

Barriers to Initiating Depression Treatment in Primary Care Practice

Paul A. Nutting, MD, MSPH, Kathryn Rost, PhD, Miriam Dickinson, PhD, James J. Werner, MS, Perry Dickinson, MD, Jeffrey L. Smith, BS, Beth Gallovic, MA

OBJECTIVE AND DESIGN: This study used qualitative and quantitative methods to examine the reasons primary care physicians and nurses offered for their inability to initiate guideline-concordant acute-phase care for patients with current major depression.

PARTICIPANTS AND SETTING: Two hundred thirty-nine patients with 5 or more symptoms of depression seeing 12 physicians in 6 primary care practices were randomized to the intervention arm of a trial of the effectiveness of depression treatment. Sixty-six (27.6%) patients identified as failing to meet criteria for guideline-concordant treatment 8 weeks following the index visit were the focus of this analysis.

METHODS: The research team interviewed the 12 physicians and 6 nurse care managers to explore the major reasons depressed patients fail to receive guideline-concordant acute-phase care. This information was used to develop a checklist of barriers to depression care. The 12 physicians then completed the checklist for each of the 64 patients for whom he or she was the primary care provider. Physicians chose which barriers they felt applied to each patient and weighted the importance of the barrier by assigning a total of 100 points for each patient. Cluster analysis of barrier scores identified naturally occurring groups of patients with common barrier profiles.

RESULTS: The cluster analysis produced a 5-cluster solution with profiles characterized by patient resistance (19 patients, 30.6%), patient noncompliance with visits (15 patients, 24.2%), physician judgment overruled the guideline (12 patients, 19.3%), patient psychosocial burden (8 patients, 12.9%), and health care system problems (8 patients, 12.9%). The physicians assigned 4,707 (75.9%) of the 6,200 weighting points to patient-centered barriers. Physician-centered barriers accounted for 927 (15.0%) and system barriers accounted for 566 (9.1%) of weighting points. Twenty-eight percent of the patients not initiating guideline-concordant acute-stage care went on to receive additional care and met criteria for remission at 6 months, with no statistical difference across the 5 patient clusters.

CONCLUSIONS: Current interventions fail to address barriers to initiating guideline-concordant acute-stage care faced by more than a quarter of depressed primary care patients. Physicians feel that barriers arise most frequently from

factors centered with the patients, their psychosocial circumstances, and their attitudes and beliefs about depression and its care. Physicians less frequently make judgments that overrule the guidelines, but do so when patients have complex illness patterns. Further descriptive and experimental studies are needed to confirm and further examine barriers to depression care. Because few untreated patients improve without acute-stage care, additional work is also needed to develop new intervention components that address these barriers.

KEY WORDS: primary health care; depression; guidelines; family physicians.

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Recent research evidence has established considerable potential to improve outcomes for primary care patients with major depression using a variety of interventions.¹⁻¹¹ A recent report from our research group describes significantly improved outcomes from an intervention that uses primary care office nurses trained as care managers to identify and work through barriers to guideline-concordant depression care.^{11,12} Guideline-concordant treatment in the acute phase includes 1) the initiation of a treatment strategy (watchful waiting with weekly follow-up, antidepressant medication, or referral to a mental health professional for counseling) and 2) modification of the treatment at 8 weeks if patients did not improve. The purpose of this article is to describe the reasons primary care physicians and nurse care managers offered for their inability to initiate guideline-concordant acute-phase care for patients with current major depression.

METHODS

Study Setting and Participants

Twelve primary care practices from 3 practice-based research networks (Ambulatory Sentinel Practice Network, Wisconsin Research Network, and the Minnesota Academy of Family Physicians Research Network) participated in the study. Eligibility criteria included 1) two primary care physicians willing to participate in the study; 2) a nurse willing to deliver the nursing intervention if randomized to the enhanced care condition; and 3) administrative staff willing to screen primary care patients for major depression as part of routine care. Practices in which primary care physicians would routinely refer depressed study patients to onsite mental health specialists for treatment were excluded. Participating practices included 8 located in

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Address correspondence and requests for reprints to Dr. Nutting: Center for Research Strategies, Suite 1150, 225 E. 16th Ave., Denver, CO 80203 (e-mail: Paul.Nutting@CRSLLC.org).

metropolitan areas and 4 located in rural areas. The 12 practices were located in Colorado, Michigan, Minnesota, New Jersey, North Carolina ($n = 2$), North Dakota, Oklahoma, Oregon, Virginia, and Wisconsin ($n = 2$).

