CE

CONTINUING EDUCATION TREATING BIPOLAR DISORDER IN KIDS AND TEENS

BY ZARA ABRAMS

Of the nearly 11,000 articles on bipolar disorder in children and adolescents, more than 90% have been published in the last 15 years—after most practitioners were trained and licensed. Keeping up with that explosion of literature can be a challenge, says Eric Youngstrom, PhD, a professor of psychology, neuroscience and psychiatry at the University of North Carolina at Chapel Hill (UNC Chapel Hill).

"It's great to have the research," says Youngstrom, who also directs the Center for Excellence in Research and Treatment of Bipolar Disorder at UNC Chapel Hill. "But the speed of its arrival creates a challenge. How do we find and digest it? How do we learn about new tools and skills and use them?"

The rapid acceleration in research occurred after bipolar disorder was embraced by practitioners as a legitimate diagnosis for youth in the 1990s. Now, studies show that about 4% of people under 18, including children as young as 5, have the disorder, which is characterized by episodes of mania or hypomania—a slightly milder mood state—and, in most cases, depression (Van Meter, A., et al., *The Journal of Clinical Psychiatry,* Vol. 80, No. 3, 2019; Luby, J.L., & Navsaria, N., *The Journal of Child Psychology and Psychiatry,* Vol. 51, No. 4, 2010). About 3% of U.S. adults have bipolar disorder, according to the National Institute of Mental Health.

Over the past decade or so, experts across psychology and psychiatry have helped refine assessment and treatment of bipolar disorder among children and adolescents.

Researchers have also designed and tested psychosocial approaches that combine education, skill building and lifestyle modifications to help kids and parents manage the condition. Evidence to support those interventions is growing, giving hope to children and teens for a less tumultuous transition to adulthood if bipolar disorder is diagnosed and addressed early on.

"The field has come a really long way, even in the last five or 10 years, in terms of both diagnosis and treatment," says Tina Goldstein, PhD, an associate professor of psychiatry and psychology at the University of Pittsburgh. "Now, a big focus is disseminating those insights for use by practitioners in various settings."

AN OVERLOOKED DIAGNOSIS

Bipolar disorder was described by modern psychiatrists as early as 1851, though practitioners long believed that mood disorders did not develop until adulthood (Mason, B.L., et al., *Behavioral Sciences,* Vol. 6, No. 3, 2016). That perspective began to shift in the 1980s when two researchers based at the University of California, Los Angeles (UCLA)—psychologist Michael Strober, PhD, and psychiatrist Gabrielle Carlson, MD—studied a group of 60 teenagers with depression and characterized youth bipolar disorder (*Archives of General Psychiatry,* Vol. 39, No. 5, 1982).

Though some clinicians were skeptical at first, most ultimately embraced the new findings—perhaps too heartily. Between 1994–95 and 2002–03, outpatient visits with a diagnosis of bipolar disorder increased 40-fold among youth (Moreno, C., et al., *Archives of General Psychiatry,* Vol. 64, No. 9, 2007). Working at The Ohio State University's Wexner Medical Center, one of the first clinics to specialize in diagnosing the disorder, Mary Fristad, PhD, ABPP, says only about a third of youths referred to her practice for treatment of bipolar disorder had been accurately diagnosed. Instead, many of those patients were suffering from attention-deficit hyperactivity disorder (ADHD), obsessive-compulsive disorder, autism spectrum disorder,

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Learning objectives: After reading this article, CE candidates will be able to:

1. Explain how the research base on pediatric bipolar disorder has evolved since 1990.

2. Understand the basic diagnostic criteria for pediatric bipolar disorder and know what tools are used to assess it.

3. List and describe the top-line pharmacological and psychosocial treatments for bipolar disorder in children and adolescents.

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depression, anxiety disorders or conduct disorders.

"That experience spoke to the need for better assessment tools and adequate training of clinicians to perform differential diagnosis," Fristad says.

A second wave of research soon began to fill in those gaps. Psychiatrist Barbara Geller, MD, based at Washington University in St. Louis, led the charge to characterize pediatric bipolar disorder and to establish basic diagnostic criteria (*Archives of General Psychiatry,* Vol. 65, No. 10, 2008). Researchers also began to develop and test treatments for pediatric populations—including mood stabilizers and antipsychotic drugs known to be effective for adults with bipolar disorder, as well as psychosocial interventions to help children and families cope with the diagnosis.

