

PEDIATRIC BIPOLAR DISORDER

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Introduction

In recent years, there has been an explosion of interest among researchers and clinicians in the assessment, definition, diagnosis, and treatment of pediatric bipolar disorder (PBD). According to the Center for Advancement of Children's Mental Health at Columbia University (2000), PBD is characterized by shifts of mood with severe highs (mania) and extreme lows (depression). Frequently the mood switches are rapid, but more typically are gradual. In a depressed episode, the child may have any or all of the symptoms of a depressive disorder. When in a manic episode, the child may be overactive, over talkative, and have a great deal of energy (Center for Advancement of Children's Mental Health at Columbia University).

PBD is currently one of the most debated disorders in youth mental health literature (Healy, 2006; McClellan, 2005). The more controversial issues are the core criteria for diagnosis, the need for discrete mood episodes, and the definition of cycling (mood changes that occur during an episode) (Brown, Antonuccio, DuPaul, Fristad, King, Leslie et al., 2008, McClellan, Kowatch & Findling & the Workgroup on Quality Issues et al., 2007). Once considered a disorder occurring only in adults, the rate of PBD diagnosis has doubled in outpatient clinical settings, and quadrupled in community hospitals in the United States (Leibenluft & Rich, 2008). While the age of onset for PBD is unclear, studies have shown evidence of PBD as early as preschool age (Tumuluru, Weller, Fristad & Weller, 2003), and retrospective studies have identified PBD symptoms occurring in children aged four and under (Dilsaver & Akiskal, 2004).

The *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Text Revision (DSM-IV-TR)* classifies bipolar disorder as a mood disorder (American Psychiatric Association [APA], 2000). This section, therefore, will occasionally use "Mood Disorder" in its discussion of PBD because the term is employed in the literature. A detailed review of the second category of Mood Disorders is available in the "Depression and Dysthymia" section of the *Collection*.

Depressive symptoms are common to all mood disorders as classified in the *DSM-IV-TR*, but symptoms of mania— inflated self-esteem, decreased need for sleep, and excessive engagement in risky pleasurable activities—help distinguish PBD from depressive disorders. The lifetime prevalence for mania is approximately one to two percent by late adolescence (Kessler, Avenevoli & Merikangas, 2001). Evidence indicates that PBD may also have a more severe course and poorer prognosis than bipolar disorder associated with older adolescent and adult-onset (Roberts, Bishop & Rooney, 2008).

Diagnostic Issues and Categories

There are four primary diagnostic categories on the bipolar spectrum (American Psychiatric Association [APA], 2000; Youngstrom, 2007):

- Bipolar I Disorder;
- Bipolar II Disorder;
- Cyclothymic Disorder; and
- Bipolar Disorder Not Otherwise Specified (NOS).

Unlike that for other, more common mental health disorders in youth, the exact diagnostic definition of PBD is still under debate. The latest American Academy of Child & Adolescent Psychiatry (AACAP) Practice Parameters on PBD present two major diagnostic issues: whether these problems being seen in youth are best described as bipolar disorder; and whether juvenile mania is the same illness as mania seen in adults (Leibenluft et al., 2003; McClellan et al., 2007; McClellan, 2005). As stated previously, bipolar I disorder is rare in youth, whereas disorders classified as bipolar spectrum disorders and bipolar disorder not otherwise specified (BPD-NOS) are more common (Brown et al., 2008).

Characteristics of mania include extreme euphoria, grandiosity, and irritability, with associated racing thoughts, increased psychomotor activity, and mood lability (Cassidy & Carroll, 2001). A diagnostic difficulty in PBD is that irritability, poor concentration, and increased motor activity are present in many different childhood disorders (Brown et al., 2008). Many researchers have proposed certain hallmark criteria or “handle” symptoms to help diagnosis of bipolar disorder in youth (Youngstrom, 2007). These criteria are grandiosity; decreased need for sleep; expansive or elated mood, which has been shown to be present in more than 80 percent of PBD cases (Kowatch, Youngstrom, Danielyan & Findling, 2005); and, although less common, hypersexuality. Youngstrom (2007) states, “...the case for PBD is most compelling when the symptoms occur together in episodes that are a distinct shift from the person’s typical functioning.”