The 12 practices were randomized to usual care and intervention groups, and enrolled 240 and 239 patients, respectively, who met criteria for current major depression. Two hundred thirty-nine patients enrolled in the 6 intervention practices and the subset of 66 patients failing to initiate guideline-concordant care were the subjects of this analysis.

Defining Acute-stage Guideline Nonadherence

We operationalized acute-stage adherence to the Agency for Health Care Policy and Research (AHCPR) depression guidelines,^{13,14} as requiring evidence in the nurse care managers' logs that 2 criteria were met. The first criterion required that patients were placed on depression treatment (antidepressant medication, psychotherapy, or a period of watchful waiting with weekly visits or telephone follow-up) during the first 8 weeks after enrollment in the study. The second criterion required that 9 depressive symptoms were monitored after a treatment plan was initiated and treatment was modified if more than 3 depressive symptoms were reported. Modifications could include starting an antidepressant (when psychotherapy alone was initially selected), starting a second antidepressant in another class or increasing the dose of initial antidepressant (when medication alone was initially selected), and starting either psychotherapy or medication when watchful waiting was initially selected.

Logs for each patient were maintained by the nurse care manager during the first 8 weeks after enrollment. The logs were reviewed for criteria for initiating acute-stage treatment as detailed above. Patients currently receiving care from a mental health specialist were asked to review their medication history during their next regularly scheduled contact with the nurse care manager. When the logs were inconclusive, the nurse care manager was contacted for clarification. This process identified 68 patients who failed to meet criteria for initiating guideline concordant treatment within 8 weeks of enrollment. Physicians clarified that 2 of these 68 patients actually met criteria, which left 66 patients for barrier analysis.

Role of the Nurse Care Manager

The intervention described in detail elsewhere¹² consisted of 2 components, 4 sessions of academic detailing for participating physicians and 8 hours of depression care manager education for office nurses to train them to work with patients to overcome barriers to guideline-concordant depression care and monitor their response to treatment. The training and accompanying manual (available from the authors on request) prepared the nurse care manager to identify 27 specific barriers to depression care, of which 15 were barriers to initiating treatment. For each barrier, the nurses were trained to consider what the patient might say

to suggest presence of the barrier, explore the patient's concern, work with the patient to address the barrier, and discuss next steps with the patient.

The nurses followed patients with telephone or face-to-face discussion once a week for the 6 weeks after enrollment, with the option of extending the protocol for 2 additional weeks. At each subsequent contact, nurses completed a checklist of 9 symptoms of major depression and recorded treatment recommendations and adherence in a treatment log. The nurses were able to provide at least 1 session to 92.5% of the depressed patients, and contacted patients they saw at least once an average of 5.2 times over the 8-week period.

The nurses were uniformly enthusiastic about this role and several reported that this was one of the few times they felt they were adding value to the physician's care and directly affecting patient outcome. Without exception, the physicians supported the nurse's expanded role, noting that they observed the nurse developing an independent relationship with the patient that increased opportunities for meaningful therapeutic contact. Patients also responded positively to the nurses' expanded role as evidenced by the number of contacts they completed.

Instrument Development

Structured telephone interviews were conducted with each of the 12 physicians and 6 nurse care managers in the intervention practices in order to identify major barriers they perceived in the care of depressed patients. Physicians were asked first to comment on selected aspects of the AHCPR depression guidelines. Then, while referring to the medical record, physicians and nurses were asked to discuss the care of specific patients selected from among the 66 patients failing criteria for initiating acute-stage treatment.

All interviews were audiotaped and transcribed. Transcripts were coded with the aid of the text analysis program Atlas.ti (Sage Publication Software, Thousand Oaks, Calif). After each interview took place, the 2 interviewers (JJW, BG) discussed the important major themes that were emerging, and a formal analysis of the complete data set involved the larger research team. The results of the analysis, combined with the literature about barriers to treatment of depression¹⁵⁻²² resulted in the development of a structured checklist of 45 specific barriers to the initiation of acute-stage treatment. Physicians were asked to indicate all barriers on this checklist that were a factor in the patient's care and to spread 100 points across the relevant barriers, weighting them according to their importance for each patient.

