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Integrating Bipolar Disorder Management in Primary Care

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Abstract

There is growing realization that persons with bipolar disorder may exclusively be seen in primary (general medical) care settings, notably because of limited access to mental health care and stigma in seeking mental health treatment. At least two clinical practice guidelines for bipolar disorder recommend collaborative chronic care models (CCMs) to help integrate mental health care to better manage this illness. CCMs, which include provider guideline support, self-management support, care management, and measurement-based care, are well-established in primary care settings, and may help primary care practitioners manage bipolar disorder. However, further research is required to adapt CCMs to support complexities in diagnosing persons with bipolar disorder, and integrate decision-making processes regarding medication safety and tolerability in primary care. Additional implementation studies are also needed to adapt CCMs for persons with bipolar disorder in primary care, especially those seen in smaller practices with limited infrastructure and access to mental health care.

Keywords

Bipolar disorder; Mood disorder; Co-occurring conditions; Primary care; Integrated care; Collaborative care; Chronic Care Model; CCM; Screening; Diagnosis; Treatment; Access; Mental health services; Psychiatry

Introduction

Bipolar disorder is a complex and chronic condition associated with significant functional impairment, high health care costs, and mortality, particularly from cardiovascular disease (CVD), and represents a substantial public health problem in primary care settings. While it has been well-known that primary care is the *de facto* treatment setting for patients with unipolar depression [1, 2], there is increased awareness that many patients with bipolar disorder are seen exclusively in primary care, due to a lack of access to specialty mental health care services and the stigma associated with receiving care in a mental health setting [3, 2]. Chronic mood disorders often go unrecognized and undertreated in primary care settings; however, the problem is particularly acute for patients with bipolar disorder. Lack

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of accurate and efficient screening and diagnostic protocols continue to be barriers to establishing a differential diagnosis between unipolar depression and bipolar disorder and to initiating appropriate evidence-based treatments.

Despite the proliferation of psychopharmacology, outcomes for persons with bipolar disorder remain suboptimal. Until recently, treatment guidelines have ignored real world settings where patients typically present with complex treatment issues that vary by symptom severity, presence of comorbid conditions, phase of treatment, and the need to balance treatment efficacy with consideration for side effects and safety [4, 5]. Adjunctive psychosocial treatments including psychotherapy or psychoeducation are recommended for persons with bipolar disorder in addition to pharmacotherapy [6, 7], but to date these modalities have not been deployed in routine primary care settings.

This paper reviews the current research regarding the management of bipolar disorder in primary care. To assess the state of the art, key articles found through Pubmed were reviewed (including empirically-based research, reviews, and guidelines/consensus statements) that were published since January 2011. Keywords used in this review included “bipolar disorder,” “bipolar,” “mania,” “primary care,” and “medical.” A total of 34 articles were identified as directly relevant to this literature review [8–24, 5, 25–27, 4, 28, 29, 2, 30–38]. Although a number of excellent clinical review articles [29, 28] have been published within the past few years on the management of bipolar disorder in primary care, the focus of this review was to examine the most current literature published within the last 18 months.

Based on this review of the literature, the following emergent issues were identified that preclude effective treatment of bipolar disorder in primary care: 1) methodological issues in screening and diagnosing bipolar disorder, 2) need for tailored treatment guidelines for primary care practitioners, 3) new evidence-based treatment practices such as collaborative/chronic care models (CCMs) that may help primary care providers in managing bipolar disorder, and 4) lack of implementation strategies to effectively implement CCMs in primary as well as mental health care settings, especially across network model or rural practices.

Unrecognized burden of bipolar disorder in primary care

National studies of the U.S. population estimate the lifetime prevalence rates of bipolar spectrum disorders (a.k.a. bipolar disorder) to be 6.4% compared to 16.6% for major depressive disorder [39]. There is a growing realization that primary care is the *de facto* site of care for persons with bipolar disorder. Evidence suggests that between 10% to 38% of patients with bipolar disorder are treated exclusively in primary care settings due to barriers to accessing specialty mental health services and the stigma associated with receipt of care from such specialty providers [3, 2, 40].

