Structural Issues and Policy in the Primary Care Management of Depression

Kathryn M. Magruder, M.P.H., Ph.D.,
and Grayson S. Norquist, M.D., M.S.P.H.

This article reviews problems in the primary care management of depression at the patient, provider, and practice levels. These problems make it difficult for physicians to deliver proven treatments optimally and for patients to adhere optimally. Potential structural and policy solutions are proposed, suggesting that modifications addressed at multiple levels will make it possible to deliver existing treatments more effectively in primary care settings.

(J Clin Psychiatry 1999;60[suppl 7]:45–51)

The effective treatment of mental health problems in primary care patients has long been noted to be suboptimal, with consistent documentation of underdiagnosis, undertreatment, and poor outcomes. Primary care patients with mental disorders are indeed different from patients typically treated by mental health specialists. They have higher rates of medical comorbidity as well as differences with respect to problem presentations, understanding of their mental disorder, and treatment expectations. Despite these differences, both pharmacologic and behavioral treatments under clinical trial conditions have generally been found to be as effective in primary care as in psychiatric settings,[1,2] suggesting that the treatments themselves are correct and applicable to primary care patients, but that the considerable setting and practice differences in primary care affect the way that these treatments are delivered. It is these setting and practice factors—evident in (1) the way primary care physicians deliver care, (2) the expectations and beliefs of primary care patients, and (3) the way primary care services are organized and structured—that cause deviation from the optimal delivery of care to primary care patients with mental disorders, thereby reducing the effectiveness of otherwise valid treatments.

From the Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, Charleston (Dr. Magruder), and the Division of Services and Intervention Research, National Institute of Mental Health, Rockville, Md. (Dr. Norquist).

The International Consensus Group on Depression and Anxiety held the meeting "Focus on Primary Care Management of Depression," October 15–16, 1998, in Charleston, S.C. The Consensus Meeting was supported by an unrestricted educational grant from SmithKline Beecham Pharmaceuticals.

Reprint requests to: Kathryn M. Magruder, M.P.H., Ph.D., Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, 67 President St., Charleston, SC 29425-0742.

RESEARCH CONTEXT

In order to set the context for exploring explanations for the gap between what is potentially achievable and what exists in actual primary care practice, a recently proposed research paradigm will be briefly described.[3] The paradigm consists of 4 domains of inquiry: research into efficacy, effectiveness, practice, and service systems. This model has particular applicability for research on mental health problems in primary care settings and is useful to organize the evidence for this article.

The aim of *efficacy research* is to establish whether a particular treatment or intervention has a specific, measurable effect (usually expressed in terms of symptom change) and to determine the safety, side effects, and appropriate dosing levels. A chief goal is to eliminate any explanations for a finding other than the experimental treatment or intervention itself. As such, the double-blind randomized clinical trial has become the gold standard for efficacy research designs. Typically, these studies have strict inclusion and exclusion criteria, the study setting is highly controlled, and the outcome is generally measured at 4 to 8 weeks (it should be noted that efficacy studies are usually conducted to get medication approved and on the market). Because primary care patients with mental disorders often have comorbid medical problems, and primary care practice is not organized in a way that is conducive to following mental health treatment protocols, very few efficacy studies of mental health treatments are conducted using primary care settings.

The purpose of *effectiveness research* is to establish whether or not the intervention has a measurable effect in broader populations and service settings. As such, the in-

clusion and exclusion criteria are more relaxed, and there is interest in clinicians who may not necessarily be specially trained in the research protocol. Effectiveness studies typically have larger enrollments (to conduct subgroup analyses), patients may be followed for longer periods of time, and there is interest in expanding the outcomes of concern to functional status, quality of life, health services use, and cost. Although random assignment is desirable, it is not always possible, nor is double blinding. Because of the interest in expanding the generalizability of treatments and interventions, a number of effectiveness studies of mental health treatments have been conducted in primary care settings. Generally speaking, the more strictly controlled the protocol, the closer the results are to efficacy studies (e.g., Schulberg et al.[2]), suggesting that mental health treatments are applicable to primary care patients. As control over the protocol is loosened (e.g., Callahan et al.[4]), results are less robust, suggesting that there may be factors that influence both physician and patient compliance with otherwise effective treatments.

