

Expert opinion in bipolar disorder: Impact of COVID-19 on outcomes and treatment of bipolar disorder

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ARTICLE INFO

Keywords:

Bipolar disorder
COVID-19
Outcomes
Treatment

ABSTRACT

Bipolar disorder is a common mental illness with a high burden of disability and comorbidity including highly prevalent medical conditions that increase risk for severe COVID-19 illness. Moreover, increased vulnerability to stress, routine and lifestyle disruption in people living with bipolar disorder is well-established. Although data examining the impact of COVID-19 disease and the resulting pandemic on those with bipolar disorder are limited, the present paper aims to discuss existing research at the intersection of COVID-19 and mental health with the goal of considering potential impacts of COVID-19 on outcomes and treatment of bipolar disorder.

1. Introduction

Bipolar disorder is a common mental illness with significant morbidity and mortality (Yatham et al., 2018) that by some estimates is considered to be the 6th leading cause of disability globally [1,2]. It is associated with the highest rate of suicide of any illness, occurring in ~15% of affected individuals [3]. Independent of suicide, rates of all-cause mortality are elevated at virtually every age [4]. The defining feature of bipolar disorder is the occurrence of manic or hypomanic episodes, although most of the illness course is typically characterized by recurring episodes of depression [5].

Given these considerations, people with bipolar disorder may be at increased risk for poor outcomes in response to epidemics or pandemics. In a little over one year's time, SARS-CoV-2 infections have caused an incalculable toll of suffering, death and illness, and the resulting COVID-19 pandemic has disrupted the routines and livelihoods of billions of people worldwide. Although data examining the impact of COVID-19 disease and the resulting pandemic on those with bipolar disorder are limited, in this review we discuss existing research at the intersection of COVID-19 and mental health with the goal of considering potential impacts of COVID-19 on outcomes and treatment of bipolar disorder.

2. Stress and other risk factors for mood episodes during COVID-19

Many studies documenting the distress caused by the COVID-19 pandemic are ongoing and rapidly emerging. Shanahan et al.'s

longitudinal cohort study of young adults ages 20–22 – an age group associated with the onset of bipolar symptoms as well as important professional, educational and social transitions – demonstrated COVID-19-related lifestyle and economic disruption were strongly associated with emotional distress [6]. Stressful life events and general stress are core components or triggers of bipolar depressive episodes and may also precipitate episodes of mania or hypomania [7,8]. Disruption of daily routines, decreased exercise, and use of substances such as alcohol and marijuana have also been identified as triggers common to both depressive and manic episodes [7,9]. Moreover as discussed subsequently, individuals with bipolar disorder are at elevated risk for developing substance use disorders. Sleep disruption, a consequence of life disruption and stress, also may increase the risk of mood episodes in individuals with bipolar disorder (Strakowski, 2014).

Data on the status and outcomes of people with bipolar disorder during the COVID-19 pandemic remain sparse; however, it is reasonable to infer that for many people living with bipolar disorder, the secondary consequences of the pandemic have increased their vulnerability to a mood episode and other negative outcomes. One Australian population-based cohort study, the COLLATE Project [10], surveyed adults 18 years or older in April 2020 with 1292 respondents self-reporting a mood disorder (bipolar or a depressive disorder) and 3167 respondents without a reported mental disorder. The study then compared COVID-19 related lifestyle changes, primary concerns and psychological distress among groups. Findings indicated heightened psychological distress in the mood disorder group compared to the group reporting no mental disorder with further elevated levels of stress and depression in

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<https://doi.org/10.1016/j.pmip.2021.100074>

respondents with bipolar disorder compared to those with a depressive disorder. Consistent with previous studies demonstrating increased rates of post-traumatic stress disorder (PTSD) in a bipolar disorder cohort after a collective trauma such as the terrorist attacks on September 11, 2001 [11], the bipolar disorder group in COLLATE, then, appears to be particularly vulnerable to the disruption of the pandemic.

3. Psychiatric comorbidities in bipolar disorder and COVID-19

The COVID-19 pandemic also created increases in psychiatric morbidity overall including, but not limited to, anxiety and substance use, which research suggests may be a consequence of an increase in interoceptive awareness of or behavioral immune system (BIS) activation as well as economic distress and social isolation [12]. A recent meta-analysis [13] found that the prevalence of anxiety in 68 independent samples of populations affected by COVID-19 was four times higher than compared with recent prevalence data on common mental health disorders from the World Health Organization (WHO). Results also showed significantly higher rates of insomnia and psychological distress in COVID-19 affected populations compared with the general population. As noted, sleep disruption may be particularly risky for people with bipolar disorder who appear to have inherent dysregulation of circadian rhythms.