Data Collection

Physicians. Physicians were asked to complete checklists for the 66 patients who failed 1 or both criteria for initiating acute-stage treatment during the first 8 weeks following the index visit. The physicians were encouraged to have the patient's medical record for reference while completing the

checklist, although no data are available on the frequency with which this occurred. Checklists for 62 (94.1%) of the 66 patients were returned with complete data. The 4 incomplete checklists corresponded to patients who had moved and for whom no medical record was available. Checklists were completed within 6 to 18 months of the acute-phase treatment.

Patients. Patients were interviewed during the week following enrollment in the study and again 6 months later using a structured telephone interview.¹² At the baseline interview, patients reported age, education, gender, minority status, marital status, and functional status.²³ Patients also reported the total number of physical comorbidities from a list including diabetes, high blood pressure, arthritis, respiratory conditions, recent cancer, neurological conditions, stroke, congestive heart disease, coronary artery disease, back problems, irritable bowel disorder, thyroid disease, kidney failure, and eye disease. Acceptability of both specialty care counseling and antidepressant medication was assessed by patients' 4-point Likert scale responses, which were subsequently dichotomized into acceptable and nonacceptable. Remission was defined as patient report of a 50% or greater reduction on the modified Center for Epidemiologic Studies-Depression (CES-D) depression severity scale between baseline and 6 months as previously described.¹¹

Data Analysis

Based on the qualitative data gathered during the telephone interviews with physicians and nurse care managers, the specific barriers identified were put into content groups by consensus of three of the authors (PAN, PD, and MD) using a card sort process. After collapsing variables with limited range and/or high intercorrelations, 5 major domains of barriers were identified: 1) patient resistance to diagnosis or treatment; 2) patient noncompliance with visits; 3) physician judgment overrules guidelines; 4) patient psychosocial problems; and 5) system factors, such as difficulty accessing care and continuity of physician. The noncompliance domain was the result of a single item that physicians checked frequently when patients failed to comply with recommendations for a return visit, which precluded the physician from more precisely defining barriers. A patient's score on each of these 5 barrier domain variables was the sum of the weights assigned to the items contained in that domain, and each patient's score summed to 100.

Eleven patient characteristics were used to compare patients who did and did not meet criteria for guideline-concordant acute-stage care with χ^2 analyses (for categorical variables) and *t* tests (for continuous variables). A logistic model was then used to examine which of the 11 characteristics predicted meeting criteria for guideline-concordant acute-stage care when all characteristics were considered simultaneously.

After collapsing several variables with limited range and/or high intercorrelations, a cluster analysis was performed to identify naturally occurring subgroups of patients with similar barrier profiles. Cluster analysis examines the distances among patients in an *n*-dimensional space, where *n* is the number of characteristics of interest. Cluster analysis differs from factor analytic approaches in which variables, rather than subjects, are clustered. Since each patient's total score summed to 100, only 4 of the 5 variables were needed to fully describe a patient's barrier profile. Therefore, the first 4 barrier domain variables described above were used in a hierarchical agglomerative clustering procedure^{24,25} to sort patients into subgroups with similar barrier profiles.

Based on the agglomeration schedule and coefficient, a 5-cluster solution was selected as optimal. Mean scores for each of the clusters on the barrier domain variables are useful in describing the patient profiles of each subgroup. External validation of the clustering results is recommended,^{24,25} and is generally carried out by comparing subgroups (using analysis of variance or χ^2 tests) with respect to variables that were not used to generate the clusters. In this case, we examined the relationships between cluster membership and a priori-identified and theoretically congruent variables collected from subjects in the baseline interview.

RESULTS

Sixty-six of 239 patients (27.6%) enrolled in the intervention practices failed to meet criteria for initiating acute-stage guideline-concordant care. These 66 patients were evenly distributed among the 12 physicians and among the 6 practices. Table 1 shows the characteristics of the 66 patients. Only patient nonacceptance of antidepressants

Table 1. Sociodemographic and Clinical Characteristics of Patients Failing Acute-stage Depression Care (N = 66)

Characteristic	Percentage or Mean
Mean age, y	41.9
Male gender, %	17.7
Married, %	33.9
Minority status, %	21.0
High school education, %	80.6
Employed, %	58.1
Has health insurance, %	87.1
Mean physical comorbidities, <i>n</i>	1.2
Reports that antidepressants are acceptable, %	54.8*
Reports that specialty care counseling is acceptable, %	82.3
Reports previous treatment at enrollment, %	53.2

* Patient report that antidepressants are acceptable was the only characteristic associated with failure to initiate antidepressant therapy in either univariate ($P = .01$) or multivariate ($P = .0008$) analyses.

predicted failure to initiate therapy in either univariate ($P = .01$) or multivariate ($P = .008$) analyses.

