

# ASD and ADHD

# Experience and Reason

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# Autism & ADHD

- Co-occur!
- Social impairment is common
- If one developmental delay, high risk of another
- Greater impact on interpersonal, academic, cognitive, social, adaptive functioning

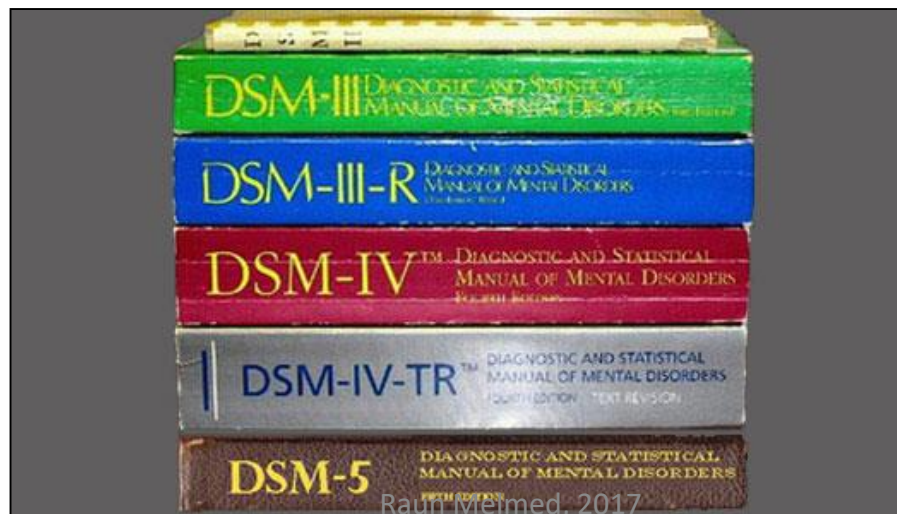
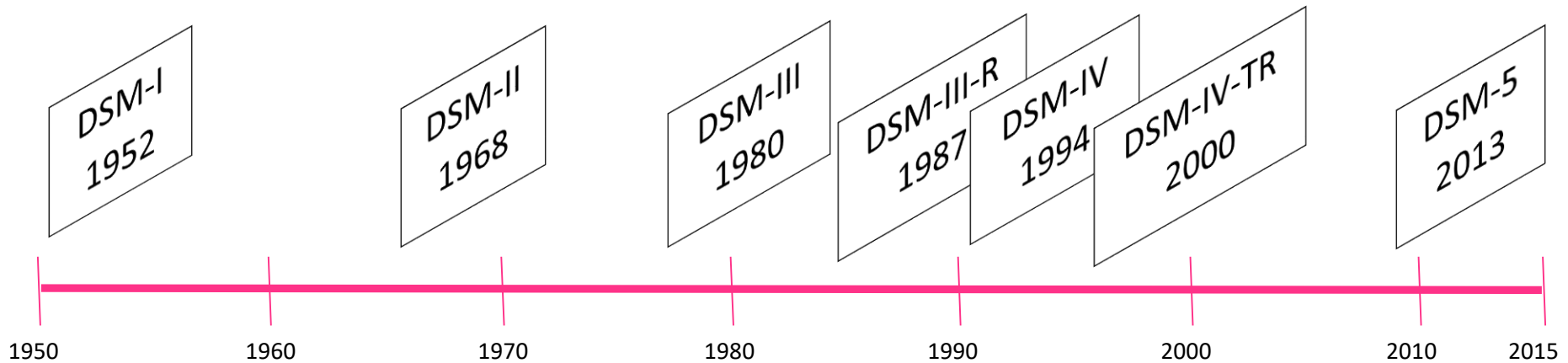
The real voyage of discovery lies  
not in seeking new landscapes,  
but in having  
new eyes.

*Marcel Proust*

# Outline

- Disease State
- Myths
- Symptom expression
- Prevalence of symptoms
- Symptom overlap
- Co-morbidity
- Treatment
- Special issues

