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Implementation of Guideline-Based Care for Depression in Primary Care

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Evidence-based clinical practice guidelines for treating depression in primary care settings were developed, in part, to ensure that health services are provided in a consistent, high-quality, and cost-effective manner. Yet for a variety of reasons, guideline-based primary care for depression remains the exception rather than the rule. This work provides a brief review of effective strategies used to customize and then deliver evidence-based treatment for depression in primary care settings; describes two representative case studies that illustrate locally customized collaborative care strategies for treatment delivery; and concludes with principles and implications for policy and practice based on our practical experiences.

KEY WORDS: depression; primary care; practice guidelines.

Evidence-based clinical practice guidelines for treating depression in primary care settings have been available for over a decade since publication of the landmark Agency for Health Care Practice and Research guideline (AHCPR, 1993). They and guidelines for other chronic medical conditions were developed, in part, to ensure that health services are provided in a consistent, high-quality, and cost-effective manner (Greco & Eisenberg, 1993; Grimshaw & Russell, 1993). While not intended for strict application to clinical care, formal guideline-based protocols can improve detection and treatment of depression in primary care (Whooley & Simon, 2000), reduce suicide risk (Bruce et al., 2004), prevent relapse of symptoms (Katon et al., 2001), and improve work outcomes (Schoenbaum et al., 2001). Nevertheless, and for a variety of reasons (Cabana et al., 1999; Cabana, Rushton, & Rush, 2002), guideline-based primary care for depression remains the exception rather than the rule despite various attempts to educate physicians about their content and value (Lin, Simon, Katzelnick, & Pearson, 2001; Rollman et al., 2002).

As part of a novel strategy to formulate a sustainable model for delivering effective guideline-based treatments for depression in primary care, the Robert Wood Johnson Foundation's Depression in Primary Care Initiative (Pincus, Pechura, Elinson, & Pettit, 2001) has developed a six-component ''flexible blueprint'' that can be customized to local needs (Kilbourne, Rollman, Schulberg, Herbeck Belnap, & Pincus, 2002). Its framework is based on the Chronic Care Model developed by Wagner et al. for improving the delivery of chronic illness care (Wagner, Austin, & Von Korff, 1996). It proposes that organized systems for treating patients with chronic illnesses can substantially improve clinical outcomes through proactive follow-up monitoring conducted by a health professional (''care manager'') with primary care physician (PCP) supervision and specialty back up. Randomized clinical trials demonstrate the effectiveness of this strategy at improving clinical outcomes for a broad range of

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chronic conditions including depression (Bruce et al., 2004; Dietrich, Oxman, Williams, Schulberg et al., 2004; Hunkeler et al., 2000; Katzelnick et al., 2000; Rost, Nutting, Smith, Werner, & Duan, 2001; Simon, Von Korff, Rutter, & Wagner, 2000; Unutzer et al., 2002; Wells et al., 2000), anxiety (Roy-Byrne, Katon, Cowley, & Russo, 2001), alcohol use disorders (Oslin et al., 2003), and physical health conditions (Aubert et al., 1998; Delaronde, 2002; Rich et al., 1995), at a lower total cost of care (Rich et al., 1995), particularly among the more severely ill (Wasson et al., 1992).

Since guideline-concordant treatment for depression has consistently produced superior clinical outcomes compared with no treatment or PCPs' usual care, how then can it best be delivered in routine primary care practice? Approaches to promote the economic sustainability of a chronic illness model for depression care are emphasized by the RWJF Initiative (Frank, Huskamp, & Pincus, 2003; Pincus, Hough, Houtsinger, Rollman, & Frank, 2003) and are described in detail elsewhere in this special issue. This work provides a brief review of effective strategies used to customize and then deliver evidence-based treatment for depression in primary care settings; illustrates use of our flexible blueprint with two representative case studies from the RWJF Initiative's ''Incentives'' program; and concludes with principles and implications for policy and practice based on our practical experiences.

DEVELOPING A DEPRESSION TREATMENT GUIDELINE FOR USE IN PRIMARY CARE

The RWJF Initiative encouraged demonstration sites to not initiate the depression guideline development process, but rather to begin by selecting an existing high quality, well-constructed treatment guideline (visit the Initiative web site for a list: http://www.wpic.pitt.edu/dppc/resources_toolkit.htm). After selection, we encouraged abstraction of its essential clinical principles and related treatment points with a focus on the critical indicators to be used by PCPs to assess the process and outcomes of care, such as symptoms scores on the PHQ-9 (Kroenke, Spitzer, & Williams, 2001) and dose and duration of an adequate trial of pharmacotherapy.