Subthreshold bipolar diagnoses, such as bipolar disorder not otherwise specified and cyclothymia, are not only prevalent and clinically significant but also go largely untreated in primary care [41]. In a nationally representative sample of U.S. adults diagnosed with depression, 40% of participants also had a history of subthreshold bipolar manic symptoms [41]. Fewer than half of patients with a lifetime history of a bipolar spectrum disorders receive any kind of mental health treatment [42]. Notably, the role impairment associated with these subthreshold disorders is similar to that of bipolar I disorder [42] and present with significant psychiatric comorbidity and symptom severity predisposing them to an increased risk for suicide and general medical conditions.

While unipolar depression is more common, patients with bipolar disorder incur the most health care costs of any mental illness [43]. The annual direct and indirect costs for treating bipolar disorder have risen dramatically to \$151 billion dollars [44] due in part to a reliance on expensive pharmacological treatments. Prior research has estimated that up to 70% of direct treatment costs for mood disorders are generated outside the mental health sector, notably in primary care [45]. In a recent analysis of an employer-based healthcare plan, patients with bipolar disorder had higher total health care utilization costs compared to patients diagnosed with depression, asthma, and coronary artery disease, and total costs were comparable to patients with diabetes [18]. The key driver of these costs are likely comorbid cardiometabolic disorders (e.g., obesity, diabetes, heart disease) [46], and costs to treat these conditions were higher when comorbid with bipolar disorder. For example, in a recent population-based analysis of health claims in Taiwan, researchers found patients with bipolar disorder had total annual medical costs that were 11 times higher than matched patients from the general population without bipolar disorder [19]. This cost differential was attributed primarily to significantly greater cost per patient for treating cardiovascular disease or cardiometabolic risk factors than comparison patients unburdened by bipolar mood symptoms. Increased use of psychotropic medications that increase cardiovascular disease risk factors, especially in primary care settings [40], adds further complexity to the clinical decision making providers must consider in routine care settings.

It is also well-known that bipolar disorder is associated with significant psychiatric comorbidity that further complicates the course of treatment for providers [47, 48]. Over 70% of persons with a bipolar disorder report a psychiatric comorbidity [42], with anxiety and substance abuse disorder having a lifetime prevalence risks of 83% and 60%, respectively [5, 49, 50, 41, 51, 43]. Risk of suicide is 20 times higher among individuals with bipolar disorder than in the general population which therefore requires ongoing assessment of risk factors to prevent adverse outcomes during serious mood episodes [52]. Hence, primary care interventions for bipolar disorder need to take into account these co-occurring conditions and risk factors.

Bipolar disorder case finding in primary care

Improving care for persons with bipolar disorder seen in primary care settings requires effective panel management and attention to accurate case finding and measurement-based care strategies. A staple of chronic illness care in primary care settings, panel management involves primary care teams proactively identifying and reaching out to high-risk populations in their practice to improve quality of care and outcomes [53, 54]. To achieve this objective, primary care teams often establish patient registries based on established entry (i.e., diagnostic) criteria, in order to monitor key risk factors, medication side effects, symptoms, and treatment response among a high risk patient population so that treatment plans can be adjusted. Panel management allows a practice to improve preventive and chronic care management for a high-risk population while also improving work flow so that physicians have more time to spend on complex functions. Primary care management of depression was revolutionized by the implementation of depression patient registries and ongoing monitoring of symptoms using the Patient Health Questionnaire-9 (PHQ-9) as a diagnostic and symptom severity tool [54, 55].

In contrast, accurate case finding and symptom assessment for bipolar disorder in primary care is more difficult given the lack of a screening and diagnostic protocol that is practical yet valid for routine use. A number of challenges exist in the accurate diagnosis of bipolar disorder in primary care settings. First, depression is the most frequently occurring mood symptom experienced by patients with bipolar disorder and these patients are more likely to present with depressive symptoms in routine practice. Second, many patients have poor

insight or recall of manic symptoms or episodes which makes differential diagnosis difficult. Third, many bipolar disorder symptoms are mistaken for other psychiatric disorders such as anxiety and personality disorders [36, 56]. Misdiagnosis and consequent prescribing of contraindicated (e.g., antidepressant monotherapy) or unnecessary medications for persons with bipolar disorder can exacerbate the frequency and severity of mood symptoms as well as promote treatment resistance to appropriate medications [4, 55]. A recent retrospective cohort study examining administrative health claims found that 18% of patients received the diagnosis of unipolar depression *after* receiving a bipolar diagnosis, which led to increased treatment costs and resulted in poorer outcomes for the patient [56].

