



Psychiatric Health Care Crisis in Pediatrics: Potential Approaches and Solutions

Post RM*

Pediatricians are the primary physicians for the majority of children in the United States (US) with psychiatric problems [1]. This is occurring in a time of increasing incidence of multiple psychiatric disorders of childhood. There is a cohort effect for childhood onset depression and bipolar disorder [2] and likely a cohort effect for ADHD and substance abuse disorders, as well [3]. Thus, every birth cohort since the middle of the past century has had an increase incidence and an earlier onset of these disorders.

In particular childhood onset bipolar disorder and its related conditions and comorbidities are occurring in the United States at a rate not previously observed. This has often been attributed to differences in diagnostic criteria, but recent reviews suggest that it is real excess of childhood onset illness in the US compared to Canada and most European countries [4-8].

This is of great consequence as childhood onset bipolar disorder has a longer delay to first treatment, and both early onset illness and the duration of delay to treatment are risk factors for a poor outcome in adulthood [9]. One could ask why there is greater incidence of early onset bipolar disorder in the US. More early onset illness in the US is consistent with greater amounts of two of its major vulnerability factors; increased genetic/familial loading [10,11] and environmentally mediated psychosocial stresses and adversity in childhood [12]. The loading of psychiatric illnesses (depression, bipolar disorder, alcohol and substance abuse, and "other" illness in bipolar patients' parents and grandparents is higher in the US than in Europe, and is directly related to an earlier onset of bipolar disorder and to a higher level of many psychiatric disorders in the patients offspring [2]. Adversity in childhood is also a risk factor for early onset and a poor outcome in adulthood, and the combination of both family loading for psychiatric illness and abuse in childhood yield onsets of bipolar illness usually in the pre-teen years instead of on the mid twenties in those without either of these two risk factors [13]. While genetic/familial vulnerability is difficult to address, the duration of the lag to first treatment is definitely a remediable risk factor.

Thus, recognition of risk in children can begin to be addressed by taking a family history of psychiatric illness in the child's parents and grandparents. If 1) a high family loading is accompanied by 2) a history of abuse in childhood and, additionally, 3) the presence of

prodromal symptoms, the child can be considered at very high risk for a series of major psychiatric diagnoses, if not bipolar disorder itself [14]. Axelson et al. [15] followed up offspring of a parent with bipolar illness for 6.7 years and found an astonishing 74% had developed a major psychiatric diagnosis. This included a bipolar spectrum diagnosis in about 20% of the offspring and an even higher incidence of depression, an anxiety disorder, ADHD, and a disruptive behavioral disorder, such as oppositional defiant disorder (ODD). Similarly, a very high 80 percent of the children of a parent with unipolar depression are at risk for the development of a lifetime diagnosis of a major psychiatric disorder upon extended follow up over 20-30 years [16].

Equally striking is the fact than about 50% of the offspring of the non-mood disordered community controls in the US in the studies of Axelson et al. [15] and Weissman et al. [16] also developed a major psychiatric diagnosis upon follow up, indicating a very high incidence of psychiatric difficulties in youngsters even in the general US population.

Early intervention in these high risk offspring appears to be effective in warding off considerable symptomology. Miklowitz et al. [17] found that family focused therapy (FFT) was more effective than treatment as usual (TAU) in decreasing symptoms in offspring of a family member with bipolar disorder who had developed depression, cyclothymia, or bipolar not otherwise specified (BP-NOS), ie brief bursts of mania not achieving the full criteria for BP I or BP II. Other data indicate success of early psychotherapeutic treatment of anxiety and depression in children [18-21]. Thus awareness of the high risk of psychiatric illness in children in the US, especially if the family history is loaded for illness and the child has experienced adversity is an important component of early recognition and the need for treatment or referral.

Shonkoff and Garner [22] have urged that pediatricians become the guardians of children physical and psychiatric health, especially since early adversity has long lasting effects in increasing both medical and psychiatric illness in adulthood. In busy pediatric and family medicine practices, there is often no or limited time for a psychiatric assessment. Merely asking parents about the mood and behavior of their child is a good place to start. If symptoms and dysfunction in the child's usual family, social, or educational roles are present, further assessment is indicated.

In this regard, we suggest the utility of engaging the parents to systematically rate their child on a weekly basis. This can be done on a secure website under the auspices of a Johns Hopkins IRB approved protocol accessible at www.bipolarnews.org (click on Child Network). After completing a demographics and extended symptom questionnaire (each taking about 15-20 minutes, parents are sent each week a form for a global rating the severity of symptoms of anxiety, depression, ADHD, oppositional behavior, and mania which takes only a few minutes to fill out [4,23,24]. These ratings can then be printed out and taken to the physician or other clinician for ease of visualization of symptom course, need for treatment, and the effectiveness of any treatment given.