Practice research is concerned with identifying several factors, including studies to improve the choice, implementation, and delivery of mental health treatments and services. Component parts of practice research include clinical epidemiology, quality of care research, and dissemination research. Clinical epidemiology employs the range of traditional epidemiologic methods for the purpose of further delineating disease processes and the interaction with treatment processes among defined clinical populations. Quality of care research emphasizes the care received in clinical settings and the influence of other factors (such as the organization and structure of the practice setting) on the process of care and clinical outcomes. Dissemination research, a relatively new field in mental health, is concerned with the introduction and adoption of valid and effective interventions into clinical practice. Though the term "practice research" has only recently been introduced into mental health research, many of the studies conducted in primary care fall in this domain, emphasizing patient, provider, and organizational factors that impact on the quality of care and outcomes of mental health treatments.

Service systems research incorporates studies of policy, systems organization, and financing, as well as their interrelationships. Of particular interest is the relationship of these systems issues to practice patterns, quality of care, and access to services. Given the fact that managed care (and its variations) is the predominant model for health care delivery, there is keen interest (but relatively few data) in the effect of these models on cost and quality of mental health care for primary care patients.

The aim of this article is to explore why efficacious, effective treatments for depression do not have optimal outcomes in primary care practice, focusing on problems at the patient, provider, practice, and organizational levels. The second part of the article suggests potential solutions at the practice, service systems, and policy levels that can improve primary care outcomes.

PATIENT FACTORS

Patients in primary care settings are different in many ways from patients seen in mental health specialty settings. This does not necessarily mean that they should receive different treatments, but that additional factors should be taken into account in the diagnosis and treatment process. For example, some patients in primary care have milder, less severe forms of depression, implying that additional assessments, such as disability and functional status, should be conducted prior to initiating treatment, as diagnosis alone may not be enough to determine treatment need. Similarly, primary care patients typically have medical (nonpsychiatric) comorbidity, implying that diagnosis needs to be made carefully (without overreliance on symptoms that may be solely due to the medical diagnosis) and that treatment choice should take into account drug interactions and medical contraindications.

Primary care patients are apt to have a different understanding and attitude about mental health problems and their treatments that vary markedly from those of specialty care patients. Primary care patients do not necessarily understand what depression is and therefore may express symptoms in a way that makes diagnosis challenging (e.g., by emphasizing somatic symptoms). Even when properly diagnosed, they may not accept the diagnosis or treatment for depression due to the stigma associated with having a mental health problem. Patients may also have strong feelings about the type of treatment they will (or will not) receive, therefore limiting treatment choice. Furthermore, patients may have other significant social, economic, and personal problems that make it difficult to comply with treatment. In clinics that serve predominantly disadvantaged clients, the prevalence of depression tends to be high.[5,6] Many of these patients are unable to keep appointments (and therefore may have difficulty in complying with treatment) because they have problems with babysitters, transportation costs, etc.

PHYSICIAN FACTORS

Just as primary care patients have important differences from specialty care patients, so do primary care physicians differ from mental health specialists. Most notably, primary care physicians typically have minimal training in diagnosing and treating depressive (and other mental) disorders. In addition, they must keep up with the many newly developed choices and varieties of treatments for depression, as well as the many new treatments for the myriad of medical problems that they treat. This task alone

is likely to be increasingly difficult, as the rate at which new therapeutic products are introduced in the market is increasing rapidly.

Furthermore, primary care providers may feel uncomfortable in dealing with mental disorders, choosing to focus on somatic symptoms and illnesses, which they feel better prepared to address. This often means that for patients with multiple problems, mental health issues go to the bottom of the problem list (and priority list).

