Chapter 14: Prediatric Bipolar Disorders and Schizophrenia

# 14.1 Bipolar Disorders in Children & Adolescents

## What Are Bipolar Disorders?

* Bipolar I Disorder is a DSM-5 condition characterized by at least one manic episode that results in marked impairment in functioning or requires hospitalization.
* Bipolar II Disorder is a DSM-5 condition characterized by at least one hypomanic episode and one major depressive episode that results in a marked change in functioning, but does not lead to impairment or require hospitalization.
* Cyclothymic Disorder is a DSM-5 condition characterized by periods of hypomanic symptoms (but not a hypomanic episode) and depressive symptoms (but not a major depressive episode) lasting at least 1 year in children and adolescents.

## What Other Problems Are Associated with Bipolar Disorders?

* Approximately 20% of youths with Bipolar I Disorder have psychotic features such as hallucinations or delusions. Youths who also have psychotic features are often more severely impaired than youths with Bipolar I Disorder alone.
* Most youths with bipolar disorders experience mixed mood features. They show periods of mania with depressive/irritable mood or periods of major depression with hypomanic symptoms.

## How Are Pediatric Bipolar Disorders Different from Other Childhood Disorders?

* Most children with bipolar disorders have ADHD; however, most youths with ADHD do not have bipolar disorders. Unlike youths with ADHD, youths with bipolar disorder show episodic changes in activity, sleep, and high-risk activities.
* Children with DMDD show chronic problems with irritability and angry outbursts; in contrast, youths with bipolar disorders show episodic problems with irritability, grandiosity, and mood.

## How Common Are Bipolar Disorders in Children & Adolescents?

* Approximately 1% of youths have Bipolar I Disorder; however, the prevalence of any bipolar disorder may be as high as 3% to 4% of all children and adolescents.
* Girls with bipolar disorders are more likely to experience comorbid anxiety disorders whereas boys with bipolar disorders are more likely to experience comorbid ADHD.
* Bipolar disorders usually have an insidious onset with a long prodromal period marked by dysphoria, concentration problems, and irritability.
* The COBY study showed that most youths with bipolar disorders recovered from their initial manic/hypomanic episode, continued to experience mood problems, and experienced another mood episode within 1.5 years.

## What Causes Bipolar Disorders in Youths?

* The Pittsburgh Bipolar Offspring Study showed that the children of individuals with bipolar disorders are at increased risk for bipolar disorders, mood disorders, and anxiety themselves.
* Youths with bipolar disorders often show over-activity of the amygdala and underactivity of the ventrolateral prefrontal cortex. These abnormalities may be associated with problems regulating intense emotions.
* Abnormal functioning of the superior frontal gyrus and insula may explain the tendency of youths with bipolar disorders to have difficulty directing attention away from negative events and using coping strategies to reduce anger or irritability.
* High expressed emotion, characterized by critical, hostile, and emotionally over-involved comments, predicts relapse in adolescents with bipolar disorders.

## Is Medication Effective for Youths with Bipolar Disorders?

* Lithium (Eskalith) is a mood-stabilizing medication that is used to treat bipolar disorders in adults by regulating norepinephrine and serotonin. Approximately one-third of youths with bipolar disorders respond to this medication.
* Anticonvulsants, like divalproex (Depakote) reduce manic symptoms by increasing GABA and decreasing glutamate activity. Between 24 and 53% of youths show symptom reduction with these medications.
* The Treatment of Early Age Mania (TEAM) study showed that atypical antipsychotic medication, like risperidone (Risperdal), may be more effective than either lithium or anticonvulsants in treating childhood bipolar disorder.

## Is Psychotherapy Effective for Youths with Bipolar Disorders?

* Child- and family-focused cognitive-behavioral therapy (CFF-CBT) is a treatment for children (7-13 years) with bipolar disorders and their caregivers. Components include (1) emotional monitoring and emotion-regulation; (2) improving parent–child interactions, and (3) managing disruptive child behavior.
* Psychoeducational psychotherapy (PEP) is a treatment for children (8-12 years) with bipolar and mood disorders and their caregivers. It can be administered to individual families or groups of families together. Therapists teach families about mood disorders, emotion-regulation, and problem-solving skills.
* Family-focused treatment for adolescents (FFT-A) is a family systems therapy for adolescents with bipolar disorder and their caregivers. Therapists improve parent-child communication and problem-solving and help adolescents avoid future mood episodes by decreasing expressed emotion in the family.

