

# Linking the Brain and Behavior

presented by Frank Kros, President, Transformation Education Institute

## MENTAL HEALTH MATRIX

ANXIETY/STRESS DISORDERS			ATTENTION-DEFICIT HYPERACTIVITY DISORDER (ADHD)			CONDUCT DISORDER					
<p><b>What's Going on With Me?</b></p> <p><i>Seems to always be edgy and on alert   Trance-like state in class   Appears bored and disconnected   Short term memory loss and inability to prioritize   Makes careless errors in his work   Decreased social contact   Loss of creativity   Seems to be sick more often than peers</i></p>			<p><b>What's Going on With Me?</b></p> <p><i>Rarely finishes her work   Calls out answers in class   Easily and consistently distracted   Exhibits weak follow through   Wants everything right away   Personal area is messy   Doesn't sit still   Doesn't seem able to reflect and learn from the past</i></p>			<p><b>What's Going on With Me?</b></p> <p><i>Inappropriate emotional outbursts with random acts of destruction   Consistently hurtful toward peers   Verbal intimidation   Refuses to follow directions   Consistently challenges authority   Loud and aggressive communication pattern   Will often taunt teachers and use vulgar language   Prone to lie, deceive, and blame</i></p>					
OVERVIEW	SYMPTOMS	POSSIBLE CAUSES	OVERVIEW	SYMPTOMS	POSSIBLE CAUSES	OVERVIEW	SYMPTOMS	POSSIBLE CAUSES			
<ul style="list-style-type: none"> <li>Stress is a physiological response to a perception of a lack of self-control over an aversive situation or person</li> <li>Highly invisible to untrained eye</li> <li>Children are largest group w/stress disorders (over 1M)</li> <li>9-15M children have undiagnosed stress disorders</li> <li>Can damage the brain</li> <li>Highly correlated w/ trauma</li> <li>Can be treated</li> </ul>	<ul style="list-style-type: none"> <li>Boredom and listlessness</li> <li>Looks like they're "burned-out."</li> <li>Lack of energy or enjoyment</li> <li>Short-term memory impairment</li> <li>Weakened episodic memory</li> <li>More likely to abuse drugs</li> <li>"Trance-like" school states</li> <li>Impacts attention, focus, concentration</li> <li>Reduces neurogenesis, impairs memory, accelerates aging</li> </ul>	<ul style="list-style-type: none"> <li>Genetic predisposition in 33%</li> <li>Prenatal exposure to trauma (tobacco, drugs, distress)</li> <li>Postnatal exposure to trauma (death, injury, divorce, etc.)</li> <li>Chronic exposure to cortisol</li> <li>Today's 24/7 lifestyle is stressful — home, school environments are critical</li> </ul>	<ul style="list-style-type: none"> <li>Most commonly diagnosed behavioral disorder in students (approx 5% of students)</li> <li>Symptoms appear before age 7</li> <li>Symptoms last at least six months</li> <li>Frequently treated with medications (stimulants)</li> <li>More common in boys</li> <li>Can be Hyperactive/ Impulsive or Inattentive</li> </ul>	<p><b>INATTENTIVE TYPE:</b></p> <ul style="list-style-type: none"> <li>Difficulty sustaining attention</li> <li>Does not seem to listen when spoken to</li> <li>Difficulty organizing tasks and activities</li> <li>Often loses things</li> <li>Often forgetful in daily activities</li> <li>Fails to give close attention, makes careless mistakes</li> </ul> <p><b>HYPERACTIVE TYPE:</b></p> <ul style="list-style-type: none"> <li>Often fidgets/squirms</li> <li>Often runs around and climbs on things</li> <li>Talks excessively</li> <li>Difficulty playing quietly</li> <li>Often leaves seat in class</li> <li>Difficulty waiting their turn</li> </ul>	<ul style="list-style-type: none"> <li>No single cause</li> <li>Heredity</li> <li>Reduced