Looking at behavior from the inside out
Autism and Bipolar
The learners perspective

Clinical Manifestations
Biological (genetics, brain insult, illness)
Psychological (developmental, environmental)
Social (environmental, community, family)

The Brain And It’s Role In Behavior
• Frontal Lobe
• Temporal Lobe
• Parietal Lobe
• Occipital Lobe

How Does Behavior Originate?
• Cognitive
• Learned
• Sensory

Cognitive
Cognitive refers to anything having to do with assumptions, beliefs, predictions, interpretations, visual imagery, memory and other mental processes related to thinking

Learned
Learning is acquiring new knowledge, behaviors, skills, values, preferences, or understanding, and may involve synthesizing different types of information. The ability to learn is possessed by humans, animals and some machines.
Sensory
The interpretation and integration of sensory information as it comes in through our seven senses.

Sensory Based Behaviors
• Visual
• Auditory
• Tactile
• Vestibular
• Taste/Olfactory
• Priorproceptive
• Oral Motor

Situational Analysis
• Behavior (communication)
• Preceding Actions
• Observations
• Patterns
• Safety Issues
• Psychological and Social Issues
• Clinical Observations

Examine Related Characteristics
• Gender
• Personality
• Environment

Treatment Strategies
• Neuronutrition
• Sensory Diet
• Nutrition
• Sensory Integration Techniques
• Self Modulation
• Adaptations
• Modifications

Calming Task For Hypersensitivity
• Music (calming auditory intervention)
• Movement (lateral, horizontal)
• Positioning (prone facilitates changes in perception)
• Decrease visual pollution (indirect lighting, full spectrum, natural lighting)
• Nutrition (increase calcium, decrease yellow #5)
• Increase focus with standing and changing visual field to direct view
• Oral (chew, bite crunchy items)
Strategies For Understanding And Managing Challenging Behaviors

- Functional Behavioral Assessments
- Modifying Antecedents
- Structured Teaching to promote functional behavior
- Improving neurological function and chemical imbalance with activities

Serotonin Producing Activities

- Running
- Lifting and moving heavy objects
- Rock climbing
- Hiking
- Moving soil from one spot to another (prop and aroma)
- Social movement groups (gym)
- Drumming
- Listening to specific types of music

Biological, Psychological And Social Behavior Interventions

- Medications
- Counseling
- Cognitive Behavior Therapy
- Social Stories, Coaching

Brain Rules

- Exercise
- Survival
- Wiring
- Attention
- Short-Term Memory
- Long-Term Memory
- Sleep
- Stress
- Sensory Integration
- Vision

Behavior LAB

- Personality Flower
- Video Studies
- Case Studies
- Situational Analysis

A LOOK INSIDE

AUTISM
Autism Diagnostic Criteria

- DSM-IV: Impaired social interaction-reduced nonverbal cues, delayed peer relationships, lack of shared attention no reciprocity
- Impaired communication-lack of (or reduced) language and gestures
- Restricted, repetitive and stereotyped behavior & interests

Autism Diagnostic Criteria

- Abnormal language, social, symbolic: onset before 3 years
- Prevalence: 1-95: 75% Mental Retardation

Suspected Causes Of Autism

- Genetics
- Toxins
- Birth Process
- Medications
- Pruning
- Immunizations
- Pesticides

Early Symptoms

- Early as 6 months
- Lack of interaction in the personal environment
- First Discovered by Canadian Research

Autism Symptoms

- PDD with social, communicative and language deficits
- Ma have genetic basis & autoimmune triggers
- Environmental toxin/virus/allergen may elicit a gut-brain systems failure
- Mental retardation associated at about 75% according to DSM IV

Autism Symptoms

- Failure to point (index finger) in first year
- Lack of sharing, social and imagination
- Does not seek comfort when hurt or ill
- Severe language delay & echolalia
- Stereotyped movement
- Rigid routines
- Insistence on sameness
### CDC and Autism

- **1 in 166** in US: Autism (2005)
- **1 in 95** in US: Autism (2009)

