The Need for a System in the Care of Depression

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BACKGROUND. Many problems have been identified in the usual care of patients with depression, including lack of identification, overreliance on medications, and inadequate treatment and follow-up. Most of these problems can be attributed to an absence of depression care systems in primary care practice. We collected information from a group of practices to assess the need for and acceptability of such systems.

METHODS. We conducted 4 focus groups with primary care physicians and their staffs to identify attitudes and perceived behaviors for depression problems and to determine the participants' level of acceptance of alternative systematic approaches. We also surveyed clinicians and a sample of patients who recently visited their practices.

RESULTS. Systematic screening was viewed unfavorably, and many barriers were identified with collaborative care with mental health clinicians. Participants did support involvement of other office staff and more systematic follow-up for patients with depression. The patient survey suggested that some patients with depressive symptoms were unrecognized and undertreated, but the key finding was considerable variation in care among practices.

CONCLUSIONS. These findings suggest that a more systematic approach could improve the problems associated with treatment of patients with depression in primary care and would be acceptable to physicians if introduced appropriately. There are at least 2 promising approaches to introducing such changes. One involves external feedback of data about their care to the practices, followed by offering a variety of systems concepts and tools. The other involves an internal change process in which a multiclinic improvement team collects its own data and develops its own systematic solutions using rapid-cycle testing.

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Many studies have documented that patients with depressive symptoms or disorders are frequently unrecognized, untreated, or receive suboptimal care.[1-7] Subthreshold depression is especially likely to go unrecognized, even though it is frequently associated with somatization and high health care utilization and costs.[8-11] To reduce these problems, the focus of change must be on the primary care setting, where most patients with depression appear with various manifestations of the disease and where many will receive their care.

Although many factors contribute to these care delivery problems, the main barriers are probably the same as those that interfere with the delivery of clinical preventive services and with optimal care for any chronic condition. These barriers are time pressures, orientation of both clinicians and patients to presenting symptoms and acute problems, and the lack of well-organized support systems for clinicians and patients in most primary care settings.[12] Clinicians continue to care for depression as if it were an acute illness, even though there is considerable reason to see it as a relapsing, recurrent, or even chronic disease.[2,13-16]

During the early stages of depression care, most of the identified problems with current care patterns (recognition and compliance with appropriate treatment) are of the type that would benefit from a more systematic approach.[17] And since nearly 40% of treated cases have a relapse within 1 year and 75% have had at least 2 previous episodes of depression,[15] the suggestion of Simon and Von Korff[18] to redirect treatment toward more intensive follow-up and relapse prevention may make systems imperative. Nolan[17] defines a system as "a collection of interdependent elements that interact to achieve a common purpose." However, it might be easier for clinicians to think of a system as an organized set of processes created to ensure that a patient care action occurs more consistently than would be likely if it were necessary to depend entirely on the attitudes, memory, and clinical situations of individual clinicians. The integrated multidisciplinary steps necessary to ensure that a surgical procedure is carried out efficiently and safely represent a familiar clinical example of a system.

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There are no well-documented models of effective ongoing comprehensive depression care systems in typical primary care settings in the United States. Also, there have been no good examples of a practical (ie, nonresearch) change process for facilitating the implementation or dissemination of the partial systems tested in controlled trials. We know that traditional educational interventions and distribution of materials or toolboxes have little if any effect on clinician behavior.[19-21] We need a demonstration of replicable change processes that can help primary care physicians produce a sustainable model of systematic improved care for depression.

The MacArthur Foundation Initiative on Depression and Primary Care sponsored 2 projects to test methods for introducing new care models that emphasize practice systems. Located in distant parts of the country (New England and Minnesota) and in different types of care systems, those 2 projects have used different approaches that provide more comprehensive information about the potential to introduce systems improvements. We report the results of preliminary studies from the New England project designed to verify the need for new systems in these settings and to identify barriers to their introduction. We also describe 2 alternative approaches to introducing change in primary care settings.

METHODS

We used 3 different techniques to gather the baseline data needed from primary care practices: focus groups, physician surveys, and patient surveys.

