ISSN 2959-6149

Current Understandings and Controversies of Disruptive Mood Dysregulation Disorder

Yitian Cheng[1*]

[1]Department of Humanities, Arts and Media, Changzhi Medical College, Changzhi, ShanXi, 046000, China
*Corresponding author: 1810010126@stu.hrbust.edu.cn

Abstract:

Researching DMDD is crucial as it directly impacts clinical diagnosis and treatment strategies for mental illnesses. Understanding and addressing the controversies surrounding DMDD can lead to improved diagnostic criteria and better treatment outcomes for affected individuals. Through a comprehensive and extensive understanding of DMDD through literature search, it is found that there is a great dispute in the academic circle about the rationality and scientificity of DMDD. Based on this, the existing research results of DMDD will be partially introduced, and some existing controversies will be discussed. The main points of contention are the scientificity and rationality of DMDD's inclusion in the DSM-5; And how the distinction between DMDD and other disorders is more rigorous because it involves different ways of treating different types of mental illness. Understanding these disputes is essential as they have significant implications for clinical practice and the overall approach to diagnosing and treating mental health disorders. Addressing these controversies can lead to improved diagnostic accuracy and more effective, tailored treatment strategies for individuals with DMDD.

Keywords: Controversies, DMDD, Research progress, Childhood Bipolar Disorder, comorbidities

1. Introduction

The DSM-5 lists Disruptive Mood Dysregulation disorder(DMDD)as a separate criterion. That is because the previous DSM did not account for a combination of mood disorders, hyper-excitability, and decreased resistance. But the emergence of DMDD builds on the theories of several other mental disorders, such as Severe Mood Disorder (SMD) and Oppositional Defiant Disorder (ODD). So there's a lot of controversy in the academic community about DMDD where researchers question whether it's scientific when it's not based on clinical trials and it's just theoretical research. Some researchers believe that the judgment criteria established by theory alone are inaccurate, and more research are needed to prove that the evaluation and treatment of DMDD can be more scientific and rigorous.

In the decade since the concept of childhood bipolar disorder emerged in the United States, the diagnosis rate of bipolar disorder has increased more than 40-fold, and the use of some atypical antipsychotic drugs in the treatment of bipolar disorder has raised concerns about the side effects of drugs on children's own development. DMDD is an attempt to correct the overtreatment and misunderstanding that some people are diagnosed with bipolar disorder in childhood [1]. There are two key points in the diagnosis of DMDD: severe recurrent temper tantrums and chronic non-episodic dysphoria. Some studies have shown that this irritability is associated with a range of mood disorders in adulthood, but it is not related to Bipolar Disorder [2]. Other studies have shown that chronic irritability often predicts dysthymia, generalized anxiety, and major depression many years in the future; But the risk of developing bipolar disorder is very low [1]. At the same time, DMDD is characterized by a high rate of comorbidity with other psychiatric disorders, and this comorbidity persists into adulthood [3].

2. Factors Affecting DMDD

Some studies suggest that traumatic events can be a factor in DMDD. Mood disorders include depression, bipolar disorder and destructive mood disorder. Andreas Bauer et al. found that childhood trauma has a certain correlation with the generation of mental illness in children. Although it does not show a link between a specific mood disorder and a traumatic event, it does explain to some extent the relationship between traumatic events and mood disorders today. Studies have shown that childhood trauma can stimulate the brain, which over time can cause structural or secretory changes that affect physical and mental health

in general. Among them, the incidence of mental illness will be increased, but the specific incidence of a disease will be higher in the study report did not elaborate [4]. There is also a large body of research showing that any child at any stage of development who is exposed to a traumatic event has a long-term negative effect on the child themselves. Children who have had traumatic childhood experiences have a higher prevalence of psychiatric and medical disorders than children who have not experienced traumatic childhood events. Moreover, studies have shown that children with mood disorders often develop comorbidities, and after prolonged exposure to traumatic events, which can cause changes in the brain's hypothalamic-pituitary-adrenal axis and inflammatory cytokines. All of these conditions will increase the disease susceptibility and higher prevalence of mood disorders in this group of people [4].

