

Unraveling the Mystery of Pediatric Bipolar Disorder

By Gordon R. Hodas, M.D.

Summary

This article reviews a recent child psychiatric research study on pediatric bipolar disorder. Geller and associates present longitudinal data that demonstrates continuity of pediatric bipolar disorder, defined according to their clinical criteria, into adulthood. This is the first study to demonstrate such continuity, and as such supports the significance of recognizing and diagnosing what they refer to as “prepubertal and early adolescent bipolar disorder (PEA-BD).” This article considers the current controversy over pediatric bipolar disorder in children’s mental health, reviews the research of Geller and associates, and discusses implications for parents/caregivers and human service professionals.

Introduction

There has been a significant increase in the diagnosis of bipolar disorder in children and adolescents (referred to generically as *pediatric BPD*) over the past 20 years. For example, during the period from 1990-2000, the diagnosis increased fourfold. The trend has not changed since that time, and children are being diagnosed with pediatric BPD at increasingly younger ages. Some stakeholders question whether all the children labeled with pediatric BPD have been accurately diagnosed. Others, responding to recent reports of alleged violations of conflict of interest by child psychiatric researchers with pharmaceutical companies, believe that the increase in diagnosis has been driven by “big pharma.” Parents and others are concerned about the stigma and negative prognosis associated with a bipolar diagnosis, when applied to children.

At the same time, there is now general agreement within the field that children can present with symptoms consistent with bipolar disorder, and that this condition can be devastating for children, disrupting their normal psychosocial development, if it is not recognized early and treated vigorously. However, the fact that pediatric BPD exists does not necessarily mean that all children given this diagnosis actually have the disorder. In addition, as we will see, consensus remains elusive regarding the core clinical features of pediatric bipolar disorder.

For the most part, what has been absent from the debate has been longitudinal data. What actually happens to children diagnosed with pediatric BPD when they get older? Do they continue to struggle with mood instability? Do they present with symptoms of adult BPD?

Key Issues

- Does data support the continuity of pediatric BPD with adult BPD?
- Do children with significant mood instability continue to experience mood instability upon reaching adulthood?

The Backstory:

There are both broad and narrow conceptions of pediatric BPD, referred to respectively as the “broad phenotype” and the “narrow phenotype” (Pavuluri et al., 2005). The broad phenotype, as formulated in particular by Biederman and associates in Boston in the late 1990s, identifies mood instability as the core criterion (Biederman et al., 1996). Such children present with “severe irritability, ‘affective storms,’ mood lability, severe temper outbursts, symptoms of depression, anxiety, and hyperactivity, poor concentration, and impulsivity with or without clear episodicity” (Pavuluri et al., 2005). Since many children with the combined type of attention deficit hyperactivity disorder (ADHD) also present with irritability and mood instability, an increasing number of children with ADHD are being diagnosed with pediatric BPD, even though they may present with moderate moodiness and irritability rather than with severe mood lability, rapid shifts in mood (rapid cycling), and affective storms. It is also worth noting that the broad phenotype does not require the presence of psychosis as a condition for diagnosis – severe mood instability is sufficient.

Major proponents of the narrow phenotype for pediatric BPD have included Barbara Geller and associates in St. Louis. For Geller et al., the diagnosis of pediatric BPD – referred to as “prepubertal and early adolescent bipolar disorder” (PEA-BD) – requires the presence or history of psychosis in addition to severe mood instability. Psychosis in children is operationalized differently than for adults. According to Geller, children with PEA-BD manifest psychosis in any of three ways, involving elated mood and euphoria, grandiosity, and/or hypersexuality.

Elated mood and euphoria are defined as the presence of *mood states* in the child that are incongruent with the child’s reality-based context.

Grandiosity is defined as *beliefs* that are incongruent with the child’s context. This includes ascribing disproportionate knowledge and power to oneself.

Hypersexuality involves behavior inappropriate with the child’s context and developmental level, and can take the form of inappropriate sexual *language* in prepubertal children and inappropriate sexual *behavior* (and language) in adolescents.

