BEGIN WITH THE END IN MIND
HOW COME ITS SO IMPORTANT TO HELP CHILDREN AND FAMILIES WITH ODD AND ADHD

COMMERCIAL INTERESTS DISCLOSURE
Deborah Hagler MD
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HELPING FAMILIES
- Earlier Intervention Better
- Behavioral therapies play a critical role
- Additional Psychiatric Diagnosis are common
- All parties need to learn to redirect the negativity
- ADHD needs to be managed like a chronic illness for the best outcomes.

OPPOSITIONAL DEFIANT DISORDER
- Fairly Common
- Early Elementary Onset-Adolescence
- Earlier onset more common in boys
- Symptoms have been prevalent for 6 months or more
OPPOSITIONAL DEFIANT DISORDER DSM5 CRITERIA

Angry/Irritable
- Often Loses Temper
- Touchy/Easily Annoyed
- Angry/Resentful

ODD-DSM5
- Argumentative/Defiant
  - Often Argues with Authority Figures
  - Defies/refuses to comply with requests
  - Deliberately Annoys to blame others for misbehavior

Vindictive Spiteful or Vindictive at least 2 times in last 6 months

ODD-ETIOLOGY???

Risks-
- Family Psycho pathology
- Single parenting
- Child neglect/maltreatment
- Poor disciplinary Practices
- Environmental factors – poverty/congested neighborhoods
- Epigenetic and genetic studies
- Associated with several Co-morbidities- ADHD/Anxiety Depression/Conduct disorder
HOW/WHY IS THIS IMPORTANT TO IDENTIFY

Vanderbilt-
- Often or Very Often
- Disobeys/ Refuses to Follow adult requests or rules
- Is Angry or Bitter
- Child Behavior Check List

- Disrupted Relationships
- Significant relationship disruptions
- Risk of Conduct disorder
- Risk of SUD
- Increased risk Suicide

ODD- TREATMENTS

Psycho- social Mainstay-
- Parent management/Functional Family Therapy/ CBT
- Multi Systemic and Multi Dimensional Therapy
- Diagnose and Manage Co-morbidities
- Collaborative Problem Solving

ADHD

- Worldwide prevalence estimates from 2.2% – 7%
- 2012-2013 data from CDC 6.1 million office visits made by children ages 4-17 with primary ADHD diagnosis
- 48% of those visits were to a pediatrician/36% to child psychiatrist / 12 % to general practitioners
- During 80% of those visits a stimulant was prescribed or monitored
- 29% of the visits had a co-morbid diagnosis

A BRIEF WORD ON PATHOPHYSIOLOGY

Structural Differences on MRI-2017 Lancet Psychiatry – 1713 patients with ADHD / 1529 Controls - Median age 14/23 sites around the globe- Effects most notable in children less than 15 - Smaller acumen/amygdala/ hippocampus/caudate and putamen.

Functional MRI Differences ADHD/Control

Electro physiologic Differences- ADHD –Specific Connectome characteristic of ADHD at certain ages.
What NOT to Say to the Parent of a Child with ADHD

Despite iron-clad medical evidence to the contrary, ADHD is still considered by many to be nothing more than poor parenting, too much screen time, or a parental excuse for lack of discipline. Not so. If you know someone who is parenting a child with ADHD, here are 10 untruths and misperceptions you just shouldn’t repeat.

BY ADDITIVE EDITORS

Developmental Impact of ADHD

- Pre-school
  - Behavioural disturbance
  - Academic problems
  - Self-esteem issues

- School-age
  - Academic problems
  - Difficulty with social interactions
  - Behavioural disturbance

- Adolescent
  - Self-esteem issues
  - Substance abuse
  - Injury/accidents

- College-age
  - Academic failure
  - Substance abuse
  - Injury/accidents
  - Occupational difficulties

- Adult
  - Occupational difficulties
SOCIAL FUNCTIONING

- Children struggle more with social and communication skills.
- Less able to cooperate.
- Poor turn taking skills.
- Intrusive/disruptive in interactions.
- More rejection by peers.
- Less reciprocal friendships.
- More internalizing/externalizing behaviors.
- Executive function problems: inhibit, shift, emotional control, self-monitor, initiate, working memory, planning, and organization of materials.