Focus Groups

We held 4 focus groups for the purpose of understanding attitudes and perceived behaviors. The participants in these groups were family physicians (n = 6), general internists (n = 5), nurses from the participating physicians' offices (n = 9), and medical assistants from the same offices (n = 7). The physicians were recruited in the Portland, Maine, area from a group of 16 invited physicians who fit the criteria of representing a diversity of ages, years in practice, sex, and osteopathic or allopathic training. Three physicians declined to participate, and 2 others agreed but did not appear at the focus group meeting. The participating physicians were asked to invite nurses and medical assistants who worked with them to participate in the other groups. All participants signed consent forms and were paid for their time. A senior research fellow and an assistant from the Center for Survey Research at the University of Massachusetts-Boston led the groups, using standard focus group techniques.[22] They asked about the participants' approach to identifying and treating depression, their attitudes toward various systematic ways to facilitate this care, and what barriers they saw to making such changes. The sessions were videotaped and summarized by the leader, using the videotapes to double-check the impressions of what had been said.

Physician Survey

The purpose of the survey was to learn how confident the clinicians felt about managing depression and what they felt were the main barriers to their care of depressed patients, so that appropriate interventions could be provided. We recruited 9 family medicine or internal medicine practices from the areas of Portland, Maine, and Claremont and Manchester, New Hampshire, to participate in this project. One other practice that we approached declined. Other than representing a range of practice sizes, ages, and locations these practices were selected because they had at least 100 patient visits per week and did not include any of the physicians in the earlier focus groups. These 9 practices contained 27 clinicians: 10 family physicians, 11 general internists, 3 physician assistants, and 3 nurse practitioners. Three were solo practices, and the others ranged in size from 2 to 6 clinicians. The questionnaire they were asked to complete had previously been used with a larger sample of Maine physicians[23] and was supplemented by questions from one used in a nationally representative sample of primary care physicians.[24]

Patient Survey

The purpose of the patient survey was to learn about both clinician and patient behavior from the viewpoint of patients with depressive symptoms visiting these clinics. We collected this information by first asking the clinics to obtain completed 20-item Hopkins Symptom Checklist depression scale (HSCL-d20) questionnaires from all consenting adult regular patients during office visits.[2,25] The only exclusion criterion was the inability to see or read the questionnaire. Practice staff were trained in procedures for consistent collection of these data, and results were not made available to the clinicians seeing the patients. Each practice was asked to obtain written consent and HSCL-d20 completions from 100 consecutive eligible patients.

A research assistant called patients who scored higher than 0.75 on a scale of 0 to 4.0 on the HSCL-d20 within 2 weeks of their visit to complete a structured interview. Although a score higher than 1.75 has reasonable sensitivity (86%) and specificity (93%) for major depression,[26,27] a cut-point score of 0.75 allows overinclusiveness for cases of minor and unrecovered depression.[2] The interviewer used the Physician Response Questionnaire (PRQ), which questions whether there was any clinician discussion or recommendation about mood or depression during the visit and how the patient responded to those discussions.[28]

The responses were compared between the group of patients scoring between 0.75 and 1.75 and those scoring higher than 1.75 using a Student's t test for continuous

variables and a chi-square test for categorical variables. Although not the same as a diagnostic interview, splitting the subjects by symptom severity allowed us to look at whether the primary care physicians were more likely to provide attention and treatment to those with more severe symptoms.

RESULTS

Focus Groups

There was unanimous agreement in all 4 focus groups that identifying and treating mental health problems is a big part of primary care and an acceptable part of the physicians' responsibility.

Perceptions of the Current Care Process

Identification. No physician or practice used any form of routine screening for mental health problems. Although some physicians said they included a few mental health symptoms in their routine checkup histories, most relied on finding these problems as they explored presenting symptoms. When identified, there was little effort reported to define a diagnostic category in specific terms; depression and anxiety were often lumped together as psychological distress.

Management. The main management approach was to rely on medication. Only a few physicians reported doing some counseling themselves, citing time, training, and interest as barriers to doing more. Although most reported that they encouraged counseling, they cited the shortage of mental health professionals in the area, patient reluctance, and the difficulty of coordinating care as reasons for the small number of patients who actually see counselors. Only 2 clinicians had developed working relationships with counselors in their areas. Follow-up appeared to consist primarily of checks on medications; once satisfied with this issue there was no effort at active monitoring or routine follow-up. No office had nurses or other staff routinely involved in follow-up, although staff reported occasionally facilitating follow-up for individual patients who came to their attention.

