

The Increased Diagnosis of “Juvenile Bipolar Disorder”: What Are We Treating?

Jennifer Harris, M.D.

The idea that bipolar disorder exists among children and adolescents has been increasingly accepted in recent years. In a study published ten years ago of children and adolescents admitted to an acute psychiatric unit over a three-month period, Isaac (1) reported that half “definitely” or “very likely” had bipolar disorder and another 25 percent required “prolonged observation to rule out the possibility.” During a recent three-month period in the child assessment unit at Cambridge Hospital in Massachusetts, I noted that a quarter of the children aged three to 13 years who were in my care had been given a diagnosis of bipolar disorder by their outpatient clinicians and were receiving mood stabilizers or antipsychotics. Another quarter were believed to have bipolar disorder by their parents, who requested that appropriate medications be started.

Not long ago bipolar disorder was thought to be rare or virtually nonexistent among adolescents and children. This column examines what the rise in the treated prevalence of juvenile bipolar disorder may mean and what relationship, if any, this childhood diagnostic phenotype has to adult bipolar disorder.

Diagnostic confusion

One difficulty in explaining the increased rate of diagnosis of juvenile bipolar disorder is the lack of universally accepted diagnostic criteria.

Many child and adolescent researchers use *DSM-IV* criteria for adult bipolar disorder. However, the very same researchers report symptoms of their young patients that do not match the criteria for adults. For example, although a manic episode is defined in *DSM-IV* as a distinct period of abnormal mood persisting for at least one week, a group of investigators working on an important NIMH-funded pediatric bipolar disorder study reported that 77 percent of the participants had ultradian cycling, or continuous rapid mood changes over the course of a day (2).

In a review article, Geller and Luby (3) stated that “if one looks to fit children and adolescents into adult criteria for manic-depressive illness, it will be difficult except for those adolescents who have adult-type onset Thus a developmental, age-specific viewpoint needs to be considered for pediatric patients who do not have the adult type onset.” We could indeed create separate criteria for juvenile bipolar disorder and then assign all youths who meet the criteria a diagnosis of this disorder—a somewhat tautological undertaking. However, the question still arises, “Are juvenile and adult bipolar disorder the same disorder?”

Evidence for juvenile bipolar disorder exists. Many adults with bipolar disorder report that their symptoms started in childhood. A survey of members of the Depressive and Manic Depressive Association that was published in 1994 found that 31 percent believed that their symptoms started before age 15, and another 28 believed that their symptoms started between the ages of 15 and 19 (4). Recent attempts by Geller and her colleagues (3,5) to develop reliable assessment tools for children with a prepubertal or early adolescent bipolar disorder phe-

notype have met with some success. Their longitudinal study of 93 children has shown that certain behaviors were consistent enough over four years for the diagnosis to remain stable.

However, it is not yet clear whether the symptoms that we are labeling bipolar disorder among children are related, biologically or etiologically, to bipolar disorder among adults. Much of what is regarded as mania among children does not evolve into adult bipolar disorder. For example, in a community sample of 150 adolescents aged 14 to 16 years, 20 youths (13 percent) endorsed four or more manic symptoms of at least two days’ duration (6). However, because the incidence of bipolar disorder in adults ranges from 1 to 2 percent, it is clear that not all these adolescents were destined to develop bipolar disorder. In a more recent community sample of more than 1,500 adolescents who were followed up when they were 24 years old, Lewinsohn and colleagues (7) found a lifetime prevalence of bipolar disorder of 1 percent in adolescence and 2 percent in young adulthood. These rates, although closer to those seen for adults, still seem high given that fewer than half of adults with bipolar disorder report that their symptoms began before age 19. Other studies have found a lower incidence of early-onset bipolar disorder. For example, the Great Smokey Mountains study of 4,500 youths aged nine to 13 years found no cases of mania and only a .10 percent rate of hypomania (8).