We then recommended that local program champions customize the selected guideline into a locally relevant and practical protocol balancing guideline length vs. oversimplification and describing concrete steps to be implemented by clinic personnel of varying professional backgrounds. Given (1) the desire to avoid the perception of ''cookbook'' medicine; (2) the importance of incorporating patients' past history and treatment preferences to facilitate treatment adherence (Cooper-Patrick et al., 1997; Dwight-Johnson, Sherbourne, Liao, & Wells, 2000); and (3) since every nuance of clinical presentation and decision-making could not possibly be addressed, we recommended that the resulting protocol remain flexible in clinically ambiguous situations (e.g., initial choice of an SSRI). The result outlined an interrelated group of clinically validated and locally relevant protocols as depicted in Table 1 and illustrated in our case studies. As medical information continues to proliferate and insurance coverage for antidepressant pharmacotherapy is changing, we also recommended periodic updating of the treatment guidelines (Shekelle et al., 2001).

IMPLEMENTING DEPRESSION GUIDELINES IN PRIMARY CARE

Evidence suggests PCPs adhere poorly to guideline-based treatments for a wide variety of

Table 1. Key components of an evidence-based treatment guideline for depression intended for use in a primary care setting

Protocols for:

Diagnosis of Depression

a) Systematic identification of depressed patients using a validated time-efficient case-finding instrument (e.g., PHQ-9).

Treatment of Depression

a) Stratification of treatment intensity based on episode severity, functional impairment, prior history, and co-morbid medical illness to treatment by the:
   - Primary care physician
   - Care manager
   - Mental health specialist
   - A combination of the above

b) Assessing patient preferences for:
   - Antidepressant pharmacotherapy
   - Psychotherapy
   - Self-management strategies
   - A combination of the above

c) Patient follow-up to:
   - Monitor symptoms
   - Promote treatment adherence and patient activation
   - Adjust care depending upon response and patient preference

d) Addressing important co-morbidity including:
   - Suicidality
   - Panic disorder
   - Hazardous drinking
   - Substance abuse

medical conditions(Grol & Grimshaw, 1999; Gross et al., 2001). Therefore, the mere presence of an evidence-based care package complete with guidelines and protocols for managing depression is typically insufficient to promote clinical uptake.

Cabana et al., describe multiple barriers that limit PCPs' adherence to guideline-based care that include lack of their awareness, familiarity, and agreement with guidelines, and the inertia of previous practice (Cabana et al., 2002). Yet even if PCPs are knowledgeable and inclined to deliver appropriate depression care, competing patient demands on their time (Rost et al., 2000), low rates of patient adherence with recommended treatment (Lin et al., 2003), and system issues such as a lack of practice support to administer and collect a depression case-finding tool or a reminder system to enhance follow-up care may limit PCPs' ability to produce favorable outcomes. Furthermore, symptom rating scales commonly used to guide treatment in research studies are not routinely used in primary care practice to guide clinical treatment despite their availability. Finally, quality improvement initiatives for depression must compete for clinicians', staffs', and practice administrators' attention and resources with a variety of quality improvement programs for other medical conditions.

Credible, evidence-based guidelines often lack the power to change longstanding clinical practice. Physicians may view them as a threat, particularly if they are perceived as challenging their professional judgment or as compromising patient care (Tunis et al., 1994). They may also be unwilling to forgo personal practice style and may resist the guideline's implementation. Individual clinicians and practice staff are also challenged to change practice habits and may lack the resources and ability to influence group practice. Even if physicians are aware of the evidence, changing the inertia of current practice is particularly difficult if the clinical environment is not conducive to change or if the intervention(s) require(s) complex changes such as alteration of workflow or a change in communication patterns between disciplines (Grol & Grimshaw, 2003). Indeed, interventions that have focused on changing physician care alone, even when accompanied by audit and feedback strategies or academic detailing (Soumerai & Avorn, 1990), are typically ineffective at improving clinical outcomes for chronic illness care (Gilbody, Whitty, Grimshaw, & Thomas, 2003).