The cluster analysis produced a 5-cluster solution as shown in Table 2. In the 62 patients physicians rated, the clusters identified relatively homogeneous subgroups with the following predominant themes: patient resistance (19 patients, 30.6%), patient noncompliance with visits (15 patients, 24.2%), physician judgment overruled the guideline (12 patients, 19.3%), patient psychosocial burden (8 patients, 12.9%), and system problems (8 patients, 12.9%). Of note, the cluster procedure put 8 patients with heavy psychosocial problems and problems accessing care in the same cluster, although the barriers are conceptually separate issues.

Physicians identified more than 1 barrier for many patients. When this occurred, barriers often, but not always, co-occurred in a common cluster. As Table 2 shows, weighting scores for patients in the "physician overrule" cluster ranged from 35% to 100%, but there were also some patients with relatively high scores on patient resistance (mean of 23.5 in "patient resistance" row under "physician overrule" column), suggesting a heterogeneous barrier profile. In contrast, patients in the "patient resistance" cluster had low scores on all other clusters, thus reflecting a patient profile that is more homogeneous.

There were no significant differences among patients in the clusters with regard to age, gender, marital status, or minority status. There were, however, significant correlations between cluster membership and other patient characteristics that supported, without definitely establishing, the validity of the patient barrier clusters. For example, patients in the patient resistance cluster reported that antidepressants were less acceptable to them ($P = .006$). Patients in the noncompliance with visits cluster reported significantly higher utilization of the emergency department ($P < .04$). Patients in the physician overrule cluster reported more hospital days for a physical problem ($P = .008$),

consistent with physician report that these patients had complex medical comorbidity. Patients in the heavy psychosocial burden cluster reported significantly lower levels of social support ($P = .02$). Finally, patients in the systems barrier cluster reported significantly more specialty visits to mental health ($P < .04$), consistent with physician observations that mental health provider involvement posed a significant barrier to primary care efforts to manage the patient's antidepressant medication.

The distribution of barriers by cluster and barrier weighting are shown in Table 3. The physicians endorsed 38 of the 45 specific barriers. Seven barriers were not scored by any physician, including 1) patient preference for herbal medicine, 2) lack of social support for depression treatment, 3) fear of medication during pregnancy (pregnant women were excluded from the parent study), 4) practice structure made continuity difficult, 5) plan formulary did not include appropriate medication, 6) patient saw multiple clinicians in office, and 7) poor communication with specialist deterred referral.

Physicians rated 16 barriers related to patient resistance with 2,492 weighting points, 40.2% of the 6,200 points available. Prominent barriers in this cluster were related to patient resistance to a diagnosis of depression, patient resistance to initiating medication treatment, patient underestimation of the seriousness of their depression, and patient beliefs that other medical conditions were a higher priority for treatment.

Physicians rated a barrier describing patient noncompliance with visits with 1,491 points, 24% of the available weighting points. Other barriers in this cluster represented patients who made infrequent visits, canceled visits, or refused to schedule visits. Patients in this cluster might also have had other barriers that physicians could not assess because they were seen so infrequently.

Physicians rated 7 barriers related to physician overrule with 927 (15%) of the available weighting points.

Table 2. Results of Cluster Analysis Showing the Mean Weighting Score (and Range) for Patients in Each Cluster*

Cluster Domains	Patient Cluster				
	Patient Resistance to Diagnosis or Treatment ($n = 19$) [†] , Mean (Range)	Patient Noncompliance with Visits ($n = 15$), Mean (Range)	Physician Judgment Overrules Guideline ($n = 12$), Mean (Range)	Patient Psychosocial Problems and Access to Care ($n = 8$), Mean (Range)	System Barriers ($n = 8$), Mean (Range)
Patient resistance to diagnosis or treatment	86.1 (60 to 100)	14.3 (0 to 40)	23.5 (0 to 50)	11.6 (0 to 40)	33.8 (10 to 60)
Patient noncompliance with visits	6.3 (0 to 10)	81.0 (40 to 100)	0.8 (0 to 10)	17.0 (0 to 46)	1.3 (0 to 10)
Physician judgment overrules guidelines	1.6 (0 to 20)	4.7 (0 to 30)	65.6 (35 to 100)	2.5 (0 to 10)	2.5 (0 to 10)
Patient psychosocial problems and access to care	3.9 (0 to 20)	0	5.4 (0 to 25)	68.9 (36 to 100)	3.8 (0 to 20)
System barriers	2.1 (0 to 10)	0	4.7 (0 to 40)	0	58.8 (30 to 80)