Geller et al. distinguish children with ADHD by itself – with the classical triad of hyperactivity, inattention and impulsivity – from children with PEA-BD. Children who have PEA-BD present with the following clinical profile: elated mood, grandiosity, decreased need for sleep, racing thoughts and flight of ideas, hypersexuality; and rapid or continuous cycling.

In terms of current DSM-IV terminology (the current formal source for psychiatric diagnosis in the United States), Geller’s narrow phenotype concept is consistent with Bipolar I disorder (BP I), which requires the presence or history of at least one episode of overt *mania* (e.g., actual psychosis). Biederman’s broad phenotype concept, in turn, is consistent with Bipolar II disorder (BP II), which involves the presence or history of *hypomania* (manic behavior that does not rise to the level of psychosis), in association with a major depressive episode.

Geller’s Longitudinal Research

In 1995, Geller’s group received funding from the National Institute of Mental Health (NIMH) for a longitudinal study of 115 children with Bipolar I disorder and, according to the group’s terminology, PEA-BD (Geller et al., 2008). All of the children were experiencing their first bipolar episode at the start of the study. Consistent with BP I criteria, the children had either a manic or a mixed clinical presentation. Geller operationalized PEA-BD and Bipolar I to involve the following for children: at least 1 week of abnormally elevated, irritable, or grandiose mood; depressive episodes and mixed mood states; grandiosity (e.g. psychosis); pressure of speech, racing thoughts, agitation, and distractibility; and decreased sleep. A child needed to experience 4 or more hours per day cycling or in a mixed mood state in order to be considered manic.

The children were to be followed for 16 years, with assessments at regular intervals, in order to determine long term outcomes. The goal was thus a longitudinal history study, not a treatment study. Children received their treatment in the community, unrelated to the study.

Although the original intent had been to publish data after 16 years, Geller and colleagues decided to publish interim data after 8 years, since at that point 50% of the original study group had reached age 18 years and had therefore entered adulthood.

Research Findings

Geller’s findings, involving the 115 children in the original study group, were published in the October 2008 *Archives of General Psychiatry*. The data demonstrated clear evidence that one type of pediatric BPD – PEA-BD, with the study children receiving community treatment – continues into adulthood. As such, this is a significant research finding. Specific information on outcomes is offered below:

Among study group individuals who reached adulthood within the 8 year interval from the start of the study, 44% were found to have continued BP episodes in the form of manic or mixed bipolar episodes. Given that the prevalence of BPD, Types I and II, among adults in general population has been estimated to be 2.6% (NIMH, 2008), this finding is dramatic.

Within the entire study group, 88% eventually recovered from their first bipolar episode. The time of recovery from the initial episode was approximately 2.5 years, while the time for recovery from baseline (the start of the study) was approximately 1 year. This clearly reflects the long duration of PEA-BD episodes and the long time needed for recovery. Unfortunately, recovery was not long-lasting, as 73% of the group experienced at least one relapse during follow-up. The mean time for relapse following recovery was approximately 1 year. The average number of BP episodes during the 8 year follow-up period was two.

Subsequent bipolar episodes involved psychosis, consistent with the PEA-BD criteria for inclusion and with a Bipolar I disorder. Subsequent episodes also involved daily cycling, consistent with PEA-BD but less common in classic adult BPD. The significance of daily

cycling, the authors explain, is that “a euphoric child can very quickly become seriously depressed and suicidal” (Geller et al., 2008). The time for recovery from episodes following relapse was shorter than for the initial episode but still quite long, in the range of 40-55 weeks. It was found that younger age at baseline was associated with a longer duration of illness, consistent with the prevailing belief that younger children with pediatric BPD are at greatest risk over time. Another finding – which will be considered below – was that a longer duration of illness was related to low maternal warmth.