# Evolution of Autism & ADHD



# What is Autism?

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Smith CJ, 2014



Social

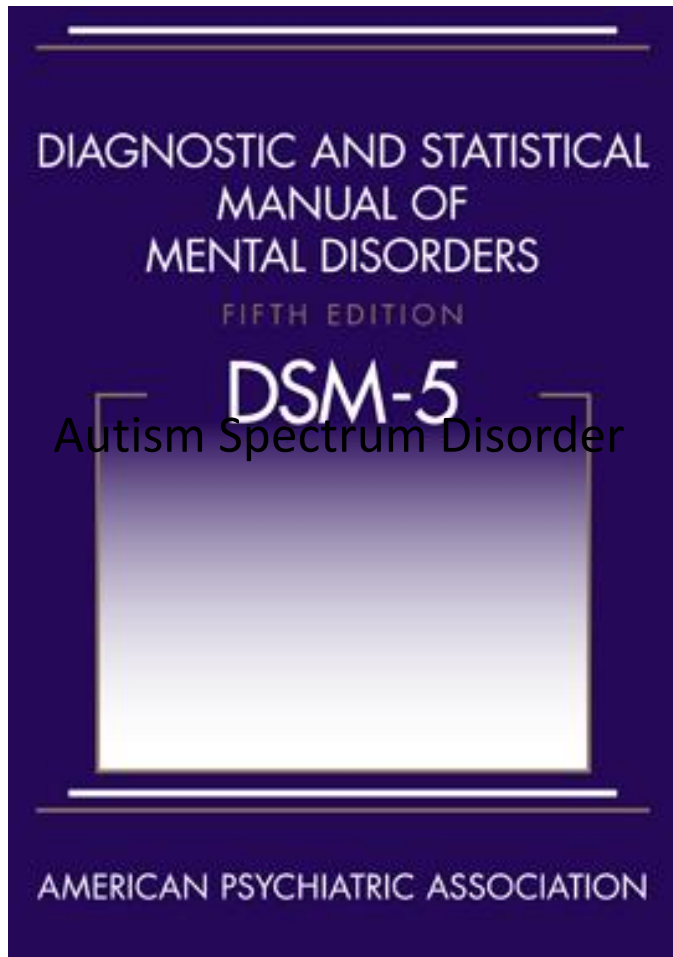
Behavior

Communication



# Autism Spectrum Disorder and DSM 5

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## Pervasive Developmental Disorders

1. Autistic Disorder
2. Asperger's Disorder
3. PDD – NOS

# Autism Spectrum Disorder in DSM-5

- C. Symptoms must be present in early developmental period (but may **not become fully manifest until social demands exceed limited capacities**, or may be masked by learned strategies in later life)
- D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning



# ThinkAsperger's

# ThinkAsperger's.

... if your student or child:

- Seems socially awkward or inappropriate
- Has intense interests that are all consuming
- Avoids group play or often plays alone
- Has trouble transitioning from one activity to another

[www. ThinkAspergers.org](http://www.ThinkAspergers.org)

Students with social impairments are at risk for bullying and other emotional problems. If your child has difficulties making or keeping friends, see [www.thinkaspergers.org](http://www.thinkaspergers.org) for the DAVE Screening Questionnaire, then contact SARRC for what to do next.

## DAVE Screening Questionnaire

### Detecting Asperger's Very Early (DAVE)

School Version

Student's name: \_\_\_\_\_ Date of Birth: \_\_/\_\_/\_\_ Age: \_\_\_\_ Gender: \_\_\_\_ Grade: \_\_\_\_

Completed by: \_\_\_\_\_ Relationship to student: \_\_\_\_\_ Date: \_\_/\_\_/\_\_

Please choose a response for each question and place the score in the box provided.

Does the student:		1 = Yes 0 = No
1	Have difficulty with fine or gross motor coordination (handwriting, throwing or catching balls, riding a bike, etc.)?	
2	Have unusual speech at times (too slow or loud, formal or "little professor-like," monotone, robotic etc.)?	
3	Have difficulty playing with others (disrupts play, controls the activity, etc.)?	
4	Have trouble making or keeping friends?	
5	Seem socially awkward at times (rude, inappropriate comments, unaware of social cues)?	
6	Have interests that seem overly intense and are expressed in conversation, play, and thoughts?	
7	Have trouble organizing or completing school work?	
8	Find jokes or sarcasm difficult to understand?	
9		
10		
11		
12		
13	Have trouble following rules of personal space and boundaries (excessive touching, stands too close, etc.)?	
14	Have poor eye contact?	
15	Have exceptional skills (advanced language development, early letter or number recognition, memorization of facts, etc.)?	
*Total score		

\*If total score is 6 or higher pursue a formal diagnostic evaluation for Asperger's Disorder.

This is a screening questionnaire and is intended to guide a qualified professional toward an assessment for Asperger's Disorder. It does not replace a comprehensive diagnostic assessment.