It should be kept in mind that most studies of primary care physician behavior in treating mental disorders have involved "volunteer" primary care physicians who tend to be interested in depression and therefore are "high achievers" in terms of recognizing and treating depression. The average provider is apt to have less interest and be less responsive to interventions to improve recognition and treatment of depression in primary care.

Last, referral from primary care to mental health specialists is often unsatisfactory from both the primary care and specialist points-of-view.[7] Many patients fail to follow through on referrals, and many specialists fail to give timely feedback to the referring physician. Managed care has created an additional wrinkle by limiting the specialists on their "approved" list. Primary care physicians may not know or feel comfortable with those on the "approved" list for a particular managed care plan.

ORGANIZATIONAL AND STRUCTURAL ISSUES

In addition to the patient and provider factors that make it difficult to prescribe, deliver, and comply with valid treatments, a number of organizational and structural issues add to the challenge of the task. Time is a key limiting factor in primary care practice. The 10 to 15 minutes (and in some clinics less) allotted to each appointment is hardly conducive to lengthy diagnostic assessments that are commonplace in psychiatric settings. It is not enough time for patient education, treatment explanations, and side effect and symptom assessment—all of which are important for treatment compliance. It is also not enough time for counseling, psychotherapy, or even medication management, which are likely to be in addition to the assessment, treatment, and follow-up of comorbid medical conditions.

The high volume, brief visit scheduling system that is universal in primary care settings is not conducive to visit follow-up intensity that is effective in mental health treatment systems. For example, mental health specialists are likely to schedule at least 1 visit per week in the first weeks of starting treatment for depression, whereas primary care physicians will be lucky to have 1 follow-up visit in the first 2 weeks.

Financial incentives and disincentives are key in influencing whether a patient is treated for depression, and if so, whether it is in the primary care setting or in the mental health specialty setting. For example, for obstetrician/gynecologists who serve as the de facto primary care system for many women (who have a much higher prevalence of depression than men), multiple visits with a diagnosis of major depression are not likely to be tolerated (or reimbursed) by a third party payor. Capitated mental health carve-outs may favor referral to mental health specialty care, whereas fee-for-service arrangements may be referral neutral.

Financial incentives for patients are likely to favor treatment by primary care providers, as the copayment for mental health specialty care is typically greater than the copayment for primary care services. On the other hand, some patients may feel that their mental health issues will be kept more confidential in the mental health specialty sector.

Last, some plans control costs by limiting the medications that are on formularies. Unfortunately, it is typically the newer (and more costly) medications that are limited. Despite the increased cost, there is evidence that the higher cost of these newer medications is offset by decreased outpatient costs and there are fewer medication switches.[8]

SOLUTIONS

Because the problems associated with primary care depression are many and complex, there is no single solution. Rather, there need to be multiple solutions aimed at various levels and parts of the system.

Patient Level

Since many of the problems at the patient level involve lack of understanding and misunderstanding of depression and mental illness in general, at least some of the solutions need to be community and patient education oriented. For example, several countries have major educational campaigns (e.g., Defeat Depression in the United Kingdom and Depression Awareness, Recognition, and Treatment in the United States).

In the United States, the Depression Awareness, Recognition, and Treatment (or D/ART) program was launched in 1988 and has been a major source of community awareness initiatives as well as provider education.[9,10] There are 3 components to this program: the public education campaign, the national worksite program, and the professional education program. The message of the D/ART campaign was purposefully kept simple: (1) clinical depression is a common illness that usually goes unrecognized, but when identified can be treated; (2) there are effective medications and psychological treatments that are often used in combination, and, in serious depression, medication is usually required; and (3) the large majority of clinical depressions, including the most serious, improve with treatment (usually in a matter of weeks), and continued treatment will prevent recurrence. Unfortunately, a formal

evaluation of the D/ART program was never conducted, so its true impact has never been quantified.

