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Disruptive Mood Dysregulation Disorder (DMDD): Information for Primary Care

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Sommaire : Disruptive mood dysregulation disorder (DMDD) is a new diagnosis having appeared for the first time in the DSM-5. DMDD refers to the child with persistent irritability and anger, who has severe anger outbursts that cause impairment. Though many primary care providers may not yet feel comfortable giving this diagnosis, being familiar with DMDD is nonetheless important as one will increasingly encounter patients with this diagnosis, most likely given by psychiatrists or psychologists. Treatments include: 1) collaborative problem solving (CPS), a type of therapy that seeks to improve the child's executive function skills. When non-medication strategies have been unsuccessful, medications may be tried.

Case

J. is a 7-yo male, new to your practice, brought in by his mother because he has severe temper tantrums. His tantrums are so severe, that he is getting suspended at school for hitting other children. Mother reports that J. was seen last year by a psychiatrist through a telepsychiatry consultation, and diagnosed as having "DMDD".

What are you going to do?

What is Disruptive Mood Dysregulation Disorder (DMDD)?

Disruptive mood dysregulation disorder (DMDD) is a mental disorder in children and adolescents characterized by:

- Persistently irritable or angry mood
- Frequent temper outbursts that are disproportionate to the situation and significantly more severe than the typical reaction of same-aged peers.
- Severe anger which is chronic (as opposed to episodic or situation dependent), e.g. most of the day, nearly every day in multiple settings, lasting for one or more years.

Clinical Presentation

Parents, teachers, and classmates describe these children as habitually angry, touchy, grouchy, or easily "set off".

Epidemiology

Prevalence over 6-12 months: 2-5% (APA, 2013).

Gender: Predominantly males.

Age of Onset: Typically during preschool years.

Neurobiology and Pathophysiology

Individuals with DMDD have difficulty attending, processing, and responding to negative emotional stimuli and social experiences in their everyday lives, tending to misinterpret others emotions and behaviours as being hostile. Studies have shown this may possibly be related to underactivity of the amygdala. Children with DMDD also appear to have difficulty regulating negative emotions once they are elicited.

History and Assessment

During your assessment of the child with episodes of anger, ask about:

- Triggers for the episode;
- Duration and frequency of the episode;
- What behaviours are seen during episodes;
- What helps end the episodes;
- What impairment is caused by the episodes?
- Between episodes, what is the child's mood and function like?
- In which settings does the anger occur? At home? At school? Other settings?
- Stresses
    - Any stresses at school? E.g. academics? Peers?
    - Any stresses at home? E.g. conflict with parents, siblings? Difficulties with daily routines and expectations?
- Adverse life events
    - Any past traumas? What is the most scary or stressful life event that the child has experienced?

Who to interview?

It is important to ask:

- Child and parent about symptoms at home
- Teachers about symptoms at school.
- To make the diagnosis of DMDD, symptoms must be present in multiple settings.

DSM-5 Criteria for DMDD

1. Severe recurrent temper outbursts manifested verbally and/or behaviorally that are grossly out of proportion in intensity or duration to the situation or provocation.
2. The temper outbursts are inconsistent with developmental level.
3. The temper outbursts occur, on average, three or more times a week.
4. The mood between temper outbursts is persistently irritable or angry most of the day, nearly every day, and is observable by others.
5. Criteria A–D have to be present for 12 or more months. Throughout that time, the individual has not had a period lasting three or more consecutive months without all of the symptoms in Criteria A–D.
6. Criteria A and D are present in at least two or three settings and are severe in at least one of these.
7. The diagnosis should not be made for the first time before age six or after age 18 years.
8. By history or observation, the age of onset of criteria A–E is before ten years.
9. There has never been a distinct period lasting more than one day during which the full symptom criteria, except duration, for a manic or hypomanic episode have been met.
10. The behaviors do not occur exclusively during an episode of major depressive disorder and are not better

explained by another mental disorder.

11. The symptoms are not attributable to the physiological effect of a substance or to another medical or neurological disorder.

Reference: APA, 2013.

Rationale and Controversy regarding DMDD

DMDD is a new diagnosis in DSM-5. Criteria for DMDD are primarily derived from “severe mood dysregulation”, a construct from the National Institutes of Mental Health (NIMH). The diagnosis of DMDD not without controversy, and critics note that the diagnosis has not had a lack of published validity studies. Even amongst critics of DMDD however, there is agreement that children/youth with severe mood dysregulation struggle.

Prior to the diagnosis of DMDD, many children/youth with non-episodic, severe irritability and angry mood were being misdiagnosed as having bipolar disorder, which led many of them to be treated unnecessarily with bipolar medications. Studies have since shown that childhood bipolar does not progress to adult bipolar, and in other words, that childhood bipolar is not the same as adult bipolar. As a result, DMDD was established to capture this population, in an attempt to provide better diagnosis and treatment for these youths.

Given that DMDD is a relatively new diagnosis, and given the controversy, it is understandable that many primary care providers may not yet feel comfortable giving this diagnosis. However, being familiar with this diagnosis is important as one may increasingly encounter patients with this diagnosis, most likely given by psychologists and psychiatrists.

Isn’t DMDD just another way of saying temper tantrums?

It is developmentally normal for children and youth to have troubles regulating mood. The diagnosis of DMDD is reserved for situations where the severe, non-episodic anger is so severe, that it abnormal, and causes impairment in function.

