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Examining the Status of Research on Treating Bipolar Disorder in Teenagers and Children

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Abstract: Although adolescence is a crucial period for a person's physical and psychological growth, some teenagers struggle with bipolar disorder during this time. Their lives and prospects are significantly impacted by this mental health issue. This review will look at how bipolar disorder is treated in adolescents in order to give a comprehensive understanding of the condition, reveal the characteristics and prevalence of the affected population, investigate the causes of bipolar disorder, and emphasise the unique needs of the adolescent population. This review will explore existing treatments and focus on the most effective for adolescents. This evaluation will also look at the drawbacks of existing therapies and offer suggestions for future lines of inquiry. This study provides a comprehensive and in-depth overview of the management of bipolar disease in kids and teenagers, emphasising the importance of customised treatment plans and integrated therapies. To improve the quality of life, reduce the risk of suicide, and assist young patients in better managing their symptoms, these areas require greater focus in clinical research and practice.

Keywords: Bipolar disorder, teenagers, treatment

1. Introduction

Patients with bipolar illness, a serious mood disease, go through cyclical mood swings, including highs and lows. These mood swings may have a serious impact on the patient's daily life, including affecting work, school and relationships. During mania, patients may feel euphoric, hyperactive, impulsive, irritable, arrogant, and sleep-deprived. During depression, patients may feel depressed, helpless, tired, insomnia, loss of appetite, etc. These symptoms may last for days or weeks. During periods of low mood, patients may feel down, and helpless, loss of interest, sleep disturbances, etc. These symptoms may last for weeks or months. In some cases, patients may experience a mixed state where symptoms of both high and low mood are present [1,2].

Bipolar disorder comes in two flavours: bipolar I and bipolar II. Having at least one manic episode and one depressive episode is a hallmark of bipolar I disorder. By contrast, a patient with bipolar II illness must have at least one depressed episode and one weak manic episode, sometimes referred to as a submanic episode. Manic episodes are more severe and frequent in bipolar I disorder, while submanic episodes are relatively mild in bipolar II disorder [3]. The above studies also indicate that the prevalence of bipolar disorder is about 1 to 2 per cent globally. The prevalence may vary in different countries and regions. For example, in China, the prevalence of bipolar disorder is about 0.6%, while subclinical forms of the disorder affect another 2% of the population. Bipolar disorder

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affects people in adolescence and early adulthood but can develop at any age, and the risk of developing the disorder may be influenced by a variety of factors, including genetics, environment, and biology.

People with bipolar disorder usually require long-term treatment, including medication and psychotherapy. Medication usually includes lithium, antidepressants, antipsychotics, etc. These medications can help control mood swings and reduce symptoms. Psychotherapy includes cognitive-behavioural therapy, illustration therapy, and family therapy, which can help patients learn to cope with mood swings, change unhealthy thinking and behavioural patterns, etc. [3,4].

Bipolar disorder is becoming more common in children and teenagers today. Children and adolescents with bipolar illness have worse academic and social functioning, and there is a higher chance of suicide. Treatment-related, biological, and psychological factors may contribute to this [5, 6]. In order to assist young people in managing their symptoms, enhancing their quality of life, and preventing suicide, it is crucial to understand how to intervene and treat early.

2. Etiology

Bipolar disorder's precise aetiology is unknown, although research indicates that environmental, neurochemical, and genetic variables may all be involved in its development. Evidence has shown that relatives of people with bipolar disorder are far more likely than the general population to get the condition, indicating that hereditary factors may be important in the development of the illness. Since an imbalance of neurotransmitters in the brain can produce mood fluctuations, bipolar disorder may also have neurochemical causes. Bipolar disorder may also occur as a result of environmental variables such stress, life events, and hormone changes. In summary, the cause of bipolar illness is a complicated matter that necessitates more investigation to ascertain [7].

Many elements that may be connected to teenage emotional issues are addressed in the Comsa et al. 2022 article. Teenagers' sleep habits, for instance, might not align with the social structures (such as school timetables) and biological clocks of their parents, which could result in emotional challenges later on and sleep deprivation. Adolescent emotional challenges can also be linked to long-term dysfunction, substance misuse, relational issues, sleep issues, and an increased risk of suicide. In terms of current findings, the aetiology of affective disorders in adolescents is complex and requires a combination of factors to be considered [8].

