ABSTRACT

Major depression is a leading cause of disability in the United States and is frequently diagnosed and managed within a primary care setting, with less-than-optimal results. Studies have shown that adequate follow up significantly affects patient outcomes, including mortality; however, primary care providers face many challenges in providing this care within the constraints of a primary care setting. Collaborative care models have been shown to be effective in managing depression, and accordingly, the Translating Initiatives for Depression into Effective Solutions (TIDES) model was selected by the Bay Pines Veterans Affairs Healthcare System to help primary care providers manage depressed patients within the primary care setting. This article describes the implementation of TIDES and identifies a new role for mental health nurses outside of the traditional mental health setting.
Major depression is currently the leading cause of disability in the United States and is projected to be the leading cause of disability worldwide by 2020 (Veterans Affairs [VA] Mental Health Quality Enhancement Research Initiative [QUERI], 2008). National studies estimate that during a 1-year period, up to 30% of the U.S. adult population meets criteria for one or more mental health problems, particularly substance use (25%), mood (19%), and anxiety (11%) disorders (Kessler, Chiu, Demler, Merikangas, & Walters, 2005). Mood and anxiety disorders are especially common among primary care patients. They occur in approximately 20% to 25% of patients seen in clinics serving mixed-income populations and in as many as 50% of patients seen in clinics serving low-income populations (Wang et al., 2005).

Most mental health treatment is provided in primary care settings, and the percentage of mental health treatment provided solely in these settings is rapidly growing (Wang et al., 2006). Among veterans, approximately 1 in every 3 veterans visiting primary care has symptoms of depression and 1 in 8 to 10 has major depression that requires medication or psychotherapy (Rubenstein, Chaney, Williams, & Gerrity, 2004). Clearly, a model for effective management of depressed patients within the primary care setting would be of value. This article provides an evaluation of the Depression Care Management (DCM) program at Bay Pines VA Healthcare System from a quality assurance perspective. As such, the outcomes are not generalizable.

BACKGROUND

A large percentage of veterans accessing primary care have depression, and their needs are not being addressed adequately. In fact, a 6-year Veterans Health Administration (VHA) study (Cully, Zimmer, Khan, & Petersen, 2008) identified that less than half of patients with newly diagnosed depression received high-quality care and concluded that adequate follow-up care for depression was significantly related to a reduction in patient mortality at 12-month follow up. These findings suggest that quality of depression care—in particular follow-up care—may significantly affect patient outcomes, including mortality.

The American Psychiatric Association (APA, 2010) practice guidelines for treating patients with major depression recommend that patients initially prescribed antidepressant agents be carefully monitored to assess response to pharmacotherapy, as well as emergence of side effects, clinical condition, and safety. Contact should be frequent enough to monitor and address suicidal behavior and to promote treatment adherence.

While practice guidelines are well established, many barriers impede primary care providers (PCPs) from delivering optimal depression care, including competing demands on their time within an abbreviated office visit, less-than-adequate mental health knowledge or training, and negative beliefs about mental health conditions and treatment. In addition, patients themselves are often hesitant to seek mental health services in a mental health setting for fear of stigmatization, additional costs, additional travel or time away from work, and fear of the unknown (Felker et al., 2006).
Despite increased awareness of depression, availability of effective pharmacological and psychosocial treatments, and consensus on primary care depression treatment guidelines, depression frequently remains improperly diagnosed and inadequately treated. While antidepressant agents are increasingly prescribed, pharmacotherapy is often inadequate because of insufficient dosing and premature discontinuation by the physician, as well as poor patient adherence (Harman et al., 2001).

Meta-analysis of more than 35 randomized trials shows that collaborative care models are effective in managing depression (Gilbody, Bower, Fletcher, Richards, & Sutton, 2006). Models have varied in how care was structured or delivered, with most using RNs in the care manager role. The models also vary in their decision support methods, training styles, and degree to which care managers assume responsibility for patients with more complex conditions. While the specifics of these models vary, they consistently show improvement in patient satisfaction with care, recovery from depression, and probable reduction in deaths.

