Depression in Primary Care: The Evidence Supporting the Need for System Change

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Abstract

Depression is one of the most common illnesses encountered by primary care providers across the United States. While current guidelines call for routine screening and follow-up care, many patients go undiagnosed and undertreated. As a result, depression-related illnesses and depression remission rates continue to be unfavorable and contribute to poor patient outcomes. Experts are seeking ways to improve remission rates and restore the quality of life of those affected. Current evidence, however, reveals a significant need for system-wide delivery changes before the care of depressed patients in primary care can be successful. This paper will examine the scope of depression in primary care and the evidence regarding the need for change in order to improve patient outcomes.

INTRODUCTION

Depression is one the most common illnesses encountered in primary care settings across the United States. According to the National Institute of Mental Health (NIMH), one in every six adults in the U.S. experiences depression at some point in their lifetime. [1] Experts also estimate that 35% of all patients that present to primary care providers meet the criteria for a diagnosis of some form of depression. [2] These patients present with vague physical complaints such as fatigue, headaches, muscle aches, weight changes, and abdominal pain which are often overlooked as possible symptoms of depression. The failure to consider depression as a potential cause of these symptoms is a major reason why depression is under-diagnosed in as many as 50% of the patients who meet criteria for diagnosis.

In order to improve the accurate identification of depression in adult patients, the U.S. Preventive Services Task Force (USPSTF) recommends that screening be routinely obtained and that appropriate systems are in place to effectively diagnose, treat, and provide follow-up care for these patients. [3] However, the U.S. healthcare system may be inadequately designed to screen for and properly treat patients with depression. These inadequacies stem from a primary care system that is not designed or prepared to provide chronic disease management of depression. This article will examine the scope of depression in primary care and the evidence that interventions involving delivery system redesign can improve outcomes among primary care patients with depression.

SCOPE OF THE PROBLEM

Depressive disorders affect more than 18 million people in the U.S. [1] Many of these individuals prefer to see a primary care provider rather than a behavioral health practitioner for treatment and follow-up care. A national survey concluded that between 1987 and 2001, depression related appointments in primary care rose from 50% to 64%, while psychiatrists experienced a decline from 44% to 29%. [4] During this time, depression related office appointments in primary care accounted for 24.5 million appointments, making depression a very prevalent condition. Primary care is now the most common healthcare setting where people with depression go for initial consultation, treatment, and follow-up care. However, several challenges exist for primary care providers that care for patients with depression.

One major challenge primary care providers face today is recognizing and managing the comorbidity of depression and anxiety. According to the National Comorbidity Survey, 58% to 75% of patients diagnosed with depression were found to have an anxiety disorder as well. [5] A concurrent diagnosis of depression and anxiety places patients at much greater risk for a poor quality of life. Recent evidence points out that patients with depression and anxiety are more likely to commit suicide, elicit greater psychosocial impairment, utilize the healthcare system more frequently, and have

poorer health outcomes. [5,6] While depression screenings have improved in the last ten years, diagnosis and treatment of comorbid depression and anxiety disorders are not favorable. Therefore, primary care settings must not only be adequately prepared to handle the care of depressed patients, but of those experiencing some form of anxiety as well.

In addition, individuals affected with depression have an increased risk of developing other major chronic illnesses such as diabetes, hypertension, and coronary heart disease. [7,8] Depression has been linked to increased cortisol levels and other physiological changes that contribute to the manifestation of other chronic illnesses. For this imperative reason, outcomes for patients with depression must be improved. Experts agree that when depression goes untreated or undiagnosed, patients utilize the healthcare system more frequently and spend 50% to 100% more healthcare dollars than those without depression. [2] These frequent visits typically consist of vague complaints such as chronic pain, headaches, fatigue, generalized muscle aches, and dizziness. While these symptoms can be indicators of depression, many primary care providers do not consider the possibility of depression in their differential diagnoses. Furthermore, when depression is left untreated, patients are often at greater risk for impaired functioning and suicide. [4] Some experts estimate that if the prevalence of depression continues to rise, depression will be the greatest cause of disease burden in the U.S. by the year 2020. [9]

Once a diagnosis of depression is made, remission of symptoms should be the most important outcome. In the last decade, however, research studies that have looked at remission rates of depression among primary care patients have determined that patients continue to be undertreated and experience residual symptoms that can hinder their chances for an improved quality of life. [2,7,8,10] The Depression and Bipolar Support Alliance estimates that close to 50% of depressed patients do not receive adequate treatment and even when they do, patients stop taking their medication within three months. [11] As a result, experts are looking at interventions to improve the screening, diagnosing, and treatment of depression among primary care patients as well as follow-up care.

