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Implementing composite quality metrics for bipolar disorder: towards a more comprehensive approach to quality measurement☆

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Abstract

Objective: We implemented a set of processes of care measures for bipolar disorder that reflect psychosocial, patient preference and continuum of care approaches to mental health, and examined whether veterans with bipolar disorder receive care concordant with these practices.
Method: Data from medical record reviews were used to assess key processes of care for 433 VA mental health outpatients with bipolar disorder. Both composite and individual processes of care measures were operationalized.
Results: Based on composite measures, 17% had documented assessment of psychiatric symptoms (e.g., psychotic, hallucinatory), 28% had documented patient treatment preferences (e.g., reasons for treatment discontinuation), 56% had documented substance abuse and psychiatric comorbidity assessment, and 62% had documentation of adequate cardiometabolic assessment. No-show visits were followed up 20% of the time, and monitoring of weight gain was noted in only 54% of the patient charts. In multivariate analyses, history of homelessness (OR=1.61; 95% CI=1.05–2.46) and nonwhite race (OR=1.74; 95%CI=1.02–2.98) were associated with documentation of psychiatric symptoms and comorbidities, respectively.
Conclusions: Only half of patients diagnosed with bipolar disorder received care in accordance with clinical practice guidelines. High-quality treatment of bipolar disorder includes not only adherence to treatment guidelines but also patient-centered care processes.
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Keywords: Mood disorders–bipolar; Quality of care; Quality improvement; Co-occurring conditions

1. Background

Bipolar disorder is a chronic illness affecting up to 5.5% of the population [1] and is associated with substantial functional limitations [2,3] and health care costs [4,5]. Persons with bipolar disorder often require intensive pharmacologic and psychosocial treatment [2], because the illness is uniquely characterized by alternating periods of mania and depression, which can lead to treatment interruptions and self-medication with substance abuse that impede overall treatment adherence [6]. Bipolar disorder is also one of the top 10 causes of disability worldwide [7]. Therefore,

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improving quality and subsequent outcomes of care for this illness is a priority.

Despite the availability of efficacious treatments and evidenced-based care guidelines for bipolar disorder within the past several years [2,8–10], outcomes for bipolar disorder remain suboptimal. Reasons for suboptimal outcome may include poor processes of care, defined as measures in which providers have the most control over in changing care. Prior studies using administrative data have concluded that 37–54% of patients diagnosed with bipolar disorder are not receiving adequate mood stabilizers [11,12] or drug level safety monitoring [13] based on American Psychiatric Association [8] clinical guidelines for the treatment of bipolar disorder [8]. In a separate study [14] based on Medicaid administrative claims data, about a third received antimanic agents or psychotherapy in a given year, and enrollees presenting with concurrent depression or anxiety diagnoses had a higher likelihood of receiving pharmacotherapy discouraged by guidelines.

Well-validated quality-of-care indicators can help to identify gaps in care and, ultimately, improve care. Quality measures need to assess clinically relevant processes of care over which providers have control so that they can inform quality improvement initiatives [15]. Previous studies regarding quality of care for bipolar and other mental disorders in routine care have only focused on adherence to medication treatment guidelines [16] or relied solely on administrative data, which are relatively easy to ascertain [11,14,17]. One of the limitations of administrative data is the lack of information on patient symptoms, provider decision making and details regarding psychosocial treatments, all of which are necessary for constructing patient-centered measures. Medical record reviews have been used to ascertain quality of care when administrative data are not detailed enough, yet most studies assessing quality of care for bipolar disorder based on medical record review have been limited to efficacy trials, employed restrictive exclusion criteria (e.g., bipolar I only, no co-existing substance use disorder) or focused exclusively on pharmacotherapy [16,18].

Nonetheless, quality measures that reflect other biopsychosocial aspects of clinical practice have not been fully operationalized. Measures based on the biopsychosocial model that integrate medication, psychosocial and patient preference indices, such as assessment of medication side effects, no-show follow-ups and comorbidities, are critical to the delivery of quality care. A more comprehensive set of quality indicators for bipolar and other mental disorders are needed in order to inform the next generation of electronic data capture. The purpose of this study was to apply a comprehensive set of operationalized quality indicators for chart review that reflect the integration of psychosocial and patient preference indices, and to evaluate the patient factors associated with lower performance on these indicators in a large, naturalistic study of patients receiving care for bipolar disorder.

2. Method

2.1. Study population and sample

We analyzed data from a longitudinal, naturalistic, population-based study of 435 veterans with mood disorders [19]. The target population was patients being treated for bipolar disorder presenting for inpatient or outpatient care during a 2-year period (July 2004–July 2006) at a large VA mental health facility. Patients who were clinically diagnosed with bipolar disorder (including bipolar I disorder as well as the spectrum disorders including bipolar II or schizoaffective disorder–bipolar subtype) were eligible. Bipolar subtype was garnered from consulting with the patients' primary psychiatrist prior to enrollment. We chose this method of diagnosis ascertainment to mirror as closely as possible real-world treatment settings, which typically do not perform routine structured diagnostic interviews. Exclusion criteria included unstable acute medical conditions, acute psychiatric symptoms or significant cognitive impairment that precluded informed consent.

Patients were approached at the time of their outpatient mental health appointment, or if hospitalized, at the point of reaching psychiatric stability based on clinician assessment, and asked to complete a baseline survey. All enrollees provided informed consent to be surveyed and to have data from their medical records and administrative files ascertained. Chart review and administrative data on utilization, quality of care and clinical status were collected 2 years prior to the baseline survey, and between the baseline and follow-up surveys. Administrative data on utilization, including pharmacotherapy, laboratory tests and visits, were obtained from the VA National Patient Care Database. Of 435 patients, 433 had complete baseline chart data. This study was reviewed and approved by local institutional review boards.

2.2. Measures

2.2.1. Dependent variables and composite measures

We developed a list of processes of care for bipolar disorder adapted from treatment guidelines for bipolar disorder developed by the American Psychiatric Association [8], the Standards for Bipolar Excellence (STABLE) project [20] and the RAND-Altarum national evaluation of VHA mental health programs [21]. From this list, we selected measures for which data could be reasonably abstracted from standard medical records and applied to the entire at-risk population of interest. We also included additional measures focused on the integration of psychosocial and patient preferences that have not been previously operationalized, including assessment of symptoms and co-occurring conditions, documented reasons for patients discontinuing medications and no-show follow-ups (Table 1). These measures also reflect important aspects of anticipatory care reflected in the Chronic Care Model, which was recently operationalized and implemented as a biopsychosocial approach to bipolar