Some studies have shown that some manifestations of DMDD are related to Ejection Fraction (EF value). By comparing the EF value of children with DMDD and children with ADHD, it is found that EF value is correlated with the degree of irritability. Higher degree of irritability was strongly correlated with Emotional Control (EC) in daily life. Moreover, children with DMDD usually have higher EF levels, which may explain to some extent the reason why children with DMDD are grumpy [5].

Other studies have shown that parents' parenting style and emotional state also have an impact on children with DMDD. Proper parenting should be based on different types of babies and should follow certain cultural norms. However, if some parents use improper parenting methods and even add violent factors and other behaviors that violate social norms and ethics, then the impact on children must be negative. The results suggest that negative parental mood and poor parental mental health affect the symptoms of DMDD. This also reflects from the side that when treating children with DMDD, it is also necessary to train their parents or caregivers to learn good emotional expression and correct parenting methods, so as to create a good environment for the recovery of children with DMDD [6].

Other studies have shown that adolescents with DMDD show different patterns of central nervous system activation than healthy subjects, an anomaly that researchers believe may lead to an increased rate of reactive aggression. This may partly explain why DMDD affects social skills [1].

In summary, the influencing factors of DMDD can be summarized into four points: childhood traumatic events, EF value, parenting style and activation mode of central nervous system. This inspires researchers to start from these four points to conduct research and analysis, and do further research on treatment methods.

3. Effects of DMDD

DMDD is associated with a higher rate of comorbidities. In one study, researchers compared children with DMDD with children with ADHD and healthy children by using controlled trials. Differences in sociodemographic characteristics, behavior patterns, family functioning, and psychiatric comorbidities were compared between the three groups and assessed using the other rating scale for Children. Children with DMDD and ADHD were excluded from other major physical illnesses and mental illnesses such as depression, while those with healthy children were excluded from major physical and mental illnesses. The final results found that the DMDD group had a higher rate of psychiatric comorbidity than the healthy and ADHD groups, and in addition to a higher rate of comorbidity than the other groups, the DMDD group also had lower behavioral patterns and family functioning than the other groups [7]. This result indicates that DMDD has a great adverse impact on the prognosis and subsequent disease course of children, and these effects will exist in various aspects from life skills to their own health status.

DMDD can also affect the academic performance of adolescents, and the proportion of academic failure and learning difficulties among adolescents with DMDD is very severe. Therefore, studies have been conducted to investigate the factors affecting learning, and studies have shown that 71% of people with DMDD have related language or motor disorders, and there are also higher rates of developmental coordination disorders (67%) and written language disorders (35%). These data suggest that people with DMDD may have problems with their ability to learn in the field. This explains why people with DMDD have more serious problems with learning and school work [8].

4. Controversies

Since the diagnosis of DMDD was announced, the academic community has been divided on the significance of the disease. Some researchers believe that DMDD is a category derived from other disorders, and is a supplementary explanation for some psychiatric disorders, indicating that DMDD does not occur alone, but can be interpreted as an adjunct symptom of other disorders such as anxiety, depression, hyperactivity disorder, and oppositional defiant disorder (ODD) [9]. However, DMDD has been listed as a separate symptom in the DSM-5 published in 2015.

The debate over whether DMDD should be evaluated and treated as a separate disorder or in conjunction with other disorders can be viewed from a relatively dialectical point of view. Because a large number of clinical studies have shown that many DMDD are not diagnosed as DMDD at the initial stage, and are often diagnosed as Oppositional

Defiant Disorder (ODD) or SMD, until some symptoms and manifestations cannot be explained by ODD and SMD, clinicians will convert them to DMDD.