ThinkAsperger's

[www.thinkaspergers.org](http://www.thinkaspergers.org)

SARRC

[www.autismcenter.org](http://www.autismcenter.org)



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# ADHD: History

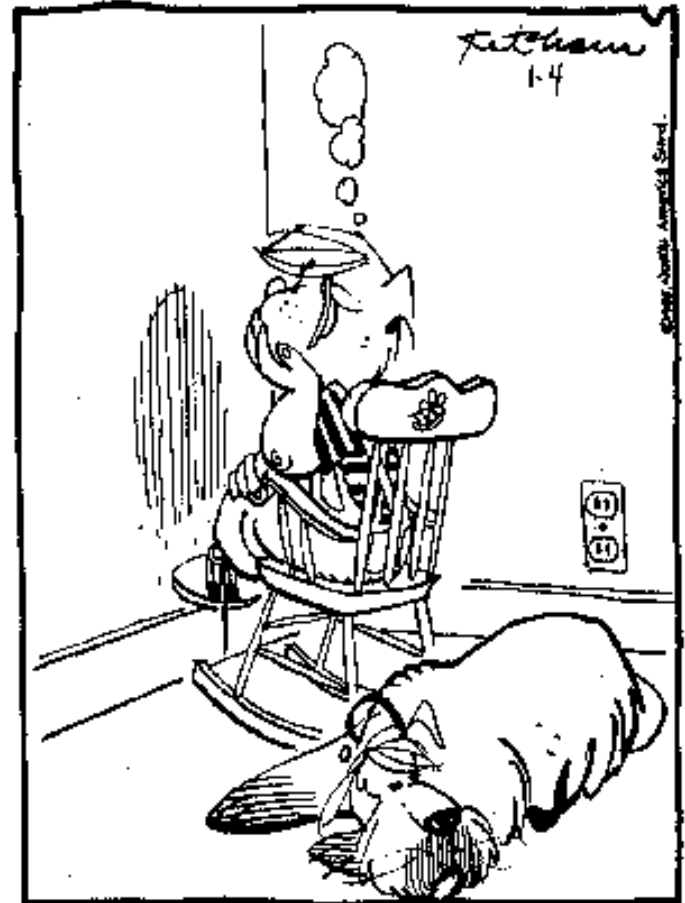
- 1900: Encephalitis lethargica
- 1902: Defects in moral control
- 1918: Minimal Brain Damage
- 1960: MCD
- 1970: Hyperactivity
- 1980: ADD (DSM-III)
- 1994: ADHD (DSM-IV)
- 2013: DSM 5



# Symptoms

- Attention
- Distractibility
- Insatiability
- Disinhibition
- Overactivity
- Impersistence
- Inconsistency
- Social failure
- Superficiality
- Comorbidity

DENNIS THE MENACE



"BY THE TIME I THINK ABOUT WHAT I'M GONNA DO... I ALREADY DID IT!"

# What will make you focus?

- Brevity
- Novelty
- Variety
- . . . Something of use!

# DSM 5: New

- B. Some symptoms present *prior to age 12*.
- C. *Criteria for the disorder in two or more settings*
- D. *Interfere with social, academic, or occupational functioning.*
- E. The symptoms do not *exclusively during schizophrenia mood disorder, anxiety disorder (ASD OK!)*

1. Combined Presentation:
2. Predominantly Inattentive Presentation: *If Criterion A1 (Inattention) is met but Criterion A2 (Hyperactivity-Impulsivity) is not met and 3 or more symptoms from Criterion A2 have been present for the past 6 months.*
3. Inattentive Presentation (Restrictive): *If Criterion A1 (Inattention) is met but no more than 2 symptoms from Criterion A2 (Hyperactivity-Impulsivity) have been present for the past 6 months.*
4. Predominantly Hyperactive/Impulsive Presentation: *If Criterion A2 (Hyperactivity-Impulsivity) is met and Criterion A1 (Inattention) is not met for the past 6 months.*