In the last five years, more specialized research has started to help practitioners better understand pediatric bipolar disorder and to differentiate it from other conditions. Psychologists have also studied patients with comorbid conditions, such as ADHD or anxiety disorders (Arnold, L.E., et al., *The Journal of Child Psychology and Psychiatry,* Vol. 61, No. 2, 2020). Neuroscientific methods such as fMRI and electroencephalography are also being applied to better characterize the physiological underpinnings of the disorder in children.

DIAGNOSING IN CHILDREN

The criteria used to diagnose bipolar disorder in children and adolescent populations are the same as those used for adults—fluctuations between depression, which can include extreme sadness, low energy levels, loss of pleasure and suicidal ideation, and hypomania or mania, which can involve periods of elevated mood, irritability, a decreased need for sleep, increases in goal-oriented behaviors and inflated self-esteem.



New research is helping practitioners better understand the symptoms of pediatric bipolar disorder.

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The Diagnostic and Statistical Manual of Mental Disorders (DSM-V) distinguishes three subcategories of the disorder. Bipolar I is characterized by cycles of episodic major depression and full mania with impairment. Bipolar II involves major depression alternating with briefer and less-impairing periods of hypomania. Two other categories—"other specified bipolar and related disorder" and cyclothymic disorder—describe people with shorter manic or depressive episodes or episodes that fall one or two symptoms short of the full syndrome criteria.

But these disorders can look different in children, who may have more rapidly cycling moods and more "mixed" periods, characterized by simultaneous mania and depression, so experts say specialized assessment tools are needed.

"One of the challenges both in assessing and treating bipolar disorder in kids is that some of the symptoms can look a lot like extreme versions of normal child or adolescent behaviors," says Anna Van Meter, PhD, an assistant professor at New York–based health-care provider Northwell Health's Feinstein Institutes for Medical Research.

Clinicians who assess children and adolescents for bipolar disorder typically start with a symptom checklist, then they conduct a clinical interview that evaluates risk factors—such as a family history of the disorder—and draws on semi-structured interviewing tools such as the Kiddie Schedule for Affective Disorders and Schizophrenia for School Aged Children (Hunt, J.I., et al., *Journal of Child and Adolescent Psychopharmacology,* Vol. 15, No. 6, 2005).

In fact, clinicians can diagnose bipolar disorder in children more accurately when they ask the children, their teachers and their caregivers to fill out empirically validated questionnaires that ask about mood, energy levels and other factors, Youngstrom and Van Meter found in a meta-analysis (Youngstrom, E.A., et al., *Archives of Scientific Psychology,* Vol. 3, No. 1, 2015). These scales are available for free on the learning community Wikiversity and at EffectiveChildTherapy.org, supported by APA's Div. 53 (Society of Clinical Child and Adolescent Psychology).

"Improving our accuracy is important because on average, individuals with bipolar disorder will go about 10 years from initially seeking mental health services to receiving a bipolar disorder diagnosis," Van Meter says.

EARLY INTERVENTION

Even before a patient experiences manic and depressive episodes that warrant a bipolar disorder diagnosis, early intervention may hold promise to alter the condition's course for those at risk of developing it. Working with teens who had a first-degree family history of bipolar disorder but no existing mood disorder diagnosis, Goldstein tested Interpersonal and Social Rhythm Therapy (IPSRT), an educational and skill-based approach that aims to help individuals with bipolar disorder establish and maintain regular daily routines to help stabilize their moods. In a small randomized trial, she found that IPSRT helped teens establish more regular sleep-wake cycles, which appeared to mediate mood fluctuations (Goldstein, T.R., et al., *Journal of Affective Disorders,* Vol. 235, 2018).

Psychologist David Miklowitz, PhD, a professor of psychiatry at UCLA's Semel Institute for Neuroscience and Human Behavior, tested family-focused therapy (FFT), a psychosocial intervention that includes psychoeducation and skill training on communication and problem-solving for youth and their family members. In a three-site randomized trial involving children and teens who had mood instability and a family history of bipolar disorder, his group found that FFT elongated the intervals of wellness between mood episodes and reduced both depressive episodes and suicidal ideation (*JAMA Psychiatry,* Vol. 77, No. 5, 2020).

