

A Multidisciplinary Approach to the Treatment of Autism and Intellectual Disability

Michael Fueyo, MD
CADD-Center for Autism and Developmental Disabilities
Wellspan Health



GERARD

1

Learning Objectives

- Define the population of Autism Spectrum Disorders (ASD) and Intellectual Disability (ID)
- Screening and surveillance
- The multidisciplinary model of care
- What is your role and what is not!
- Resources



GERARD

2

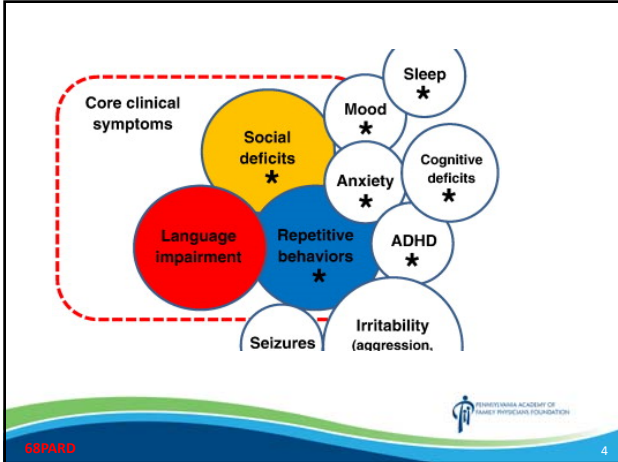
Autism Spectrum Disorder-DSM 5

- Persistent deficits in **social communication and social interaction** across multiple contexts
 - Deficits in social-emotional **reciprocity**
 - Deficits in **nonverbal communicative** behaviors used for social interaction
 - Deficits in developing and maintaining **relationships**
- **Restricted, repetitive** patterns of behavior, interests, or activities



GERARD

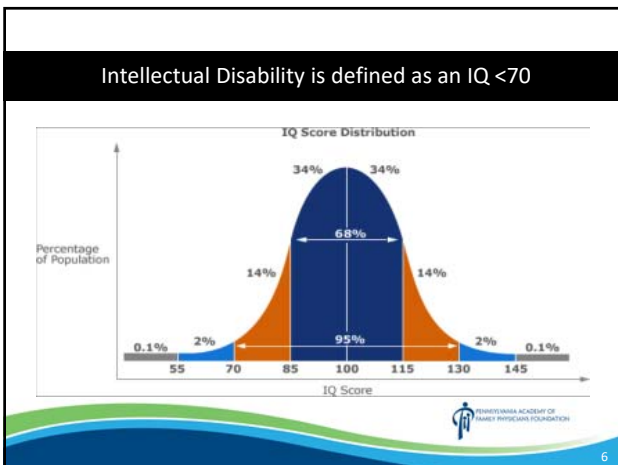
3



Intellectual Disability

- DSM-V
 - Deficits in **intellectual functioning** such as reasoning, problem solving, planning, abstract thinking, judgment and academic learning.
 - Deficits in **adaptive functioning** that result in failure to meet developmental and sociocultural standards for personal independence and responsibility.

OSPARO 5



Adaptive Skills



PENNSYLVANIA ACADEMY OF
FAMILY PHYSICIANS FOUNDATION

7

ASD/ID Facts

- Prevalence- ASD 1 in 59 / Intellectual Disability-1-3%
Combined 3+%
- Co-morbid mental illness-70% / problematic behaviors-30%
- Almost 50% of children with ASD below average IQ, 30% with coexisting ASD/ID
- Recurrence risk for ASD 18-27% , 36-50% with more than one affected child
- ASD medical expenditures exceeded those w/o ASD by \$4,110-\$6,200 / year
- ASD is 4-5 times more prevalent in males than females

PENNSYLVANIA ACADEMY OF
FAMILY PHYSICIANS FOUNDATION

8

Etiology

- ASD
 - Genetics-90% concordance broader phenotypes in twin pairs
 - Environment-
 - UNKNOWN
 - Spacing between children
 - Advanced parental age
 - DDT exposure
- ID
 - Genetics
 - Pre-peri-postnatal causes
- Genetic Testing provides diagnostic yields of 15-30%

PENNSYLVANIA ACADEMY OF
FAMILY PHYSICIANS FOUNDATION

9

Screening

- AAP recommends screening for developmental delays at 9/18/24 or 30 month
- AAP recommends screening all children for ASD at 18 and 24 months
- Surveillance
- Screening tools:
 - Ages and Stages Questionnaires (ASQ)
 - Parents Evaluation of Developmental Status (PEDS)
 - Modified Checklist for Autism in Toddlers (MCHAT)



10

Developmental Surveillance

- Preterm birth, low birth weight,
- Sibling or parent with ASD
- Parental concern, inconsistent hearing, unusual responsiveness
- Other caregiver concern
- You are worried