*Harmful dysfunction!*

THIS IS  
WHAT  
ABHD  
FEELS  
LIKE

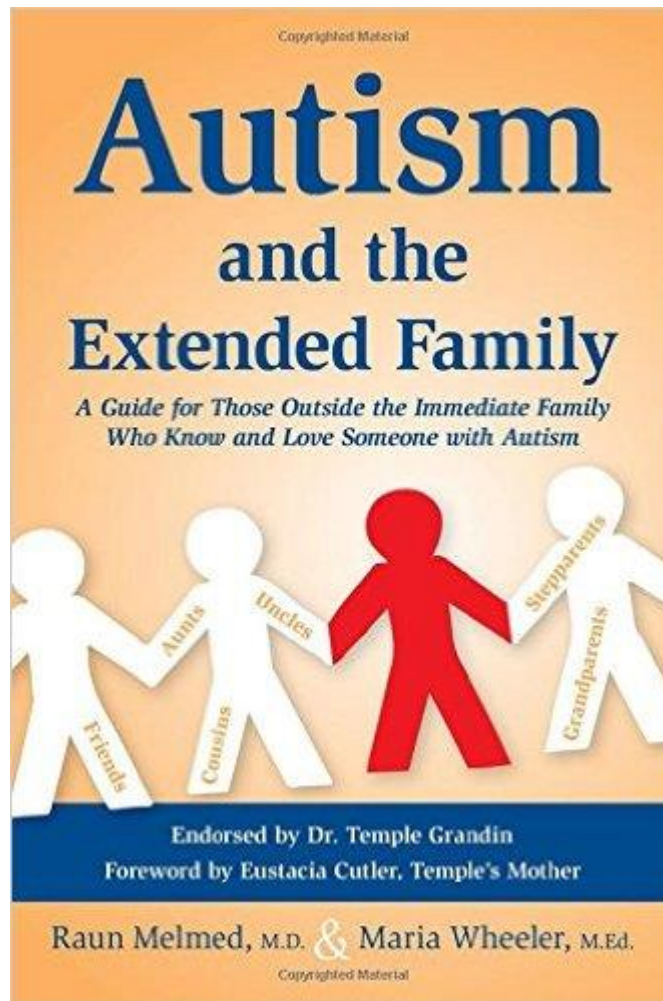
# ADHD: Everything that wheezes . . . .

- Learning disabilities
- Depression, anxiety
- ODD
- Allergies
- PTSD
- Sleep disorders
- Bipolar disorder
- Thyroid problems
- Fragile X
- Seizure disorders
- Substance use and abuse
- Disruptive mood dysregulation disorder (DMDD)
- Giftedness
- Sensory integration dysfunction
- **ASD**
- Language disorders
- FAS
- Anemia, lead poisoning
- Chronic illness
- Tourette's syndrome
- Low intellectual ability
- Side effects of medications
- PANDAS



# Myths in ASD and ADHD

- Causes
  - Poor parenting
  - Electronic media
  - Diet
- Made up
  - Everyone has it
  - Disease d'jour
  - Excuses
- Show harm



# Outline

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# Autisms: When diagnosed

- Severe cases (ID / comorbidity) by < 3 years
- High functioning not until school years
- “Autism” predicts autism
- Spectrum predicts “other outcomes”
- Asperger’s diagnosed with something else in 92% - including **ADHD**!

# Looking back: ASD outcome

- Poor outcome: Low IQ, SLI, NVLD, **ADHD**, epilepsy
- “Autistic disorder” has poor outcome
- Higher functioning has variable outcome
- Autistic features have relatively good outcome?
- Need to recognize and treat **ESSENCE**

Billstedt et al 2005, Gillberg 2015, Lundström et al 2011, Helles et al 2012



# Attention challenges

## ASD

- Withdrawn
  - Own world
  - Exclude salient stimulus
- Inflexible
  - Difficulty shifting topic
- Hyperfocus
  - Own agenda
  - Misses big picture