* The analysis used a hierarchical agglomerative clustering procedure to sort patients into subgroups with similar barrier profiles using Ward's minimum variance method with standardization of the range (0–1), and squared Euclidean distance as the dissimilarity measure.

[†] n, Number of patients in each cluster.

Table 3. Distribution of Barrier Weights Assigned by Physicians for 62 Patients Who Do Not Initiate a Guideline-concordant Depression Care Plan During the Acute Phase (First 8 Weeks) of Therapy

Clusters and Related Barriers	Cluster Weight (% of Total)	Barrier Weight
Patient resistance to diagnosis or treatment	2,494.5 (40.2)	
Patient felt other medical condition(s) were a higher priority for treatment		385
Due to improvement, patient no longer felt need to continue medication		131
Due to improvement, patient no longer felt need to continue counseling		10
Patient was satisfied with level of improvement or symptom relief		110
Patient needed more time to fully accept diagnosis		95
Patient underestimated the seriousness of the problem, did not understand the need for treatment		480
Patient disagreed with diagnosis or denied the problem		227.5
Patient resistant to starting counseling		249
Patient needed more time to accept treatment with counseling		15
Patient had concerns or problems regarding medication side effects		80
Patient resistant to changing dose or type of medication		25
Patient resistant to starting medication		510
Patient needed more time to accept treatment with medication		5
Patient already tried on multiple antidepressant medications		27.5
Patient frustrated by lack of improvement ("counseling doesn't help")		45
Patient frustrated by lack of improvement ("medication does not help")		100
Patient noncompliance with visits	1,491 (24.0)	
Noncompliance with visits (patient refused to schedule, canceled, or did not show)		1,491
Physician judgment overrides guideline	927 (15.0)	
Physician concerned about adverse effects of antidepressant medication		40
Physician felt other medical condition(s) were a higher priority for treatment		535
Physician did not think counseling would be helpful		21
Physician did not think medication would be helpful		10
Physician disagreed with diagnosis or results of depression screening (e.g., believed it was a grief reaction, or situational)		155
Physician found it acceptable for patient to discontinue medication		41
Physician was satisfied with patient's improvement		125
Patient psychosocial problems and access to care	721 (11.6)	
Patient did not have a phone, could not be reached, or moved		85
Patient had practical barriers to visits (e.g., transportation, child care, time off work)		39
Patient could not afford office visits		60
Patient could not afford medication		28
Samples of medication no longer available for patient		9
Patient could not afford counseling		20
Practical barriers such as time or transportation interfered with counseling		5
Patient's psychosocial difficulties (e.g., chaotic family environment, stressful life events) distracted patient from depression treatment		475
System barriers	566 (9.1)	
Patient had difficulty accessing counseling providers or appointment		30
Insurance restrictions were a barrier to counseling		20
Limited time in visit to address depression		21
Patient did not have continuity of care, saw different providers in office		75
Patient's medication managed by mental health specialist outside of your practice		410
Total assigned weights	6,200 (100)	

These barriers related largely to physician belief that other medical conditions were a higher priority for treatment, disagreement with the diagnosis, and satisfaction with initial patient improvement. Eight physicians overruled the guidelines for 12 patients (see Table 4). In 2 cases, the physician initially disagreed with the diagnosis. In the remaining 10 cases, physician attention was diverted by problems they (and reportedly the patient) considered to take priority. Six of the 12 patients in this cluster eventually either initiated an antidepressant or received

a referral for psychotherapy over the subsequent 6 months.

Physicians rated 8 barriers related to patient psychosocial problems with 721 (11.6%) of the available weighting points. In this category, physicians recognized that patients' psychosocial problem burden appeared to distract patients from their depression care. Other barriers that appeared in this cluster included lack of telephone and difficulty paying for visits and medications.