The support of credible clinical ''opinion leaders'' knowledgeable about organizational dynamics facilitates adoption of guideline-based care. Such leadership incorporates diverse input and, as we see in our case studies, induces providers to change practice style through a focus on improving the quality of depression care, rather than on reducing costs. These leaders also obtain buy-in from local administrators including personnel to administer and collect the depression case-finding tool and provide care management for depression; they direct guideline implementation through regularly scheduled team meetings; set target goals for key process measures and outcomes; encourage efforts at continuous quality improvement; and troubleshoot the inevitable problems that arise. Consequently, leadership is the essential component of our flexible blueprint responsible for the success or failure of the program (Kilbourne et al., 2002). As illustrated by our case studies, these leadership teams are typically composed of the grant's principal investigator, usually a clinician and often a clinic director, and other organizational and financial stakeholders such as members of the organization's senior management.

Many depressed patients resist any mental health treatment, further adding pressure on providers in busy primary care practices. In a review by Nutting et al. PCPs reported patient-centered characteristics, such as resistance to diagnosis or treatment, noncompliance with visits, and psychosocial problems, as the most common barriers PCPs faced in providing effective depression treatment (Nutting et al., 2002). Moreover, depression itself can make some patients less assertive and self-confident, and many are unable to recognize and accept the need for treatment.

CASE STUDIES

Previously described factors influencing the implementation of depression treatment guidelines will now be reviewed in relation to the experiences of the Massachusetts Consortium on Depression in Primary Care (MCDPC) and the MaineHealth system, two of the programs participating in the RWJF Initiative. We discuss the implementation and engagement strategies they utilized and the lessons learned in collaborating with community and hospital-based practices participating in the RWJF Depression Initiative.

Environment

The MCDPC is a joint venture of the University of Massachusetts Department of Family Medicine and Community Health and the Massachusetts Division of Medical Assistance (DMA). The Massachusetts experience emphasizes efforts to engage providers in the delivery of guideline-quality depression treatment to a low income, ethnically diverse population including many Hispanic patients. The MCDPC includes six small group practices, two hospital outpatient clinics, and a community health center. The mix of family medicine and internal medicine providers serve from 5%–25% Medicaid patients (MassHealth) as part of their patient mix.

MaineHealth is an integrated delivery system composed of nine hospitals and their affiliated practices in southern and central Maine. It includes home health agencies, a reference laboratory, a practice management organization, and a physician hospital organization. Practice sizes range from solo practitioners to multi-site primary care groups. As is true in Massachusetts, the Maine practices treat patients covered by a variety of payers.

Setting the Stage for Engagement

When planning the Depression Initiative, directors of both the MCDPC (L.W.) and MaineHealth (N.K.) assigned the highest priority to fully understanding the challenges that participating practices would experience when called upon to deliver depression care within guideline standards. The MCDPC pursued this understanding through focus groups with interested PCPs and gained crucial information about issues central to the implementation process. As anticipated, focus group participants emphasized patient reluctance to seek psychiatric care, lack of depression billing codes, clinical challenges in helping depressed patients with co-morbid medical illness, and poor access to and communication with behavioral health services (Upshur, 2004). In the latter regard, focus group participants suggested that the MCDPC establish a psychiatry phone consultation service and mechanisms to strengthen the referral process between behavioral health and PCPs.

MaineHealth was knowledgeable about evidence-based approaches through its participation in the MacArthur Foundation-funded Re-Engineering Systems for Primary Care Treatment of depression (RESPECT) trial (Dietrich, Oxman, Williams, Kroenke et al., 2004). During the year preceding the RWJF Initiative, two MaineHealth practices piloted implementation of the MacArthur clinical model and an additional five practices participated as intervention sites for the randomized trial of the model. Consequently, the MaineHealth leadership team already appreciated barriers to implementation of guideline concordant care (Korsen, Scott, Dietrich, & Oxman, 2003).

Practice Recruitment

Organizational change must involve providers and practices without excessively burdening them (Dietrich, Oxman, Williams, Kroenke et al., 2004). Since over half of MassHealth consumers receive health care in small group practices, the MCDPC sought to identify and recruit such practices for the RWJF Initiative, in addition to a community health center and two hospital outpatient clinics. The small group practices, often functioning with only two to three providers, typically have few support staff and little time for administrative planning. Thus, many were reticent to even consider the new commitments that the Depression Initiative would entail. Nevertheless, the MCDPC pursued small practices within the UMass Memorial Health System since the MCDPC's academic team was based there and enjoyed credibility with fellow PCPs.