To posit the existence of juvenile bipolar disorder is to assume that children with a diagnosis of the disorder will go on to exhibit the adult version. However, the most intriguing finding of Lewinsohn and colleagues (7) is that the vast majority of children whose symptoms suggest juvenile bipolar dis-

Dr. Harris is in private practice in Arlington, Massachusetts, and is a clinical instructor at Harvard Medical School in Boston. Send correspondence to her at 180 Massachusetts Avenue, Suite 301, Arlington, Massachusetts 02474 (e-mail, jennifer_harris@hms.harvard.edu). Charles Huffine, M.D., is editor of this column.

order do not develop the adult version. Lewinsohn and colleagues found an approximately 5 percent prevalence of subsyndromal bipolar disorder among the adolescents they studied. At age 24, this group showed significant impairment in psychosocial functioning and greater use of mental health services, as well as elevated rates of all mental disorders, including major depressive disorder, anxiety disorders, and antisocial and borderline personality disorders. However, the adolescent subsyndromal group did not have an elevated rate of bipolar disorder in young adulthood, and none of these youths had a recurrence of subsyndromal bipolar disorder in young adulthood, suggesting that “the tendency to develop periods of elated mood may be transient and limited to adolescence” (7). Lewinsohn and colleagues wondered “whether [subsyndromal bipolar disorder] is a general indicator of psychopathology and does not specifically point to the presence of a bipolar disorder.”

In other words, symptoms of mood instability among youths may be sensitive but not specific indicators of bipolar disorder and other psychiatric dysfunction, which may help explain the findings of Hazell and colleagues (9) and of Tillman and associates (10). Hazell and colleagues assessed a sample of 203 nine- to 13-year-old boys and found that among the 124 boys who had attention-deficit hyperactivity disorder (ADHD), 25 (20 percent) also met criteria for mania; however, six years later only one of the 25 boys met criteria for mania or hypomania. Tillman and associates found a higher rate of adverse life events among youths with a bipolar phenotype than among youths with ADHD or matched controls.

Many alternate lines of evidence point to symptoms other than mania or hypomania as predictors of bipolar disorder in adulthood. Several studies have reported that some depressed children later develop adult bipolar disorder, although reported rates vary from 1 percent of these children (8) to 32 percent (11). In a rare prospective longitudinal study, 1,037 individuals were carefully assessed for mental illness at age 11, 13, 15, 18, 21, and 26 years (12) with use of well-validated

instruments. Among the 26-year-olds who had a diagnosis of mania, 93 percent had a previous psychiatric diagnosis; however, the most common previous diagnoses were conduct disorder, oppositional defiant disorder, and juvenile depression—not mania.

It is important to have diagnoses that are reliable and replicable. But are we diagnosing something meaningful and specific when we diagnose juvenile bipolar disorder? General affective lability in childhood may be a marker of later adult disorders, but it has not yet been shown to be specific to a diagnosis of adult bipolar disorder. As noted, it may be a broad indicator of psychopathology without being a diagnosis in itself. From personal experience on a pediatric inpatient unit, I know that a thorough assessment can yield quite a different picture of a child who has been given a diagnosis of bipolar disorder in an outpatient setting. Among diagnoses that were missed in the outpatient setting were pervasive developmental disorder, classic autism, reactive attachment disorder, classic posttraumatic stress disorder (PTSD), complex posttraumatic stress disorder, fetal alcohol spectrum disorder, nonverbal learning disabilities, and even mild delirium from overmedication.

The following two cases show the importance of thorough assessments in obtaining a clear clinical picture of youths who have been given a diagnosis of juvenile bipolar disorder.