In an attempt to respond more effectively to veterans’ mental health needs, the VHA published the VHA Mental Health Strategic Plan (MHSP) in 2004 (U.S. Department of Veterans Affairs, 2008). The purpose of the MHSP is to present a new approach to mental health care—one focused on recovery, versus pathology and the integration of mental health care into the overall health care of veterans. The Uniform Mental Health Services in VA Medical Centers and Clinics handbook (U.S. Department of Veterans Affairs, 2008) describes the essential components of VA mental health services at the national level, thus ensuring all veterans have access to needed mental health care. A key component of both the MHSP and the handbook is the integration of mental health care within the primary care setting.

To facilitate this integration and support the VA’s strategic plan, the DCM program was implemented at Bay Pines VA Healthcare System in July 2007. The mission of the DCM program is to improve services for veterans with depression by providing comprehensive mental health care within a primary care setting.

The VA Health Services Research and Development Service’s Mental Health QUERI group developed the Translating Initiatives for Depression into Effective Solutions (TIDES) model for collaborative depression management in the primary care setting (VA Mental Health QUERI, n.d.). The TIDES team implemented the project in three VA regions (i.e., Veterans Integrated Service Networks, VISNs). Each VISN identified two to three primary care outpatient clinics (seven total) as demonstration sites for the TIDES depression care improvement initiative. Collaborative workgroups were created to facilitate collaboration between PCPs, mental health providers, and depression case managers. The workgroups used a three-phase process: (1) identify barriers to better depression treatment, (2) identify target problems and solutions, and (3) institutionalize ongoing problem detection and solution through new policies and procedures. The process resulted in identification of barriers to collaborative care and was used to develop and institutionalize effective solutions (Felker et al., 2006).

TIDES goals are to improve treatment adherence, promote symptom resolution, and prevent patient relapse. TIDES uses mental health RNs to provide guideline-based treatment support and monitoring of depression and has demonstrated high levels of treatment engagement among primary care patients with depression (Felker et al., 2006). TIDES data indicate primary care patients who receive adequate follow-up and optimal care have reduced risk of mortality as well as better outcomes, with a recovery rate of 70% at 6 months (VA Mental Health QUERI, n.d.). Among the first 1,000 patients cared for in TIDES, implementation of the model enabled 8 of 10 depressed patients to be treated effectively in primary care. Primary care patients achieved very high levels of adherence to medication (85%) and follow-up visits (95%). Depression severity scores and functional status scores began showing improvement after 4 to 6 weeks, and recovery at 6 months was 70% among primary care patients and 50% among the more severely ill veterans referred to mental health specialty treatment (VA Health Services Research and Development Service, 2008). Based on these positive TIDES outcomes, the VHA implemented this program on a national level, and the DCM program

![Figure 1. Source of referrals to the Depression Care Management program. Note. FY = fiscal year.](image-url)
at Bay Pines VA Healthcare System adopted this model.

**DCM PROGRAM IMPLEMENTATION**

Bay Pines VA Healthcare System serves the health care needs of veterans in west central and southwestern coastal Florida and is a complexity level 1A facility that provides comprehensive health care. Bay Pines operates 153 hospital beds, 33 psychiatry beds, 112 community living center beds, 65 domiciliary beds, and 34 residential treatment program beds. In fiscal year 2010, Bay Pines provided care to 97,786 veterans with 1,288,905 outpatient visits. Accordingly, among veterans seeking care at Bay Pines outpatient services, approximately 425,000 have symptoms of depression and 128,000 have major depression that requires medication and/or psychotherapy (Rubenstein et al., 2004).

Previous practice for managing patients with depression at Bay Pines was a referral by the PCP to mental health triage for a psychiatric evaluation. Veterans were either referred to the mental health clinic for follow up, or mental health triage would initiate an antidepressant medication with follow up by the PCP. The latter practice contributed to marginal monitoring of antidepressant medications and depression symptoms within the primary care setting. Often, the veteran’s next PCP visit was scheduled 6 to 12 months after the current visit, making it difficult to manage symptoms. The impact of indiscriminately referring veterans to the mental health clinic contributed to a 3-month backlog of veterans waiting for an initial appointment. Both practices failed to meet APA (2010) guidelines for frequent monitoring of depressive symptoms, side effects, and adherence to medication. In addition, if a veteran declined referral to the mental health clinic, no other treatment options were available other than follow up with the PCP. Clearly, the time had come for a new strategy to meet the needs of veterans, the facility, and APA guidelines in managing uncomplicated depression.