The MCDPC leadership team employed a variety of approaches to engage and recruit their colleagues. They met repeatedly with potential participants including office staff after initially involving their physician leaders. MCDPC staff highlighted the RWJF Initiative's ability to respond to providers' most pressing concerns, particularly access to behavioral health care and care management for clinically complex patients. The MCDPC additionally offered a small financial incentive for the physician and office staff team leaders, ''buy-out'' time and CME credits to participate in quarterly trainings, and a variety of patient educational materials for depression.

MaineHealth similarly sought to recruit representative practices in as many of the system's communities as possible so as to prepare for subsequent widespread dissemination. To do so they utilized a combination of a general mailing throughout the system seeking volunteers and targeted recruitment

of selected practices based on such factors as size and location.

Preparing Practices and Implementation Start-Up

Following recruitment of primary care practices by MaineHealth and MCDPC for the Initiative, each system initiated the necessary steps for implementing the evidence-based intervention model. MaineHealth utilized the Institute for Healthcare Improvement's (IHI) Learning Collaborative (Wagner et al., 2001) as the framework for organizing sessions at which its flexible blueprint model was introduced to involved practices. Since varied perspectives are often needed to facilitate the process of change, the participating clinical teams typically included a physician-site leader, practice nurse, and operations person. These groups met with the Maine faculty at 1–1/2 day sessions conducted quarterly to become familiarized with guideline principles for managing depression, reviewing project goals, fostering collaboration across practices, and learning from each other and faculty about implementation procedures specific to their settings.

Through a series of meetings and conference calls intended to prepare for clinical change, the MCDPC similarly collaborated with each practice team typically consisting of a physician leader and an office nurse and/or office manager. Interestingly, while all MCDPC practices were affiliated with the same clinical system, they varied widely in their organizational structure, staffing pattern, resources, and context. Some had a committed physician leader but resistant clinicians and support staff. Substantial variation was also evident regarding practice preferences for implementing the change process. Some wanted all providers immediately to participate in the Depression Initiative; others wished to involve only one or two providers at the outset of the Initiative.

The process utilized by MaineHealth and MCDPC for implementing the Depression Initiative blended expert consultation, resources, and materials with practice level input and problem-solving skills, a model previously reported to successfully produce change (Rubenstein et al., 1999). Both health systems found that while primary care practices readily accepted the depression guidelines and their protocols, significant practice re-design was required to implement them. Thus, a flexible process of trial and error and incremental change was soon adopted by all practices. The MCDPC initially presented its participating practices with the full clinical model and schedule for patient screening, assessment and recommended follow-up intervals. However, most practices required successful implementation of a particular program component before proceeding to the next one. For example, some resisted implementing the follow-up assessment and monitoring schedule until the screening process was well established. Consequently, the change process was sequential and incremental rather than immediate and complete.

Several factors can be identified as impeding the diffusion of change. Some academic practices appeared fragmented since their part-time clinical faculty had numerous other commitments and were less invested in the exigencies of practice change. Other practices faced numerous issues to be resolved in their infrequent group meetings, leaving little time to focus on the depression initiative. Furthermore, since MCDPC practices were actively recruited rather than competitively selected, practices entered the Initiative with varying motivational levels.

Despite thoughtful, concerted efforts within parameters sensitive and responsive to local practice needs, the MCDPC and MaineHealth systems continue to experience barriers and variable success in engaging providers to conduct the RWJF Depression Initiative. Therefore, identifying a physician leader who champions the proposed change is vital (Kilbourne et al., 2002). For example, a MaineHealth physician leader induced all five of the primary care practices with which she is affiliated to join the RWJF Initiative. Still, the extent to which physician leaders disseminate information from the learning sessions and provided leadership and enthusiasm to other providers is variable.

Implementing Key Depression Guideline Components

The practices recruited by MaineHealth and MCDPC differed in their professional staff sizes, the number and case mix of patients whom they served, and the resources available to them. Given these variations, the nature of each health system's clinical model was customized to accommodate unique practice characteristics. How this occurred is now described in relation to key features of the depression guidelines.