In adolescents, mania is commonly associated with psychotic symptoms, rapidly changing moods, and mixed manic and depressive features (Pavuluri, Birmaher & Naylor, 2005). Mania in younger children is usually defined by erratic changes in mood, energy levels, and behavior. Irritability, and mixed manic/depressive episodes are usually more common than euphoria (McClellan, Kowatch & Findling, 2007). Due to sparse evidence of the diagnostic validity of PBD in young children, the AACAP recommends extreme caution when diagnosing PBD in preschool age children (McClellan, Kowatch & Findling, 2007). Misdiagnosis can lead to unnecessary aggressive pharmacotherapy that has not been studied in young children.

According to McClellan et al. (2007), the *DSM-IV-TR* (APA, 2000) criteria and definitions as set out in the AACAP Practice Parameters are:

Bipolar I disorder: Requires the occurrence of a manic (or mixed) episode lasting at least one week, unless hospitalization is necessary. Depressive episodes are not required, but most youth experience major or minor episodes during their lifetime.

Bipolar II disorder: Requires the occurrence of major depression and hypomania (episodes lasting at least four days but does not meet the time criteria for mania) but no full manic or mixed manic episodes.

Cyclothymic disorder: Requires at least two years of numerous periods of hypomanic symptoms that do not meet criteria for a manic episode and numerous periods of depressive symptoms that do not meet criteria for a major depressive episode.

BPD-NOS: Used for cases that do not meet full criteria for other bipolar diagnoses.

The *DSM-IV-TR* also includes two additional specifiers:

Mixed episode: Period lasting a week or more in which symptoms for both a manic and depressive episode are met; and

Rapid cycling: Occurrence of at least four mood episodes in one year. Episodes must still meet the required duration criteria.

Research has suggested two additional specifiers not in the *DSM-IV-TR*:

Ultrarapid cycling: Brief, frequent manic episodes lasting hours to days, but less than the four-day duration criteria for hypomania; and

Ultradian cycling: Repeated, brief (minutes to hours) cycles that occur daily.

Adopting these criteria to assess, diagnose, and treat child-onset bipolar disorder is recommended in the AACAP Practice Parameters (McClellan et al., 2007). However, researchers recognize that the criteria need refinement for children and adolescents. The AACAP has issued guidelines stating that a diagnosis of BPD-NOS should be used when manic symptoms last for hours to fewer than four days and for chronic and impairing “manic-like symptoms” (Kowatch et al., 2005). Another diagnostic issue that clinicians should consider is that cyclothymia is rarely diagnosed in youth due to the prolonged duration criteria needed to make a diagnosis (Youngstrom et al., 2005). Youth who present clinically with a cyclothymic presentation are more often diagnosed with BPD-NOS.

Causes and Risk Factors

Research has revealed that a family history of bipolar disorder is the strongest and most consistent risk factor for PBD. Heritability estimates have been shown to be as high as 85 percent (Roberts, Bishop & Rooney, 2008). According to Youngstrom (2007), out of 100 articles reviewed discussing more than 30 risk factors associated with PBD, family history was the only factor significant enough to warrant clinical interpretation. The child of a bipolar parent is at four times more likely to develop PBD than a child of a non-bipolar parent (Miklowitz & Johnson, 2006).

The development of PBD has been found to be influenced by neurobiological factors: 1) enlarged ventricles; 2) an increase in white matter hyperintensities, specifically in the frontal cortex; 3) differences in central nervous system (CNS); and 4) autonomic system activation and arousal (Roberts, Bishop & Rooney, 2008). Research has also revealed that increased levels of CNS activation, together with decreased autonomic arousal, can lead to difficulty regulating biological rhythms, affect and behavior, and can lead to decreased adaptation to contextual demands (Bar Haim, 2002, as cited in Roberts, Bishop & Rooney). The risk of developing PBD increases with the onset of puberty (Roberts, Bishop & Rooney).

Research has revealed a relationship between early age of onset with a greater likelihood of increased rapid cycling and higher rates of comorbidity, suicidality, violent behavior, and substance abuse (Perlis et al., 2004 as cited in Youngstrom, 2007). Other risk factors associated with the development of PBD are:

- Psychosocial stressors, which interact with biological and/or genetic predisposition in eliciting episodes (Roberts, Bishop & Rooney, 2008);
- Poor peer relationships (Geller et al., 2000); and
- Early traumatic life events, which can lead to a more pernicious course (Leverich & Post, 2006).

Risk factors posed at home include poor family cohesion and high levels of conflict within the family (Chang, Blaser, Ketter & Steiner, 2001). Youth from families with a negative affective style are 5.9 times more likely to relapse than youth from families with a benign affective style (Miklowitz, Goldstein, Neuchterlein, Snyder & Mintz, 1988).