The DCM program is a 6-month, telephone-based program staffed by mental health RNs. It provides mental health care and ensures patient safety through a thorough assessment and monitoring. The program was developed by the National Center for Primary Care and Mental Health (NCPCHM) at Bay Pines VA Medical Center and was modeled after a depression management program developed at the Washington, DC, VA Medical Center. The program is staffed by an interdisciplinary team that includes a nurse manager, a part-time mental health clinical nurse specialist (CNS), a nurse manager, a consulting psychiatrist, and a data analyst. All key clinical DCM team members were trained on the TIDES protocol, which ensures model fidelity. Staff roles and responsibilities provide unique but overlapping contributions to the collaborative patient care model.

**Team Members and Roles**

The DCM program team consists of three full-time mental health RNs who function as care managers, a licensed practical nurse (LPN), a part-time mental health clinical nurse specialist (CNS), a nurse manager, a consulting psychiatrist, and a data analyst. All key clinical DCM team members were trained on the TIDES protocol, which ensures model fidelity. Staff roles and responsibilities provide unique but overlapping contributions to the collaborative patient care model.

Responsibilities of the care manager include assessment and evaluation of depressive symptoms and suicidal behavior, monitoring medication adherence and side effects, and providing psychoeducation; they alert the PCP of any significant findings. If a veteran experiences medication side effects or if depressive symptoms fail to respond to interventions, the nurse discusses the case with the consulting psychiatrist, and recommendations are communicated to the PCP for implementation.

During every telephone contact, the care manager administers the Patient Health Questionnaire-9 (PHQ-9), a 9-item evidence-based tool used for evaluating depressive symptoms to monitor symptoms and provide treatment guidance (Kroenke, Spitzer, & Williams, 2001). Respondents are asked how often during the past 2 weeks that they have been bothered by problems such as little interest or pleasure in doing things and feeling tired or having little energy. Items are scored on a Likert scale as follows: not at all (0), several days (1), more than half the days (2), and nearly every day (3). If respondents checked off any problems, a final question asks how difficult these problems have made it for them to do their work, take care of things at home, or get along with other people (not difficult at all, somewhat difficult, very difficult, extremely difficult) (Kroenke et al., 2001).

The tool produces a summative score with corresponding levels of depression: 0 to 4 = no depression, 5 to 9 = mild depression, 10 to 14 = moderate depression, 15 to 19 = moderately severe depression, and 20 to 27 = severe depression (Kroenke et al., 2001). For program evaluation purposes, initial and
discharge PHQ-9 scores were obtained from each veteran at DCM program completion (using no patient identifiers), and then all scores were averaged for a total initial and discharge PHQ-9 score for program participants.

The nurse manager and CNS collaborate to ensure program integrity and to foster an environment that promotes RN responsibility and accountability for program implementation. Increasing responsibility and accountability has enhanced professionalism, improving morale and job satisfaction. The CNS and nurse manager also provide clinical supervision in conjunction with the consulting psychiatrist when requested by the care managers.

The data analyst provides information to the team about the pattern of referrals, which then guides their marketing strategy. DCM team members consistently work at marketing the program and soliciting referrals through a variety of methods including presenting program information during staff meetings, poster presentations at health fairs, and meetings with individual PCPs. Data and program information is shared with colleagues on a monthly basis through national teleconference calls.

The intense marketing and education DCM program nurses provide has been instrumental in changing PCPs’ referral habits from a mental health referral system to a care management model. Appropriate program referrals include veterans with uncomplicated depression, adjustment disorders with depressed mood, dysthymia, and depression related to medical conditions. Although veterans may be referred by any clinician, if the source of referral is not the PCP, a DCM nurse will contact the PCP for endorsement of the veteran’s participation in the program, thereby fostering communication among all parties. If a veteran is not responding to DCM interventions, the care manager may directly refer the veteran to the mental health clinic for more specialized care.