Attitudes and Barriers to Systematizing Care

Identification. All 4 focus groups were against the routine use of any type of screening questionnaire, partly because "that is not the way to practice medicine" and partly because of concern about negative reactions from patients. However, there was also a physician belief that most significant problems would surface eventually, and they were not sure they wanted to unearth additional potential problems in this area.

Management. Although there was much more receptivity to the idea of organized monitoring and follow-up of identified patients by telephone (primarily for those on medications), most physicians were not sure that most patients would need it. Staff reported that it was not uncommon for patients to talk to them informally about their problems. All of the groups, except the family physicians, were enthusiastic about having a mental health counselor on site part-time. Possible roles suggested for such a person included medication monitoring by phone, phone discussions with callers who had mental health concerns, and office sessions with people needing counseling. Office staff felt there was a strong unmet need for obtaining easily accessible counseling for these patients. The family physicians had less interest in such a position for counseling, preferring the position be used for outreach and monitoring. Staff also wanted someone who was knowledgeable about mental health resources in the area and someone who could deal with managed care plans about mental health. The physicians' main concerns were how to cover the cost of such a person and the complexity of sharing care.

Physician Survey Responses

Seventeen of the 27 clinicians completed the survey, and there was at least one respondent from each of the 9 practices. These 13 physicians and 4 midlevel practitioners nearly unanimously agreed that recognizing and treating depression was their responsibility (one physician was neutral). They reported seeing approximately 7 patients with depression per week and treating approximately one half of these entirely by themselves. Twelve felt "very" or "mostly" confident in their ability to manage them; 5 were "somewhat" confident.

Table 1 displays physicians' report of the barriers they perceive to be affecting their ability to treat patients with depression. Lack of time was the biggest barrier, although 75% reported that patient reluctance for treat-

TABLE 1

Physician Self-Reports of Factors that Affect Their Ability to Treat Patients with Depression (N = 17)

Factor	Does Not Affect (no.)	Somewhat Affects (no.)	Greatly Affects (no.)
Lack of knowledge	10	6	1
Lack of time	4	7	6
Discomfort dealing with mental health issues	15	2	0
Trouble obtaining reimbursement	13	2	2
Patient unwillingness to be treated	4	13	0
Unavailability of mental health consultant	3	10	4
Other factors	2	3	1

ment and the unavailability of mental health consultation were at least a minor problem. Reimbursement issues and the discomfort of dealing with mental health problems did not seem very troublesome to most clinicians.

Patient Survey Responses

Of the 900 HSCL-d20 surveys requested from the 9 clinics, 668 (74%) were completed and returned. The range of responses per clinic was 35 to 100 with an average of 74. A total of 284 (42%) of these patients had a score of at least 0.75 (possible depression), and 75 (11%) scored higher than 1.75 (possible major depression). After at least 5 attempts to contact these patients, we reached 220 (77%) who agreed to complete the PRQ interview.

Table 2 shows the main responses relevant to this report. Compared with the less symptomatic patients, the more severely symptomatic patients were more likely to feel depressed (53% vs 21%), to be taking psychotropic medications (49% vs 29%), or to be seeing a psychotherapist (23% vs 6%). They were also more likely to mention mood to the clinician (49% vs 34%), and the clinician was more likely to have suggested that the patient was depressed (28% vs 8%), even if the clinician did not ask about mood. These differences suggest that more severely symptomatic patients do get attention from the clinician and are more likely to receive treatment than less symptomatic patients.

Although 49% of the patients with possible major depression and 29% of those with possible minor depression reported taking psychotropic medications, only 19% and 12% of these patients, respectively, reported being given a follow-up appointment. The low proportions receiving follow-up are similar if any type of treatment is considered (psychotropics, psycho therapy, or support groups). Moreover, even if they were receiving psychotropics, these patients were still relatively highly symptomatic.

There was considerable individual practice variability in these treatment behaviors. For example, although the average incidence for all practices in asking about mood in symptomatic patients was 35%, rates for the different practices ranged from 21% to 65%. Similarly, although an average of 15% of respondents were given a follow-up appointment, this ranged from 6% in one practice to 48% in another.