Factors found in the research to protect youth from PBD include positive response to stressors, academic achievement; family cohesion, a warm and supportive caregiver, and social competence (Roberts, Bishop & Rooney, 2008). Most studies have shown a lack of gender differences in the prevalence of PBD, but research has shown that males tend to exhibit mania more often, whereas females are more likely to present with depression (Duax, Youngstrom, Calabrese & Findling, 2007).

Assessment

Proper assessment of PBD in children is essential in early diagnosis, intervention and treatment. Evidence has shown that although symptoms may appear very early in a child, there is an average delay of diagnosis, which is estimated to be approximately seven years (Faedda, Baldessarini,

Glovinsky & Austin, 2004). Early intervention could lead to a better prognosis. Although no information on early intervention is available in the PBD literature, adult studies have found that a longer delay from the first appearance of symptoms to treatment was associated with an increase in hospitalizations, decreases in social adjustment, and a greater risk of suicidal behaviors (Goldberg & Ernst, 2002).

Youngstrom (2007) listed a set of “red flags” that should trigger assessment for possible PBD. These are summarized in Table 1.

Table 1

Red Flags which Trigger Assessment for Pediatric Bipolar Disorder

Red Flag	Description
Early-onset depression	Depressive disorder during adolescence
Psychotic features	True delusions or hallucinations related to mood
Episodic aggressive behavior	Though not a symptom of PBD, such episodes are common to youth with PBD
Family history of bipolar disorder	Family studies show highly increased risk
Atypical depression	Unusual symptom presentation, such as hypersomnia, increased appetite, and interpersonal rejection sensitivity

Source: Youngstrom, 2007.

The AACAP Practice Parameters for PBD recommend a comprehensive, multi-informant assessment procedure. Clinicians should attempt to acquire assessment information from youth, parents, and teachers (McClellan et al., 2007). During the initial assessment period, clinicians should obtain a thorough family medical and psychological history, and choose both broadband (general screening tools) and narrowband measures (specific to disorder) in order to rule in/out other possible diagnoses or comorbid disorders. Most youth with PBD have at least one other co-occurring disorder. Misdiagnosis of major depressive disorder (MDD) or attention deficit hyperactivity disorder (ADHD), and subsequent treatment with antidepressants or psychostimulants can cause a manic episode for youth with PBD (DeBello et al., 2001). Unnecessary exposure to medications that have not been well-studied in youth can also lead to serious side effects (Findling et al., 2004). Youngstrom states that assessment should also include measures of hypomanic/manic and depressed symptoms (2007).

One of the first steps in assessment should include an examination by a primary care provider to rule out any medical reason for the youth’s change from normal behavior. Many medical conditions, such as hyperthyroidism, epilepsy and head trauma, can induce mania or look like symptoms of mania (Fields & Fristad, 2008). Once medical conditions have been ruled out, a clinician should attempt to gain a longitudinal perspective to document the course of the disorder. Obtaining a baseline for normal behavior is important to determine a meaningful change in this behavior. Having a parent fill out a mood log, where they track their child’s mood and energy for a certain number of weeks, is an effective way for a clinician to determine specific mood episodes and whether or not a child meets time-length criteria for specific PBD symptoms (Youngstrom, 2007). On-going assessment and reevaluation after the initial diagnosis is critical in PBD diagnosis (Youngstrom, Findling, Youngstrom & Calabrese, 2005).

Some of the broadband and narrowband assessment tools available for clinicians to use in the assessment of PBD are:

- Behavior checklists, such as Achenbach’s Child Behavior Checklist (CBCL) (Achenbach, 1991);
- Clinical rating scales like the K-SADS-Mania Rating Scale (K-MRS) (Axelson et al., 2003) or the Young Mania Rating Scale (Young, Biggs, Ziegler & Meyer, 1978);
- Mood rating scales; and
- WASH-U-KSADS (Geller et al., 2001), a semi-structured interview with an expanded mania symptoms section.

The Externalizing scale score on the CBCL is a useful screening tool, evidenced across multiple studies, in that it allows clinicians to screen for PBD quickly (Kahana, Youngstrom, Findling & Calabrese, 2003; Youngstrom et al., 2004; Youngstrom, Youngstrom & Starr, 2005). According to Youngstrom (2007), “if concerned about potential PBD, then the Externalizing score is the main CBCL score to consider in terms of changing diagnostic impression.” Although the scale score is sensitive to PBD, it is not specific due to a lack of a mania scale. Because of this, low Externalizing scale scores usually help clinicians to rule out PBD as a diagnosis (Youngstrom, 2007). A high score, however, does not “rule in” a child, instead suggesting the need for further PBD diagnostic assessment. The measure is a screening tool and, due to its lack of specificity, should not be the sole basis for a PBD diagnosis. Table 2 lists the suggested assessment tools for PBD.