**DCM PROGRAM OUTCOMES**

From inception through fiscal year 2010, direct referrals from PCPs to the DCM program increased 79% (**Figure 1**). This was a significant change, as the previous practice was to refer all veterans directly for mental health triage, bypassing the DCM program, which led to duplication of services and delayed care. This shift has reduced the wait time for veterans with more complex mental health needs who require a psychiatric evaluation in mental health triage prior to referral to a mental health specialty clinic. In addition, because veterans with uncomplicated depression were now managed in the primary care setting, initial appointment access to the mental health clinic improved from a 3-month wait to less than 14 days. By directly referring patients to the DCM program, access to and appropriate use of services in both mental health triage and the mental health clinic were improved.

During this period, 1,112 referrals were made to the DCM program and 804 were accepted. Of the 308 that were not accepted, 37% of patients were unreachable even after multiple attempts, 30% were not interested in participating, 19% were already followed in mental health, and 14% were not accepted for other reasons (e.g., the PCP discontinued the referral, the veteran did not meet program criteria, the veteran did not have a PCP).

Of the 804 veterans accepted into the DCM program, 61% completed the program successfully with symptom reduction and/or resolution, 14% were referred to the mental health clinic for more specialized care when their condition became too complex to manage in primary care after several unsuccessful medication trials, and 25% dropped out. Of those who dropped out, 56% did not respond to follow-up contacts, 35% were no longer interested in the program, and the remaining 9% included veterans who moved out of the area and two deaths unrelated to mental health issues.

Initial and discharge PHQ-9 scores were averaged from program inception through fiscal year 2010 and reflect a beginning score of 12 and average discharge score of 5, which indicates a significant clinical reduction in depression symptoms at discharge (**Figure 2**). PHQ-9 discharge scores in 2010 were higher than those of the previous fiscal year, which is attributed to ongoing psychosocial stressors that veterans consistently experienced related to economic factors and program admission criteria that were expanded to include veterans with more complex clinical syndromes.

Initially, program implementation was limited to PCPs in the medical center; however, as news of the effectiveness of the DCM program spread,
the program was expanded to include six community-based outpatient clinics in the health care system. These clinics were especially interested in the program because access to mental health services is limited, and in rural clinics, previous practice required that veterans travel significant distances to receive depression care. With the DCM program, veterans can more conveniently access these services via telephone contact.

The DCM program has since expanded to include other clinical syndromes that have been identified in the primary care setting; thus, our program name has changed to Primary Care/Behavioral Health (PC/BH) Care Management. In addition to depression, program tracks now include watchful waiting, anxiety, depression, and alcohol misuse. The PC/BH Care Management program continues to be a telephone-based intervention that veterans find more convenient and less expensive than face-to-face appointments.

CONCLUSION AND IMPLICATIONS FOR PRACTICE

Results of our DCM program implementation have significant clinical implications for nurses of all specialties. Our program evaluation demonstrates that nurses can lead interprofessional, integrated care teams that design and implement creative care approaches that are not only effective, but also patient centered. In particular, mental health RNs have an opportunity to integrate mental health services within primary care. By establishing a DCM program integration program at Bay Pines, access to specialized mental health services has improved for veterans with more complex needs. PCPs are able to successfully manage their patients with uncomplicated depression, and veterans are served in the comfort of their homes without incurring additional expenses or time off from work.

The DCM program has made great strides in meeting the needs of our veterans. Program data demonstrate treatment effectiveness in providing mental health care to our veteran population within the primary care setting. Future systematic studies are recommended to explore whether findings from this setting may apply to other veteran facilities and civilian health care settings. We are focused on increasing the graduation rate of 61% and are in the process of identifying strategies for improvement. We are persistent in reaching out to veterans through multiple telephone calls and letters requesting feedback about participation in the program. Of those who completed the program, their PHQ-9 scores reflect a significant reduction in depressive symptoms at discharge.

By expanding our services to include other diagnostic categories, we hope to capture veterans who often fall between the cracks in primary care. Our newly developed PC/BH Care Management program has evolved into a multifaceted approach to meet the mental health care needs of our veterans. The keys to health care in today’s world are flexibility, adaptability, and creativity.

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