# 14.2 Pediatric Schizophrenia

## What is Schizophrenia?

* Schizophrenia is a DSM-5 psychotic disorder characterized by the presence of hallucinations, delusions, disorganized speech, disorganized actions, and/or diminished emotional expression which impair functioning for at least 6 months.
* The positive symptoms of Schizophrenia reflect “behavioral over-expressions;” that is, aspects of behavior that are not seen in typically-functioning individuals. They include hallucinations, delusions, disorganized behavior, excitement, grandiosity, suspiciousness, and hostility.
* Negative symptoms of Schizophrenia reflect behavioral “under-expressions;” that is, a lack of functioning typically seen in individuals. They include flat affect, social withdrawal, passivity, apathy, and lack of spontaneity.

## How Common Is Schizophrenia Among Children & Adolescents?

* Approximately 0.0019% of youths develop Schizophrenia in childhood whereas 0.23% develop Schizophrenia in adolescence. The base rate for Schizophrenia among adults in the general population is 1%.
* Youths later diagnosed with Schizophrenia tend to experience delays in reaching developmental milestones in infancy and academic problems in early childhood.
* The prodromal phase of Schizophrenia occurs 2-6 years prior to the first psychotic episode. It is marked by problems with attention and concentration, irritability and “moodiness,” and marked deterioration in academic and social functioning.
* Individuals with child- or adolescent-onset Schizophrenia have poorer outcomes than individuals whose symptoms begin in adulthood. Approximately 66% of youths with Schizophrenia have serious deficits in social functioning and 77% are dependent on their family in adulthood.

## What Causes Schizophrenia in Children & Adolescents?

* Schizophrenia is heritable. Individuals with a first-degree relative with Schizophrenia are more likely to develop the disorder (5.9%) and individuals with no family history (0.5%). The COMT gene and 22q11 deletion syndrome is associated with the development of Schizophrenia.
* Youths with Schizophrenia often experience dramatic neural pruning resulting in 3-4% loss of gray matter per year shortly before the onset of their first psychotic episode.
* Youths with Schizophrenia show excessive dopaminergic activity along the mesolimbic pathway, which is associated with increased positive symptoms. However, they also show underactivity of the mesocortical pathway, which may underlie increased negative symptoms.
* Cannabis use in adolescence may elicit Schizophrenia in individuals with a genetic susceptibility for the disorder.

## Can Schizophrenia be Predicted and Prevented?

* Attenuated Psychosis Syndrome (APS) is a condition for further study in DSM-5. It is diagnosed in youths who experience the first signs and symptoms of Schizophrenia (e.g. delusions, hallucinations, disorganized speech) that occur weekly for at least one year, in the absence of a full psychotic episode.
* Early identification and interventions programs indicate that Schizophrenia can be reliably detected in youths with genetic risk for the disorder and its onset can be delayed (but usually not prevented) with antipsychotic medication.

## Is Medication Effective for Youths with Schizophrenia?

* Conventional antipsychotics are effective in reducing the positive symptoms of Schizophrenia in youths. Continued use is associated with extrapyramidal side effects and tardive dyskinesia.
* Atypical antipsychotic medication appears to be as effective and conventional antipsychotics for youths with Schizophrenia. Atypical antipsychotics are also associated with fewer side effects.
* Results of the Treatment of Early-Onset Schizophrenia Spectrum Disorders (TEOSS) study suggest that approximately one-third of youths will respond to antipsychotic medication.

## Is Psychotherapy Effective for Youths with Schizophrenia?

* Psychotherapy for youths with Schizophrenia has five components: (1) education about the disorder, (2) medication adherence, (3) challenging cognitive distortions, (4) family therapy to decrease expressed emotion, and (5) rehabilitation and return to school and the community.
* Approximately 40% of youths with Schizophrenia do not return to their premorbid level of functioning. Youths who participate in family therapy, however, have better outcomes than youths who receive medication alone.