Primary care physicians often lack the time and training to conduct lengthy clinical interviews to correctly diagnose bipolar disorder. While considered the gold standard, the Structured Clinical Interview for DSM-IV (SCID) as well as other diagnostic assessment such as the Mini Neuropsychiatric Interview (MINI) are impractical for primary care because of their length or need for a mental health clinician to administer. Hence, a number of brief screening and symptom assessment tools have been developed for bipolar disorder (see Table 1). The Mood Disorder Questionnaire (MDQ), Hypomania Checklist (HCL-32) and Bipolar Spectrum Diagnostic Scale (BSDS) are the three most widely used screening tools for bipolar disorder and have been employed in a number of recent cross-sectional studies to examine the level of undetected bipolar spectrum disorders [29, 36, 10, 57, 56, 24]. Yet, while many tout the reliability of currently available screening tools, others argue that none are reliable enough to be used alone for diagnosing bipolar disorder in clinical practice [29, 58, 59]. Hence, any screening tools should be linked to subsequent confirmatory diagnosis by a mental health specialist or supported with other information such as family history or clinical interview. Another promising strategy to identifying bipolar disorder might be to use healthcare system databases and electronic medical record systems to identify patients with depressive diagnoses and potential risk factors (e.g., high utilization, substance abuse, anxiety disorder). Those screening positive would then receive a confirmatory diagnosis from their physician or a patient-completed self-report measure, an approach that is currently being pilot tested [9, 60].

New Guidelines focus on Complex Care Management

In addition to lack of robust screening tools, primary care providers also lack regular access to up-to-date evidence-based bipolar disorder treatment guidelines that provide clear treatment algorithms to address the complex clinical presentations of most patients diagnosed with bipolar disorder [37]. Pharmacotherapies, notably mood stabilizers such as lithium, anticonvulsants, and some second-generation antipsychotics, continue to be the primary basis for managing bipolar disorder [7, 6, 29]. More recent guidelines for bipolar disorder focus on more complex care issues, notably management of co-occurring conditions and the need for adjunctive psychosocial treatment [28, 4], which is increasingly being used in primary care settings in general. Malhi and colleagues provide a clear evidenced-based guide of treatment strategies for bipolar disorder, paying close attention to maintenance strategies to prevent relapse. Building on existing guidelines [61] to manage pharmacological safety monitoring they help providers understand how to balance the efficacy, safety and tolerability of treatment decision-making using an approach that promotes shared decision making between patient and provider. The 2012 release of treatment guidelines for mood disorders by the Canadian Network for Mood and Anxiety Treatments (CANMAT) also gives providers evidenced-based recommendations on addressing a number of complex treatment challenges related to co-occurring conditions, including: anxiety disorders, attention deficit/hyperactivity disorders, personality disorders, metabolic disorders, and other medical conditions [32, 33, 35, 62, 34, 63, 30, 7].

Still, many primary care providers may feel uncomfortable prescribing bipolar disorder medications, particularly when it comes to antipsychotics, due to a lack of knowledge and training, as well as higher rates of suicide, and controversies around prescribing drugs [26]. Therefore, it is vital to develop practical tools based on these guidelines to assist providers with treating bipolar disorder [25, 9], taking into account potential side-effects to psychotropic drugs and co-morbid conditions in addition to direct treatment.

Collaborative/chronic care models for bipolar disorder

In addition to the need for valid and systematic case finding tools and practical guideline protocols, managing bipolar disorder in primary care should also include a psychosocial component. More recent bipolar disorder treatment guidelines increasingly recognize the role of effective adjunctive psychosocial interventions that promote patient activation to increase self-management of bipolar symptoms and coping strategies [64, 6]. Similarly, collaborative chronic care models (CCMs) have been widely studied in primary care settings as a means to improve management and outcomes of chronic illnesses. The six core elements of CCMs established by Wagner and colleagues [65, 66] can be found in Table 2. CCMs, which typically include at least three of the six core components above, can serve as an ideal framework to help primary care practitioners manage bipolar disorder. In a recent meta-analysis [16], CCMs were found to be effective in treating chronic medical and mental illnesses across a wide range of mental disorders including bipolar disorder [67–69] at little to no net healthcare cost. CCMs for bipolar disorder were also recommended in two recent guidelines as models of care to promote guideline adherence and self-management in addition to pharmacotherapy (54, 55). Moreover, treatment with the CCM has been found effective among patients with bipolar and co-occurring substance use disorders.