## ADHD

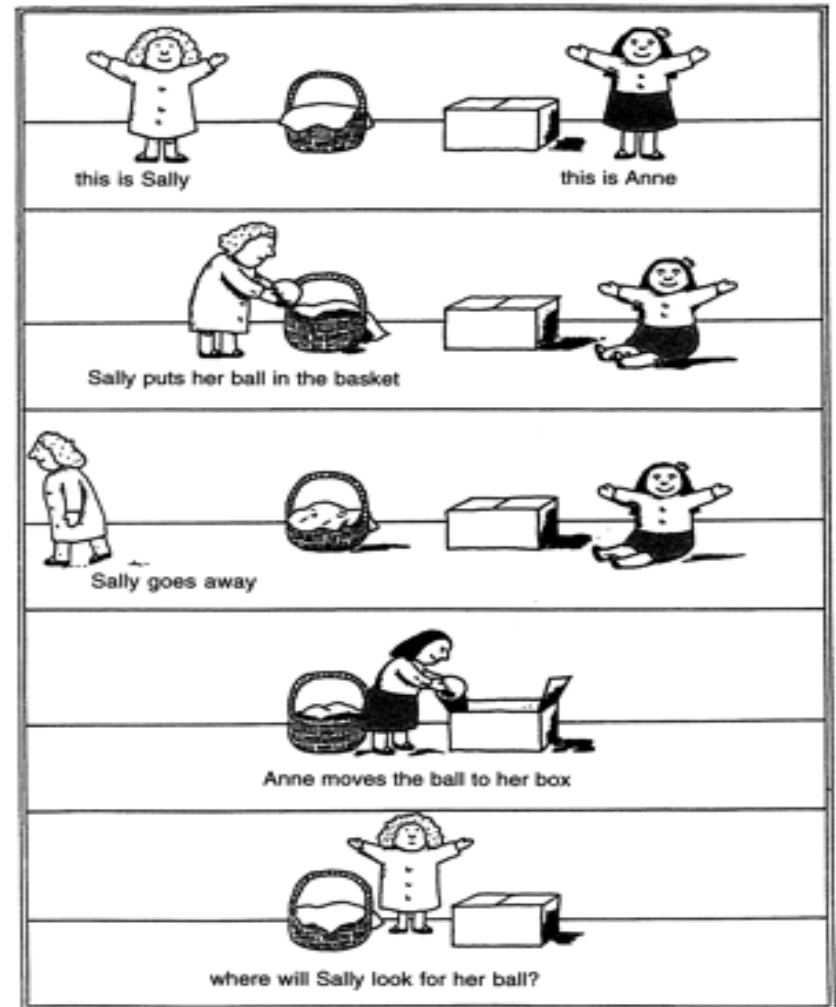
- Distractible
  - Drawn to environmental stimulation
- Impersistent
  - Changes topic constantly
- Sustaining attention
  - To cognitively challenges
  - Following through

# ADHD and Theory of Mind

- Attribute mental states, beliefs, desires, intentions to oneself and others, thereby understanding behavior
- Emotion recognition tasks show lack of awareness of feelings of others in ADHD
- ADHD are impaired = HFA

Buitelaar et al, 1999

Raun Melmed, 2017



# Symptom impact: ASD and ADHD

- Less functional in ASD & ADHD vs. alone  
Goldstein, 2004
- ASD & ADHD: more severe ASD symptoms than persons with ASD only Ames & White. 2011
- ASD & ADHD: > impairments in verbal and spatial working memory, response inhibition, and EF than with ASD only or TD Yerys, et al. 2009

# Why is ASD, ADHD Earlier

2012 National Survey of Children's Health

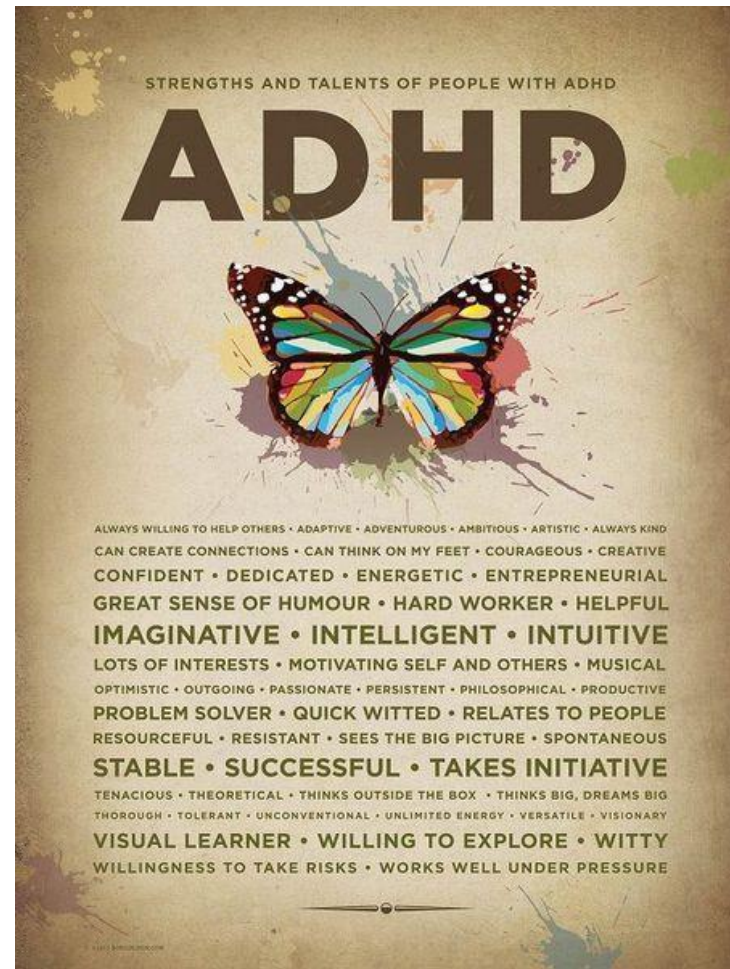
- Younger = fewer social expectations
- School increases social demands, need to engage in reciprocal conversations
- Fixated interests apparent later along with rigidity and difficulty with task shifting





