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Research on the Over Diagnosis of Bipolar Disorder among Teenagers in China

Yuxuan Liu[1,a,*]

[1]*School of English and International Studies, Beijing Foreign Studies University, Beijing, 100089, China*
a. seis@bfsu.edu.cn
**corresponding author*

Abstract: Recent research has revealed that the diagnosis rate of bipolar disorder is increasing rapidly, especially among adolescents. Although some attempts have been made to address this issue, it is still worth further research. This paper provides new insights into the phenomenon that bipolar disorder has been overdiagnosed among teenagers in China. Basically, the purpose of this paper is to make a more comprehensive and in-depth analysis of the background, current situation, controversy, factors, and possible consequences of the overdiagnosis of bipolar disorder. In the following, this paper introduces some domestic and foreign research results, and shares authoritative opinions and reflections about the overdiagnosis of bipolar disorder. To conclude, this paper provides detailed information about the overdiagnosis of bipolar disorder, analyzes the status quo of psychiatric diagnosis and summarizes related literature, suggesting that the process of diagnosing bipolar disorder is problematic. Therefore, it's essential for us to revisit our diagnostic criteria as well as proper treatment.

Keywords: bipolar disorder, depression, mania, overdiagnosis, diagnosis rate

1. Introduction

According to the World Psychiatric Association, more than 1% of the world's population, regardless of nationality, ethnicity, or socioeconomic class, suffers from bipolar disorder (BD), a mental illness that is defined by periods of mania and depression. It is also one of the main causes of impairment in young people [1]. With high rates of illness, impairment, and premature mortality from suicide, BD has come to be regarded as one of the most incapacitating mental conditions [2].

Similarly, in China, according to disability-adjusted life years, BD came in sixth place for the burden of disease related to mental and drug use disorders [3]. Moreover, in the past several years, the prevalence rate of BD reported in China has been generally lower than that reported in Western countries. Nonetheless, China has witnessed swift socioeconomic transformation over the past 20 years, which has been accompanied by social issues and had an impact on mental health in general, particularly mood disorders [4]. Hence, the prevalence rate of BD is increasing rapidly and there exists a trend that BD is now being diagnosed at an earlier age. Meanwhile, the problem of "overdiagnosis" of bipolar disorder among adolescents has become more and more serious. Data shows that from 1994 to 2003, the diagnosis rate of bipolar disorder among children and adolescents has increased by about 40 times, and there has been an upward trend in the past 10 years [5].

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Nonetheless, bipolar illness is only thought to account for roughly 1% of the population and 10-15% of all mood disorders, according to publications derived from instruments or research using conservative criteria [6].

Important factors leading to the overdiagnosis of BD are rather complicated, including the broadening of diagnostic criteria, the confusion between agitated depression, disruptive mood dysregulation disorder and BD, and the barrier between psychiatry and clinical psychology. Notably, severe consequences of the overdiagnosis of BD are also worth discussing and investigating. The paper includes a critical examination of the problem of overdiagnosis in bipolar patients, beginning with available literature findings and followed by analysis and reflections.

2. Factors Contributing to Bipolar Disorder's Overdiagnosis

The phenomenon that bipolar disorder is being overdiagnosed is not an accident, but a result of multiple factors. This paper summarizes three major factors contributing to bipolar disorder's overdiagnosis, including the broadening of diagnostic criteria, the confusion between differential diagnoses and the barrier between psychiatry and clinical psychology. Basically, this paper will elaborate on these three points in the following paragraphs, and these issues will also be demonstrated below in the analysis.

2.1. The Broadening of Diagnostic Criteria

One of the most important factors that leads to the overdiagnosis of BD is the broadening of diagnostic criteria. The prevalence of BD has historically been estimated to be between 0.5% and 1.5%, although more recent research suggests that rates could reach 10%, depending on the diagnostic standards used [7].