Having parents perform the longitudinal evaluation provides the busy clinician with ready access to longitudinal data that is crucial

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to evaluating illness and response to treatment. In this fashion, recognition of persistent psychiatric illness will be facilitated and appropriate steps taken for further evaluation and treatment.

In the face of early signs of difficulties, some general life style recommendations may also be helpful to the parent and the child. Encouraging the parent to foster for their child a good diet, a regimen of exercise and regular sleep schedule may be helpful. Training in mindfulness or meditation techniques has proven effective as a universal intervention, and would be warranted in a child with anxiety, depression, or behavioral disorders. As noted above referral for family therapy may be of great value. While not fully validated in large studies, in a child with early depressive symptoms there is also some support for the utility of omega-3-fatty acid supplements [25] and possibly also vitamin D3, as a very high incidence of children with major psychiatric illness are vitamin D3 deficient. The role of folic acid supplementation and the use of N-acetylcysteine, which targets mood, anxiety and substance abuse disorders in adults and irritability in children with autism spectrum disorders, remains to be further studied [26].

If the child does develop a bipolar spectrum diagnosis (cyclothymia or BP-NOS) treatment with atypical antipsychotics and mood stabilizers (including lithium, lamotrigine, valproate, and carbamazepine) that are more typical of approaches used in adults may be indicated [26-29]. Children with bipolar disorder have evidence of elevated cytokines, including Il-1, Il-6, TNF alpha, and CRP. Optimal treatment in these instances remains to be delineated, but a non-steroidal anti-inflammatory or the anti-inflammatory antibiotic minocycline may be worthy of consideration in those with such laboratory abnormalities.

When a child is diagnosed with diabetes, a whole team of diverse practitioners, including physicians, nurses, social workers, dieticians, and caseworkers, is involved in education about and management of the illness. With such comprehensive care and carefully longitudinal glucose monitoring, health and marked increases in longevity have occurred. A similar recognition of the potential adverse lifelong consequences of major psychiatric illness in childhood is required, and careful longitudinal monitoring of mood and behavioral symptoms in the Child Network and building a comprehensive treatment team [30] may also be lifesaving [31,32].