Additional information from the analysis (not shown in Table 2) showed that 20 (27%) of the 75 patients scoring higher than 1.75 neither mentioned mood themselves nor reported that the physician asked about it, and they were not receiving any type of mental health treatment. Of the 139 total patients the physicians did not ask about mood, 35 (25%) were taking a psychotropic medication (24, or 69%, of these were antidepressants). Of the 71 patients who reported that they were sad, down, or depressed at the visit, only 33 (46%) reported being asked about their mood by the physician. Only 11 (16%) of these 71 patients reported that the physician provided any counseling at the visit.

DISCUSSION

Whether one relies on qualitative interview data, quantitative clinician self-report data, or quantitative patient report data, these results suggest that current care patterns for patients with depression are unsystematic and greatly variable. Although a score on the HSCL-d20 is not the same as a clinical diagnosis of depression, the issue of mood or stress was not

TABLE 2

Physician Response Questionnaire Interview Responses, by Severity Score on the HSCL-d20 (N = 668)

Responses	HSCL-d20 Score >1.75 n	%	P	HSCL-d20 Score = .75 - 1.75 n	%
Number of respondents	75	34		145	66
Mean HSCL-d20 score	2.29		<.0001	1.13	
Years this doctor was your physician	2.4			2.9	
During the Last Visit					
Physician asked about mood/stress	33	44	NS	48	33
Patient mentioned mood/stress	37	49	<.05	49	34
Patient mentioned without being asked	11	15	NS	15	10
Physician suggested patient depressed	21	28	<.001	12	8
Patient believes himself to be depressed	40	53	<.001	31	21
Patient on psychotropic medication	37	49	<.001	42	29
Follow-up appointment scheduled*	7	19	5	12	
Patient seeing a psychotherapist	17	23	<.001	9	6
Patient in a support group	14	19	5	3	
Total in some type of treatment	43	57	47	32	
Follow-up appointment scheduled*	9	21	6	13	
Physician suggested follow-up appointment	10	15	NS	10	7

HSCL-d20 denotes the 20-item Hopkins Symptom Checklist depression scale.
*Numbers in this row represent subgroups of the preceding row.

brought up by the clinician in two thirds of the visits with patients reporting lower levels of depressive symptoms or in more than half (56%) of those scoring in the range where major depression is a possibility. Less than half (46%) of the patients who considered themselves depressed reported being asked about this by the clinician. Other studies of the accuracy of patient report suggest that patient report is either reasonably similar to physician report or errs on the side of overreporting physician behavior, so this lack of addressing depression is of concern.[29-30]

The focus groups suggest little clinician support for the time and effort of systems to routinely screen all visiting patients for depression. The scientific literature thus far concurs that there is little evidence that more systematic identification of cases of depression would necessarily be helpful.[5,18,31-32] However, all 3 data sources (focus groups, physician surveys, and patient surveys) suggest that management approaches in these practices have substantial room for improvement. The primary reliance on medications with little attention to the use of other treatment strategies or to any systematic follow-up is particularly troublesome, since recent studies suggest that a wide variety of approaches can add to the efficacy of treatment.[2,27,33-34] There are increasing indications that intensive follow-up and relapse prevention is necessary for many patients, supporting the need for more systematic care.[13,18,35-36]

The clinicians studied not only accepted the responsibility of treating depression, but also seemed open to various ways to improve care. They appeared especially ready to entertain more organized monitoring and follow-up and on-site collaboration with mental health counselors, as long as the issues of care complexity, role clarification, and costs could be worked out. The main barriers they identified in current care — lack of time, unavailability of counselors, and patient reluctance — are all potentially resolvable if support systems could be put in place.

Systems that are similar to those that would be needed to treat depression have been well studied and demonstrated to be effective for delivering clinical preventive services in primary care settings.[20,37-40] There is also growing evidence and support for a systems approach to improving chronic care as well.[41-42] In theory, systems should be ideal for improving the identification of patients with depression, but our data — as well as the evidence that improving identification without first improving treatment is not helpful — suggest that management and follow-up should be the main targets of improvement efforts.