Table 4. Physician's Reported Rationale for Overruling the Acute Treatment Depression Guidelines

Patient	Physician	Patient Age, Y (Gender)	Clinical Rationale
1	A	68 (M)	Myocardial infarction just prior to enrollment in study with continuing unstable angina. Hospitalized with a pulmonary embolus during acute phase treatment. (Had seen a psychiatrist in previous year, but wouldn't return)
2	A	36 (F)	Rapidly accelerating systematic lupus erythematosus, type 1 diabetes, and new onset heart failure with multiple hospitalizations and medications
3	B	52 (F)	Severe steroid-dependent asthma; multiple chronic medications including high doses of steroids
4	C	35 (F)	Physician did not believe patient had major depression. Had recently lost husband and only son in an auto accident
5	D	74 (F)	Rapid worsening heart failure with multiple hospitalizations for pulmonary edema
6	E	60 (M)	AIDS with multiple complications and multiple medications
7	E	78 (F)	Metastatic breast cancer, chronic pain, recently lost husband who had helped her manage complicated medication regimen
8	E	43 (F)	Physician initially believed patient was not depressed. (By 6 months patient had completed a guideline-concordant course of antidepressant medication)
9	E	45 (F)	Patient with multiple medications. Remained on starting dose of paroxetine; did not increase dose because both patient and physician satisfied with response
10	F	34 (M)	Recent and rapid progression of HIV to AIDS with multiple medications
11	G	50 (F)	Severe cirrhosis of liver, recurrent bleeding of esophageal varices, scheduled for portal-caval shunt during acute phase
12	H	28 (M)	Recent hemicolectomy for Crohn's Disease, metastatic testicular cancer. (By 6 months, patient had received guideline-concordant courses of both antidepressant medication and psychotherapy.)

Finally, physicians rated 6 barriers related to system factors with 566 (9.1%) of the available weighting points allocated. The most prominent barrier in this category referred to management of the patient's medication by a mental health specialist outside the practice.

At 6-month follow-up, 28.8% of the patients met criteria for remission, having received additional care in the interim. There were no statistically significant differences across clusters in probability of remission.

DISCUSSION

The health services literature repeatedly implies that poor performance by primary care physicians in detection and management of depression is the weak link in any national effort to improve outcomes for this prevalent and impairing condition. The results of this study suggest that failure to adhere to the acute-stage treatment of the AHCPR depression guidelines is a much more complex process than is generally appreciated, even with the addition of a nurse care manager to address barriers to care. These physicians thought the most challenging barriers to acute-stage care were related to the patient's resistance to diagnosis and treatment. The barriers related to 3 patient clusters (patient resistance, patient noncompliance with visits, and patient psychosocial burden) characterize 68% of the patients. This

suggests that the barriers to delivering guideline-concordant care to many depressed patients are not likely to be overcome by simple physician-oriented interventions such as continuing medical education or performance feedback.

We expected a much larger proportion of weighting points to be allocated to physician overrule of the guideline, based on the frequently heard physician concern that guidelines may be good general rules but often do not apply to specific patients.^{26,27} According to our data, physicians do occasionally overrule the guidelines, usually in patients with significant and serious comorbidity. Arguably, their decision to place emphasis on management of competing conditions may be appropriate and result in optimal overall care for these patients. We have previously described a competing-demands effect of physical comorbidity on depression care, on both a single visit²⁸ and over time for a series of visits.²⁹ Despite the natural tendency for physical problems to compete with depression care, one wonders whether improved depression care in such patients might not have a positive effect on both patient and physician ability to manage physical problems more efficiently. As we note, half of these patients eventually did receive guideline-concordant treatment, presumably as physicians balanced the overall treatment priorities for individual patients.

We also expected more physicians to note that system barriers blocked them from adhering to guideline care. The

physicians were offered 10 system barriers and only placed weighting points on 6. Four of these dealt with the primary care-mental health systems interface, and 2 of these received only modest scores. Problems related to management of medication by a mental health professional outside the practice was scored heavily, but concern about communication with a mental health professional was not scored at all. We believe that the nurse care manager successfully addressed a number of system barriers, both inside and external to the practice, that otherwise would have impeded initiation of treatment. Two additional research reports from our group, for example, describe the differential impact of our intervention in favor of both rural³⁰ and uninsured patients,³¹ groups expected to face a number of systems barriers. We also speculate that system barriers, such as those related to the primary care-mental health interface, might have been more pronounced if we had focused on barriers to continuing treatment over time.