# Outline

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- Myths
- Expression
- Prevalence
- **Symptom overlap**
- Treatment
- Special issues



# ASD:ADHD Coordination

Kennedy 2006

## ASD

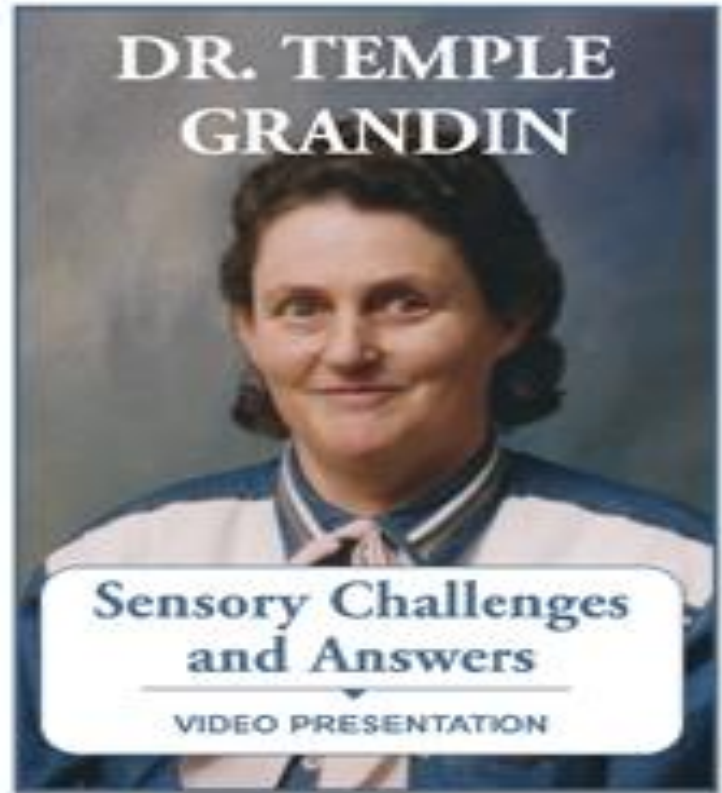
- Ungainly walk
- Poor throw and catch
- Poor handwriting
- Hasty f.m. execution
- Poor rhythm

## ADHD

- Impaired coordination
- Poor handwriting
- Poor eye hand
- Soft signs
- Bimanual coordination
- Poor balance