Screening

A well-accepted principle of depression case finding is the value of administering a brief screening instrument to efficiently identify patients acknowledging symptoms possibly indicative of a mood disorder for whom a more complete clinical assessment is indicated. Some practices routinely administer a screening instrument to all new patients, or periodically to those already known to the PCP. Others administer the depression screen only to patients presenting with symptoms possibly indicative of a mood disorder and/or to those with known risk factors for a mood disorder (e.g., chronic pain). The MaineHealth system implemented the latter case finding strategy and initially administered a two-question screen, i.e., inquiries about sad mood and loss of interest (Whooley, Avins, Miranda, & Browner, 1997). Only after endorsing one or both of these symptoms are patients asked to complete the rest of the PHQ-9 (Kroenke et al., 2001). In contrast to this screening strategy, MCDPC administered the full PHQ-9 to patients with chronic medical illness, those with suspected depression, and in some practices, all MassHealth patients coming for care.

With regard to administration of the PHQ-9, MCDPC practices had the medical assistant or nurse direct the patient to an exam room, place the instrument on a clipboard, and request that he/she complete it while awaiting the PCP. Alternatively, the nurse/medical assistant scored the completed PHQ-9 and presented it to the PCP for review prior to the patient encounter. In other instances, the PCP personally scored the PHQ-9 at the beginning of the visit and reviewed the findings with the patient.

The screening component of depression guideline implementation progressed satisfactorily at the MCDPC and MaineHealth practices after a period of trial and error. Problems that can be anticipated elsewhere include: (a) support staff failing to give patients the screening form in order to protect a busy PCP or because of a lack of appreciation for the form's clinical value; and (b) PCPs feeling overwhelmed by the patient's positive depression screen when he/she also is experiencing complex co-morbid illnesses. Educational efforts, close work with the office and physician leaders to determine feasible problem-solving strategies, and starting the screening process in only some rather than all office sessions can minimize such impediments.

Introducing the Care Manager

A key feature of the RWJF Initiative is the use of depression care managers who can successfully facilitate implementation of the physician's treatment plan (Von Korff, Unutzer, Katon, & Wells, 2001). The care manager typically supports the patient in starting and promoting adherence with the prescribed treatment, monitoring the patient's response to treatment and providing this information to the PCP, and facilitating communication between the physician and behavioral specialist. Not surprisingly, the manner in which the care manager establishes this role and performs its numerous tasks varies in keeping with the primary care practice's administrative structure and clinical operations.

The MCDPC introduced the care manager to its primary care practices during a routine administrative meeting. The care manager and the practice's project liaison subsequently developed procedures for communicating about completed patient screenings and referrals to care management. When not physically located in the practice, the care manager contacted it periodically to ensure the availability of screening and assessment forms, and patient education materials. Among the issues encountered was that some PCPs infrequently paged or phoned the care manager regarding patient-specific concerns. In some MaineHealth practices, staff already providing care management for chronic physical illnesses added depression-specific tasks to their existing responsibilities. Even when routinely involving the care manager in the patient's care, some practices with limited physical space did not have an office in which the care manager could meet with patients. Finally, some small practices experienced difficulty incorporating a care manager 'team member' who appeared only intermittently in their offices.

The health systems found that guideline implementation and care management worked poorly in practices that tended to be chaotic, where there were space problems and staffing shortages, and where PCPs felt overwhelmed by numerous competing clinical demands. Small practices with only one or two PCPs often maintained an insular culture that the care manager could not readily penetrate. The MaineHealth and MCDPC experiences suggest that adequate time is needed for care managers and providers to build trusting relationships, and that this process is challenging to accelerate.

Treatment Options

Having identified patients whose depressive symptoms are sufficiently distressing, the PCP must select clinically appropriate interventions compatible with their treatment preferences. Among the various treatment options available to the PCP and summarized in treatment algorithm form by MaineHealth (Table 2), are the following:

Watchful Waiting. MaineHealth and MCDPC determined that patients exhibiting mild-moderate depressive symptoms as evidenced by PHQ-9 scores of 10–14 and lacking other risk factors could be actively followed without initiation of antidepressant pharmacotherapy or referral for mental health counseling if the PCP and patient so desired. Due to caseload concerns, MCDPC encouraged care management only for patients exhibiting moderate or severe symptomatology (i.e., PHQ-9 scores of >15).