References

1. Anderson LE, Chen ML, Perrin JM, Van Cleave J (2015) Outpatient Visits and Medication Prescribing for US Children With Mental Health Conditions. *Pediatrics* 136: e1178-1185.
2. Post RM, Altshuler LL, Kupka R, McElroy SL, Frye MA, et al. (2016) More illness in offspring of bipolar patients from the U.S. compared to Europe. *J Affect Disord* 191: 180-186.
3. Kessler RC, Angermeyer M, Anthony JC, De Graaf RO, Demyttenaere K, et al. (2007) Lifetime prevalence and age-of-onset distributions of mental disorders in the World Health Organization's World Mental Health Survey Initiative. *World Psychiatry* 6: 168-176.
4. Post RM, Altshuler LL, Kupka R, McElroy SL, Frye MA, et al. (2017) More childhood onset bipolar disorder in the United States than Canada or Europe: Implications for treatment and prevention. *Neurosci Biobehav Rev* 74: 204-213.
5. Etain B, Lajnef M, Bellivier F, Mathieu F, Raust A, et al. (2012) Clinical expression of bipolar disorder type I as a function of age and polarity at onset: convergent findings in samples from France and the United States. *J Clin Psychiatry* 73: 561-566.
6. Bellivier F, Etain B, Malafosse A, Henry C, Kahn JP, et al. (2014) Age at onset in bipolar I affective disorder in the USA and Europe. *World J Biol Psychiatry* 15: 69-76.
7. James A, Hoang U, Seagroatt V, Clacey J, Goldacre M, et al. (2014) A comparison of American and English hospital discharge rates for pediatric bipolar disorder, 2000 to 2010. *J Am Acad Child Adolesc Psychiatry* 53: 614-624.
8. Mesman E, Birmaher BB, Goldstein BI, Goldstein T, Derks EM, et al. (2016) Categorical and dimensional psychopathology in Dutch and US offspring of parents with bipolar disorder: A preliminary cross-national comparison. *J Affect Disord* 205: 95-102.
9. Post RM, Leverich GS, Kupka RW, Keck Jr PE, McElroy SL, et al. (2010) Early-onset bipolar disorder and treatment delay are risk factors for poor outcome in adulthood. *J Clin Psychiatry* 71: 864-872.
10. Post RM, Altshuler L, Kupka R, McElroy SL, Frye MA, et al. (2015) Multigenerational Positive Family History of Psychiatric Disorders Is Associated With a Poor Prognosis in Bipolar Disorder. *J Neuropsychiatry Clin Neurosci* 27: 304-310.
11. Post RM, Leverich GS, Kupka R, Keck Jr PE, McElroy SL, et al. (2015) Increases in multiple psychiatric disorders in parents and grandparents of patients with bipolar disorder from the USA compared with The Netherlands and Germany. *Psychiatr Genet* 25: 194-200.
12. Post RM, Chang K, Frye MA (2013) Paradigm shift: preliminary clinical categorization of ultrahigh risk for childhood bipolar disorder to facilitate studies on prevention. *J Clin Psychiatry* 74: 167-169.
13. Post RM, Altshuler LL, Kupka R, McElroy SL, Frye MA, et al. (2016) Age of onset of bipolar disorder: Combined effect of childhood adversity and familial loading of psychiatric disorders. *J Psychiatr Res* 81: 63-70.
14. Post RM, Altshuler L, Leverich G, Nolen W, Kupka R, et al. (2013) More stressors prior to and during the course of bipolar illness in patients from the United States compared with the Netherlands and Germany. *Psychiatry Res* 210: 880-886.
15. Axelson D, Goldstein B, Goldstein T, Monk K, Yu H, et al. (2015) Diagnostic Precursors to Bipolar Disorder in Offspring of Parents With Bipolar Disorder: A Longitudinal Study. *Am J Psychiatry* 172: 638-646.
16. Weissman MM, Warner V, Wickramaratne P, Moreau D, Olfson M (2006) Offspring of depressed parents: 20 years later. *Am J Psychiatry* 163: 1001-8.
17. Miklowitz DJ, Schneck CD, Singh MK, Taylor DO, George EL, et al. (2013) Early intervention for symptomatic youth at risk for bipolar disorder: a randomized trial of family-focused therapy. *J Am Acad Child Adolesc Psychiatry* 52: 121-131.
18. Fristad MA, Verducci JS, Walters K, Young ME, et al. (2009) Impact of multifamily psychoeducational psychotherapy in treating children aged 8 to 12 years with mood disorders. *Arch Gen Psychiatry* 66: 1013-1021.
19. Scott J, Colom F, Vieta E (2007) A meta-analysis of relapse rates with adjunctive psychological therapies compared to usual psychiatric treatment for bipolar disorders. *Int J Neuropsychopharmacol*, 10: 123-129.
20. Vallarino M, Henry C, Etain B, Gehue LJ, Macneil C, et al. (2015) An evidence map of psychosocial interventions for the earliest stages of bipolar disorder. *Lancet Psychiatry* 2: 548-563.
21. Gleason M, Goldson E, Yogman M (2016) Council on early childhood, committee on psychosocial aspects of child and family health, section on developmental and behavioral pediatrics. *Pediatrics* 38: e20163025.
22. Shonkoff JP, Garner AS, Siegel BS, Dobbins MI, Earls MF, et al. (2012) The lifelong effects of early childhood adversity and toxic stress. *Pediatrics* 129: e232-246.
23. Post RM (2016) Recognizing Depression, Anxiety, and Externalizing Behaviors in Children of a Parent with Mood Disorders. *J Depress Anxiety* 2: 2167-1044.
24. Post RM (2016) Children in the US are at High Risk for Psychiatric Disorders: Early Monitoring by Parents May Enhance Awareness and Treatment. *J Pediatr Neurol Med* 1: 1-4.
25. Amminger GP, Schäfer MR, Schölgerhofer M, Klier CM, McGorry PD (2015) Longer-term outcome in the prevention of psychotic disorders by the Vienna omega-3 study. *Nat Commun* 6: 7934.
26. Post RM (2016) Treatment of Bipolar Depression: Evolving Recommendations. *Psychiatr Clin North Am* 39: 11-33.


27. Kowatch RA, Fristad M, Birmaher B, Wagner KD, Findling RL, et al. (2005) Treatment guidelines for children and adolescents with bipolar disorder. *J Am Acad Child Adolesc Psychiatry* 44: 213-235.
28. Geller B, Luby JL, Joshi P, Wagner KD, Emslie G, et al. (2012) A randomized controlled trial of risperidone, lithium, or divalproex sodium for initial treatment of bipolar I disorder, manic or mixed phase, in children and adolescents. *Arch Gen Psychiatry* 69: 515-528.
29. Post RM, Leverich GS (2008) *Treatment of bipolar illness: A casebook for clinicians and patients.* WW Norton & Company.
30. Kessing LV, Hansen HV, Hvenegaard A, Christensen EM, Dam H, et al. (2013) Treatment in a specialised out-patient mood disorder clinic v. standard out-patient treatment in the early course of bipolar disorder: randomised clinical trial. *Br J Psychiatry* 202: 212-219.
31. Colton C, Manderscheid R (2006) Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Prev Chronic Dis* 3: A42.
32. Newcomer JW, Hennekens CH (2007) Severe mental illness and risk of cardiovascular disease. *JAMA* 298: 1794-1796.

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