# ASD:ADHD: Sensory-motor

- ASD in DSM 5
- ADHD: Heightened reactivity
- Temperament



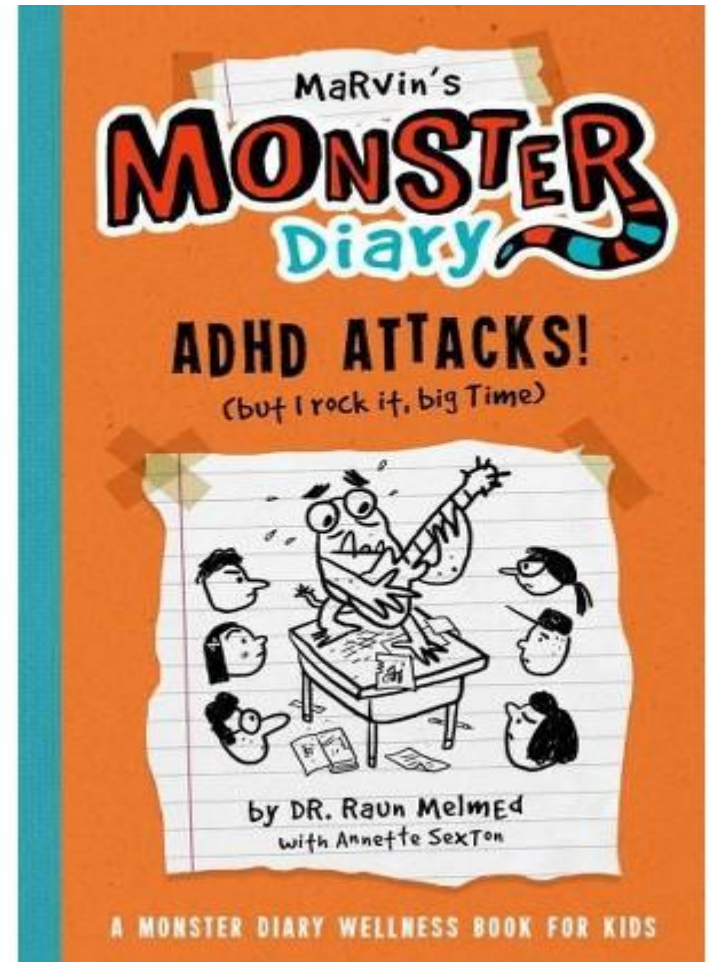
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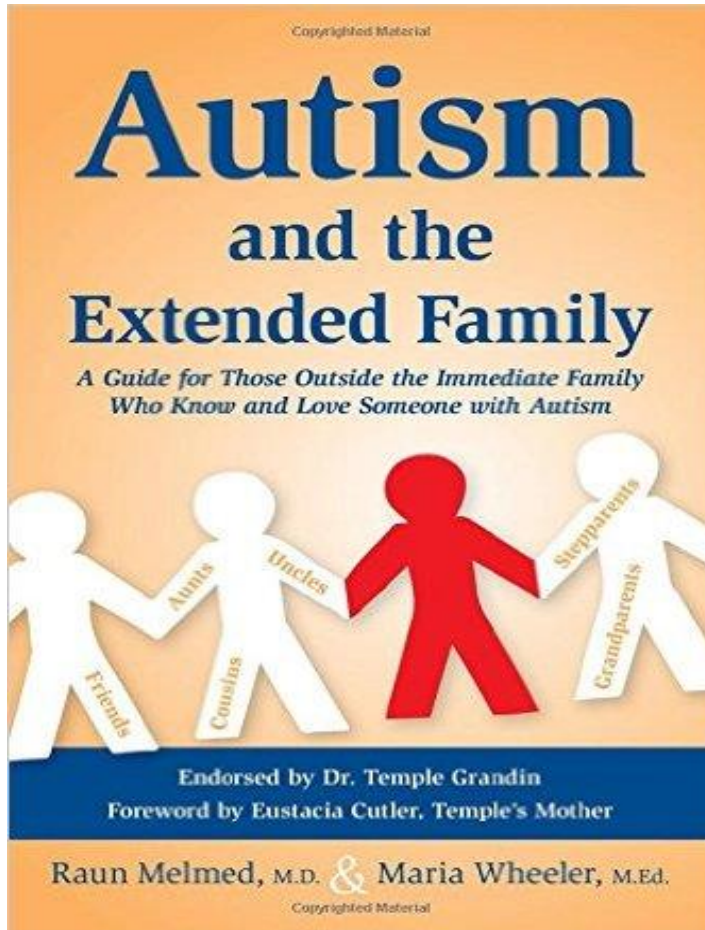


# Overall approaches

- The child
  - demystification
- Family
- Cultural sensitive
- A total program (**PDR**)
- Individualized
  - Mandala
- Holistic
  - Probiotics
  - EFA's



# Involve the family



- The earth around the sun!
- Empathy, guilt allaying
- Home relationships
- Beliefs and values
- Extended family