Based on this, DMDD, ODD, SMD, etc. which are prone to bias in identification, can be taken into account when treating patients with similar symptoms such as irritability and temper outburst, and treatment should be carried out cautiously. Some more conservative and stable treatment methods can be used in the early stage of treatment, such as psychological intervention and family joint training for the patient's own psychological intervention, as well as some peripheral environment improvement work. Parents can learn how to create a harmonious and loving family atmosphere, or according to the child's preferences and the needs of the development of the disease appropriate to the permanent house and the surrounding environment to repair, such as: change the child's favorite curtain color and so on. This is conducive to the child's acceptance of treatment in their favorite environment more quickly, and cooperate with a positive attitude. After some time of initial contact and intervention, the clinician may have a better understanding of the patient and better rule out some of the symptoms, thus implementing a more accurate treatment plan. However, such treatment will be relatively inefficient, the diagnosis cycle will be longer, and there are high requirements for the experience and professional knowledge of the clinician. Because it takes twice or twice as long to make a diagnosis and requires highly skilled clinicians to make the diagnosis, the number of doctors who can do the job will be reduced. These two factors can affect the effectiveness of treatment in children with overall DMDD. But the effects of overtreatment of many children for childhood bipolar disorder, as mentioned earlier, should inspire researchers to be more careful about how they define symptoms and disorders. Therefore, the diagnosis cycle can be extended appropriately to avoid some errors.

There is also some controversy that the proposed DMDD is only based on the theoretical basis of other research results, so there are some doubts about the clinical application of DMDD. Studies conducted in four areas of DMDD assessment have found that DMDD is not distinguishable from oppositional defiant disorder and conduct disorder, that the diagnosis is not stable. And the study showed no significant association with parental psychiatric history in etiology [10].

In Mayes et al. 's study, DMDD assessment was more often based on parents' and teachers' subjective recall of the frequency of temper outbursts, rather than a good description and record of the severity of temper outbursts. This results in a skewed assessment, as tantrums can be physically aggressive or verbally aggressive. Also, recording the frequency of tantrums is somewhat more objective and accurate than recording the severity of tantrums. Because parents and teachers have different perceptions of temper tantrums, it may lead to differences in the consistency and objectivity of the diagnosis for different children [1].

For this controversial point, researchers can supplement other scales on the basis of DMDD assessment scale, so that different scales can complement each other and better reflect the situation of children. In addition, parents and teachers can also be briefly introduced and trained before using the DMDD assessment scale. For example, the severity of temper outburst can be described in the form of verbal explanation, so that parents and teachers can understand how to define whether the severity is serious. There is a disadvantage to this recommendation of training and explanation: it is subject to change depending on the clinician's subjective experience and the parents' ability to understand. It may seem like the controversy at the beginning of this paragraph is stuck in a loop, but it is not. Clinicians can modify the scale according to local conditions in practical application, so that the scale conforms to the common characteristics of children in the area. Because children are in different regions and different cultural backgrounds, whether it is mental illness or medical illness, there will be differences to some extent [11]. Therefore, the diagnosis of DMDD should also be adjusted according to local characteristics.

5. Future Direction

In the face of so many controversies over DMDD, researchers should speed up the research process in clinical application to better and faster discover some potential mechanisms of DMDD. More extensive testing could be done on the effectiveness of drug treatments. Because of the high probability of DMDD co-occurring with other conditions, further research is needed to determine how these comorbidities affect each other when treated. If the drugs used in the treatment are contradictory, how to reduce the side effects of this conflict on other diseases? A major step forward in the study of DMDD as a whole is needed to fully resolve the controversy, so that much of the debate can be resolved with a more mature understanding of the disease. The reason behind the controversy is the incomplete understanding of some mechanisms or principles of DMDD; Or the development of scientific level has not kept up with the pace of human development in time, so there are many controversial issues that need to be solved.

6. Conclusion

The discussion on DMDD has never been interrupt-

ed since the academic circle named it. The research on DMDD in this paper mainly focuses on the influencing factors, controversies and the impact of DMDD. After consulting data and related literature search, it is concluded that the influencing factors of DMDD are very complex, including childhood traumatic events, EF value, parenting style and central nervous system activation mode. In addition to these four factors, there are certainly other influencing factors, but these four points are the main focus of this paper. Through the study of these influencing factors, it is found that there are many disputes in the academic circle about DMDD, and further clinical research and more disciplines are needed to complete the improvement of DMDD as a disease category.