3. General Treatment Methods

The treatment of bipolar disorder consists of two main areas, medication and psychotherapy. Of the pharmacological treatments, lithium is thought to have an ameliorative effect in certain cognitive domains, such as attention and working memory. Lithium is used for relapse prevention and long-term maintenance therapy and is particularly effective for patients with bipolar I and II disorders. Still, it may negatively affect executive functioning and language skills, so caution is needed in using lithium therapy because of its adverse effects and the risk of abrupt discontinuation [9]. In the meantime, long-term usage and high dosages of antipsychotics may impair cognitive performance; however, the effects of these medications depend on the patient's condition and the goals of their treatment. When it comes to sodium metabolism inhibitors, sodium valproate is used to treat bipolar illness. It stabilises mood and lessens the likelihood that patients may experience mood swings and lose emotional control. Side effects of sodium valproate include dizziness, drowsiness, ataxia, and abnormal liver function. In addition, sodium valproate may interact with other medications. However, the effects of other sodium metabolism inhibitors are currently unknown, so patients need to be closely monitored for responses and side effects when using them [10]. Lamotrigine has also shown some efficacy in bipolar depression, where it acts by inhibiting neuronal excitability, thereby reducing

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seizures and mood swings, Lamotrigine is commonly used to prevent the recurrence of bipolar disorder and reduce depressive symptoms. However, one needs to be aware of its possible side effects and limitations of use; its side effects include dizziness, drowsiness, and skin rashes, but it has fewer side effects compared to other drugs [9,11].

A crucial role for psychotherapy plays in the all-encompassing care of bipolar illness patients. In the comprehensive treatment of bipolar disorder, psychotherapy plays a crucial role in assisting patients in identifying and tracking early indicators of mood swings, managing stress and relationship issues, creating plans to prevent relapses, stabilising sleep patterns and daily routines, promoting medication adherence, and minimising the use of stimulants like alcohol, drugs, and caffeine. Psychotherapy can improve patients' self-awareness and self-management skills, and help them better cope with mood swings and life stresses, thereby improving their quality of life and level of functioning. Psychoeducation is a particularly well-supported psychotherapeutic approach to help patients understand the causes, symptoms, treatment, and prognosis of bipolar disorder, as well as to improve their adherence to treatment and self-management ability. Additional forms of psychotherapy include of family therapy, interpersonal therapy, cognitive-behavioral therapy, and so forth [11,12]. Several studies have demonstrated that the co-administration of pharmaceutical and psychotherapy interventions enhances both the prognosis and clinical results for bipolar disorder patients, underscoring the significance of doing so [12].

Electroconvulsive therapy (ECT) and light therapy may be used to treat bipolar disease in some situations, according to a study by Baldessarini et al. [12]. Nine patients with bipolar disorder who had ECT treatment 1-2 times per month saw an 85% reduction in hospital days. ECT use is still debatable, though, as it might have unfavourable side effects like memory loss and cognitive deterioration. By exposing patients to bright light, light therapy is another non-pharmacological treatment for bipolar disorder's depressive symptoms. It works by regulating the patient's biological clock and mood. In individuals with bipolar disorder, 30 minutes of light therapy per day at a brightness of 7,000 lux significantly reduced depressed symptoms, according to a randomised, double-blind, placebo-controlled research. More research is required to determine the exact scope and effectiveness of these two treatments.

Furthermore, there is reason for concern regarding the evolving patterns of medication prescription. The usage of monoamine oxidase inhibitors in the treatment of bipolar illness has decreased, while the use of "other" antidepressants and selective norepinephrine and norepinephrine reuptake inhibitors has increased. Furthermore, there have been some modifications in the utilisation of additional psychotropic drugs, such as an increase in stimulant use and no discernible shift in the prescription rate of benzodiazepines. In order to address this trend, best practices in clinical practice and guidelines grounded in the most recent research findings may be combined to enhance the standard of outpatient bipolar illness patient care [10].

4. Treatments for Adolescents and Children

Medication and psychotherapy are two equally important components of the multimodal treatment of bipolar illness in children and adolescents. Numerous studies have examined the effects of medications such as lithium, antidepressants, and antipsychotics [13, 14]. Lithium in particular has demonstrated promise in reducing suicidal thoughts, depressive symptoms, and psychosocial functioning. Antidepressant use in teenagers with bipolar disorder should be done so carefully due to the possibility of side effects include mood swings, uncontrollable behaviour, substance abuse, and suicide thoughts. In contrast, antiepileptic mood-stabilising medications may be more appropriate, e.g. gabapentin may be beneficial in social anxiety disorder and panic disorder, whereas valproate may be effective for anxiety symptoms in panic disorder and bipolar disorder. It is crucial to remember that there aren't many studies on the use of gabapentin in treating kids and teenagers, so

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care must be used while administering it to this demographic and additional clinical research is required to determine its effectiveness and safety. Moreover, long-term use of lithium salts may be accompanied by potential risks to the kidneys, thyroid function, etc., and therefore the risks and benefits of the drug need to be carefully assessed when formulating a treatment plan. Therefore, potential drug side effects need to be carefully assessed and treatment regimens should be tailored to the individual [13-15].