Differential Diagnosis

There are other conditions where child/youth may have angry or irritable moods, along with temper tantrums such as:

Attention deficit hyperactivity disorder (ADHD)	Any troubles with inattention? Any impulsivity/hyperactivity?
Oppositional defiant disorder (ODD)	Compared to ODD, DMDD has more severe anger and mood dysregulation For ODD: Any problems with being defiant?
Anxiety disorders	Any problems with anxiety?
Bipolar disorder	Bipolar disorder is episodic, whereas DMDD is more non-episodic DMDD children are at risk of future depressive/anxiety disorders, but not bipolar disorder For bipolar: Any episodic periods with ● Increased energy, along with decreased need for sleep? ● Increased talkativeness, grandiosity?
Mood disorder	Any problems with depressed mood, along with neurovegetative symptoms?
Psychosis	Seeing any things that others do not? Hearing any things that others do not? Worried that others are out to get you?
Learning disorder	Any learning difficulties? Such as math, reading, language?
Intellectual disability	Are there significant learning difficulties in all areas? Is the child significantly behind grade level?

Autism spectrum disorder (ASD)	Any troubles with social skills and relating to others? Any sensory issues? Problems with changes/transitions? Narrow interests in one area?
Sensory processing disorder (SPD)	Any sensitivities to sound? Light? Touch?

Comorbid Conditions

In those that meet criteria for DMDD, common comorbid conditions are:

Attention deficit hyperactivity disorder (ADHD)	Any troubles with inattention? Any impulsivity/hyperactivity?
Oppositional defiant disorder (ODD)	Any problems with being defiant?
Conduct disorder (CD)	Any behaviours that violate rules, or rights of others?

Physical Examination

Physical examination is done to rule out other possible medical conditions that might explain anger problems.

Laboratory Investigations

When there is clinical suspicion, laboratory investigations may be indicated to rule out contributory medical conditions.

Treatment for DMDD

Treatment for DMDD requires an individualized approach. Anger is a heterogenous condition, with specific circumstances leading to anger being different in any given child/youth.

Psychosocial Treatment

Several interventions have been developed to help youths with chronic irritability and temper outbursts, though most have not been developed for “DMDD” specifically. Treatments based on effective techniques for ADHD, ODD, and depression have been found to be effective (Waxmonsky, 2016; Waxmonsky, 2013).

Examples include:

- Collaborative problem solving (CPS): The philosophy of CPS is that “children (and parents) do well if they can.” Children do not consciously choose to have anger, tantrums or misbehaviour. Deep down, they really do want to please their parents, and be successful at home and school like other children/youth. When a child/youth is having problems with extreme tantrums, it is usually an issue of lacking the self-regulation skills to manage their frustration and anger. The CPS approach gives parents strategies to help their child develop learn the skills required for frustration and anger. Anger is a problem with lack of skills, not lack of will.
- Self-regulation problems such as “How does your Engine Run?”
- Attachment-based therapies (such as the BRAVA program)

There is overlap between the strategies of many programs, with common elements such as:

- Identifying triggers for frustration and anger
- Reducing those triggers if possible
- When not possible to reduce the trigger, they involve helping the parent (and child) have ways to manage the inevitable frustration such as

- Helping the child recognize the frustration
- Helping the child voice and express their frustration using words
- Helping the child have soothing/calming strategies that they can do
- Helping the parent be able to co-regulate and help the child calm their frustration

For example, the child with tantrums due to:

- Sensory overload
- Insecure attachment, and not being able to be co-regulated by a caregiver
- Academic stresses
- Social demands

Interventions That Do Not Appear Helpful

Contingency management (such as the use of reward and punishment systems) does not appear helpful with DMDD.

Contingency management involves teaching parents to reinforce children's appropriate behavior (e.g. give rewards for appropriate behaviour) and punish (usually through systematic ignoring or time out) inappropriate behavior.

In most cases however, the reason that children/youth are having tantrums is not because they are consciously, voluntarily trying to have tantrums or manipulate parents, but rather, they lack the self-regulation skills to more appropriate manage their frustration.

Medication Treatment for DMDD

Consider medications if non-medication strategies have not been helpful.

The limited evidence that exists suggests using medications that target specific symptom clusters:

Antidepressants such as SSRIs:

- For youths with DMDD alone, antidepressant medication is sometimes used to treat underlying problems with irritability or sadness (Tourian, 2015)

ADHD medications:

- For children with both DMDD and ADHD, stimulant medication can be used to improve impulsivity and aggression (Tourian, 2015)

Atypical antipsychotics:

- For youths with unusually strong temper outbursts, an atypical antipsychotic medication, such as risperidone, may be warranted (Tourian, 2015)
- Examples
    - Risperidone

Lithium:

- Because lithium, is effective in treating adults with bipolar disorder, some physicians have used it to treat DMDD although has not been shown better than placebo for signs and symptoms of DMDD (Tourian, 2015)

Anticonvulsants:

- Divalproex

When and Where to Refer

From a practical basis, there will probably not be a specialized treatment for DMDD in most areas.

When faced with the angry child who has not responded to standard interventions (such as basic lifestyle and counseling strategies), consider referral to other programs that are used for ADHD, ODD and depression such as:

- Referral to community agencies
- Mental health professionals such as psychologists or psychiatrists

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About this Document

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