

## Current Trends in ADHD

### מגמות עכשוויות בהפרעות קשב וריכוז

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## Disclosure

- My expenses for this talk are in part supported by Neurotech.
- I have developed tests marketed by Multi-Health Systems, Pro-Ed and Western Psychological Services.
- I have authored books marketed by Springer, Wiley, Guilford, Double Day, McGraw Hill, Brookes, Kluwer and Specialty Press.
- I am Editor in Chief of the Journal of Attention Disorders (Sage) and Co-Editor of the Encyclopedia of Child Development (Springer)

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## Current Trends in ADHD Research

- Novel medications
- Non-medical treatments (e.g. eTENS, fMRI biofeedback, EEG biofeedback, web based cognitive training)
- Transition through adult life
- Impairment/quality of life
- Resilience/protective factors
- Incidence/prevalence/trends in diagnosis and treatment

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## What is ADHD?

- ADHD is a bio-psychosocial condition characterized by core symptoms of inattention, hyperactivity and impulsivity leading to/interacting with cognitive deficits causing impairment in all walks of life. ADHD appears to primarily involve the basal ganglia, cerebellum and the frontal lobes.
- Co-morbidity of other developmental, emotional and behavioral conditions with ADHD probably confounds findings from different study groups. (Hendren et al, 2000)
- The symptoms of ADHD lead to a nearly infinite number of consequences (Barkley, 2015).

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Current diagnostic criteria specify that ADHD involves difficulties with inattention and/or hyperactivity/impulsivity.

Researchers using factor analysis have consistently found support for an inattention factor in both children and adults.

Findings have been mixed regarding whether hyperactivity and impulsivity reflect one or two dimensions.

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The prediction of outcomes provided support that complemented confirmatory factor analysis for the separation of the hyperactivity and impulsivity constructs.

Impulsivity uniquely predicted more outcomes than hyperactivity alone. Results were consistent with the conceptualization of ADHD as primarily a disorder of behavioral inhibition.

Future research using alternative outcomes and clinical populations should be conducted. (JAD, 2012)

Examining the Dimensionality of ADHD Symptomatology in Young Adults Using Factor Analysis and Outcome Prediction  
Tara E. Wolfson

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ADHD appears to be a condition stemming in part from inefficient operation of the brain relative to task and environmental demands leading to poor execution of behavior.

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Neither the level of impairment nor the life outcome for those individuals with ADHD is very well predicted by the diagnosis, symptoms or treatments for the condition.

ADHD acts as a catalyst fueling other developmental and environmental risk factors.

Symptom relief is necessary but far from sufficient to assure good adult outcome for ADHD.

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The symptoms of ADHD lead to a nearly infinite number of consequences.

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ADHD is a condition resulting from poor self-discipline. It reflects exaggeration of normal behavior.

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### Self-discipline

- The ability to inhibit
- The ability to delay
- The ability to separate thought from feeling
- The ability to separate experience from response
- The ability to consider an experience and change perspective
- The ability to consider alternative responses

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### Self-discipline

- The ability to choose a response and act successfully towards a goal
- The ability to change the response when confronted with new data
- The ability to negotiate life automatically
- The ability to track cues

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Children with poor self-discipline  
aren't clue.-less

**They are unfortunately often  
cue-less!**

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Poor Self-discipline is  
synonymous with. . .

Poor Self-control

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Poor self-discipline leads to. . .

Impulsive behavior

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Conditions under which inattention is  
observed

- Repetitive
- Effortful
- Uninteresting
- Not chosen

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Conditions under which problems with consequences are observed

- Delayed
- Infrequent
- Unpredictable
- Lacking saliency

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### Group Differences in EF for ADHD

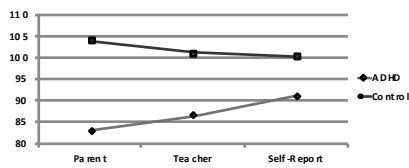


Table 8.19 Differences Between ADHD and Matched General Population Samples: CEPI Full Scale

Form	ADHD	Matched Gen. Pop.	d-ratio	F (df)	p
Parent	M	103.8	-1.59	216.56 (1, 340)	< .001
	SD	11.0			
	N	171			
Teacher	M	101.1	-1.07	79.93 (1, 278)	< .001
	SD	11.5			
	N	142			
Self-Report	M	100.3	-0.62	22.21 (1, 232)	< .001
	SD	14.7			
	N	117			

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### Comorbidity Issues in ADHD

- Two types of Oppositional Defiant Disorder
- Conduct Disorder
- Emerging personality disorders
- Dysthymia/Depression
- Anxiety Disorders
- Manic Depressive Disorder
- Learning/Social/Language Disorders

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### Low Incidence Disorders With Increased Risk of ADHD

- Tourette's Syndrome
- Autism
- Fragile X Syndrome
- Williams Syndrome
- Neurofibromatosis Type I

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### Comorbid Disorders With ADHD in Clinic Settings

- Major Depressive Episode +25%
- Mania 3-17%?
- Anxiety Disorder 20-30%
- Learning Disability 20-30%
- School Problems 100%?
- Social Problems 100%?