Case examples

A ten-year-old boy had been treated for presumed bipolar disorder for two years with an escalating series of medications. In the month before admission to the inpatient unit, the medications prescribed included valproic acid, ziprasidone, tiagabine, gabapentin, and trazadone for unprovoked mood swings occurring several times a day. A detailed history uncovered that the vast majority of these “mood swings” were related to changes in his routine, such as taking him to school by a different route and putting something back in his room incorrectly. He also had extreme sensory sensitivity and a learning profile consistent with a significant nonverbal learning disability. As a result of the inpatient evalua-

tion, he was given a diagnosis of pervasive developmental disorder and had all his medications stopped. His mother and the school were given extensive information about this diagnosis and about his unique needs. A follow-up call three months later found that he was doing well with no medications.

A second case involved an 11-year-old boy who was given a diagnosis of bipolar disorder because of unexplained intense mood swings that were characterized by severe aggression. His outpatient provider indicated that she could no longer treat him because of his threatening behavior. A careful history discovered that he had recently returned to his parents after two years of living with his grandparents in the Dominican Republic, where he was subjected to brutal beatings daily. Although neither he nor his parents identified the beatings as a problem—they felt that his grandparents were inflicting these punishments out of love—it was clear that the boy was dissociating in response to subtle triggers such as teasing by peers and strict limit setting by teachers. He reported that during these episodes “I just see red. . . . I don’t really know where I am or what I’m doing. . . . I don’t really feel in my body.” He was given a diagnosis of PTSD. With guidance, he learned to identify triggering events and interventions from staff that helped him. His medication regimen was changed, and intensive family work began.

Discussion

Unfortunately, these two cases are not unique. Increased diagnosis of bipolar disorder in childhood must be seen in a larger cultural, political, and financial context. Shame and stigma associated with mental illness is a cultural phenomenon. Classic bipolar illness is now thought to be one of the most heritable of the mental illnesses, and giving a child this diagnosis may diminish stigma by not making the child’s condition anyone’s “fault.”

Telling parents that their child has a biologically based mental illness, although difficult, is far easier than examining family interactions that contribute to behavior, a task that is sure to invoke parental guilt. Instead of having to deal with problems in the parent-child relationship, parents can see their

child as ill and in need of increased nurturance and understanding. Such an intervention can be enormously relieving to parents. In some cases the new dynamic between parent and child is far more positive and nurturing. The physician, too, can attain a more positive glow as a fighter for a child who has been misunderstood and labeled as bad but who instead suffers from a chemical imbalance that can be remedied.

More tangible rewards come from society. Government assistance and private charities dole out help ostensibly on the basis of need. But the perceived worthiness of the recipient may play a hidden role in policy development. For instance, it is often far easier for a child to get special education services if the diagnosis is presumed to have a more biological basis. In many state programs a child qualifies for services if the diagnosis is bipolar disorder but not if it is PTSD or a disruptive behavior disorder. Insurance companies also appear far more willing to pay for services for a child with a diagnosis of bipolar disorder than for one with a diagnosis of a disruptive behavior disorder or PTSD.

Finally, treatment planning is simplified if the problem is conceptualized as being largely biological, which results in medications and alliance building to ensure compliance. These interventions are difficult, but they are simpler than trying to stop a parent from drinking or from getting involved with violent partners; the biological approach is an attractive route when a child seems untreatable because of conduct difficulties and a hopelessly entangled set of social problems. Clinicians who care deeply about children often find it enormously painful to witness the lack of nurturance and the instability and cruelty that many children live with. A clinician may succumb to unconscious temptations to stop asking or to stop listening. The enormity of the problems many children face makes the simplicity of a biological explanation tremendously appealing. It allows us to feel we are doing something so that we can avoid feeling helpless with our most difficult patients.

When a psychiatrist accepts juvenile bipolar disorder as a diagnosis before it has been shown conclusively

to be valid, he or she is forced into a host of shaky assumptions about treatment, particularly medication treatment: "Medication is needed." "Antidepressants are likely harmful." "Mood stabilizers are necessary." "Medication treatment should be aggressive." Medications are not benign agents. They have both short- and long-term effects that have not yet been thoroughly studied. Thus we should be cautious about initiating psychopharmacologic approaches. It is important not to deny treatment that might benefit children who are truly suffering. However, we must not allow personal, financial, societal, and professional pressures to impede our ability to be thoughtful and cautious with our patients.