RISK OF INJURY

- Odds of injury about 30% greater in children with ADHD versus peers.
- ER visits reduced in children receiving treatment.
- Mortality rates greater across all age groups with ADHD when controlling for co-morbidities.
- Mortality highest within first 5 years of diagnosis and if ADHD diagnosed in Adulthood.
- Mortality higher in females.
ACADEMIC FUNCTIONING

- Lower School Grades
- Lower Achievement Scores
- 30% will repeat a grade
- 10-35% will drop out of school
- Short term academic gains with medication - improved classroom productivity, problems completed on quizzes, improved quality of work.
- Long term academic gains - treatment with stimulants for more than 3 years improves scores on standardized achievement tests but by small amounts.
- Long term stimulants have not been shown to consistently improve grades or decrease grade retention.

ADHD AND EATING BEHAVIORS

- Children with ADHD 12 times more likely to have loss of control eating syndrome
- Higher odds ratio in both children and adults with ADHD of developing obesity.
- In most studies looking at association ADHD dx preceded obesity diagnosis.
- Many mechanisms postulated
- More research forthcoming

CRIMINAL JUSTICE INTERACTIONS

- Increased risk of driving citation
- Speeding tickets
- License suspension
- At-Fault Automobile accidents
- Multinational surveys (USA, UK, Finland, Canada, Sweden, Norway) find up to 2/3 of youth offenders and 50% of adult offenders have hx childhood ADHD. In many symptoms still persist.
- UK series- ADHD most important predictor of violent offences (More so than substance misuse)

SUBSTANCE USE DISORDER

- Earlier onset of substance Use
- Increased variety of substances tried
- 2.5 times more likely to develop SUD than children without ADHD
- Similar biologic underpinnings- Dopamine...
- Significant evidence from large data bases that treatment with psychostimulants reduces substance use related problems-Timing seems to be important- treat earlier.
CO-MORBID CONDITIONS

- ODD
- Conduct Disorder
- Anxiety
- Depression
- Increased risk of suicide
- Early treatment with psycho-stimulants may decrease risk of developing some co-morbid mental health conditions.

TOWARD GUIDELINE-DRIVEN IMPROVEMENT...

- COIN projects are built on a model.

WE CAN DO BETTER

U.S. Department of Health and Human Services
Office of Inspector General

Many Medicaid-Enrolled Children Who Were Treated for ADHD Did Not Receive Recommended Followup Care

A CHRONIC CONDITION TO BE MANAGED

- Diagnosis
- Treatment: Medication Adherence
- Ongoing monitoring: Growth and medication side effects
- Co-Morbidities
- Age-related difficulties
- Communication with multiple stakeholders
CO-MORBID OR CO-OCCLUDING CONDITIONS

<table>
<thead>
<tr>
<th>Medical</th>
<th>Psychological</th>
<th>Educational</th>
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<td>Sleep disorders</td>
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<td>Intellectual Disability</td>
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<td>Depression/Mood Disorder</td>
<td>LD/Dyslexia</td>
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<td>ODD/CD</td>
<td>Processing Issues</td>
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<td></td>
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<td></td>
<td>ASD</td>
<td>Working Memory</td>
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**EVIDENCE-BASED BEHAVIORAL THERAPY**

<table>
<thead>
<tr>
<th>Intervention Type</th>
<th>Description</th>
<th>Typical Outcome(s)</th>
<th>Effect Size</th>
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<tbody>
<tr>
<td>Behavioral parent training (BPT)</td>
<td>Behavior-modification principles provided to parents for implementation in home settings</td>
<td>Improved compliance with parental commands; improved parental understanding of behavioral principles; high levels of parental satisfaction with treatment</td>
<td>.55</td>
</tr>
<tr>
<td>Behavioral classroom management</td>
<td>Behavior-modification principles provided to teachers for implementation in classroom settings</td>
<td>Improved attention to instruction; improved compliance with classroom rules; decreased disruptive behavior; improved work productivity</td>
<td>.61</td>
</tr>
</tbody>
</table>
FAMILY SUPPORT

• MAINE PARENT FEDERATION 1-800-870-7746
• Child Mind Institute
• The Clay Center at MGH
• CHADD
• ADDitude Magazine

REFERENCES

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• Executive Functions and Attachment Relationships in Children With ADHD: Links to Externalizing/Internalizing Problems, Social Skills, and Negative Mood Regulation. Michal Al-Yagon, Dovrat Forte. Uzalkavaramajournal of Attention Disorders First published date: September-17-2017 10.1177/1935972417730608

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• A Review of the Pathophysiology, Etiology, and Treatment of Attention-Deficit Hyperactivity Disorder (ADHD) Alok Sharma, PhD, Justin Couture Annals of Pharmacotherapy Vol 48, Issue 2, pp. 209 - 225First published date: November-01-2013 10.1177/1060028012473449