The Approaches to Change

There are no useful models in typical care settings that use comprehensive systems approaches for treating depression and little evidence for the most effective quality improvement change process. The only randomized clinical trial of a continuous quality improvement (CQI) process to improve depression care failed to demonstrate any benefits from the particular process used in its somewhat unusual settings.[43] The principal investigator emphasized the difficulty of curbing long-standing clinical habits and the problems of traditional complex and slow CQI approaches.[44]

However, there appear to be at least 2 promising approaches to overcoming the problems that Goldberg and others have described for traditional CQI methods: (1) an external consultation approach, in which an external group with reason to help facilitate change in independent practices provides those practices with data on their own care processes, plus system tools and training or consultation; and (2) an internal change process approach, in which a medical practice or group of practices charters a multidisciplinary team that uses more recent CQI techniques to conduct its own change process.

In the external consultation approach, external facilitation is required because the practices lack the knowledge, skills, and experience to carry out their own change process. This approach is modeled after the one Dietrich and coworkers[45-46] demonstrated to be effective for systematically improving clinical preventive services. It involves 4 components: feedback of comparative performance data to clinicians from a patient survey or chart audit; use of academic detailing[47] to encourage trying new ways for a limited time period without requiring long-term commitment up front; provision of a menu of system tool examples for selection and implementation (eg, both electronic and paper-based systematic follow-up tools; brief questionnaires for depression screening; a chart stamp to create a place to enter screening scores and timing of follow-up; evaluations of referral resources; and organized patient education pamphlets); and consultation visits and phone calls to each practice to encourage and facilitate use of the tools. The New England project has been using this approach with 4 of the smaller and more isolated practices that participated in our surveys.

In contrast, the internal change process uses a variation on the techniques popularized by Langley and colleagues,[48,50] Berwick,[49] and the Institute for Healthcare Improvement Breakthrough Series.[51] Since traditional CQI methods have had mixed effects and are widely perceived to require too much personnel and calendar time, the Breakthrough Series emphasizes 2 new ideas that allow a multidisciplinary improvement team to build a new system piece by piece: *change concepts* — new ideas for ways to do things that have been found to be useful,[48] and *rapid-cycle tests* — using small-scale tests of individual parts of a larger change concept, measuring whether it worked, then modifying the approach on the basis of what was learned.[49]

The team begins by answering 3 questions:[48] What are we trying to accomplish? How will we know that a

change is an improvement? and What changes can we make that will result in improvement?

The first question ("What are we trying to accomplish?") forces clinic leadership to be very clear about the focus and aim for the project. The second question ("How will we know that a change is an improvement?") requires the team to collect a minimal amount of data to permit them to understand the problem and measure the effects of any changes made. Finally, the third question ("What changes can we make that will result in improvement?") requires them to suggest change concepts that can form the basis for specific improvements to be tested in a series of rapid-cycle tests. Some examples of change concept-based improvements applicable to systematizing the care of patients with depression are: a clinic's registered nurse who calls back patients with depression to provide information, support, and coordination of care after the visit with a primary care clinician; a system to initiate and schedule these call-backs with little or no clinician effort; a system to provide these patients with information about depression and about the various resources available to them to facilitate their self-care; predefined systematic care options, ideally including ways to help depressed patients who do not want or need medications or active counseling; and systematic facilitation of referrals and communication between primary care providers and off-site mental health resources.

The internal change process approach is being used by the DIAMOND (Depression Is A MANageable Disorder) Project in Minnesota. This setting differs from the practices in New England because it is a large (25-clinic) medical group located in a large metropolitan area with the experience and resources to lead its own change process. Despite the apparent differences, focus groups of physicians and nurses in the Minnesota practices perceived similar problems with access, communication, and collaboration with mental health providers and had similar overuse of medications, underuse of other treatments, and lack of systematic follow-up.[52] Thus, there was a similar need for effective systems to support desirable care.

Deciding which of the 2 approaches will be most useful to clinicians in other settings depends on the specific situation and experiences of the site. Real improvement in clinical systems also requires satisfaction with the conditions identified by Shortell and colleagues[53] in their recent critique of the current state of the quality improvement field: the areas slated for change need to be of real importance to the organization and should be addressed with clearly formulated interventions; the organization must be ready for change with capable leadership, trusting relationships with its physicians, and adequate information systems; and the external environment must not be hostile in its regulations, payment approach, and competitive factors.

CONCLUSIONS

There is considerable room for improvement in the primary care of patients with depression, and we believe that most of the problems associated with current care patterns would benefit from a more systematic approach.

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