The high prevalence of psychiatric comorbidities in those with bipolar disorder at baseline potentiates an increase in risk of destabilization during the COVID-19 pandemic. Lifetime prevalence of substance use disorders in those with bipolar disorder is estimated to be around 50% [14]. Furthermore, research examining substance use disorders impact on illness course in people with bipolar disorder has consistently shown them to negatively effect outcomes [15]. Similarly, anxiety symptoms and syndromes have been found to be common among people with bipolar disorder with a prevalence estimates as high as 50% [16]. Anxiety disorders in bipolar disorder are associated with increased likelihood of suicide attempts and deaths [1].

4. Suicide

Since the onset of the COVID-19 pandemic psychiatric experts have been concerned that rates of suicide may increase as a result of many of the secondary consequences of the pandemic (summarized in Table 1), as well as evidence of increased rates of suicide in previous epidemics, such as SARS in 2003. Moreover, the United States was demonstrating alarming increases in rates of suicide in young people prior to the pandemic, providing a substrate for an even worse catastrophe [17]. Although studies are ongoing, some recent data suggest no rise in suicide rates among high income countries so far, although there is a more mixed picture among low income countries [18]. Regardless, although a

clear trend of increased suicides in the general population has not yet been demonstrated to date, the pandemic is not over and an overlap of risk factors associated with suicide in bipolar disorder and the secondary psychosocial consequences of the COVID-19 pandemic is a serious concern (Table 1). At baseline, suicide among people living with bipolar disorder is highly prevalent, and as noted, it is one of the leading causes of death among those with a diagnosis [1]. Suicide rates in bipolar disorder vary between studies but a recent systematic review [19] demonstrated rates are approximately 20–30 times higher than in the general population.

5. Psychiatric manifestations of COVID-19

To our knowledge there are no published reports examining the psychiatric sequelae of COVID-19 in a homogenous bipolar cohort; however a growing number of case reports [20–22] suggest that COVID-19 infection may be associated with psychiatric symptoms including psychosis, mood alterations and suicide even in those with no prior psychiatric history or no other significant medical problems. It remains unclear and often difficult to assess whether these psychiatric symptoms are a direct result of CNS viral infection, the associated immunological and inflammatory responses, commonly used treatments such as corticosteroids or, at times, a result of increased psychosocial stress co-occurring with severe disease [23]. The direct neurobiological impacts and stress may also precipitate new psychiatric illnesses in people who are at risk, e.g., through a family history of illness. Bipolar disorder is highly familial (Strakowski, 2014), so family members of a proband with bipolar disorder might also be at risk. To date, whether this risk has been realized in the pandemic is unknown.

6. Medical comorbidity in bipolar disorder and increased risk for severe COVID-19 illness

Compared with the general population and most other psychiatric conditions, bipolar disorder is associated with a significantly increased prevalence of cardiovascular disease [24], a finding consistent across studies and linked to multiple mediators including lifestyle, medications (particularly antipsychotics) and pathophysiology of the illness itself [25]. Large epidemiological studies also have also demonstrated cardiovascular disease to be the most consistent cause of excess mortality in people with bipolar disorder with an increased mortality risk up to 2.5-fold higher than the general population [26]. Smoking among people with bipolar disorder has also been found to up to 3.5 times more common than the general population [25]. These medical disorders put people with bipolar disorder at an increased risk for severe COVID-19

Table 1
Similarities between risk factors associated with suicide in bipolar disorder and the secondary consequences of the COVID-19 pandemic.

Risk factors associated with increased likelihood of suicide in bipolar disorder ^a	Secondary consequences of the COVID-19 pandemic amongst the general population ^b
Current depressive or mixed episode	Increased rates of depression
Comorbid substance use disorder	Increased rates of substance use
Comorbid anxiety disorder*	Increased rates of anxiety
Comorbid eating disorder	Increased economic disruption
Occupational problems	Increased social isolation
Bereavement	
Social Isolation	

^a Ref. [1].
^b Ref. [12].
* Comorbid anxiety disorder is the only psychiatric comorbidity associated with increased likelihood of suicide attempt and death by suicide in bipolar disorder.