### Diagnostics

- Autism Diagnostic Interview
- Autism Diagnostic Observation Schedule
- Childhood Autism Rating Scale
- Gilliam Autism Rating Scale
- Social Reciprocity Scale
- Checklist for Autism in Toddlers

### Test Of Executive Function

- Behavior Rating inventory of Executive Function
- Behavioral Assessment of the Dys-executive Syndrome
- Delis-Kaplan Executive Function system
- D2 Test of Attention
- Ruff 2 & 7 Selective Attention Test

### Autism: Strategies

- Keep abstract tasks to a minimum: teach in concrete, routine, factual manner
- Prepare visual aids for abstract concepts, schedules, transitions and social stories
- Provide highly structured and routine programs and schedules
- Build change into schedules; introduce change and carefully prepare child beforehand

### Autism: Strategies

- Home and School programs coordinate
- Use Behavior notebooks and note-cards
- Pre-teach, teach, post-teach
- Use Picture Exchange Communication
- Use affect-based language protocols along with behavioral models
- Small group work and social skill training

### TEACHING CHILDREN WITH AUTISM

**STRUCTURED TEACHING**

\[
\begin{align*}
\frac{1}{2} & \text{ PORTION OF STRUCTURE} \\
\frac{1}{4} & \text{ PORTION OF REPITION} \\
1/4 & \text{ PORTION OF IDENTIFICATION}
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Childhood Bipolar Disorder

Mood disturbance in children

Childhood Bipolar Disorder

- Bipolar prevalence is estimated at 2-8%
- The typical child will see 3 to 4 medical professionals before obtaining a dx of Bipolar
- Only 45% of bipolar patients are being treated with mood stabilizer and antidepressant

Bipolar Disorder

- Inherited 60%
- Environmental and other causes 40%
- Brain Involvement:
  - Nucleus acumens', Amygdalate, Hippocampus, Prefrontal cortex
  - Motivation and Action selection
  - Dopamine and Glutamate are the neuron chemicals involved

Bipolar Brain Function

- Significantly smaller brain volume
- Cerebrum, thalamus, hippocampus
- Right-sided amygdale defect
- Enlarged third and right lateral ventricles: neural wasting

Diagnosis

- Keep accurate daily mood charts
- Have child, parents, teacher, other close family members rate the child
- Family history interview relatives
- Get teacher’s and counselor’s observations on standard forms
- Obtain information over time: 1-3 months
- Try therapy to determine effectiveness

Childhood Bipolar Disorder

- Chronic symptoms or rapid mood cycles
- Absences of cycles
- Presents with symptom clusters
- Non-episodic or short (1 day) episodes
<table>
<thead>
<tr>
<th>Childhood Bipolar Disorder</th>
<th>Bipolar Mood Disorder</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hyperactivity</strong></td>
<td><strong>Irritable mood</strong></td>
</tr>
<tr>
<td>• Hyperactivity</td>
<td>• Irritable mood (episodic), irritable with elevated mood</td>
</tr>
<tr>
<td>• Impulsivity</td>
<td>• Silliness rather than true adult euphoria</td>
</tr>
<tr>
<td>• Racing thoughts</td>
<td>• Mood liability beyond typical</td>
</tr>
<tr>
<td>• Pressured speech</td>
<td>• Elevated expansive, inflated self-esteem</td>
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<tr>
<td>• Disruptive, externalizing, risk-taking</td>
<td>• Depression in the form of negativity, refusal</td>
</tr>
<tr>
<td>• Risky, daredevil, careless behavior</td>
<td>• Opposition, irritability</td>
</tr>
<tr>
<td>• Severe irritability</td>
<td>• Anger, temper and rage beyond the norm</td>
</tr>
<tr>
<td></td>
<td>• Disruptive and aggressive</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Bipolar Mood Disorders</th>
<th>Bipolar Social Dysfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reactivity and rejection sensitivity rapid changes in mood</td>
<td>• Anxiety and panic disorders</td>
</tr>
<tr>
<td>• Destructive anger and rage that may last for more than one hour</td>
<td>• Hyper sexuality</td>
</tr>
<tr>
<td>• Rage reactions not well-remembered</td>
<td>• Social interest in the extreme-needy clinging</td>
</tr>
<tr>
<td>• Uncontrolled aggression toward people</td>
<td>• Social anxiety</td>
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<tr>
<td>• Suicidal ideation and urge to die</td>
<td>• Uninhibited people-seeking</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Bipolar Mood Disorder</th>
<th>Childhood Bipolar Disorder: Psychotic</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Rages &amp; explosive temper tantrums (lasting up to several hours)</td>
<td>• Vivid, florid, intense thinking and talking</td>
</tr>
<tr>
<td>• Marked irritability</td>
<td>• Terrified or paranoid feelings</td>
</tr>
<tr>
<td>• Oppositional behavior</td>
<td>• Psychotic thinking related to depression or mania</td>
</tr>
<tr>
<td>• Frequent mood swings</td>
<td>• Sun setting may occur late in afternoon or evening</td>
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<td></td>
<td>• Sun setting occurs with change in full spectrum light</td>
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</tbody>
</table>
## Psychotic Bipolar Symptoms