"We can't erase bipolar disorder, but we may see a milder course of the illness and lower levels of suicidality when we intervene at an early stage," Miklowitz says.

Increasingly, psychologists and psychiatrists are relying on "risk calculators" to determine who might be a good candidate for such early interventions. Goldstein helped develop one such tool for youth with a family history, which uses information about a child's age, mood and other factors to determine the likelihood that they will develop bipolar disorder (Hafeman, D.M., et al., *JAMA Psychiatry,* Vol. 74, No. 8, 2017).

"Clinicians anywhere can plug in patient data online, then use the calculator to make decisions with a family about early intervention and treatment options," she says.

Psychologists are also testing ways that technology can help young patients who have already received a diagnosis. Last year, Van Meter launched a study to describe the "digital phenotype" of bipolar disorder in adolescents by quantifying digital markers of their behavior. By passively monitoring teens' smartphones, she obtains estimates of their weekly schedules, physical activity, screen time and degree of social interaction—some of the factors clinicians expect to change before a manic or depressive episode occurs.

"My hope is that we can use this type of monitoring to prospectively identify when a patient is becoming symptomatic so that we can intervene to prevent a full relapse," says Van Meter.

Digital monitoring is also less burdensome for patients than self-reporting and may provide a more accurate snapshot of behavior, she adds. Teenagers and their caregivers complete informed consent for passive monitoring, which logs data about how a phone is used but does not monitor the content of messages or who the participant contacts.

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TREATMENT OPTIONS

For most cases of pediatric bipolar disorder, the American Academy of Child and Adolescent Psychiatry recommends a combination of medication and psychotherapy ("Practice Parameter for the Assessment and Treatment of Children and Adolescents With Bipolar Disorder," *Journal of the American Academy of Child and Adolescent Psychiatry,* Vol. 46, No. 1, 2007).

Mood stabilizers and antipsychotic drugs, which have been used for decades to treat bipolar disorder in adults, are also effective in pediatric populations. "In most cases, medication helps stabilize kids so that they can participate effectively in psychotherapy, which then helps with longer-term symptom management and coping strategies," says Amy West, PhD, an associate professor of clinical pediatrics and psychology at Children's Hospital Los Angeles and the University of Southern California's Keck School of Medicine. "I see the two as working in concert."

But many parents express concern about their child or teen using such medications. Antipsychotics, for instance, can cause metabolic disturbances that may result in weight gain and an increased risk for Type 2 diabetes (Harrison, J.N., et al., *Journal of Pediatric Health Care,* Vol. 26, No. 2, 2012). Miklowitz says more work is needed to establish guidelines for when psychotherapy alone is sufficient to treat bipolar disorder.

At the same time, families that do include medication in a child's treatment may not be getting its full benefit. In a three-month study of teens taking psychotropic drugs for bipolar disorder, Goldstein monitored medication adherence using Bluetooth-equipped pillboxes (*Journal of Child and Adolescent Psychopharmacology,* Vol. 26, No. 10, 2016).

"What we learned was really distressing. Almost half the time, kids were not taking their medications as prescribed," she says. "But the patients, parents and psychiatrists all reported more than 90% medication adherence."

To address that gap, Goldstein designed a brief intervention that uses motivational interviewing techniques to better understand kids' feelings about taking mood-stabilizing medications, as well as how to stimulate behavior change. She found that the intervention improved adherence compared with a control group (*Journal of Affective Disorders,* Vol. 265, 2020). The intervention can even be delivered by a nurse or peer educator without a background in mental health, she says.

Psychologists have also been instrumental in developing psychosocial interventions for bipolar disorder to equip kids and families with the tools and information they need to function well. Three popular evidence-based interventions all focus on education, skill building and lifestyle shifts—such as establishing regular sleep-wake cycles, often key for achieving remission—among children and family members.

"We know that the family system is really important for maintaining youth stability following a bipolar diagnosis, so these interventions tend to focus on helping families create a new normal," says West.