There are other programs, such as the National Depression Screening Day (NDSD),[11] that have been launched more recently in the United States. NDSD has a community education and awareness component and a community voluntary screening program. The purpose is to increase recognition of depression in the general population and to facilitate access to the health care system for those suffering from depression. By offering free, anonymous screening, where people have the opportunity to discuss their depressive symptoms with a mental health professional during a screening interview, individuals who are depressed but not in treatment are encouraged to attend the screening session and follow up on the treatment recommendation. NDSD has grown from 435 screening sites in 1992 to over 3000 for 1998, with more than 100,000 attendees in 1998. Of those screened, 76.6% had at least minimal depressive symptoms (score of $\geq$ 50 on the Zung Self-Rating Depression Scale[12]), 53.3% had at least moderate symptoms (score of $\geq$ 60), and 22.6% had severe symptoms (score of $\geq$ 70).[13] The majority of those with depressive symptoms reported that they were not currently in treatment, nor had they ever been in treatment for depression.

In a follow-up study of a random sample of participants from the 1994 NDSD, Greenfield et al.[14] found that 56.5% of those who received a recommendation for further evaluation at the time of screening went for a follow-up appointment. Of those who followed-up, 72.1% reported that they had been diagnosed with depression and 77.6% reported still being in treatment 4 to 6 months after screening.

In a study of an automated, anonymous telephone screening survey for depression, callers encountered little technical difficulty in working through the screening questions, and three quarters reported that the telephone screening procedure was at least moderately helpful. Interestingly, the percentage of screen positive respondents was nearly identical to the in-person NDSD results.[15]

Programs such as D/ART, NDSD, and the telephone screening target persons in need of treatment, helping to make it possible for them to take action regarding their own symptoms. These programs serve to make patients more aware (and less stigmatized) about mental illness and to activate patients to seek treatment. Hopefully, through efforts like these, patients with depression will come to feel as comfortable about their illness as do patients with diabetes mellitus or hypertension.

Also worth mentioning are a number of books written for depressed persons and their families (e.g., *Depression [Recurrent and Chronic]* by Katon et al.[16]) as well as video cassettes (e.g., *Overcoming Depression*[17] from Group Health Cooperative and *Depression [Recurrent and Chronic]*[18] from Time Life Medical), and Internet Web sites (e.g., "Blast the Blues"). Such materials enable interested people to access information on symptoms of depression as well as on treatment, medications, and side effects. They can also be in touch with others with similar experiences. As informative as the Internet can be, it should be noted that there is very little quality control over much of the information that is posted; therefore, "net surfers" should be cautious and seek validating sources for controversial information.

The general point is that the more informed the public, patients, families, and potential patients are about depression and its treatment, the more likely they are to seek treatment. Similar gains have been made in such areas as diabetes mellitus, breast cancer, and HIV/AIDS through large scale public education efforts.

Provider Level

Because so many primary care providers have had minimal training in the detection and treatment of mental disorders in general, educational programs are important for both providers in training and providers already in practice. Such programs can keep providers abreast of new treatments and management strategies (e.g., differential diagnosis, combination treatments, second-line treatments). While other factors (such as the amount of time allotted per visit, patient willingness to be treated, and reimbursement plans) may be important determinants in whether or not providers implement recommended treatments, providers at the very least need a basic understanding of depression and its treatment in primary care patients.