# AAP: Treatment of ADHD

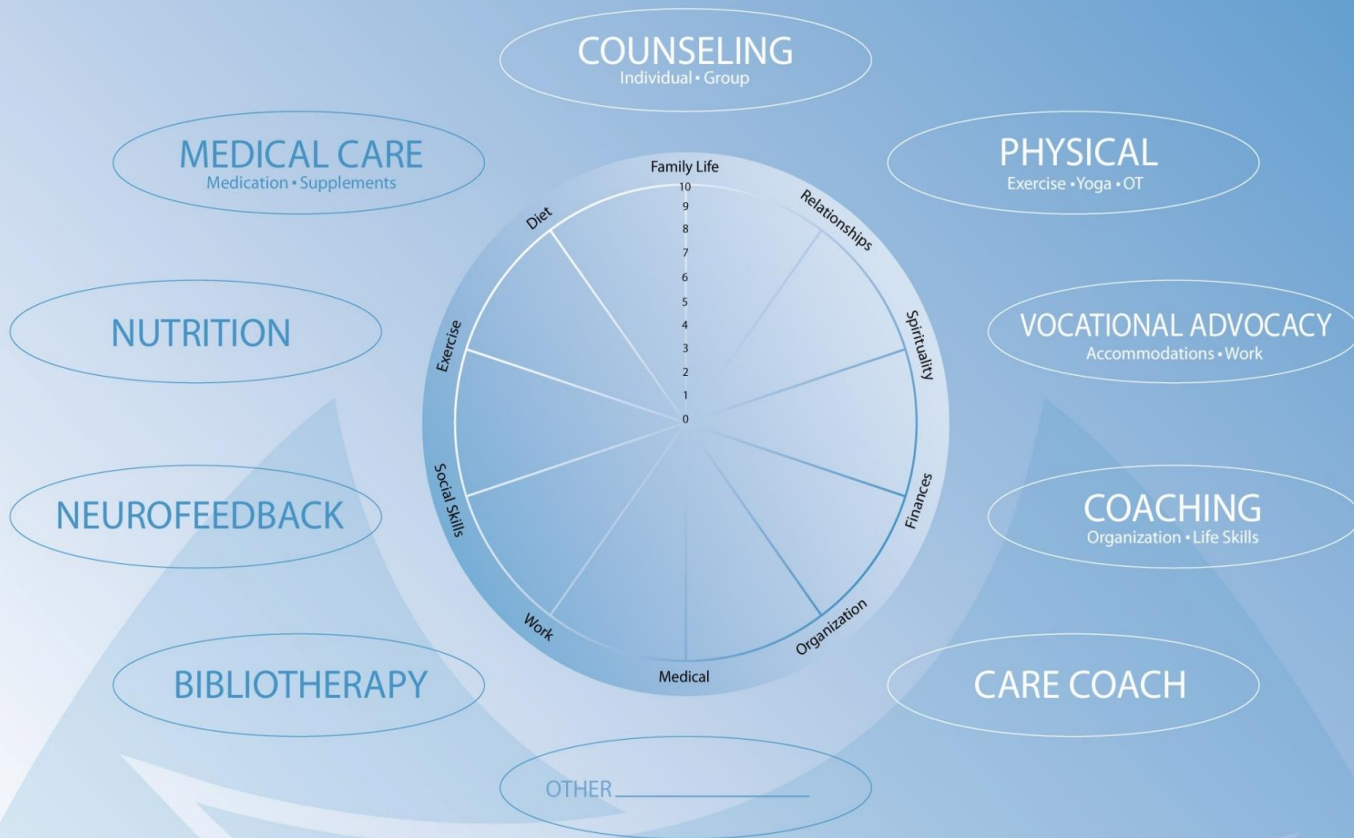
- Specify target outcomes
- Prescribe therapy for target outcomes
- If the treatment unsuccessful, evaluate:
  - Original diagnosis
  - Use of all appropriate treatments
  - Adherence to the treatment plan
  - Presence of coexisting conditions
- Evaluate outcomes and adverse effects





# MELMED CENTER MANDALA

## *Support for Life™*





# ASD Treatments which help?

- Core Symptoms: ABA: Early also adults Lord & McGee, 2001, Weiss 2001
- Developmental functioning
- Medical
- Associated symptoms



# Naturalistic Developmental Behavioral Interventions: (NDBI) for ASD

Schreibman, 2015

- Merging ABA and development principles
  - Natural settings
  - Shared control between child and therapist
  - Natural contingencies
  - Behavioral strategies to teach skills
- Support, characteristics, common features result in similar interventions

# ADHD Treatment in ASD

- IQ, gender not a determinant of stimulant responsiveness
- Effect sizes for ASD are smaller than non-ASD
- Fewer responders than non-ASD population
- Side effects more common in the ASD

# ADHD Psychosocial Treatments in ASD

- Similar approaches to treat both Davis & Kollins 2012
- Behavioral intervention, different conceptualization
  - ABA
  - For ADHD, “parent training” involves manual, group based programs, teaching parents behavior strategies (reduce impulsivity, increase focus)

# Outline

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# Origin of Behaviors

- Communicative intent
- Sensory
- Anxiety
- Avoidance
- Attention seeking

The real voyage of  
discovery lies  
not in seeking new  
landscapes,  
but in having new  
eyes.

*Marcel Proust*



# Gender differences in ASD

- More in boys: 4:1 (see ADHD)
- Girls are more impacted
- Under diagnosed in selective mutism and anorexia?
- Girls with HFA/ASD are referred later
- Less externalizing as in ADHD



# Summary

- Majority with ASD have symptoms of ADHD
- Not all children with ASD have ADHD
- Some with ADHD have ASD
- ADHD and ASD are associated with higher impairment
- Identify and treat both!





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