When treating bipolar disorder in children and adolescents with medication, there is greater prudence and conservatism than when treating the condition in adults [9]. The usage of drugs in kids and teens may be impacted by differences in their physical and psychological makeup. For example, for medications such as lithium salts, whose ameliorative effects in certain cognitive domains are still being investigated, negative effects on executive functioning and language skills may make their use in children and adolescents more cautious. In addition, long-term use of antipsychotics may have an impact on cognitive function, but their effects are related to the patient's condition and treatment needs. Therefore, greater care needs to be taken in the development of medication regimens for children and adolescents, with special consideration given to possible side effects and safety concerns.

However, it has also been demonstrated that psychotherapeutic, and particularly psychosocial, interventions including family therapy, cognitive behavioural therapy, and supportive therapies, can help patients manage their mood swings and enhance the stability and support of their families [13,16]. In addition, a novel intervention, albeit with preliminary clinical efficacy, is Positive Mindfulness Cognitive Therapy, a psychotherapeutic approach combining Positive Mindfulness and Cognitive Behavioural Therapy, which is designed to help patients become aware of and accept current emotions, feelings and thoughts through positive mindfulness exercises, as well as cognitive skills to change negative patterns of thinking and behavioural habits. This therapy is usually a 12-week programme of positive thinking exercises, cognitive skills training and homework, but more large-scale studies are needed to validate its effectiveness [17].

When treating bipolar disorder in kids and teens with psychotherapy, early intervention, emotion control, and family support may be given more priority [12]. The types and methods of psychotherapy may need to focus more on helping this age group recognise signs of mood change, addressing relationship issues, and family-focused approaches to therapy to enhance family support and communication skills. Psychoeducation is also recognised as an important psychotherapeutic approach in the treatment room for children and adolescents, helping to increase patients' awareness of the illness and adherence to treatment.

Compared to treating adults, treating kids and teenagers requires the creation of customised treatment programmes, which are especially crucial [9,12]. In order to get the greatest possible treatment outcome, individualised treatment is a therapeutic method that takes into account the unique characteristics of each patient. Its goal is to create a customised treatment plan that takes into account the patient's needs and circumstances. A useful therapeutic strategy for the management of bipolar disorder and its co-morbidities is individualised therapy. To achieve optimal treatment outcomes, personalised treatment for patients with bipolar disorder can involve selecting an appropriate medication regimen based on the patient's unique symptoms and medical history. This can be combined with psychotherapeutic approaches like cognitive behavioural therapy and positive cognitive therapy [15].

Individualised treatment for children and adolescents has many advantages, for example, this can cater for specific needs, this is because children and adolescents may have different mental health needs to adults and individualised treatment can better cater for their specific needs and stage of development, helping to enhance their self-esteem and self-perception. Secondly, by tailoring treatment to age, interests and personal preferences, children and adolescents' engagement and compliance with treatment can be increased. Therefore, individualised care can more effectively

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incorporate aspects of the family and social environment, enhancing its efficacy and long-term viability. Ultimately, individualised care for kids and teenagers can help foster their healthy growth in a variety of areas, such as social skills, academic achievement, and emotional control [14]. Individualised treatment is generally more effective and more suited to the unique mental health requirements of children and adolescents, supporting both good development and mental health.

Treatment strategies should be based on personalised decisions and balanced considerations of medications because every patient's circumstances are different [9,18]. A patient's reaction to a particular treatment can be predicted as well as future disease prognoses and patient identification can be aided by clinical and biological characteristics. These variables include the individual's age of onset, the existence of mixed features, the history of suicidal behaviour, psychopathological traits or childhood or adolescent experiences, and the individual's first reaction to treatment [12]. Given that children and adolescents differ from adults in terms of biological, psychological, and sociocultural aspects, treatment techniques should take specific patient features, requirements, and potential risks and benefits into greater detail.

5. Conclusion

In conclusion, treating bipolar disorder in kids and teens needs to be done with more thought and care. To guarantee the efficacy and safety of the treatment method, particular consideration must be given to the applicability and possible influence of psychological and pharmacological treatments on various age groups. In addition to being tailored to the individual needs and circumstances of the patient, treatment must be evaluated in relation to the possible hazards associated with medicine and the efficacy of psychological therapy. Since there is currently little and inconsistent long-term research on the medical management of bipolar illness in children and adolescents, more exhaustive and rigorous investigations are needed to guide clinical practice. In addition, in order to effectively treat children and adolescents, personalised treatment plans must be developed and tailored to each individual's unique needs. Therapy approaches designed for this age group must take into account the benefits and drawbacks of different interventions in order to achieve the greatest potential treatment outcomes and overall patient health management.

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