Table 2

Suggested Assessment Tools

Measure Type	Name of Measure	Who Completes	Data Generated
Clinical Interview	Washington University version of the Kiddie-Schedule for Affective Disorders and Schizophrenia	Clinician with Youth & Parent	Diagnosis
Clinical Interview	The Children’s Interview for Psychiatric Syndromes (ChIPS)	Clinician with Youth & Parent	Diagnosis
Clinical Interview	Mini-International Neuropsychiatric Interview (MINI)	Parent	Diagnosis
Rating Scale	Mood Disorder Questionnaire (MDQ)	Parent or Youth	Symptom ratings
Behavior Checklist	Child Behavior Checklist (CBCL)	Parent	Syndrome scale scores; Competence scores
Behavior Checklist	Youth Self-Report (YSR)	Youth	Syndrome scale scores; Competence scores
Rating Scale	General Behavior Inventory (GBI)	Parent or Youth	Symptom ratings
Rating Scale	Young Mania Rating Scale	Clinician or Parent	Symptom ratings
Rating Scale	Pediatric Quality of Life Inventory (PedsQL)	Parent or Youth	Child functioning ratings

Source: Youngstrom, 2007.

Knowledge of how developmental and cultural factors impact assessment and diagnosis is crucial to proper assessment. In youth, developmental issues must be considered in order for the clinician to interpret clinical data, as well as age-appropriate behavior. It is also imperative that the clinician assesses not only symptoms, but also functional impairment. The U.S. Department of Health and Human Services (1999) asserts that mood disorders dramatically increase the risk of suicide. On-going assessment of suicide risk is important due to the high risk of suicide attempts among youth with PBD; estimates show that 25 to 50 percent of youth with PBD will attempt suicide, and 20 percent will succeed (Faust, Walker & Sands, 2006). A review of suicide assessment tools is provided in the “Youth Suicide” section of the *Collection*.

Comorbidity

Similar to the adult bipolar disorder literature, various research studies have shown that children and adolescents suffering from PBD have very high rates of comorbidity with other psychological disorders (Kessler, 1999; Kowatch et al., 2005), the most common being attention deficit hyperactivity disorder (ADHD) (e.g., Biederman et al., 2004; Masi et al., 2006; Youngstrom et al., 2005), oppositional

defiant disorder (ODD) (Youngstrom et al., 2005), conduct disorder (Lewinsohn et al., 2002), and anxiety disorders (Harpold et al., 2005). Psychosis has also been shown to be comorbid with PBD (Biederman et al., 2004).

Evidence has shown that as many as 60 to 90 percent of youth with PBD have comorbid ADHD (Axelson et al., 2006), and as many as 78 percent of youth have comorbid anxiety disorders (Harpold et al., 2005). Some researchers attribute these high rates to an overlap in diagnostic criteria for the two disorders (Youngstrom, 2007). Despite the overlap in criteria, PBD youth with comorbid ADHD and/or anxiety disorders often show greater functional impairment and a worse prognosis (Youngstrom).

Evidence-based Treatments

The AACAP Practice Parameters for treatment of early-onset bipolar disorder provide a comprehensive, multimodal combination of both psychopharmacology and psychosocial therapies (McClellan et al., 2007). The AACAP also advises that treatment should be tailored and based on several different factors, including treatment setting, the chronic nature of the disorder, the age of the child, and the family environment. The goals of therapy, as set out by the AACAP, are to reduce symptoms, educate about the illness, and promote adherence to treatment, which works towards preventing relapse, and promotes normal growth and development in youth with PBD (McClellan et al.). Currently, there are no pharmacological or psychosocial therapies with enough evidence in youth samples to meet the standards for evidence-based treatments (Chambless & Hollon, 1998, as cited by Youngstrom, 2007).

Pharmacological Treatments

Practice guidelines indicate medication as the central component of first-line intervention for bipolar disorder (Youngstrom & Kendall, 2008). The goal is to immediately reduce the severity of symptoms (Leibenluft & Rich, 2008).