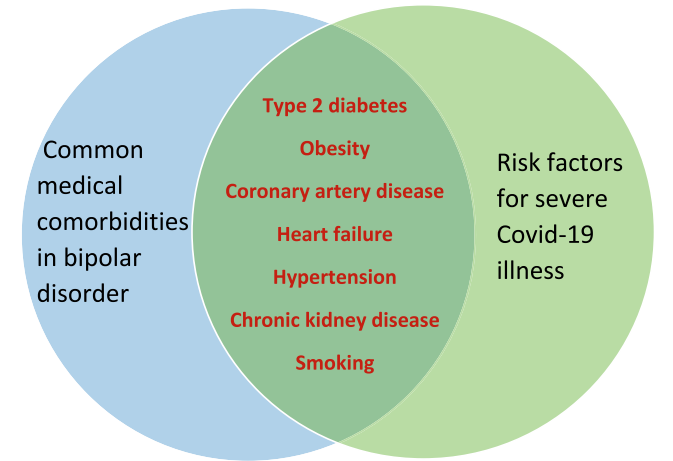


Fig. 1. Overlap between prevalent medical conditions in bipolar disorder and risk factors for severe Covid-19 illness.

illness (Fig. 1, [27]). Consequently, more than ever, assessment for – as well as prevention and treatment of – associated cardiovascular and metabolic disease is essential in the management of bipolar disorder.

7. Role of telepsychiatry on clinical care and outcomes during COVID-19

A growing body of research supports the safe and effective use of telepsychiatry in a wide range of clinical settings [28–30] and has demonstrated strong, consistent evidence in support of its feasibility, acceptance by users, lower cost, and clinical outcomes across various mental health diagnoses [29]. Telepsychiatry and clinical videoconferencing has been shown to extend the reach of collaborative care models in the treatment of bipolar disorder [30] and has the potential to improve access to evidence-based care [31]. Delivering telepsychiatric care presents numerous transdiagnostic challenges, most notably, the need to address behavioral emergencies such as a suicidal patient [32]; however there are also special telepsychiatric considerations relevant to the treatment of bipolar disorder such as the challenge of accurately assessing speech rate, voice prosody, psychomotor agitation and psychotic symptoms such as paranoia and hallucinations [33].

8. Challenges to treatment of bipolar disorder during COVID-19 and evidence-based recommendations for care

COVID-19-associated social and financial stressors as well as the disease itself pose many challenges to providing safe and effective clinical care for those living with mental illness. As discussed previously, people living with bipolar disorder are particularly vulnerable to pandemic-related disruption, yet for those in need of higher levels of care, job loss, loss of health insurance, decreased availability of child-care, and remote-schooling at home create barriers that may prevent them receiving such care. Inpatient psychiatric facilities are also not well-equipped for infection prevention and management of patients with active SARS-CoV-2 infections [34]. Evidence-based, clinical recommendations for care of patients with bipolar disorder during the COVID-19 pandemic were recently published [35] and included assessment guidelines, evidence-based treatment interventions such as the use of Interpersonal Social Rhythm Therapy (IPSRT) to promote maintenance of healthy habits and routine, and a description of the risk of drug-drug-interaction between psychotropics used for bipolar disorder and treatments for COVID-19. These recommendations will likely evolve as we learn more about COVID-19 and its intersection with mental health.

9. Conclusion

The COVID-19 pandemic presents many challenges to the health and treatment of those living with bipolar disorder – an illness with a high burden of disability and comorbidity at baseline including highly prevalent medical conditions that increase risk for severe COVID-19 disease. Evidence demonstrating the COVID-19 pandemic's toll on mental health is growing, and although contemporary studies examining the pandemic's effects on outcomes in bipolar disorder are limited, the increased vulnerability to stress, daily routine and lifestyle disruption in this population is well-established. Increased use of telepsychiatry can provide an effective way of increasing access to mental health care, but many challenges remain to provide treatment for patients with bipolar disorder at all levels of care during the COVID-19 pandemic. Mental health providers treating this population may benefit from a review of emerging COVID-19-specific treatment recommendations [33,35] to help deliver effective care for and promote the ongoing stability of people with bipolar disorder.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: David Spelber, MD has no conflicting or competing interests to disclose. Stephen M. Strakowski, MD serves as chair of Data and Safety Monitoring Boards for Sunovion and has grants to University of Texas from Janssen Pharmaceuticals.

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