REVIEW OF THE EVIDENCE

Routine screening of depression in primary care settings is the most important step towards identifying those affected with depression. Various screening tools are available for use in primary care practices. Several commonly used tools have good sensitivity, fair specificity and proven effectiveness at identifying depression in adults (see Table 1). According to the USPSTF, of those who test positive on depression screening tools, approximately 24% to 40% have major depression, while those with a false-positive result may have dysthymia or other less severe forms of depression. [3] Therefore, routine screening helps identify many individuals that may possibly be suffering from various forms of depression. The USPSTF also asserts, for those practitioners who are still unsure of which screening tool to use, asking the following two key

Figure 1

TABLE 1
Most Commonly Used Depression Screening Tools in Adults

Tool	Cost	Reference:	Sensitivity / Specificity[4]
Beck Depression Inventory	Fee	Available for purchase from: http://pearsonassess.com/	100% / 75%
Center for Epidemiologic Study Depression Scale (CES-D)	Free	Tool available for download: http://projects.ipro.org/index/ami_ktools	79% / 77%
Patient Health Questionnaire (PHQ-9)	Free	Tool available for download: http://www.depression-primarycare.org/	88% / 88%
General Health Questionnaire-12	Free	Tool available for download: http://www.workhealth.org/	83% / 76%
Zung Self-Depression Scale	Free	Exam available on-line: http://www.psychology.com/	97% / 67%
Geriatric Depression Scale	Free	Hartford Institute for Geriatric Nursing http://www.hartfordign.org/	100% / 63%

questions during a detailed clinical interview are just as effective at identifying depression in adults as longer screening tools. The two key questions are:

- "Over the last 2 weeks, have you felt down, depressed, or hopeless?"
- "Over the past 2 weeks, have you felt little interest or pleasure in doing things?" 3

After a person has been identified as potentially suffering from depression using a screening tool, an actual diagnosis of depression must be made according to the criteria from the Diagnostic and Statistical Manual of Mental Disorders IV Edition (see Table 2).

Figure 2

TABLE 2 Diagnostic and Statistical Manual of Mental Disorders IV[12] Depression Criteria*
1. Depressed mood* 2. Loss of interest or pleasure* 3. Weight loss or weight gain 4. Sleep disturbance 5. Fatigue 6. Mood swings 7. Loss of concentration 8. Low self-esteem or guilt 9. Suicidal ideation or thoughts of death
*Five or more of these symptoms must be present in order for a diagnosis of depression to be made. One of these symptoms must be either #1 or #2.

Once a diagnosis is made, treatment such as pharmacological and/or psychotherapy should be implemented immediately as well as follow-up care. A system that supports accurate

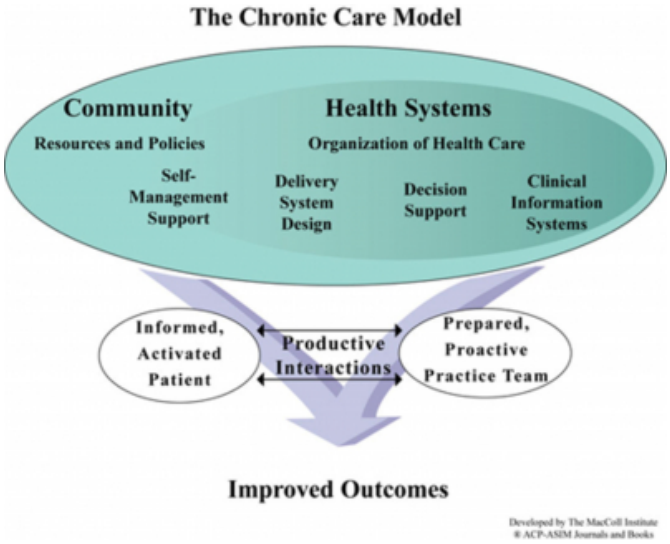
diagnosis, treatment, and provision of adequate long-term follow-up care is essential. [3] Instead, many primary care settings fail to provide effective follow-up care that can help improve patient outcomes. Perhaps this failure stems from primary care provider recommendations that do not provide a clear understanding of what the follow-up process should be. Previous studies focused on pharmacological interventions, but the emphasis now is on treatment methods at a delivery system level that can significantly improve remission rates.