The American Psychiatric Association (APA) updated its classification system and diagnostic tool in 2013, and it is known as the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). The DSM-5 is used as the standard diagnostic tool in China as well. Specifically, throughout the past two decades, DSM-5 criteria have been frequently employed for the diagnosis of psychiatric illnesses. There is evidence that some of its criteria may not be valid [8], despite the fact that the validity of its criteria for the diagnosis of BD, especially in the presence of mania, has been well shown. For instance, the DSM-5 lists three main categories of BDs. A single (or repeated) manic episode defines bipolar 1 disorder. Although not required, a depressive episode is frequently present for the diagnosis of BD I. Single (or repeated) hypomanic and depressed episodes define bipolar II disorder. Cyclothymic disorder, another form of BD, is characterized by repeated, alternating episodes of hypomania and depression that last at least two years.

After the DSM-5 was officially released, bipolar disorder was separated from other mood disorders, and the scope of diagnosis was significantly expanded. This change certainly has a positive side, reflecting that BD is a developmental disease. It attempts to avoid one-size-fits-all diagnostic criteria and it effectively lowers the risk of a missed diagnosis. However, objectively, this has indeed led to large-scale overdiagnosis problems.

2.2. The Confusion Between Agitated Depression, Disruptive Mood Dysregulation Disorder and Bipolar Mania

Admittedly, bipolar disorder has been underdiagnosed for many years. That's because one-third of people with bipolar disorder begin with depression and don't appear to be manic in the first place. However, in recent years, BD has been widely publicized and caused excessive attention. As a result, more and more patients are diagnosed as BD as soon as they show impatience and tantrums.

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According to Dr. Zhang Daolong, the Chinese compiler of the American "Diagnostic and Statistical Manual of Mental Disorders" (DSM-5), children approaching adolescence often behave differently from adults, and thus it is better to be conservative rather than give an instant diagnosis. The overdiagnosis of BD is more reflected in the group of adolescent patients and the crux lies in the confusion between agitated depression, disruptive mood dysregulation disorder and bipolar mania. That is to say, clinical psychiatrists often reckon patients' impulsive behavior and aggressive behavior as manic symptoms. They tend to consider that when a patient has symptoms such as irritability, rage, smashing people and destroying things, etc., it is a typical manic or hypomanic episode, and then diagnose the patient as bipolar disorder. For example, some children who throw tantrums can easily be diagnosed as bipolar, but they may actually have disruptive mood dysregulation disorders(DMDD). In order to address concerns over the incorrect diagnosis and subsequent overtreatment of bipolar disorder in children and adolescents, disruptive mood dysregulation disorder (DMDD) was added to the DSM-5 as a new diagnostic entity under the category of depressive disorders [9]. "Chronic, severe persistent irritability" and "severe temper outbursts" are the hallmarks of DMDD. Children with DMDD might also have irritability and rapid mood switches. Despite the absence of identifiable mood episodes, several of these kids have recently been given the diagnosis of bipolar disorder [10].

DMDD and BD are distinguished primarily by careful characterization of irritable mood and temper outbursts. Severe mood dysregulation is distinguished from bipolar illness by nonepisodic irritation, increased emotional reactivity, and hyperarousal. Regarding familial aggregation, physiologic reactions to annoyance, and brain reactions to social cues, severe mood dysregulation and bipolar disease are different [11-13].

In addition, it is clinically important to recognize agitated depression and bipolar mania in patients seeking proper treatment and to distinguish between the two.

Another aspect of overdiagnosis involves the definition and connotation of "mania". In the DSM-5, the basic features of a manic episode are the presence of a unique episode of unusually elevated, expansive, or irritated mood and abnormally raised goal-directed activity or energy that lasts for at least one week and is present for most of the day, almost every day (or for any length of time if hospitalization is required) [14].

However, in clinical practice, psychiatrists often misinterpret mania and mistake a patient's agitated behavior for a manic episode. Symptoms such as irritability, defiant or oppositional behavior, can be erroneously believed to be the effect of BD [15,16]. For example, many adolescents have experienced obvious depressive episodes as well as uncontrolled flashes of anger, and even engaged in violent behaviors, such as hitting people, smashing objects and self-mutilation. Many psychiatrists misclassify this agitated behavior as "mania", and directly diagnose bipolar disorder.