References

[1] Mayes, S., Baweja, R., Hameed, U., & Waxmonsky, J. (2016). Disruptive mood dysregulation disorder: current insights. Neuropsychiatric Disease and Treatment, 12(12), 2115–2124. https://doi.org/10.2147/ndt.s100312

[2] Copeland, W. E., Angold, A., Costello, E. J., & Egger, H. (2013). Prevalence, Comorbidity, and Correlates of DSM-5 Proposed Disruptive Mood Dysregulation Disorder. American Journal of Psychiatry, 170(2), 173–179. https://doi.org/10.1176/appi.ajp.2012.12010132

[3] Bruno, A., Celebre, L., Torre, G., Pandolfo, G., Mento, C., Cedro, C., Zoccali, R. A., & Muscatello, M. R. A. (2019). Focus on Disruptive Mood Dysregulation Disorder: A review of the literature. Psychiatry Research, 279(S0165178119300290), 323–330. https://doi.org/10.1016/j.psychres.2019.05.043

[4] Bauer, A., Fairchild, G., Hammerton, G., Murray, J., Santos, I. S., Tovo Rodrigues, L., Munhoz, T. N., Barros, A. J. D., Matijasevich, A., & Halligan, S. L. (2022). Associations between childhood trauma and childhood psychiatric disorders in Brazil: a population-based, prospective birth cohort study. The Lancet Psychiatry, 9(12), 969–977. https://doi.org/10.1016/s2215-0366(22)00337-6

[5] Brænden, A., Coldevin, M., Zeiner, P. et al. Executive function in children with disruptive mood dysregulation disorder compared to attention-deficit/hyperactivity disorder and oppositional defiant disorder, and in children with different irritability levels. Eur Child Adolesc Psychiatry 33, 115–125 (2024). https://doi.org/10.1007/s00787-023-02143-6

[6] Duncombe, M. E., Havighurst, S. S., Holland, K. A., & Frankling, E. J. (2012). The Contribution of Parenting Practices and Parent Emotion Factors in Children at Risk for Disruptive Behavior Disorders. Child Psychiatry & Human Development, 43(5), 715–733. https://doi.org/10.1007/s10578-012-0290-5

[7] Uran, P., & Kılıç, B. G. (2020). Family Functioning, Comorbidities, and Behavioral Profiles of Children With ADHD and Disruptive Mood Dysregulation Disorder. Journal of Attention Disorders, 24(9), 1285-1294. https://doi.org/10.1177/1087054715588949

[8] Benarous, X., Iancu, C., Guilé, JM. et al. Missing the forest for the trees? A high rate of motor and language impairments in Disruptive Mood Dysregulation Disorder in a chart review of inpatient adolescents. Eur Child Adolesc Psychiatry 30, 1579–1590 (2021). https://doi.org/10.1007/s00787-020-01636-y

[9] Mayes, S. D., Mathiowetz, C., Kokotovich, C., Waxmonsky, J., Baweja, R., Calhoun, S. L., & Bixler, E. O. (2015). Stability of Disruptive Mood Dysregulation Disorder Symptoms (Irritable-Angry Mood and Temper Outbursts) Throughout Childhood and Adolescence in a General Population Sample. Journal of Abnormal Child Psychology, 43(8), 1543–1549. https://doi.org/10.1007/s10802-015-0033-8

[10] Axelson, D., Findling, R. L., Fristad, M. A., Kowatch, R. A., Youngstrom, E. A., Horwitz, S. M., Arnold, L. E., Frazier, T. W., Ryan, N., Demeter, C., Gill, M. K., Hauser-Harrington, J. C., Depew, J., Kennedy, S. M., Gron, B. A., Rowles, B. M., & Birmaher, B. (2012). Examining the Proposed Disruptive Mood Dysregulation Disorder Diagnosis in Children in the Longitudinal Assessment of Manic Symptoms Study. The Journal of Clinical Psychiatry, 73(10), 1342–1350. https://doi.org/10.4088/jcp.12m07674

[11] Kirmayer, L. J. (1989). Cultural variations in the response to psychiatric disorders and emotional distress. Social Science & Medicine, 29(3), 327–339. https://doi.org/10.1016/0277-9536(89)90281-5