Interesting in recent years has been the proliferation of guidelines for the treatment of various conditions, including depression. Such guidelines have been developed by professional organizations such as the American Psychiatric Association, by health maintenance organizations, and government agencies. An important guideline in the treatment of depression was produced by the Agency for Health Care Policy and Research.[1] It is important for several reasons. First, it was developed using the results of randomized controlled trials, thus the scientific evidence base is robust. Second, it was developed specifically for use in primary care practice. Third, it was sponsored by a government agency with a task force composed of a multidisciplinary group of researchers and scientists. Thus, the guideline is not tainted by guild bias or severe cost-containment motives. Most importantly, studies of patient outcomes indicate that patients do better when guideline concordant care is provided than under usual care conditions.[19]

These findings beg the issue of how successfully to implement best practices (such as clinical treatment guidelines) in the clinical setting. What are the dissemination strategies for effective treatments? Though there are models ranging from the pharmaceutical representative to continuing education to other more complicated approaches, more research is needed to identify physician factors as

well as organizational and financing factors that bode well for full adoption of proven treatment approaches. This is especially true in the case of depression treatment in primary care practice, given the complexities already described.

Practice Level

Time. One of the key problems in primary care is the short amount of time allotted to each patient outpatient visit. As managed care predominates, management expectations for the number of patients seen per clinic are increasing, leaving less time per patient. The current average of 10 to 15 minutes per patient is being whittled down. Clearly, this is not enough time to make a diagnosis of depression (after attending to other problems), educate the patient concerning the diagnosis, discuss treatment options, and do other patient education activities concerning depression.

Among the solutions to overcome this time problem is the use of screening tools in busy office practice. For example, the Primary Care Evaluation of Mental Disorders (PRIME-MD)[20] and the Symptom-Driven Diagnostic System for Primary Care (SDDS-PC)[21] are both examples of screening that also leads to a tentative diagnosis. With current technology, these instruments can be administered by telephone, in private, at the patient's convenience, and results can be faxed immediately to the requesting provider. Thus, these instruments have the potential to be used as laboratory tests without disrupting patient flow in busy ambulatory practice. There are also many standard screening tests (such as the Zung Self-Rating Depression Scale[12]) that can be used either in routine screening of all patients or more selectively as case-finding tools when the provider suspects depression. It should be noted, though, that even if such instruments save time in making a diagnosis of depression, there is still considerable time involved in treatment and patient education activities.

Structure and organization. This lack of time has led some to propose the addition of "facilitators" to an office staff in order to take over some of the time-consuming activities (screening, treatment monitoring, brief counseling, and patient education) necessary to provide quality care for depression. Nurses, pharmacists, psychologists, social workers, and other counselors are potential candidates to serve as "facilitators." Though there is a cost for these persons, they can save more expensive physician time and potentially improve quality of care.

The collaborative model, in which mental health professionals are part of a primary care team with shared patient responsibility, and in the ideal situation, are colocated with the primary care providers, is growing in popularity. In a recent test of this model, Katon et al.[19] showed that by including mental health specialists in the primary care setting and by alternating primary care physician visits with mental health specialist visits (but still locating them in the primary care setting), there was a significant improvement relative to usual care for patients with major depression.

Others have proposed developing disease management strategies for chronic conditions treated in primary care, such as diabetes, hypertension, and major depression.[22] Such strategies would be responsive to the long-term chronic nature of these conditions, include plans to involve patients in their own care and treatment decisions, and put depression in a similar position to other chronic diseases.

A recently implemented approach is the pharmacy benefit manager. Under this scenario, pharmacists, as employees of major medication distributors who have contracts with third party payors, review prescriptions for the specific medication, dosing, drug interactions, and cost and then make recommendations to the prescribing physician and sometimes even to the patient (for compliance and adjunct treatment). Although this approach has been criticized as an invasion of privacy and an attempt to interfere with physicians' treatment decisions, it has great potential to improve quality of care and decrease medication costs. Given that medication costs are the fastest increasing aspect of medical care, it makes sense to address this aspect directly with approaches such as the pharmacy benefit manager.

In order to save medication costs, some plans have instituted formulary restrictions on more costly medications when less costly alternatives are available. For the treatment of depression, this means that some plans have restricted the newer (more expensive) selective serotonin reuptake inhibitor (SSRI) medications (which are easier to prescribe in primary care) to push physicians to prescribe older, cheaper, off-patent medications as the first-line treatment. This strategy flies in the face of most treatment guidelines for depression. Even if there is no clear evidence that newer medications have better outcomes and lower overall treatment costs than do the older ones,[8] there may be specific subgroups of patients who can benefit from a particular medication and therefore should have access to it. At a policy level, disincentives to accessing the most effective treatments should be removed.

