reference group)	51% (reference group)

^{*} Adjusted proportions are based on logistic regressions using the full sample but holding all other characteristics constant. Characteristics held constant in this model are sex, minority status, primary care specialty, years of practice, extent of charity care provided per month, percent revenue from Medicaid, percent revenue from Medicare, categories for size and type of practice, psychiatrists per 100,000 population, hospital beds per 10,000 population and managed care market penetration.

Table 6. Adjusted Proportion of Primary Care Physicians Reporting Difficulty Obtaining Needed Mental Health Services by Availability of Psychiatrists in County*

Availability of Psychiatrists (per 100,000 Population) [†]	Outpatient Mental Health Services (N = 6,319)	Inpatient Mental Health Services (N = 5,933)		
0-5*	59% (reference group)	62% (reference group)		
5-14	52% (<i>P</i> = .031)	50% (P < .001)		
15-29	$53\% \ (P = .025)$	53% (<i>P</i> < .001)		
30+	$49\% \ (P = .001)$	46% (P < .001)		

^{*} Adjusted proportions are based on logistic regressions using the full sample but holding all other characteristics constant. Characteristics held constant in this model are sex, minority status, primary care specialty, years of practice, extent of charity care provided per month, percent revenue from Medicaid, percent revenue from Medicare, categories for size and type of practice, perceptions of adequacy of time with patient, extent of gatekeeping in practice, hospital beds per 10,000 population and managed care market penetration.

physician has less experience. Other research has shown that primary care physicians perceive that mental health carve-outs provide poorer quality of mental health care and report that they are less apt to share information about their patients with carve-out providers. ²⁰

Pediatricians are far more likely to experience difficulty obtaining both inpatient and outpatient mental health services for their patients than are general internists. Recent studies have documented interspecialty differences in primary care physicians' ability and/or willingness to provide first-line therapy for mental health diagnoses.²¹ For example, 1 study demonstrated that family physicians are more likely to treat depression in children and adolescents than are pediatricians, whereas pediatricians are more likely to refer these patients. 21 Thus, the greater difficulty experienced by pediatricians might be partially a result of a more narrowly defined scope of care in general pediatric practice as compared with that of other primary care disciplines. Shortages of child psychiatrists are also well described and probably contribute significantly to the difficulties experienced by pediatricians. 22 The substantial, persistent aggregate undersupply of child psychiatrists is amplified by uneven geographic distribution.²²

It is not surprising that market-level supply of mental health providers is another independent predictor of physicians' ability to obtain mental health services. Psychiatry is widely considered to be an undersupplied medical specialty, both in the aggregate and especially in geographic locations outside of major metropolitan areas.²³ A recent comprehensive analysis of the mental health workforce demonstrated that the overall supply of this workforce has increased substantially over the past decade but is still plagued by uneven geographic distribution.²³ Unlike other medical specialties that have witnessed expansion of their fields, psychiatry is grappling with a declining rate of U.S. medical school graduates entering residency training in psychiatry.²⁴ And although the number of psychiatrists has increased, the percentage of the physician workforce practicing psychiatry has declined.²³

Our findings also agree with previous research showing that lack of time with patients is another predictor of access problems for mental health services. ¹⁷ Primary care

physicians with inadequate time for a typical visit may be unwilling or unable to treat or counsel their patients themselves and may preferentially refer their patients to mental health professionals rather than provide treatment themselves. Given these physicians' tendency to refer more of their patients (or to refer using a lower threshold), they may be more likely to encounter difficulties referring patients to mental health services. Similarly, physicians with more gatekeeping responsibilities may be more apt to arrange referrals for patients that would otherwise selfrefer for mental health services. This potential for a larger referral load may explain why physicians with more gatekeeping responsibilities may be more likely to encounter problems. 25,16 Given that mental health services are rarely included within primary care capitation arrangements, it is unlikely that physicians' financial incentives are a factor.

Limitations

It should be noted that this study does not specifically address the roles that managed care and its administrative requirements play in primary care physicians' ability to arrange for mental health services.

It is also important to note that this study does not address the appropriateness of the mental health referrals or whether treatment is better provided by primary care physicians or mental health specialists. In addition, this study does not speak to any issues of the quality of care provided, such as the adequacy of treatment or the effectiveness of follow-up. That is, the survey only identifies primary care physicians' reports of problems arranging mental health referrals, not the patients' eventual outcome. For example, there is currently an extensive literature chronicling the problems of managed care (variously defined) with respect to access and quality for mental health care. ^{26–29} However, efforts to improve access and quality of care will be hampered without adequate referral mechanisms in place.

In many markets, shortages of psychiatrists have resulted in or have been addressed through substitution of other mental health care providers, including psychologists

[†] Number of psychiatrists per 100,000 population at the county level.

and social workers. Ideally, our analysis would have controlled for the supply of these mental health professionals, but no reliable workforce supply estimates were available. Another limitation is that primary care physicians who responded to the survey were asked specifically about "high-quality" mental health services. Although subjective, this qualifier might serve to accentuate access problems beyond the degree to which they actually exist; i.e., some providers who report high levels of difficulty making referrals to high-quality services might not face similar difficulties arranging referrals to services of "adequate" or "acceptable" quality.

If the policy debate for parity of benefits shifts to include comparability of access, we can expect the challenge of finding acceptable solutions to get harder, not easier. Identifying a gap in the ability of primary care physicians to refer for mental health services is only a small step toward finding ways to close the gap. For example, there is more controversy than agreement about whether treatment is best provided by primary care physicians, by mental health specialists, or collaboratively. Tough issues such as these will need to be addressed before we can overcome the current gridlock between medical and mental health services.

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