- Lack of organization
- Fascination with gore or morbid topics
- Hypersexuality
- Manipulative behavior
- Bossiness
- Lying
- Suicidal thoughts
- Destruction of property
- Paranoia
- Hallucinations & delusions

## Kindling

- This theory proposes period of cycling begin with an environmental stressor
- If cycles continue, the brain becomes sensitized, pathways are facilitated or kindled
- Further episodes of depression and mania occur independent of stimulus with increasing intensity and frequency

## Early Diagnosis

- Early medical treatment controls kindling: if it is not treated there are serious risks
- High risk for suicide (15-18%)
- Severe drug and alcohol abuse
- Higher incidence, earlier onset with each generation; First episode earlier in child than parent

## Early Onset Symptoms

- Racing thoughts
- Aggressive behavior
- Grandiosity
- Carbohydrate cravings
- Risk-taking behaviors
- Depressed mood
- Lethargy
- Low self-esteem
- Difficulty getting up in the morning
- Social anxiety
- Oversensitivity to emotional or environmental triggers

## Common Symptoms Of Early-Onset Bipolar Disorder

- Bed-wetting (especially in boys)
- Night terrors
- Rapid or pressured speech
- Obsessional behavior
- Excessive daydreaming
- Compulsive behavior
- Motor & vocal tics
- Learning disabilities
- Poor short-term memory

## Less Common Symptoms Of Early-Onset Bipolar Disorder

- Migraine headaches
- Binging
- Self-mutilating behaviors
- Cruelty to animals
Co-morbidities
• Are these disorders true co-morbidities?
• ADHD
• Oppositional Defiant Disorder
• Conduct Disorder
• Generalized Anxiety Disorder, Separation Anxiety, Panic Disorder
• Insomnia, nightmares, night-terrors

Strategies For Schools
• Psycho-educational evaluations-essential
• Transitions must be planned
• Have a plan for a safe place and a safe interaction
• Small classes, small work group
• Calm, accepting environment
• Special Education for difficult areas
• Reposition for difficult task allow the child to stand

Strategies For Schools
• Social, anger, emotional skill training
• Teach to children’s strengths
• Extra instruction, homework club, tutoring
• Capture child’s creativity
• Close home-school gap with good behavior notebooks, agenda-homework books

Sensory Based Mood Management
• Tactile intervention
• Self regulation for sensory and behavior
• Movement programs to manage neurological responses
• Resolutions for control issues

Techniques To Normalize Sensory Receptors
• Sensory Diet
• Adaptation of Environments
• Structured Routines
• Compensation

Bipolar Intervention LAB
• Sensory System Lab
• Yoga
• Massage
• Brushing
Summary

• Open Discussion of Behaviors, Autism and Bipolar Disorder