Similarly, patients themselves need to be able to have direct access to specialty care should they feel that they are unable to address or get satisfactory resolution to mental health issues with their primary care provider. Though referral through a primary care provider is necessary for most specialty care consultations, many plans have adopted an approach for mental health that allows patients to by-pass their primary care physician by calling directly on a toll-free telephone number to arrange for mental health care.

Many primary care physicians are not adequately reimbursed for the mental health care that they provide. In an extreme example, reimbursement to an obstetrician/

gynecologist treating a woman for depression for multiple sessions would likely be questioned if not flatly denied. In some plans, reimbursement to primary care physicians for treating patients with mental diagnoses is at a reduced level. Clearly, if primary care physicians are expected to treat depression, then they should be reimbursed adequately for the care that they deliver.

The last (but certainly not least) organizational issue that is currently dominating American medicine is managed care and carve-in and carve-out arrangements for treatment of mental health problems. It is estimated that 20% of large and middle-size private firms in the United States use carve-out arrangements for mental health and substance abuse treatment.[23] In carve-out arrangements, patients with mental illness needing specialty care are treated by a provider who is part of a subcontracted firm specializing exclusively in the treatment of mental health problems. A major question is whether carve-outs make a difference in terms of quality of care, patient outcomes, and cost-effectiveness. There is so much variability in the financial incentives that are part of such arrangements that it is difficult to generalize about the likely effect of carve-outs on quality of care and patient outcomes. For example, some carve-outs receive a capitated fee for each enrollee while others receive fee for service. There is also variability in the intensity of management of the carve-out providers by the carve-out administrators. Some carve-out companies manage their providers very tightly, with little room for deviation from a set amount of care, while others are looser. Last, there is considerable variation in the risks and incentives built in to the carve-out contract for the primary care physician to refer (or not) to the carve-out. It should be noted that these same issues can be present in non–carve-out situations as well.

Research on the intensity of management of the carve-out provider and how this relates to the quality of care provided and patient outcomes is needed. Furthermore, intensity of management is likely to be related to financial incentives included in contractual arrangements—especially risk-sharing arrangements between the provider and purchaser. If the risk is high (with the chance of losing considerable income), management will probably be more intense. Research to develop a typology of management intensity, which could then be related to costs, outcomes, and other quality of care indicators, is needed.

A last issue related to managed care and carve-out arrangements is not so much the quality of care provided but the availability of specialty care. This is a particularly important issue in rural and frontier areas where there are few specialty mental health providers. If those few are not on the list of approved (and therefore "reimbursable") providers, patients may be in a position of having to drive longer distances to receive specialty care, accepting treatment only from their primary care provider, or not receiving treatment. Managed care companies should take extra care to attend to these issues by recruiting competent mental health specialists who are proximally located to patients in the plan and by providing additional training in treatment of depression for primary care providers located in areas where specialty care is sparse.

CONCLUSIONS

There are many issues involved in the management of depression in primary care. In this article, we have described problems at the patient, provider, and organizational levels, while outlining potential solutions at the practice and policy levels. The problems are complex, and there is no single perfect solution. To achieve success, changes will need to be made at all levels to address the patient, provider, and organizational problems. Addressing these issues head on will make it possible to deliver treatments effectively and to optimize outcomes for patients.