Discussion

The interim findings from Geller et al.’s research strongly suggest that at least one type of pediatric BPD – that involving PEA-BD – persists into adulthood. It was found that 44% of the group that reached adulthood during the first 8 years of the study continued to have bipolar episodes as adults. Given that the prevalence of BPD among adults in the general population is reportedly 2.6%, the finding of 44% within this study group is quite significant. As stated by the authors, the 44% prevalence of bipolar episodes in this adult group is “13-44 times higher than population prevalences...” (Geller et al., 2008). Within the study group with continuing bipolar disorder into adulthood, 35.2% also had a substance use disorder, creating additional risks. In addition, the data suggests that younger age of onset portends a more severe course, at least in terms of duration of episodes. Thus, despite concerns about the young age of many children being labeled with pediatric BPD, disregarding the possibility of pediatric BPD in young children does not appear to constitute a good public health strategy, particularly when Geller’s diagnostic criteria are used.

The cohort of children with PEA-BD who remain symptomatic at adulthood share with adults with Bipolar I the presence of psychosis. However, in other respects, their presentation is different from that of *typical* adult BPD, since the symptomatic adult study group presented with patterns of daily cycling and mixed clinical features of mood instability, and had episodes of very long duration. It thus remains unclear how many children diagnosed with PEA-BD or other forms of pediatric BPD develop adult bipolar disorder with separate and discrete manic and depressive episodes. In addition, no conclusions can be drawn from this study regarding the outcomes in adulthood of those children diagnosed according to the pediatric bipolar criteria of Biederman’s group.

It has been noted that all children in the study received standard community care. Is it possible that some of the negative outcomes reflect not just the severity of the disorder but also the limitations “standard community care”? With more intensive, continuous community care, might the time needed for recovery be shorter, the time to relapse longer, and the frequency of relapse diminished? One can only speculate, but the findings raise issues for me regarding the quality of relationships between child and family with the child psychiatrist or other treating physician, the amount of time available for routine visits and psychoeducation, and the degree to which quality psychosocial interventions and not just psychotropic medication were also pursued.

There is also the issue of “low maternal warmth,” based on the finding that longer duration of illness was associated with low maternal warmth. Before leaping into parent-blaming, however, we should appreciate that the data does not demonstrate causality here, only an association.

Thus, the data does not demonstrate that low maternal warmth *causes* pediatric BPD or longer illness duration. In fact, it is important to recognize that parenting a child with a serious psychiatric disorder such as pediatric BPD can be very frustrating, and frustration can sometimes lead to caregiver burnout. These considerations reinforce for the need for professionals to provide psychoeducation and ongoing support to families and to maintain a collaborative approach while working with parents and their children.

Finally, unrelated to Geller’s study but relevant to our discussion, it appears that the recent increase in the diagnosis of children with pediatric BPD is related to the influence of Biederman’s group on American child and adolescent psychiatry. Only time will tell if this influence has been justified.

Final Comments

There is likely heterogeneity in what we now call “pediatric BPD.” Therefore, there is need for clarity as to the diagnostic criteria being used, and for additional longitudinal studies of outcomes into adulthood.

I believe that many children currently identified as having pediatric BPD have symptoms and behaviors resulting from trauma that may or may not have been disclosed. Therefore, it is important that parents and children routinely be asked about a history of trauma – use of a trauma screen can also be helpful – and that clinicians consider the possibility of trauma in children who present with mood instability and impaired self-regulation.

There are other disorders that may also mimic pediatric BPD, which should also be considered. These include Asperger’s Disorder and other Autism Spectrum Disorders, Fetal Alcohol Spectrum Disorders, and substance use disorders.

In general, difficulty with self-regulation is very common among children with challenging behaviors and a range of psychiatric disorders. Given the significance of impaired self-regulation, it needs to be identified and addressed, regardless of the child’s formal diagnosis.

Finally, helping adults and caregivers need to recognize that most children do not act in negative ways intentionally, and that better understanding of children can contribute to improved outcomes. Children with challenging behaviors need information and support from us along with respectful coaching and redirection, not further victimization through blaming and shaming.

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