FFT, the intervention Miklowitz developed, works with adolescents who have bipolar disorder and their family members to recognize symptoms of the condition and develop a plan for managing manic and depressive episodes. It also helps parents reduce their own stress and expressed emotion. Eight randomized controlled trials have shown that FFT, when delivered in combination with mood-stabilizing medications, reduces symptom severity and relapse in both adolescents and adults with bipolar disorder (Miklowitz, D.J., & Chung, B., *Family Process,* Vol. 55, No. 3, 2016).

Along with psychiatrist Mani Pavuluri, MD, West developed and tested an intervention known as RAINBOW, which targets children ages 7 to 13 and their families ("RAINBOW: A Child- and Family-Focused Cognitive-Behavioral Treatment for Pediatric Bipolar Disorder, Clinician Guide," Oxford University Press, 2017). Its 12 sessions focus on education about the nature of the disorder, skill building to help kids regulate their emotions, and coping and parenting strategies for caregivers, such as the importance of creating routines. It incorporates cognitive-behavioral therapy, interpersonal psychotherapy and mindfulness-based approaches.

Using a group therapy format, Fristad also developed a widely used psychosocial treatment program, Multifamily Psychoeducational Psychotherapy (MF-PEP), for children and adolescents with mood disorders (*Archives of General Psychiatry,* Vol. 66, No. 9, 2009). Psychoeducation,

FURTHER READING

The International Society for Bipolar Disorders Task Force Report on Pediatric Bipolar Disorder: Knowledge to Date and Directions for Future Research
Goldstein, B.I., et al.
Bipolar Disorders
2017

Parenting Stress Among Caregivers of Children With Bipolar Spectrum Disorders
Perez Algorta, G., et al.
Journal of Clinical Child & Adolescent Psychology
2018

The Bipolar Teen: What You Can Do to Help Your Child and Your Family
Miklowitz, D.J., & George, E.L.
Guilford Press
2008



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Psychologists are developing interventions that help children with bipolar disorder establish regular sleep-wake cycles and make other lifestyle changes that can improve well-being.

a primary component of MF-PEP, teaches parents strategies for managing manic and depressive episodes, as well as how to navigate school and health systems to best support their child (Fristad, M.A., *Development and Psychopathology,* Vol. 18, No. 4, 2006).

"You can be a great parent, but that doesn't mean you automatically know what to do if your child is suddenly suicidal or is experiencing a manic episode," Fristad says.

ALTERNATIVE TREATMENTS

Researchers are also exploring other interventions for bipolar disorder to help practitioners manage special cases, such as patients with high levels of suicidality or those who don't respond well to medications.

Goldstein adapted a model of dialectical behavior therapy for youth with bipolar disorder, finding that it decreased suicidal ideation compared with typical psychosocial treatment for the condition in a small randomized trial (*Journal of Child and Adolescent Psychopharmacology,* Vol. 25, No. 2, 2015). She is working to replicate those findings in a larger sample.

Nutritional interventions also show promise for treating bipolar disorder. Fristad has tested the use of broad-spectrum nutrients for children not taking mood stabilizers or antipsychotic medications, with promising results (*The Journal of Alternative and Complementary Medicine,* Vol. 18, No. 7, 2012). In a randomized controlled trial, she also found that dietary supplementation with omega-3 fatty acids can help reduce both manic and depressive symptoms and improve executive functioning (*Journal of Child and Adolescent Psychopharmacology,* Vol. 25, No. 10, 2015; *The Journal of Child Psychology and Psychiatry*, Vol. 59, No. 6, 2018).

But even the top-line pharmacological, psychosocial and lifestyle interventions only help 50% to 60% of pediatric bipolar patients, says West.

"There's a lot of room for improvement in terms of translating our findings into better assessments and treatments," she says.

For example, research on the neural underpinnings of bipolar disorder should directly inform the development of psychological interventions, West says. In addition, research to optimize the match between a child and a given course of treatment could speed up progress and ultimately improve patient outcomes, says Goldstein.

Most important, new findings and best practices for treating bipolar disorder in children and adolescents need to reach private practice and community settings to help the broadest patient population.

"The need is so high, and unfortunately it takes time for evidence-based practices to permeate the field," West says. "We need to do a better job of preparing practitioners to understand pediatric bipolar disorder and to feel comfortable diagnosing and treating it." ■