



Disruptive Mood Dysregulation Disorder (DMDD): Some Points To Ponder For The Busy Clinician

KEYWORDS

Disruptive mood dysregulation disorder, DMDD, DSM 5

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ABSTRACT

Disruptive mood dysregulation disorder (DMDD) is a new child psychiatry disorder under the mood disorders section in DSM 5. The present paper gives a brief clinical summary of the construct of DMDD and certain clinical implications and variables related to the same. It also stresses the various facets of clinical judgement that will be engaged in the diagnosis and management of the same.

INTRODUCTION

Disruptive Mood Dysregulation Disorder (DMDD) is a new psychiatric disorder introduced in DSM 5. The need for the same was felt as there was no disorder that looked at the role of chronic non episodic irritability in children and adolescents. The disorder also accounts for many cases of irritable behaviour where the underlying phenomena is mood related but there is no overt evidence of conduct or oppositional defiant disorder [1-2].

CRITICAL CLINICAL CONSIDERATIONS

- The symptom of irritability is seen in many child and adolescent psychiatric disorders but has never really been dissected and analysed in toto. There are various dimensions of irritability which range from mood disorders on one side, with ADHD and disruptive behaviour disorders in the centre and psychotic disorders at the other end of the spectrum [3].
- Irritability has been included in the diagnostic criteria for mania. But this led to a 400% increase in the diagnosis of childhood bipolar disorder in the US as most cases of children with irritability as a main symptom were being diagnosed as bipolar even though just lack of sleep and no other overt mood symptoms were present. On the other hand it is often difficult to diagnose mania in children as expansive mood and grandiosity are often difficult to elicit [4].
- The diagnosis of DMDD was aimed at dissecting and distinguishing between chronic non episodic versus episodic irritability and to curb the expanding diagnosis and increase in childhood bipolar cases [5].
- DMDD has two main components viz. temper outbursts which are disproportionate to the provocative stimuli and may be manifested verbally or by physical means. The temper outbursts must be more than 3 times a week and the mood between temper outbreaks must be one of irritability noticed by teachers, parents or peers. The behaviour must be prevalent in more than one setting. The age of diagnosis is given as 6 to 18 years with an age of onset being before 10 years. The disorder can be diagnosed with ADHD and depression but when criteria of both ODD and DMDD are met then a diagnosis of DMDD is given. It cannot be diagnosed with childhood bipolar disorder [6].
- Certain other concerns as a clinician should worry us about DMDD. The disorder will add to the comorbidity diagnosis with ADHD and thus there may be more children who may have ADHD, Learning Disabilities, depression, epilepsy and other comorbidity leading to greater

number of children being diagnosed with complex comorbidity which is the presence of 5 or more diagnoses in child psychiatry [7].

- Very little is known about the neurobiology of DMDD and its relationship with ADHD and Learning disabilities and its impact on their neurobiology. How the presence of epilepsy would impact the nature and course of DMDD is probably a matter one needs to ponder over. Genetic studies though few are available for DMDD. The studies show a clear link to depression and not bipolar disorder. Thus the impact of this genetic link on treatment and prognosis is enormous [8].
- Antidepressants have been recommended as the first choice for the management of DMDD as the underlying disorder is one of mood. A concern in children and adolescents is the use of SSRIs and their links to suicidality which though resolved via research hounds us as well as the impact of SSRI use on increasing any impulsivity or aggression in cases diagnosed with ADHD where the dopamine systems are also impaired. SSRI use in ADHD is said to cause some impairment in the hyperactivity impulsivity components specially when combined with stimulants like methylphenidate [9].
- The concern is reversed when a child with DMDD may be depressed and suicidal and we need to treat ADHD. The risk of methylphenidate use in such groups is tremendous where it may increase aggressive and suicidal behaviour. I have no doubt that in an era where we speak about multiple neurotransmitter systems involvement in various psychiatric disorders, there is a need for alert and rational polypharmacy in DMDD. Which drug combinations work better and in what doses will be a matter of personal preferences and experience with various combinations over time while trying to avoid drug drug interactions [10].
- There have been in the past a large number of children with chronic non episodic irritability that we have labelled as moody or sticky ADHD and have often treated with a mood stabilizer and stimulant or atomoxetine combination. We have no clear criteria to determine whether irritability is of a manic antecedent or whether it is of a cluster B antecedent. The only method of knowing is sometimes a negative trial of psychopharmacology [11].
- Many a time we have started children on carbamazepine to only see a worsening of symptoms while when we add an SSRI or an atypical antipsychotic shows improvement. The negative response to mood stabilisers very often indicates a depressive antecedent more in favour of DMDD. Another method one may want to try is projec-

tive psychological testing which may bring out defence mechanism use pattern in the adolescent that can give us a hint with regard to the behavioural antecedents [12].