REFERENCES

1. Clinical Practice Guideline Number 5: Depression in Primary Care, vol 2. Treatment of Major Depression. Rockville, Md: US Dept Health Human Services, Agency for Health Care Policy and Research; 1993. AHCPR publication 93-0551
2. Schulberg HC, Block MJ, Scott C, et al. Treating major depression in primary care practice: eight-month clinical outcomes. Arch Gen Psychiatry 1996;53:913–919
3. National Institute of Mental Health. Bridging Science and Service: A Report by the National Advisory Mental Health Council's Clinical Treatment and Services Research Workgroup; 1999. Available at: http://www.nimh.nih.gov/research/bridge.htm
4. Callahan CM, Hendrie HC, Dittus RS, et al. Improving treatment of late life depression in primary care: a randomized clinical trial. J Am Geriatr Soc 1994;42:839–846
5. Miranda J, Perez-Stable EJ, Munoz RF, et al. Somatization, psychiatric disorder and stress in utilization of ambulatory medical services. Health Psychol 1991;10:46–51
6. Hauenstein EJ, Boyd M. Depressive symptoms in young women of the Piedmont: prevalence in rural women. Women Health 1994;21:105–123
7. Pincus HA, Zarin DA, Tanelian TL, et al. Assessing the referral, interface and communication between psychiatry and primary care. Presented at the National Institute of Mental Health 12th International Conference on Mental Health Problems in the General Health Care Sector; July 13–14, 1998; Baltimore, Md
8. Simon GE, VonKorff M, Heiligenstein JH, et al. Initial antidepressant choice in primary care: effectiveness and cost of fluoxetine vs tricyclic antidepressants. JAMA 1996;275:1897–1902
9. Regier DA, Hirschfeld RMA, Goodwin FK, et al. The NIMH Depression Awareness, Recognition, and Treatment Program: structure, aims, and scientific basis. Am J Psychiatry 1988;145:1352–1357
10. Magruder KM. Community education and screening programs. In: Jenkins R, Ustun TB, eds. Preventing Mental Illness: Mental Health Promotion in Primary Care. Chichester, England: John Wiley & Sons; 1998:170–178
11. Jacobs DG. National Depression Screening Day: educating the public, reaching those in need of treatment, and broadening professional understanding. Harvard Rev Psychiatry 1995;3:156–159
12. Zung WWK. A self-rating depression scale. Arch Gen Psychiatry 1965;12:63–70
13. Magruder KM, Norquist GS, Feil MB, et al. Who comes to a voluntary depression screening program? Am J Psychiatry 1995;152:1615–1622
14. Greenfield SF, Meszler JM, Magruder KM, et al. Effectiveness of community-based screening for depression. Am J Psychiatry 1997;154:1391–1397
15. Baer L, Jacobs DG, Cukor P, et al. Fully automated telephone screening survey for depression. JAMA 1995;273:1943–1944

16. Katon WK, Ludman E, Simon G, et al. Depression (Recurrent and Chronic): Self-Care Companion for Better Living. New York, NY: Time Life Medical; 1996
17. Overcoming Depression [videotape]. Seattle, Wa: University of Washington Department of Psychiatry and Behavioral Sciences and the Group Health Cooperative of Puget Sound Center for Health Studies; 1992
18. Depression (Recurrent and Chronic): Self-Care Companion for Better Living [videotape]. New York, NY: Patient Educational Media, Time Life Medical; 1996
19. Katon W, VonKorff M, Lin E, et al. Collaborative management to achieve treatment guidelines. JAMA 1995;273:1026–1031
20. Spitzer RL, Williams J, Kroenke K, et al. Utility of a new procedure for diagnosing mental disorders in primary care: the PRIME-MD 1000 study. JAMA 1994;272:1749–1756
21. Broadhead WE, Leon A, Weissman M, et al. Development and validation of the SDDS-PC screen for multiple mental disorders in primary care. Arch Fam Med 1995;4:211–219
22. Katon W, VonKorff M, Lin E, et al. Population-based care of depression: effective disease management strategies to decrease prevalence. Gen Hosp Psychiatry 1997;19:169–178
23. Hays Benefits Report, Chapter V. Philadelphia, Pa: Health Care Plans and Medical Care Provisions by Plan Type; 1998