What is a reasonable approach to caring for these difficult "bipolar" children given the state of our knowledge? We must advocate that research on juvenile bipolar disorder be a national priority. We must expand our knowledge with longitudinal data on outcomes for children who meet some criteria for bipolar disorder and with retrospective data on adults with bipolar illness. Psychiatrists should acknowledge that diagnoses for children are generally far less precise and meaningful than they are for adults. We should discuss our uncertainties with our patients and their families, particularly when bipolar disorder is being considered. We should not delude ourselves or our patients into believing that when we treat this syndrome in children we are in the area of evidence-based medicine.

Perhaps we should become more comfortable using the "not otherwise specified" (NOS) label to capture what may be essentially spectrum diagnoses. We also need to resist the temptation to use diagnoses as explanations for behavior and instead use careful case formulations to guide more comprehensive treatment. It is not enough to say that a child has suspected bipolar disorder, as if that intellectual shortcut can explain the child's difficulties. We must build our skills at understanding family systems and individual psychodynamics so that we can fathom the complexity of each case.

In summary, child and adolescent psychiatrists must demand tighter cri-

teria and higher quality of evidence in regard to juvenile bipolar disorder, as we hone our diagnostic and psychosocial assessment skills and integrate these into case formulations that lead to a comprehensive treatment plan that is informed by existing evidence. ♦

References

1. Isaac G: Is bipolar disorder the most common diagnostic entity in hospitalized adolescents and children? *Adolescence* 30:273-276, 1995
2. Craney JL, Geller B: A prepubertal and early adolescent bipolar disorder-I phenotype: review of phenomenology and longitudinal course. *Bipolar Disorders* 5:243-256, 2003
3. Geller B, Luby J: Child and adolescent bipolar disorder: a review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry* 36:1168-1176, 1997
4. Lish JD, Dime-Meehan S, Whybrow PC, et al: The National Depressive and Manic-Depressive Association (DMDA) survey of bipolar members. *Journal of Affective Disorders* 31:281-294, 1994
5. Geller B, Tillman R, Craney J, et al: Four-year prospective outcome and natural history of mania in children with a prepubertal and early adolescent bipolar disorder phenotype. *Archives of General Psychiatry* 61:459-467, 2004
6. Carlson GA, Kashani JH: Manic symptoms in a non-referred adolescent population. *Journal of Affective Disorders* 15:219-226, 1988
7. Lewinsohn PM, Klein DN, Seeley JR: Bipolar disorder during adolescence and young adulthood in a community sample. *Bipolar Disorders* 2:281-293, 2000
8. Costello EJ, Angold A, Burns BJ, et al: The Great Smoky Mountains study of youth: goals, design, methods, and the prevalence of DSM-III-R Disorders. *Archives of General Psychiatry* 53:1129-1136, 1996
9. Hazell PL, Carr V, Lewin TJ, et al: Manic symptoms in young males with ADHD predict functioning but not diagnosis after 6 years. *Journal of the American Academy of Child and Adolescent Psychiatry* 42:552-560, 2003
10. Tillman R, Geller B, Nickelsburg MJ, et al: Life events in a prepubertal and early adolescent bipolar disorder phenotype compared to attention deficit hyperactive and normal controls. *Journal of Child and Adolescent Psychopharmacology* 13:243-251, 2003
11. Geller B, Fox LW, Clark KA: Rate and predictors of prepubertal bipolarity during follow-up of 6- to 12- year old depressed children. *Journal of the American Academy of Child and Adolescent Psychiatry* 33:461-468, 1994
12. Kim-Cohen J, Caspi A, Moffitt TE, et al: Prior juvenile diagnoses in adults with mental disorder: developmental follow-back of a prospective-longitudinal cohort. *Archives of General Psychiatry* 60:709-717, 2003