Delivery systems in primary care are geared towards dealing with acute illnesses and the management of major chronic illnesses such as diabetes mellitus, hypertension, hyperlipidemia, and other more common diseases. In the last few years, researchers have focused their attention on system interventions that can help improve health outcomes in patients with depression. Most of the studies examining ways to improve depression remission rates and treatment adherence have based their interventions on chronic care management principles and incorporated components of the Chronic Care Model (CCM) in order to determine its effect on health outcomes (see Figure 1). The CCM was developed by Wagner as a guide to help primary care providers improve the management of chronic illness. The author believes that any improvement in the model's six interrelated components can result in a system-wide change in the delivery of care for patients. [13] The six components of the CCM are:

- Self management support
- Clinical information systems
- Delivery system redesign
- Decision support
- Health care organization
- Community resources. 13

Figure 3

Figure 1 The Chronic Care Model



Wagner, E. Chronic disease management: what will it take to improve care for chronic illness? Effective Clinical Practice, Aug/Sept 1998, Vol 1.

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One study by Rost and colleagues looked at delivery system redesign based on the principles of chronic disease management. [14] This randomized controlled trial (RCT) compared enhanced follow-up care to routine follow-up care for 211 adults across 12 primary care practices in the U.S. Subjects were randomized to one of two groups, the enhanced care group or the usual care group. Over a 24-month period, subjects in the enhanced group (n=115) were encouraged to follow-up on a routine basis with a nurse at the clinic and be actively involved with their treatment while the usual care group (n=96) received no additional follow-up contact. The enhanced follow-up intervention consisted of more frequent telephone contacts, clinic follow-up appointments, and patient education material. The goal of

the study was to evaluate whether an enhanced ongoing intervention improved depression treatment. The enhanced care group reported taking antidepressants for 6.5 months compared to 3.4 months for the usual care group. The percentage of mental health professionals used for counseling in the first 6 to 12 months of intervention was also higher in the enhanced care group. Finally, the enhanced care group had a 74% remission rate at 24 months compared to 41% in the usual care group. These results suggest that implementing a system redesign that supports enhanced follow-up care through regular phone calls to patients by primary healthcare professionals, routine follow-up appointments, greater referral rates to mental health professionals, and readily available patient education material has the potential to significantly improve remission rates for depression.

A systematic review by Gilbody and colleagues of 36 studies evaluated the effectiveness of educational and organizational interventions to improve the management of depression in primary care. [15] The common theme among the successful intervention programs was the inclusion of changes in the health care delivery system. Successful intervention programs identified two or more strategies used to change the healthcare delivery system. These included: 1) the establishment of a multidisciplinary team that includes the primary care provider as well as a mental health provider; 2) the development of a new professional role of depression care coordinator to help primary care providers with the care of depressed individuals; 3) community support; and 4) continuity of care through structured follow-up encounters. One of the studies in the review was by Katon and colleagues who looked at ways to improve care for depressed patients by creating a collaborative care approach to depression within primary care. [16] The authors found that an enhanced care program delivered jointly by primary care and behavioral care providers had higher rates of remission and treatment adherence. The Quality Enhancement by Strategic Teaming study by Rost and colleagues and a study by Hunkeler, Meresman, and Hargreaves found that case-management strategies by nurses or other non-physician health care professionals that included face-to-face encounters and/or phone calls were significantly more beneficial in improving adherence and remission rates in depressed individuals. [17][18] Creating a new care-coordinator role, specifically for chronic illnesses such as depression, can perhaps help improve health outcomes among patients in primary care.

A review by Kates and Mach of all RCTs conducted between 1992 and 2006 evaluated whether a delivery system redesign incorporating chronic disease management components of the Chronic Care Model (CCM) resulted in improved outcomes in primary care patients with depression. [19] Most of the studies in this review compared usual care for depressed patients to various quality improvement programs such as personalized treatment plans, telephone follow-up care, and the use of depression care-coordinators within the practice. A study by Simon and colleagues compared the effectiveness of a usual care treatment program for depressed individuals to a feedback treatment program. [20] The feedback treatment program consisted of telephone follow-up care, care coordination by depression care specialists, and decision support for primary care providers. The authors concluded that individuals in the feedback program had better outcomes that those in the usual care group and felt more satisfied with depression treatment. Another study, the Re-Engineering Systems for the Primary Care Treatment of Depression trial, evaluated an evidence-based quality improvement model for the management of depressed individuals in 60 primary care practices in the U.S. [21] The authors concluded that patients from primary care settings with care management, telephone support, and mental health consultation had better treatment response rates (60%) compared to patients receiving usual care (47%). Other similar studies also concluded that delivery-system changes incorporating these types of interventions for the care of depressed patients, demonstrated significant improvements in patient outcomes compared to usual care settings.