Pharmacological treatment of children diagnosed with bipolar disorder is modeled after treatment experiences with adults since there are few controlled trials or studies of the efficacy and safety of psychopharmacological medications for youth with PBD (National Institute for Mental Health [NIMH], 2000; Roberts, Bishop & Rooney, 2008). The AACAP Practice Parameters suggest that treatment for PBD begin with lithium, another anticonvulsant/mood stabilizer or an atypical antipsychotic which has been approved by the FDA for bipolar disorder in adults (McClellan et al., 2007). Although the number of studies including children and adolescents remains quite small, preliminary evidence suggests that a combination of mood stabilizers/anticonvulsants and second generation antipsychotics has been shown effective in placebo controlled trials for treating acute symptoms of PBD and for stabilization of symptoms up to six months after the studies were complete (Miklowitz & Johnson, 2006; Pavuluri, Birmaher & Naylor, 2005).

Lithium is currently the most extensively studied medication for use with PBD (Findling & Pavuluri, 2008; Kowatch et al., 2005; Kafantaris, Coletti, Dicker, Padula & Kane, 2001, 2003; Pavuluri, Birmaher & Naylor 2005). Lithium is the only PBD treatment medication approved by the FDA for use in youth (Pavuluri Birmaher & Naylor). However, youth experience the same safety problems with lithium that adults may experience, such as toxicity and impairment of renal and thyroid functioning (Geller & Luby, 1997). Lithium is not recommended for families unable to keep regular appointments, which are necessary to ensure monitoring of serum lithium levels in the blood and of conflicting side effects. Relapse is also high for those youth who discontinue the medication. Divalproex sodium (Kowatch et al., 2000; Wagner et al., 2002), Clozapine (Kowatch et al., 1995; Kafantaris, Coletti, Dicker, Padula & Kaffne, 2001), Risperidone (Kafantaris et al., 2001), combined with lithium (Pavuluri, Birmaher & Naylor), Olanzapine (Frazier et al., 2001; Pavuluri, Birmaher & Naylor), and Quetiapine (Delbello et al., 2006) have also been shown to improve symptoms in youth with PBD. Table 3 divides the psychopharmacological treatments for PBD into two categories: What Works and What Seems to Work.

Table 3

Psychopharmacological Treatments for PBD

What Works
Currently no medications meet the criteria for a drug that works.
What Seems to Work
Mood stabilizers/ Anticonvulsants
Second-generation antipsychotics

Sources: Roberts, Bishop & Rooney, 2008; Brown et al., 2008.

The NIMH (2000) emphasizes that using antidepressants to treat depression in a child with bipolar disorder may induce manic symptoms if it is taken without a mood stabilizer, such as lithium or valproate. Also, psychostimulant medications used in treating co-occurring ADHD in a child with bipolar disorder may exacerbate manic symptoms as well (Focus Adolescent Services, 2000). The child’s psychiatrist should be consulted if this occurs and treatment for bipolar disorder may need to be reevaluated.

Psychosocial Treatments

Although no psychosocial treatments for PBD are considered evidence-based (Chambless & Hollon, 1998), recent evidence has shown that family-focused psychoeducational therapy (FFT) (Miklowitz et al., 2004), child- and family-focused Cognitive Behavioral Therapy (CFF-CBT) (Pavuluri et al., 2004), and multifamily psychoeducation groups (MFPG); Fristad, Goldberg-Arnold & Gavazzi, 2002; Fristad, Gavazzi & Mackinaw-Koons, 2003) show promise as adjunctive treatments to pharmacological treatment (Youngstrom, 2007). These three treatments have demonstrated symptom improvement and increased functioning in youth with PBD. Table 4 lists the psychosocial treatments for PBD into two categories: What Works and What Seems to Work.

Table 4

Psychosocial Treatments for PBD

What Works	Description
Currently no psychological treatments meet criteria.	Not applicable.
What Seems to Work	Description
Family-focused Psychoeducational Therapy (FFT; Miklowitz et al., 2004)	Helps youth make sense of their illness and accept it and also to better understand use of medication. Also helps to manage stress, reduce negative life events, and promote a positive family environment.
Child- and Family-Focused Cognitive Behavioral Therapy (CFF-CBT; Pavuluri et al., 2004)	Emphasizes individual psychotherapy with youth and parents, parent training and support, and family therapy
Multifamily Psychoeducation Groups (MFPG; Fristad, Goldberg-Arnold & Gavazzi, 2002; Fristad, Gavazzi & Mackinaw-Koons, 2003)	Youth and parent group therapy have been shown to increase parental knowledge, promote greater access to services, and increase parental social support for youth.