size in frontal lobes</li> <li>Chemical in-balance (insufficient stimulation in the prefrontal cortex)</li> <li>Head injury</li> <li>Frontal lobe symmetry</li> </ul>	<ul style="list-style-type: none"> <li>Chronic, acute, pathologically – driven antisocial behavior</li> <li>Highly correlated w/ violence, ADD</li> <li>Consistently vulgar and abusive w/language</li> <li>Often evolves as a secondary disorder</li> <li>Variable frequency — 1-5% is common</li> <li>Can be treated over time</li> <li>Best if interventions started early (i.e., primary grades)</li> </ul>	<ul style="list-style-type: none"> <li>Begin as early as 1<sup>st</sup> grade</li> <li>Aggressive and disruptive</li> <li>Cruel and vindictive to others, animals</li> <li>No guilt, remorse or regard for other's feelings</li> <li>Lying, stealing then wondering why you don't trust them</li> <li>Refusal to follow directions</li> <li>Can't see things from other's point of view or feel for them</li> <li>Need extreme stimulation</li> </ul>	<ul style="list-style-type: none"> <li>Genetic contribution</li> <li>Trauma/PTSD</li> <li>Brain insults/head injury</li> <li>Prefrontal cortex dysfunction</li> <li>Drug/alcohol abuse</li> <li>Hormonal imbalances</li> <li>Damaged/immature amygdala</li> <li>RAD</li> <li>Lack of positive role models</li> <li>Lack of conflict resolution skills</li> </ul>			
<p><b>INTERVENTIONS</b></p> <ul style="list-style-type: none"> <li>Eliminate threats, reduce over-reactions</li> <li>Increase quantity and quality of feedback</li> <li>Create positive rituals and routines</li> <li>Increase student control</li> <li>Use art</li> <li>Keep expectations and schedule clear at all times.</li> </ul>			<p><b>INTERVENTIONS</b></p> <ul style="list-style-type: none"> <li>Teach nutrition, emotional intelligence, how body works</li> <li>Personalize (greet by name, B-days, sharing, personal events)</li> <li>TM, stretching, relaxation</li> <li>Journaling, writing help</li> </ul>			<p><b>INTERVENTIONS</b></p> <ul style="list-style-type: none"> <li>Get help fast, form a team, make a plan and follow through</li> <li>Cross-check all information</li> <li>Teach emotional intelligence skills</li> <li>Target one behavior at a time using behavior modification</li> <li>Stay positive but don't "buy in" to their behavior</li> <li>Build relationship — it is the only real chance</li> </ul>			<p><b>INTERVENTIONS</b></p> <ul style="list-style-type: none"> <li>Frequent monitoring — protect the vulnerable</li> <li>Know that it's a journey</li> <li>Pets, mentoring to younger children, more responsibility work for some</li> <li>Avoid escalating prompts such as shouting, touching, nagging or cornering the student</li> <li>Use technology strategies to engage these students</li> </ul>		
<p><i>Stay Connected!</i></p> <p> LIKE US on Facebook</p> <p> FOLLOW US on Twitter: @TranZinstitute @FKros</p>			<p>• Rule out vision/hearing problems</p> <p>• Focus on their strengths</p> <p>• Be flexible, but maintain consistent boundaries</p> <p>• Incorporate movement whenever possible</p> <p>• Consult with parents about what works at home</p>			<p>• Provide external reinforcement</p> <p>• Establish Routines</p> <p>• Teach time management skills</p> <p>• Develop a system to make sure assessments are written down</p> <p>• Use visual cues and written instructions instead of oral recipes</p>			<p>This Take Away Tool is provided by the Transformation Education Institute. To learn more about us and what we offer, please visit our website at: <a href="http://www.upsidedownorganization.org">www.upsidedownorganization.org</a></p>		