To date, CCMs have primarily been implemented for persons with bipolar disorder in mental health specialty settings [67–69]. Two ongoing randomized controlled trials are adapting the CCM for bipolar disorder in primary care settings [17, 11, 14]. Table 2 provides an overview of how CCMs can be adapted to manage bipolar disorder in primary care. Notably, the bipolar CCM should include a more intensive psychosocial self-management program, preferably involving weekly sessions in addition to care manager contacts and linkages [13]. These weekly self-management programs have been designed to guide patients in managing their symptoms and work collaboratively with their providers, and should have a recovery-oriented approach by focusing on the participant's personal goals and coping strategies [17]. Because bipolar disorder is often associated with substance use and other co-occurring conditions, the self-management component should also cover these conditions. In contrast, self-management programs for depression and other chronic illnesses are typically less intensive, often relying on briefer contacts with a central focus on medication management. In addition, the bipolar CCM needs to include not only guidance for mood stabilizer medications but additional information on monitoring for side effects and toxicity, notably for cardiovascular and cardiometabolic risk factors. These guidelines should come in the form of simplified tools such as notecards or clinical reminder systems [69, 9]. Finally, bipolar disorder is by definition a chronic illness, where patients often face recurring manic and depressive episodes over the lifespan—as opposed to depression which may or not be recurrent or chronic. Hence, care managers should be able to not only access psychiatrists for guidance on treatment decision-making for more complex cases, but also to access other mental health providers such as licensed social workers or case managers to support other mental health specialty services.

Conclusions and Future Directions

Overall, given the increased awareness that persons with bipolar disorder seek care from primary care providers, there are prime opportunities for further research in adapting well-established primary care models such as the CCM for managing bipolar disorder. While CCMs provide a practical model for managing mental disorders in primary care settings, self-management support, care management, and provider guideline support will have to be enhanced to make it feasible to manage bipolar disorder in primary care. CCMs can and should be adapted for bipolar disorder in primary care because it is an ideal model in which to integrate mental health services. Moreover, bipolar disorder is often considered a tracer condition for integrated mental health care because of the wide range of symptoms and functioning experienced by patients, substantial prevalence of co-occurring conditions, and disproportionate numbers of deaths due to suicide or medical conditions (e.g., cardiovascular disease-CVD).

Furthermore, as with most CCM studies, bipolar disorder CCMs have primarily been implemented in closed health care systems or staff-model health plans. However, recent research has determined that the vast majority of primary care and behavioral health practices providing commercially insured care are far too small to implement such models. For example, up to 85% of Americans with bipolar disorder are managed in solo or small practices comprising fewer than 20 providers, which often do not have the capacity to implement CCMs [70]. Hence, additional implementation studies need to examine how to bring CCMs to persons with bipolar disorder seen across routine primary care settings that vary by size, intervention mode, and provider mix. For example, telehealth and e-health interventions may help support remote care for patients and support self-management [71, 60, 72–76], especially for small and solo practices [70]. The VA National TeleMental Health Center is currently conducting a clinical roll-out of a Bipolar CCM TeleHealth Program, based on previously established CCMs for bipolar disorder [77, 78]. Ultimately, given the desire for widespread adoption of telehealth and similar technologies as well as the need to address disparities in access to mental health care in smaller and more rural practices, adapting CCMs for bipolar disorder may inform the further implementation of integrated care into primary care settings across a wide range of mental health disorders.