Typically, irritability is also a common and recognized symptom of depression in adolescents, which makes it difficult for doctors to determine whether a patient has BD or unipolar depression [17]. In order to identify a manic episode, a patient must have a distinct mood change. Besides, it is important to notice that irritability is also a depression criterion in kids. Differential considerations (for example, depression in adolescents) must be valued, especially when the patient is irritable or agitated [18].

Additionally, if a patient reports irritability rather than the typical elevated mood, psychiatrists need to better understand what is behind this phenomenon. For example, in patients with manic performance, irritability often stems from impatience, which is often secondary to exaggerated ideas, increased energy, accelerated thought processes, etc.; however, in patients with other disorders, irritability may be for other reasons [19].

Furthermore, the DSM-5 also mentions the importance of differential diagnosis. It reports that major depressive illness presents the most difficult differential diagnosis to take into account because it may be accompanied by hypomanic or manic symptoms that do not fully fit the criteria (i.e., either

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fewer symptoms or a shorter duration than required for a hypomanic episode). This is particularly true when assessing people who exhibit irritability symptoms, which have been linked to bipolar II disorder or severe depressive disorder [14].

To sum up, in order to make a correct diagnosis, psychiatrists need to examine the patient's pathological pattern and medical history to make a careful diagnosis rather than merely focus on temporary symptoms.

2.3. The Barrier Between Psychiatry and Clinical Psychology

Until now, the neurotransmitter theory has been the mainstream theory in psychiatry. However, the etiology of neurotransmitters and mental disorders is much more complicated than a simple causal relationship. Moreover, with the development of clinical diagnosis and medication, the limitations of the neurotransmitter theory have emerged. In clinical practice, the effects of medicine developed on the basis of this theory have been shown to be effective only for a subset of patients.

At present, mainstream psychiatrists still attach great importance to biological factors such as neurotransmitters and gene expression, and do not pay enough attention to psychosocial factors and new discoveries in psychology, such as the mechanism of human memory.

To get further information about the phenomenon that BD is being overdiagnosed, this paper interviewed Professor Song, who is now working as a therapist while teaching psychology to postgraduates at Shandong University.

For this problem, Professor Song expressed his own opinions and stated that on the basis of clinical practice, combined with the cutting-edge scientific research results of psychology, Professor Song’s team found that for many mental disorders(e.g. depression, bipolar disorder), psychotherapy and pharmacotherapy are equally important. In fact, many of these patients also have some psychological issues that need to be worked around; however, these psychological problems are not dealt with by psychiatrists due to the lack of psychological knowledge. Professor Song also mentioned that both the rising tendency and the earlier onset age of BD reflect the influence of exogenous factors on the development of mental diseases. However, the mainstream opinion in psychiatry tends to ignore the psychological factors, and even responds with a skeptical attitude. In that case, if psychiatrists only focus on biological factors and lack systematic knowledge of psychology, it is very easy to ignore the atypical fluctuations of symptoms caused by psychological exogenous factors, or to arrive at the diagnosis with a snap judgment.

Therefore, Professor Song’s team concluded that both physiological and psychological factors should be considered carefully in the diagnosis of BD. In terms of treatment, psychiatrists should also pay more attention to psychotherapy, enhance the awareness of the importance of psychosocial factors, and strengthen the innovation of theories and techniques such as interpersonal therapy, cognitive behavioral therapy, and family therapy.

To sum up, medication is primarily used to treat BD patients, but there are a number of adjuvant treatment alternatives available as well. For example, interpersonal and Social Rhythm Therapy (IPSRT) is a psychosocial intervention that aims to address the social zeitgeber theory's proposed mechanism of action, namely sleep disruption, which predisposes patients with BD to relapse [20]. Patients who underwent IPSRT had a lower chance of episode recurrence and were more likely to remain healthy, which is evidence of the treatment's effectiveness [21]. Meanwhile, strong empirical evidence supports the efficacy of a number of psychosocial interventions, and similar findings have been obtained in independent investigations. Behavioral therapy, cognitive therapy, and interpersonal therapy are a few examples of these treatments.

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3. The Impact of Overdiagnosis

3.1. Medication

One of the serious consequences caused by the overdiagnosis of bipolar disorder is that the use of mood stabilizer has become a one-size-fits-all therapeutic schedule.