Antidepressant Medications. Antidepressants are commonly prescribed by PCPs (Olfson et al., 2002; Williams et al., 1999). However, this treatment's implementation is influenced by fiscal as well as clinical factors. For example, the Massachusetts Medicaid program requires prior approval (PA) for all SSRIs except generic fluoxetine and fluvoxamine. Therefore, in response to PCP requests, the MCDPC developed a laminated placemat identifying 11 antidepressants commonly prescribed in primary care and an algorithm pertinent to the non-PA medications. The MCDPC also provided information about how to apply for PA for restricted medications and the clinical circumstances under which this is appropriate. The medication placemat and PCP training sessions oriented physicians to procedures for titrating medication dosages and when to change or augment medication based on patient side effects or depressive severity.

Behavioral Health Consultation and Referral. Since the complexities in collaborating with behavioral health specialists were a problem commonly cited by PCPs, MCDPC developed criteria for PCPs to refer patients to behavioral health specialists. MaineHealth also assisted its PCPs in contacting the consulting psychiatrists. The health systems emphasized the value of psychiatric consultations for patients with other psychiatric disorders such as PTSD, substance abuse, bipolar disorder, and for those failing to improve. MCDPC care managers were instrumental in facilitating initial appointments for Medicaid patients with a MassHealth-approved mental health specialist.

Other Guideline Challenges

Despite the specificity, even rigor, with which guideline-quality depression treatments were presented to PCPs, their implementation often has been incomplete. Thus, some physicians did not routinely collect PHQ-9 follow-up assessments and so lacked this information when considering whether to adjust or change the medication initially prescribed for the patient. Other PCPs did not even ask patients to make a follow-up appointment within a month of initially prescribing an SSRI, or their busy practice schedules precluded patients booking appointments that soon despite the (AHCPR, 1993) Depression Guideline recommendation for doing so.

MaineHealth has succeeded in routinizing the collection of follow-up patient information by including depression measures in a practice's existing chronic illness registry. The depression measures relate directly to the clinical changes which treatment is expected to achieve and thereby constitute indices of the practice's performance. Progress is most evident when practices utilize registries incorporating automated periodic assessments. Still, many physicians continue to regard the depression measures as related to the RWJF Initiative alone rather than being intrinsic to their routine management of mood disorders.

The MCDPC focused on improving depression care for Medicaid patients who accounted for 5–10% of an overall panel in some practices and was closer to 30–40% in others. This piecemeal approach, while understandable given providers' reluctance to implement depression screening for patients for whom there were no care management services, resulted in a number of challenges. Selective screening of patients based on insurance coverage creates the burden of identifying insurance status prior to screening. In the smaller practices wherein MassHealth insured only 5–15% of the overall patient mix, there were inadequate numbers of patients available to stimulate practice change. However, insurers vary in services covered and strategies to implement practice change with subgroups of panels may be necessary, even if less ideal.

Table 2. MaineHealth treatment algorithm based on the PHQ-9 score

PHQ-9 Score	Symptom Level	Most Likely Diagnoses	Treatment Recommendations	Care Management	Psych Consult
0–9	Minimal	Minor Depression, No Depression	Consider other Diagnoses Watchful Waiting; treat if symptoms persistent or for other clinical reasons	Recommended as part of watchful waiting; otherwise not recommended	Not recommended unless needed to clarify diagnosis
10–14	Mild	Major Depression, Minor Depression, Dysthymia	Watchful waiting, Medication, Psychotherapy	Recommended as part of watchful waiting; otherwise optional, depending on comorbidities, social support	Not recommended unless needed to clarify diagnosis or if symptoms are persistent
15–19	Moderate	Major Depression	Medication, Psychotherapy or Both	Recommended	Suggested, especially if psychosocial comorbidities or persistent symptoms
20–27	Severe	Major Depression	Medication with or without psychotherapy	Recommended	Recommended

Notes:
1. Self-management activities are recommended for all patients diagnosed with depression (e.g., exercise, sleep, avoid alcohol).
2. Watchful waiting is *active* follow-up of a patient at a minimum duration of monthly contacts by clinician or care manager.
3. Dysthymia is defined as presence of symptoms of depressed mood most of the time for the last two years with at least two other symptoms and functional impairment.
4. Formal referral to specialty mental health care is also recommended for:
   - Those with any suicidal risk.
   - Those who appear to have psychiatric co-morbidities such as post-traumatic stress disorder (PTSD) or active substance abuse.
   - Those for whom there is concern about possible bipolar disorder.