- If **2 or more**, refer for **EI, Evaluation, and Audiology** simultaneously.
- If **1 and child at least 18 mos old**, use screening tool.
- When screen is positive, refer for EI, Evaluation, and Audiology



11

- Regression
- "In his own world"
- Lack of showing, sharing interest or enjoyment
- Using the caregivers hands to obtain needs
- Repetitive movements with objects
- Lack of appropriate gaze
- Lack of response to name
- Unusual prosody/pitch of vocalizations
- Repetitive movements or posturing of body

Wetherby and Woods (2003)
esi.fsu.edu



12

Developmental Screens

- **Ages and Stages Questionnaires (ASQ)**
This is a general developmental screening tool. Parent-completed questionnaire; series of 19 age-specific questionnaires screening communication, gross motor, fine motor, problem-solving, and personal adaptive skills; results in a pass/fail score for domains.
- **Parents' Evaluation of Developmental Status (PEDS)**
This is a general developmental screening tool. Parent-interview form; screens for developmental and behavioral problems needing further evaluation; single response form used for all ages; may be useful as a surveillance tool



13

Modified Checklist for Autism in Toddlers: MCHAT

- 16-48 months
- Sensitivity: 85% Specificity: 93%
- Questionnaire completed by parent
- 5-10 minutes to complete (parent)
- Simple Scoring
- Translated into 14 languages



14

The Multidisciplinary Team

- **CAREGIVER**
- **Primary Care Provider**
- **Psychiatry**-team leader, comorbid mental illness, pharmacologic interventions,
- **Social Work**-skill building, mental illness, family system, parenting, unresolved grief, advocacy, resources
- **Behavior Analysis(BCBA)**- teaching skills and reducing problematic behaviors, using observable data to analyze interventions and behavior
- **Psychology**-Diagnostic assessment and testing
- **OT/PT/SLT**
- **Medical subspecialty-Neuro/GI/Cardio/Genetics**



15

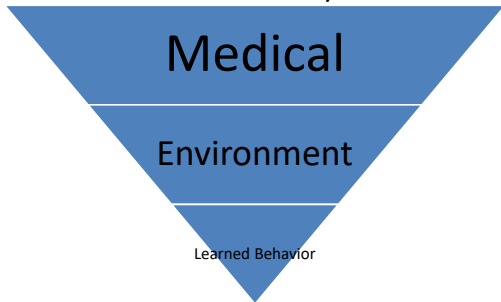
Vignette
CADD

8 yowm with HF ASD. Family report that he is very difficult at home but better at school. He refuses to get ready in the am, breaks things and hits whenever parents have an expectation. He has many fears and no friends. He only wants to be on his tablet.

He refuses to speak with you and is under the chair. Doctor can you give him something?




How most think of ASD/ID treatment



How I want you to think of ASD/ID treatment




The four common functions of behavior:
 "Everybody E.A.T.S."
 Escape, Attention, Tangible, Sensory



someecards
user card



Learned Behavior



19



Environment
 Accommodation vs expectations

- Home-family system, marital, SES
- School-classroom, peers, bullying
- Work
- Community

20

Medical

21

How to examine the ASD/ID patient

- **Challenging** due to difficulties with social interaction, communication, and anxiety/rigidity
- The visit will take **twice as long** as a usual patient
- **Slow/smile/explain** -put everyone at ease
- **Ask the family /caregiver-** "Is it safe?" How should we do this? Pay attention to your discomfort.
- **Establish the parameters** that will allow the visit to go well.
- If necessary get the **behavioral team** involved-if possible desensitize over time to your care



22

Psychopharmacology

- Atypical antipsychotics:
 - Risperdal/Abilify-FDA approved ASD age 6-16, irritability
 - EKG/Chem panel/lipids
 - metabolic syndrome, gynecomastia, TD
- Guanfacine-FDA approved for ADHD 6-17
 - monitor pulse/BP/worsening of behavior
- SSRI-Celexa- (off label in children)-for anxiety less is better, depression tx as usual but go slow- monitor for worsening
- ADHD same as usual but start low go slow-monitor mood/appetite/irritability



23

Take Homes

- Be vigilant for these vulnerable patients
- Be clear about your role
 - Examine for the routine
 - Judicious use of meds-doing less is often more helpful
 - Learned behavior/environment-influence the conceptualization of care and refer



24

resources

- CADD-717-735-1920-pick up handouts
- CARD-Kennedy Krieger Institute-888-554-2018
- Wellspan network-staff sign up in LMS for CADD Autism training
- Leg Up Farm-York-717-266-9294
- UPMC- <https://www.upmc.com/services/behavioral-health/autism>
- HMC-717-531-8338, 717-782-6493
- Center for Autism Research (CAR) – <https://www.carautismroadmap.org/>
- Boston Children’s Hospital “My Hospital Story” – <http://www.childrenshospital.org/patient-resources/child-life-specialists/preparing-your-child-and-family-for-a-visit/my-hospital-story>
- Autism Speaks – <https://www.autismspeaks.org/>



25