Sources: Roberts, Bishop & Rooney, 2008; Leibenluft & Rich, 2008.

Unproven Treatments

Interpersonal social rhythm therapy (IPSRT) (Frank, Swartz & Kupfer, 2000) has shown some evidence of support in adult studies. IPSRT works to minimize the effects of life stressors by helping youth establish regular patterns of sleep, exercise, and social interactions (Leibenluft & Rich, 2008). There is no current evidence of its usefulness in PBD, but current research is studying a version of

IPSRT for PBD youth ages 12 to 18 (Hlastala & Frank, 2006). The use of Omega-3 fatty acids, as well as complementary and alternative medicines as treatments, will need additional rigorous study before their benefit for PBD is determined (Scheffer, 2008).

Cultural Considerations

When assessing, diagnosing and treating youth with mental health disorders, it is imperative that a clinician take into consideration the youth's cultural background. Different cultures may have different beliefs about psychological issues, which should inform clinical judgment and decision-making. Due to these differences, when assessing minority youth, clinicians should gather family history data at the symptom level, if possible, and be cautious about face value interpretation due to the potential for cultural bias (Garb, 1998).

Unfortunately, little is available in the PBD literature about cultural differences in the prevalence or presentation of the disorder. Small sample sizes in treatment studies to date have not allowed for comparisons based on racial or ethnic groups (Brown et al., 2008). Mood disorder research has shown, however, that minority youth have a higher chance of being misdiagnosed with a behavior disorder or schizophrenia (DelBello, Lopez-Larson, Soutullo & Strakowski, 2001). Due to this risk of misdiagnosis, a clinician should carefully assess for a mood disorder in minority youth, especially when the presenting complaint includes symptoms of a behavior disorder or psychosis (Youngstrom, 2007).

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Additional Resources

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Organizations/Resources

American Academy of Child & Adolescent Psychiatry (AACAP)

3615 Wisconsin Avenue, NW — Washington, DC 20016-3007

<http://www.aacap.org/page.ww?name=Bipolar+Disorder+In+Children+And+Teens§ion=Facts+for+Families>

http://www.aacap.org/cs/root/member_information/practice_information/practice_parameters/practice_parameters

Bipolar Disorder—Parents' Medication Guide for Bipolar Disorder in Children & Adolescents.

[Online]. Available: http://www.aacap.org/galleries/default-file/aacap_bipolar_medication_guide.pdf. [May 2013].

American Foundation for Suicide Prevention (AFSP)

120 Wall Street, 22nd Floor — New York, NY 10005

<http://www.afsp.org>

Center for Effective Collaboration and Practice (CECP)

1000 Thomas Jefferson Street, NW, Suite 400 — Washington, DC 20007

<http://cecp.air.org>

Child & Adolescent Bipolar Foundation

1187 Wilmette Ave., P.M.B. #331 — Wilmette, IL 60091

<http://www.thebalancedmind.org>

Depression and Bipolar Support Alliance (DBSA) (formerly the National Depressive and Manic Depressive Association)

730 Franklin Street, Suite 501 — Chicago, IL 60610

<http://www.dbsalliance.org/site/PageServer?pagename=home>

Evidence-based Mental Health Treatment for Children and Adolescents

<http://www.effectivechildtherapy.com>

Federation of Families for Children's Mental Health

<http://www.ffcmh.org>

Georgetown University Center for Child and Human Development

<http://gucchd.georgetown.edu>

Juvenile Bipolar Research Foundation

550 Ridgewood Road — Maplewood, NJ 07040

<http://www.jbrf.org/about-jbrf>

Mental Health America (MHA)

<http://www.nmha.org/index.cfm?objectid=ca866daf-1372-4d20-c8023899e7497020>

Ryan Licht Sang Bipolar Foundation

<http://www.ryanlichtsangbipolarfoundation.org/site/c.ltJZJ8MMIsE/b.2107311/k.BCD3/Home.htm>

U.S. Department of Health and Human Services

National Institute of Mental Health (NIMH)

Easy to Read Guide for Parents

<http://www.nimh.nih.gov/health/publications/bipolar-disorder-in-children-and-teens-easy-to-read/index.shtml>

Bipolar Disorder in Children and Teens: A Parents Guide (2008)

<http://www.nimh.nih.gov/health/publications/bipolar-disorder-in-children-and-teens-a-parents-guide/index.shtml>

Wisconsin United for Mental Health

http://www.wimentalhealth.org/disorders/mood_disorders/bipolar_disorder.php