The study findings suggest that many patients with depression have an unusual burden of psychosocial distress that serves both to exacerbate the depression and to offer severe distractions to the patient's efforts to follow a treatment plan. This finding is consistent with the competing-demands model, in which patients also come to the primary care encounter with an agenda. When we encourage patients to participate as full partners in their care process, we should expect that some will choose not to participate in a treatment strategy for a condition they may not be convinced they have.

The intervention the parent study tested was designed specifically to use motivational interviewing^{32,33} to identify and assist patients in working through barriers to guideline-concordant care. Although the care management intervention led to substantial improvements in the process of care at an estimated cost of \$61 per patient,⁵ over one quarter of participating patients failed to initiate guideline concordant care, the vast majority of whom did not improve on their own. We estimate that nurse care managers would need to double the 60 minutes they spent on average with patients over 4 weeks to substantially increase guideline-concordant care rates in resistant patients. It is less clear that noncompliant patients who fail to return for visits can be reached without redefining the intervention to include an expensive outreach component. We also suspect that patients distracted by a heavy psychosocial burden could benefit more from an intensive primary care problem-solving therapy intervention³³⁻³⁵ than from the intervention we tested.

An important strength of this study is its focus on characterizing barriers to evidence-based care for specific patients in a representative group of primary care patients with a prevalent chronic disease, rather than relying on physicians to describe their usual practice. Nonetheless, we acknowledge 4 limitations in the study. First, the strong emphasis on patient-centered barriers was primarily reported by physicians, and only indirectly linked to patient report. In designing the study, we expected physician overrule to be the most prevalent barrier, for

which physician report alone would have been appropriate. The results of this study suggest the need to conduct further qualitative studies of patient-centered barriers with patients and their families and to design effective patient-centered interventions. Second, this report examines barriers to initiating effective treatment, but does not analyze barriers to staying on treatment over time. There may be a relative difference in barrier profiles, for example, for patients in a continuing rather than an acute phase of treatment. Third, physicians may have been reluctant to identify either system problems within the practice or their own shortcomings. To reduce this possibility, we identified a broad range of potential system and clinician barriers from our initial interviews for inclusion on the checklist. We were surprised to discover physicians rarely checked even commonly acknowledged system barriers (e.g., reimbursement). Further studies of patient-perceived barriers are clearly needed to complement physicians' perceptions of where the problem lies. Finally, the data were collected from health professionals in 6 primary care practices who volunteered to implement a comprehensive protocol to improve depression care. Other work has demonstrated similarity in characteristics of physicians and their patients^{36,37} and physicians' practice patterns³⁸ from practice-based research networks, although the possibility of selection bias cannot be completely eliminated.

The characteristics of the primary care visit have not changed in over a century and continue to respond largely to acute problems,^{39,40} often without assessing patients' level of function and⁴¹ their understanding of their condition^{42,43} or enlisting their participation in self-management.^{43,44} Ratcheting down reimbursement over the past decade has stifled efforts to re-engineer primary care practice to achieve these goals. One simply cannot hold the primary care system accountable for its ability to provide population-based care for depression while withholding the resources required to pay the cost of care management and more extensive interventions needed to reach patients that care management did not reach. Given the large number of primary care patients with more than a single chronic condition and the potential advantages of coordinating care across multiple conditions, primary care practices could increase efficiency by developing extended care management interventions for several chronic conditions in which the same generic patient barriers impede optimal outcomes.

In summary, our data suggest that initiating evidence-based care in primary care patients with major depression requires more sophisticated approaches than those currently formulated. Physicians' perceptions of barriers to high quality depression care arise most frequently from factors centered within the patient, including their knowledge, attitudes, and beliefs about their emotional problems and optimal care. These findings need to be confirmed by descriptive and experimental studies that further examine patient-centered barriers to depression care. Primary care physicians do occasionally make a judgment about care of a depressed patient that is in apparent contradiction to the

guidelines. These instances appear to be relatively infrequent, however, and may in fact constitute good patient care, when considered in the patient's larger context. Efforts to improve outcomes for depressed patients in primary care settings must expand beyond their current focus on physician education and care management to include development of innovative strategies to increase patient acceptance of the diagnosis and the priority they give to its treatment.

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