Solberg, Trangle, and Wineman developed an intervention to improve outcomes through enhanced follow-up and follow-through of depressed patients in primary care. [22] Although effective treatment is an enormous component of successful remission rates, follow-up care plays an even greater role. The authors identified four concepts that various other trials deemed successful that are missing in primary care. The concepts include:

- the development of a non-physician care management role within the clinic setting to help the physician coordinate follow-up care for patients
- the establishment of a collaborative team that includes the primary care provider and a mental health provider

- the promotion of self-management with the aide of educational materials and community support
- accepting patient preferences when it comes to care. 22

The authors also recommended that the CCM be used as a guide for the implementation of these concepts. The CCM model can serve as the foundation for the development and delivery of follow-up and follow-through strategies to improve outcomes for patients with depression in primary care.

A study by Meredith and colleagues looked at the long-term success of various quality improvement efforts for the treatment of depression in primary care settings. [24] Using the CCM as a guide, 17 primary care multidisciplinary teams participated in the study by implementing quality improvement changes within their practices based on each of the six components of the CCM. Some of the changes included developing a care management role responsible for systematic follow-up care, creating collaborative teams for the management of depression, improving patient education and self-management support, increasing awareness of guidelines and protocols, and creating community relationships that support patient management. Monthly progress reports were requested during an 18-month period. Quality improvement interventions that supported delivery system-type changes and clinical information systems resulted in the most successful long-term improvements in health outcomes for patients. While some primary care settings made changes in decision support, community resources, and health system support, these changes were not as successful as delivery system design and information system. The authors concluded that the implementation of quality improvement is not only useful in the treatment of depression, but may be useful in other chronic illness care as well. [24]

STRATEGIES FOR CHANGE

Restructuring primary care in order to improve the management of depressed individuals is perhaps an enormous task for many primary care settings. Some of the concepts identified by Solberg and colleagues can serve as helpful ideas if settings are seeking ways to improve follow-up appointments. Settings looking to implement collaborative teams can utilize principles from Gilbrody and colleagues. [1522] These concepts encompass a redesign of delivery systems within primary care that have proven to be successful in various settings across the U.S.

A possible strategy that could be implemented to help manage depression in primary care and help improve outcomes is the development of a chronic care management role. This role can be filled by a health care professional, preferably a registered nurse, who will be responsible for direct patient education, support, and follow-up care. The nurse would work closely with the primary care provider and offer patient education that is consistent with the needs identified by the provider. Because systematic telephone calls to patients have proven to be successful, the nurse would make routine telephone calls to patients that have been newly diagnosed with depression or who are currently being treated for depression. [182022] Finally, the nurse would be responsible for coordinating patient care regarding referrals to behavioral health care providers, community support, and follow-up care with primary care and mental health. Although this role may initially appear unrealistic and somewhat expensive, the role has indeed proven to be successful in improving depression outcomes and other chronic disease outcomes. [152224]

Another strategy that can help resolve the current state of follow-up care for depression in primary care is the development of collaborative teams. These collaborative teams would consist of primary care and mental health providers working together to help patients achieve continuity of care through enhanced follow-up care. Primary care settings would partner with mental healthcare settings and coordinate patient care. Because collaborative teams have proven to be successful at managing depression in primary care, this strategy can be implemented by allowing primary care settings to choose mental health providers to partner with and on a regular basis evaluate the coordinated efforts and implement changes where needed. [16]

One final strategy that could greatly impact the management of depression in primary care is the development and implementation of an enhanced follow-up protocol that includes the above strategies. Current guidelines do not outline an actual follow-up process for depression, but the need for primary care to do so is evident. Individual primary care settings should develop their own depression follow-up protocol that represents what their population warrants. Having a follow-up protocol can provide enormous guidance to clinicians and staff about what steps must be taken to help improve remission rates among patients with depression. These protocols must be consistent with pharmacological

and psychotherapy recommendations from the USPSTF and be based on chronic disease management principles. [313] Having a depression follow-up protocol within primary care can have lasting implications on depression outcomes.

CONCLUSION

In spite of the 2002 recommendations by the USPSTF for the routine screening for depression in adults, rates of identification and remission continue to be unfavorable. [3] Decreased productivity and direct medical costs related to depression results in a loss of more than $40 billion annually. [3] These figures identify the staggering effect of depression on the economy and healthcare system and the need to intensify efforts to implement systems that will improve outcomes. [2] To achieve this, primary care providers must improve present screening methods, diagnosis, treatment, and follow-up of patients with depression. However, implementing a systematic follow-up care of patients with depression in primary care is crucial for patients to have the greatest chance for improved outcomes. [25] Patients with depression should receive the same chronic management of their disease as patients who have diabetes, hypertension and other chronic illnesses. The significance of depression and the effect of depression on a person's quality of life must not continue to be ignored.

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