Maintaining Practice Change

Supporting continued provider participation in the depression change initiative is no less challenging than that of recruiting them and facilitating initial program implementation. Continued provider support requires time from health system leaders and effort by project staff to: monitor progress; reinforce change; modify and refine implementation strategies; and respond to changes in the environment that might affect progress of the program. Problems inevitably arise throughout the implementation process. For example, a large MCDPC practice lost several exam rooms after the project's start, thus placing intense pressure on providers to keep the patient flow moving. Finally, practices in both health systems lost support staff, requiring significant changes in the tasks performed by remaining personnel and retraining new staff.

MCDPC and MaineHealth employed a range of strategies to support practice change, the most effective and essential of which to sustaining practice change and solving emerging problems were ongoing meetings between project staff, individual site team leaders, and practice administrators. Additionally, the sharing of knowledge with other practices that took place at the quarterly Learning Sessions seemed to have more of an impact on the initial implementation of the Model.

DISCUSSION

As amply illustrated by these case studies, determined clinical leadership in support of multiple, simultaneously delivered, and locally customized interventions is required to overcome multiple barriers to implementation of guideline-based treatment for depression. Thus, we conclude this report with several relevant principles and implications for policy and practice based on our practical experiences.

Engage Leaders at all Levels of the Organization

Clinician involvement is necessary, but insufficient alone to implement guideline-based care. ''Our sites'' leadership teams worked with senior management, practice leaders, and other mental health leaders within their health systems. They also sought support from leadership in community agencies, business, and state government.

Customize Practice Change to a Particular Site

Each practice has a unique combination of patients, staff, and physical arrangements so that different ways of implementing the model work best for different practices. Ideas about improving work inevitably arise from those doing the work. Thus, guideline implementation and physician involvement must be flexible and tailored to individual sites. This process requires substantial time from project support staff in each stage of engagement. It is critical to quickly discern the unique structure and preferences of each practice if the depression intervention is to be customized successfully to meet its needs. Engaging a few key opinion-leader providers at first and then spreading the implementation to others worked best in large practices, while in the small practices, all PCPs typically implemented the intervention simultaneously.

Guidelines Must Be Adapted to Respond to the Unique Needs of the Patient Population

Strict adherence to guidelines will not occur with all patients. Rather, it is essential to adhere to the guidelines in a more general sense when necessary. For example, a follow-up contact scheduled for 2 weeks following commencement of antidepressant pharmacotherapy may not be completed until 4 weeks have elapsed.

The delivery of depression care must also take into consideration patients' beliefs and social conditions. For example, ethnic minority patients are more likely to leave care prematurely (Miranda, Azocar, Organista, Dwyer, & Arean, 2003), and therefore, may benefit from more intensive support and follow-up. Ongoing economic and social stressors, particularly among poor patients, may also make participation in mental health care more difficult (e.g., lack of transportation and childcare). For a significant subgroup of patients, the care manager must be willing to assist or have mechanisms to refer patients for help with these needs that precede successful engagement in mental health care (Miranda, Chung et al., 2003). Our experiences also highlight the importance of extensive outreach to patients for initial engagement and follow-up sup-

port and monitoring. These efforts can be extensive for some patients and can include many calls, letters, and at times, face to face contacts.

Practice Change is a Means to an End Rather than an End in Itself

Sustaining engagement in practice change requires continued willingness to address barriers and challenges on the part of the practice and project support team. This process takes time and is never complete as practices continue to require resources, monitoring, and problem-solving assistance. Consequently, the change process tends to be sequential and incremental process, rather than immediate and absolute.

Expect Competing Demands

Practices have a lot going on all the time. Staff turnover, patient acuity, the rapid pace of practice, and limits to available financial resources are the norm. Therefore, making time for guideline implementation and quality improvement efforts is likely to remain a challenge. Fortunately, understanding the realities of practice, patience, and persistent encouragement and support can keep practices involved in the effort over time and improve quality of primary care for depression.

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