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Table 1

Widely-used Measures to Screen for Bipolar Disorders

Measure	Description	Study Population(s)	Validity/Reliability	Pros	Cons
Mood Disorder Questionnaire (MDQ) [79–82]	13-item, paper & pencil self-report checklist used to screen for lifetime hx of bipolar spectrum disorder administered by physician, RN, or trained medical assistant	Mental health, primary care outpatients	Sensitivity ranges from .28 to .73 Specificity = .90–.97 (.76 for BD I)	Brief Easy to administer to patients & score (phone or face-to-face)	Does not track symptom changes or severity over time Better for detecting BD I than BD II or NOS Possible misclassification (e.g., borderline personality disorder)
Bipolar Spectrum Diagnostic Scale (BSDS) [83]	20-item “narrative-based” patient Self-completed scale to identify symptoms across BD spectrum. The 1 st part includes a 19-item checklist; 2 nd part includes multiple choice item to respond how a scenario applies to current state	Mental health outpatients	Sensitivity ranges from .79 (BD II) to .76 (BD I) Specificity = .85	Good sensitivity and specificity to identify and discriminate BD spectrum disorders Suggested as a complementary measure to MDQ	Lacks normative data for use in the general population Not useful for longitudinal assessment
Hypomania/Mania Symptom Checklist-32 (HCL-32)[84, 8557]	32-item screening instrument for Bipolar II Yes/no checklist format to endorse relevant symptoms	Mental health outpatients	Sensitivity = .80–.85 Specificity = .51–.79	Assesses most mania symptoms Adapted for multi-lingual use	Does not assess other relevant BD symptoms Not clear that it can differentiate BD subtypes Not tested in primary care patients
Provisional Diagnostic Instrument (PDI-4) [38]	17-item patient self-report screening instrument to screen for MDE, GAD, ADHD, and past/present mania 4 items for each of the four diagnostic categories with individual items scored on 0–4 scale from “Never” to “All the Time”. The 17 item interference with daily function must score a 3 or higher for ADHD and 2 or higher for other diagnoses.	Primary care outpatients	Sensitivity (mania) = .83 Specificity (mania) = .82	Brief measure for primary care patients Identifies multiple non-psychotic disorders seen in primary care Validated against other clinical interview and self-report measures	Piloted on 25 patients diagnosed with bipolar Does not track symptom change over time Further cross-validation with community-based samples needed

Table 2

Collaborative/Chronic Care Model Components Adapted for Managing Bipolar Disorder in Primary Care Settings

Element	Focus	Adaption for Bipolar Disorder in Primary Care
Clinical Information Systems	Use of panel management for identifying persons at risk of poor outcomes for ongoing follow-up and chronic illness management Measurement-based care (i.e., ongoing symptom monitoring) to assess patient progress	Clinical registry for screening, provider confirmation of bipolar disorder diagnosis, and ongoing follow-up with additional information on family history and safety plans Ongoing assessments of mood symptoms, suicidality, functioning, and cardiometabolic measures associated with psychotropic medications
Delivery System Redesign	Provider teams meet to organize care that is anticipatory rather than reactive through assigning roles and establishing work flows for case finding, registry development, self-management, care management, and access to mental health specialists and practice guideline tools	Access to mental health support services in addition to care management for non-medical needs Use of mental health specialists to carry out clinical practice guidelines to free up physician time for advanced clinical care activities
Decision (Guideline) Support	Practical tools and guideline summaries for generalists to help with treatment decision-making, often in collaboration with a non-physician care manager	Team consultations with mental health specialists on non-routine diagnostic or treatment issues, with a particular focus on monitoring for side effects and toxicity around cardiovascular and cardiometabolic risk factors
Patient Self-Management Support	Psychoeducation and health coaching with a focus on symptom coping, problem-solving, and medication adherence strategies with an emphasis on active participation in provider care plan decision-making	Frequent self-management or psychosocial sessions as needed to cover identification of early warning signs of bipolar episodes, impact of stigma, and other topics related to bipolar disorders such as substance use, anxiety, psychosis, anger/irritability, metabolic risk using onsite, phone, or internet delivery
Community Resource Linkages	Support for social and clinical needs in addition to the health care setting	Referral to other community social services such as housing, peer networks, substance use providers, etc.
Leadership Support	Organization-level leadership and tangible resources to support CCM goals and practices	Provision of adequate clinical staff for CCM training and implementation; support from key non-clinical services such as informatics; championship by organization leadership, optimally with a commitment to sustainability after the research phase of the intervention ends