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### Comorbid Disorders With ADHD in Clinic Settings

- Oppositional Defiant Disorder 50-70%
- Conduct Disorder 30-40%
- Juvenile Court Involvement 25-50%
- Substance Abuse 20-30%

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## Treatment For ADHD




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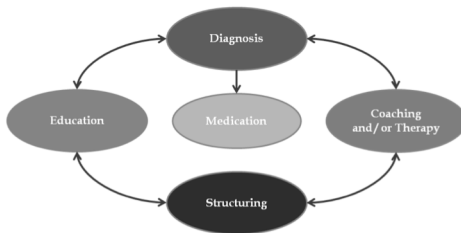
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## What is the Implication of These Data For the Treatment For ADHD?




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## Psychosocial Interventions for ADHD

- Environmental manipulation of the physical plant
- Environmental manipulation of consequences
- Modification of cognitive function




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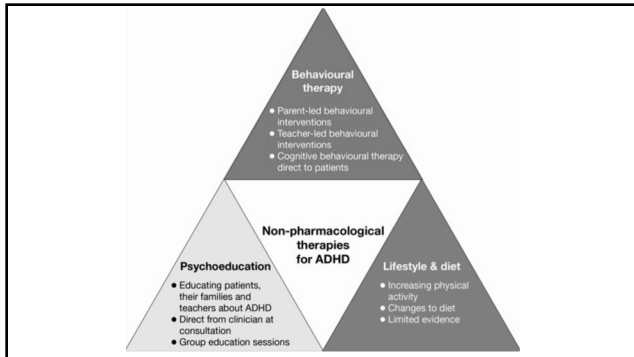
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### Key Goals of Treatment for ADHD

- Instill hope and empowerment
- Educate
- Reframe
- Build self-esteem and self-acceptance

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### Key Goals of Intervention

- Form a partnership
- Reduce discouragement through setting realistic goals
- Address and rewrite negative scripts
- Focus on strengths
- Build resilience

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### Medical Interventions for ADHD

- Cognitive enhancing medications.
- Mood regulating medications.
- Sedating medications.

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They are/can be effective symptom  
relievers but more will not change  
long term outcome.

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Pills will not substitute for  
skills

But they will relieve symptoms

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Eric's Experiment Part I



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Eric's Experiment Part II



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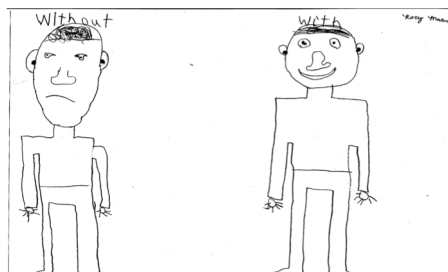
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Rory's View



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### Is Counseling for ADHD Non-Traditional?

- Active role of therapist
- Cognitive behavioral model
- Similar to working with individual's with neurological conditions. Therapist takes an active even directive role.
- Involve support system
- Offer guidance and advice.

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### Five keys to successful management of ADHD

- Make tasks interesting
- Make payoffs valuable
- Adjust expectations for change
- Allow more trials to mastery
- Allow more time for change

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### Treatment Plan For Children With ADHD

- Adult Education
- Thorough assessment
- Medication
- Behavior management
- Educational support
- Long term perspective
- Build success in small steps
- Focus on resilience

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### Five Strategies To Foster a Resilient Mindset

- Teach empathy by practicing empathy.
- Teach responsibility by encouraging contributions.
- Teach decision making and problem solving skills that foster self-discipline.
- Offer encouragement and positive feedback.
- Help children deal with mistakes.

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### The Mindset of a Resilient Youth With ADHD

- Optimistic and hopeful.
- Feel special and appreciated in the eyes of others.
- Set realistic goals and expectations.
- View mistakes, hardships and obstacles as challenges.
- Solve problems and make decisions.
- Internal locus of control.
- Believe you can and set out to solve problems.
- Possess empathy.

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### Psychosocial Interventions for ADHD

- Environmental manipulation of the physical plant
- Environmental manipulation of consequences
- Modification of cognitive function

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### Intervening Factors in Symptom Severity and Treatment Success

- Parent's stress
- Parent's mindset
- Parent's involvement with child
- Child's involvement with siblings
- General disobedience
- Social problems

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### Intervening Factors in Symptom Severity and Treatment Success

- Child's poor problem solving skills
- Child anger
- Academic problems
- Low self-esteem
- Emotional problems
- Disruptive behavioral problems

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### Will counseling reduce the symptoms of ADHD?

NO BUT IT CAN ADDRESS THE CONSEQUENCES OF LIVING WITH A DISABLING CONDITION.

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### Counseling Issues

- Self-esteem: Finding an island of competence
- Developing a balanced locus of control
- Actively participating in treatment
- Addressing mindset about taking medication
- Learning problem solving and self-control strategies
- Dealing with comorbid emotional issues
- Developing anger management skills

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### Keys for the Education of Children With ADHD

- MAKE TASKS INTERESTING
- MAKE PAYOFFS VALUABLE
- ALLOW MORE TRIALS OVER LONGER TIME PERIODS
- FOCUS ON ASSETS
- ADOPT A LONG TERM PERSPECTIVE

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### Cognitive Strategy = EF Instruction

- A strategy is a procedure that the learner uses to perform academic tasks
- Using a strategy means the child thinks about 'how you do what you do'
- Successful learners use many strategies.
- Some of these strategies include visualization, verbalization, making associations, chunking, questioning, scanning, using mnemonics, sounding out words, and self-checking and monitoring.

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ADOPT A LEARNING TO RIDE A  
BICYCLE MINDSET!



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In Their Own Words



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Questions?

NEUROTECH  
SOLUTIONS

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