- Irritability is thus an understudied symptom in pediatric psychopathology that crosses over boundaries of various diagnostic categories while it is often used to diagnosis childhood or adolescent bipolar disorder which may lead to supposedly lifelong therapeutic regimens while the actual diagnosis may be DMDD [13].
- Children who had a diagnosis of severe mood dysregulation differed from children having bipolar disorder on facial recognition tasks and lower amygdala response. It is prudent that a diagnosis of bipolar disorder in children and adolescents be made only in the presence of identifiable manic or hypomanic episodes. We do not have a single optimum diagnosis for youth with severe non episodic irritability which may be a variant of depression or DMDD. Youth with chronic non episodic irritability differ from those with bipolar disorder in longitudinal course, family history and academic performance [14].
- DMDD has thus provided a diagnostic home for children whose rages do not otherwise satisfactorily fit into current concepts of ADHD or ODD and have been misdiagnosed as bipolar disorder to signal the severity of the problem and its mood related nature. This nosological distinction is not just a trivial academic exercise in futility but has profound implications for differential treatment [15].
- Besides episodic irritability, elation and grandiosity are by definition the symptoms that distinguish mania from other forms of psychopathology and provide the most discriminant validity between bipolar disorder and DMDD. They are the symptoms that must be ruled out if a diagnosis of DMDD must be made. They are also symptoms that very difficult to diagnose in their juvenile manifestations as it is clinically tough to distinguish manic elation and grandiosity from normal fluctuations of extreme excitement, fantasy and youthful indiscretion. Decreased need for sleep is another differentiating symptom between mania and DMDD. Sleep problems must however be distinguished from the sleep issues that arise in ADHD or conduct disorder [16].
- A clinical method of diagnosing the rage in children and dissecting the rage of ADHD from DMDD is based on 2 criteria. The rage of DMDD is very often triggered by the most trivial reason and is out of proportion to the factors concerned. It usually lasts for hours and is severe resulting in marked damage to other objects or persons which is not the case in ADHD. The rage in DMDD is more frequent than in ADHD and occurs in multiple settings while rages in ADHD is seen mostly in school settings and in response to discipline. In fact in many cases the differential diagnosis of DMDD from virulent ADHD + ODD is so difficult that one begins to think whether we must indeed have a separate entity like DMDD or is it unnecessary [17].
- One more method of distinction is a robust psychopharmacological trial with stimulants which will be relatively ineffective in DMDD while will show positive effects in ADHD children. The same can be said of ADHD chil-

dren who fail to show improvement with Lithium or other mood stabilizers [18].

- Stimulants may trigger manic episodes in some children. It is interesting whether we would like to diagnose these children with bipolar disorder and revise the DMDD diagnosis in view of their propensity to have manic episodes even if drug induced [19].
- The addition of DMDD as a diagram in DSM 5 has now made it incumbent on the psychiatrist to diagnose this condition and differentiate it from ADHD or ODD. One important role of DMDD will be in reducing the large number of children who will otherwise be misdiagnosed as bipolar disorder using DSM criteria [20].
- DMDD is a diagnosis that may not be possible in a single clinical evaluation and may need extensive ongoing evaluation and psychological testing. It is also clear that child psychiatry will benefit from further robust research in the area of anger outbursts and irritability in childhood [21].
- Psychiatric disorders in childhood are a mixture of the intertwining of biological and psychosocial factors while these are superimposed on maladaptive trajectories throughout child development. Approximately 85% of adult psychiatric problems have their onset in childhood or adolescence. The same disorder may be seen sometimes in different stages of human development like depression and is called homotypic continuity while in many cases the clinical phenotype changes in different stages of human development. Bipolar disorder starts in 50-60% cases in adolescent and its developmental symptom trajectory is of grave importance to clinicians and researchers alike [22].
- Irritability needs to be evaluated starting with episodicity. If episodic then evaluate on the lines of bipolar disorder and if not look at the lines of DMDD [23].
- The ICD 11 classification plans to include disruptive mood dysregulation with dysphoria disorder as a counterpart to DMDD in DSM 5. The criteria for the two are similar except that ICD has a uniform one month duration criteria for all mental disorders unlike the one year guidelines of DMDD in DSM 5 [24].
- Media has been quite hostile to a diagnosis of DMDD and believe that the earlier were difficult will now be labelled as DMDD and medicated as well. The other fear is the misuse of the DMDD diagnosis in juvenile crimes and courts to seek pardon for violent acts triggered by some events which should ideally not be pardoned easily. The acceptance of DMDD by medical insurance companies in settling claims is another issue worth discussing [25].

conclusions

We however still do not have an insight into various facets of DMDD. This includes a detailed outline of its neurobiology, the types of neurotransmitters involved beyond what we already know along with some facets of its genetics and longitudinal course as well as prognosis. These are areas where further research is needed and only in the coming years will we have more light on this complex and vexing yet important disorder in child and adolescent psychiatry.

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