Admittedly, people with bipolar disorder generally take three types of medication: antidepressants, antipsychotics, and mood stabilizers. In clinical practice, a question is often encountered: Can bipolar patients use antidepressants? It has been debated whether and how antidepressants should be used in patients suffering from bipolar depression. Some doctors believe that using antidepressants increases the risk of inducing mania or hypomania, and thus they refuse to use antidepressants on BD patients.

It is generally believed that antidepressants used to treat bipolar depression can easily lead to adverse effects. However, new research finds that in selected patient subsets, antidepressant RCTs showed some effectiveness in the treatment of bipolar depression. Switch rates were low in most studies of fluoxetine, signifying that after careful consideration and case-by-case assessment, antidepressant could be used to treat bipolar disorder[22]. That is to say, antidepressants itself can also be used for patients with severe depression but with no typical manic episodes.

In general, psychiatrists should use medication flexibly based on clinical experience and adjust the prescription according to the change of patients' condition rather than adopt a one-size-fits-all therapeutic schedule. A more individualized approach to patients should now be adopted and medication needs to be selected according to the specific situation of the patient. Only in this way will patients ultimately benefit from a wide range of treatment options.

3.2. Pressure

From the perspective of pressure and stigma that the diagnosis of bipolar disorder brings to adolescents and their families, the diagnosis should be very carefully made.

For people with BD and their families, stigma is a major worry. To be specific, it has been determined that stigma against mental illness is particularly harmful and persistent in Chinese societies. About half of the sample in a poll of 1,007 community members in Hong Kong said that people with mental illness are "quick-tempered," and a considerable percentage (28.9%) of respondents agreed that "those who have been mentally ill are hazardous no matter what."[23]. Besides, the feeling of "loss of face" not only affects the ill person but also may be carried by all related family members, and the humiliation of an individual owing to the onset of mental illness may be experienced powerfully by family members[24]. When a child gets sick, the whole family would bear great psychological pressure.

Furthermore, BD is seen as a severe mental illness and thus the overdiagnosis would have a huge negative impact on adolescents in particular. According to China’s current regulations on the management and service of patients with severe mental illness, the relevant jurisdictional institutions will include the patient's information into management and follow-up evaluation. A lot of starting points of management rules and regulations are good and reasonable, but many institutional personnel do not have a good understanding of mental illness and even discriminate against patients and their families; some institutions also lack awareness of privacy protection, which makes patients and their families feel that they are being monitored.

To make things worse, high levels of stigma appear to have a detrimental impact on social support, functioning, and quality of life in BD[25]. At present, most psychiatrists still believe that people with BD tend to have a high risk of relapse, substantial residual, or inter-episode symptoms[26], and high suicidality[27]. After such information is disseminated through the Internet, the overdiagnosis of BD can actually lift a huge burden for patients and their families.

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4. Conclusion

Bipolar disorder is a complex mental disorder resulting from multiple factors and it is well recognized that there is a high risk of BD during adolescence. It is acknowledged that many patients are misdiagnosed or never diagnosed. Nevertheless, overdiagnosis, especially in adolescents, is also a substantial concern that needs to be valued. It is being reported that more children are being treated for bipolar disorder than ever before. Three different factors contributing to bipolar disorder's overdiagnosis are elaborated, including the broadening of diagnostic criteria, the confusion between differential diagnoses, and the barrier between psychiatry and clinical psychology. Accordingly, severe consequences caused by overdiagnosis are explained, such as the one-size-fits-all medication and the huge psychological pressures brought about by overdiagnosis.

Overall, several methods to avoid overdiagnosis and multiple treatment options are also mentioned. In order to provide a precise diagnosis and treatment, psychiatrists are supposed to take both physiological and psychological factors into consideration, recognize differential diagnoses, and receive targeted training in psychology, counselling, and related areas. More importantly, the most effective approach for long-term problem management is a combination of medicine and psychosocial therapy. Psychotherapy is also an important measure throughout the whole course of the disease. Psychotherapy programs, including cognitive behavioral therapy, family therapy, psychoeducation, interpersonal and social rhythm therapy, etc., have been shown to be effective in treating bipolar disorder.

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