# MENTAL HEALTH MATRIX

## DEPRESSION

### What's Going on With Me?

*Decrease in energy | Change in appetite | Feelings of worthlessness and guilt | Thoughts of death, suicide | Persistent sadness | Loss of interest in pleasurable activities | Loss of friends | Unexplained aches and pains*

## OPPOSITIONAL DISORDER

### What's Going on With Me?

*Loses her temper often | Argues often with adults | Defies authority and rejects rules | Complies with requests about 30% of the time | Deliberately annoys others | Blames others for her mistakes | Angry and resentful |*

## REACTIVE ATTACHMENT DISORDER

### What's Going on With Me?

*Lies and steals regularly | At lunch, will fill his pockets with food and store it in his desk | Very cold to teacher and school counselor, but friendly with strangers | Small things set him off | Unable to pay attention beyond a few minutes | Mood in classroom changes suddenly and in extremes | Poor with transitions*

OVERVIEW	SYMPTOMS	POSSIBLE CAUSES
<ul style="list-style-type: none"> <li>Chronic, serious, pervasive mood disorder that impacts all ages</li> <li>3.4M or 5% of children ages 5-18 "significantly depressed"</li> <li>Ages 9-17 is the most dense bracket of depression sufferers</li> <li>500K take anti-depressants</li> <li>1 in 10 children/youth w/ major depression will commit suicide</li> <li>80% of runaways suffer from depression</li> </ul>	<ul style="list-style-type: none"> <li>Unusual anger and moodiness</li> <li>Look and listen for changes in performance or behavior</li> <li>Loss of relationships common</li> <li>"Numbness," apathy, disconnected</li> <li>Lack of interest in fun, play, laughter</li> <li>Negative thoughts, language</li> <li>Fatigue, inability to concentrate</li> <li>Posture communicates hopelessness</li> <li>Sleeping too much, too little</li> <li>Weight gain, loss</li> </ul>	<ul style="list-style-type: none"> <li>Chemical dysregulation — especially serotonin</li> <li>Emotional reliance</li> <li>Dysfunction of inflammatory mediators (cytokines)</li> <li>Exposure to trauma or stress</li> <li>Darkness or low light classroom conditions</li> <li>Less tissue in subgenual prefrontal cortex</li> <li>Nutritional deficiency (folates)</li> <li>Heredity</li> </ul>
<p>Referred to as Oppositional Defiant Disorder and Oppositional Personality Disorder</p> <ul style="list-style-type: none"> <li>Serious and chronic personality disorder</li> <li>Verbal aggressiveness focused on others</li> <li>Rarely physically aggressive or violent</li> <li>Highly co-morbid with ADHD</li> <li>Present in 8-15% of population</li> <li>May be increasing in frequency</li> </ul>	<ul style="list-style-type: none"> <li>Resists nearly everyone's plans, ideas and actions — often with hostility</li> <li>Likes own plans, ideas and actions</li> <li>Defiant, easily angered, quick-tempered</li> <li>Complies with requests @3 of 10</li> <li>Brain is unable to "switch gears" or states</li> <li>Touchy, easily annoyed</li> <li>Randomly spiteful and vindictive</li> <li>Blames others for own mistakes</li> <li>Does not learn well from past</li> </ul>	<ul style="list-style-type: none"> <li>Specific cause unknown</li> <li>Higher incidence w/ childhood trauma</li> <li>Correlations w/parental alcoholism and ADHD</li> <li>Chemical dysregulation of serotonin system in cingulate gyrus</li> <li>Increased activity in LT lobe</li> <li>Dysregulation of amygdala (fear system)</li> <li>Basal ganglia dysfunction</li> </ul>
<ul style="list-style-type: none"> <li>RAD is the inability to form healthy relationships because of trauma, abuse</li> <li>Many forms of abuse contribute to RAD (physical, sexual, emotional)</li> <li>Abuse dysregulates the stress response</li> <li>Abused women are 4X more likely to develop excess stress responses</li> <li>3M cases of reported child abuse each year: 20% of these cases are children under 5 yrs.</li> <li>Common in children of alcoholics</li> </ul>	<p>Wide variability in symptoms...</p> <ul style="list-style-type: none"> <li>Lying, stealing, hoarding, manipulating</li> <li>Bizarre relationships (too friendly w/ strangers, too distant w/ loved ones)</li> <li>Hyper-emotional response to anger</li> <li>Impaired attention span</li> <li>Mood swings</li> <li>Extreme stress responses</li> <li>Control issues</li> </ul>	<ul style="list-style-type: none"> <li>Neglect</li> <li>Physical abuse, sexual abuse and emotional abuse</li> <li>Prenatal drug abuse</li> <li>Traumatic separation</li> <li>Chronic moves, family instability</li> <li>Maternal personality disorders</li> <li>Prolonged/painful illness</li> </ul>

### INTERVENTIONS

- Get help — form a support team, make a plan and act quickly — it's serious
  - Teach coping skills, debrief events
  - Get physical
  - Celebrate successes
  - Enhance relationships
- Encourage journaling
  - Monitor nutrition
  - Make sure student receives support over time and meets program goals
  - Teach social skills/emotional intelligence
  - Help students recognize positive contributions and performance

### INTERVENTIONS

- Create a team, make a plan, get aligned
  - Pick your battles (fewest and simplest)
  - Avoid power struggles and the "confrontation game"
  - Use reverse psychology; "let it go"
  - Encourage writing, journaling, drawing
- Confirm all stories and claims
  - Increase 5HTP (food, exercise, supplements)
  - Use non-power body language
  - Prepare responses to common challenges in advance
  - Relationship is key — your only chance

### INTERVENTIONS

- This student will need lots of support — consult your school counselor
  - Behavior modification often works well — use privileges as rewards
  - Establish clear expectations, rules and boundaries and be consistent
- Encourage emotional expression with the arts and journaling
  - Add positive emotional memories from celebrations and belonging experiences
  - Build emotional intelligence skills
  - Hold regular meetings with all involved (family, counselor, etc.)



Transformation Education Institute | 6802 McClean Blvd.,  
Baltimore, MD 21234 | 410-444-5415  
[www.upsidedownorganization.org](http://www.upsidedownorganization.org)

The "Sherlock Holmes Skills"

AWARENESS | OBSERVATION | COMMUNICATION