Screen & Assess Intellectual Disabilities (ID) & Developmental Disorders (DD)

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Intellectual Disability (ID)
Intellectual Developmental Disorders (IDD)

- Significant limitations in:
  1. Intellectual functioning
  2. Adaptive behavior
- Onset before age of 18

- DSM-V: Intellectual Disability (ID)
- ICD-11: Intellectual Developmental Disorders (IDD)

- Previously called “mental retardation”
  - 2010: Federal legislation
  - 2013: DSM-V
Developmental Delay (DD)

- Onset < 22 years old
- Limitations in developmental milestones:
  - Self-care
  - Receptive & expressive language
  - Learning
  - Mobility
  - Self-direction
  - Capacity for independent learning
  - Economic self-sufficiency
- Common temporary diagnosis in young children at risk for ID
INTELLECTUAL DISABILITY (ID)
Signs & Symptoms

Delays in:
- Language
- Motor
- Social
- Cause & effect thinking
- Problem solving
- Independence

- Across settings (home, school, work, & community)
Intellectual Disability (ID)

Intellectual Functioning

• General mental capacity
  o Learning
  o Reasoning
  o Problem solving
  o Planning
  o Abstract thinking
  o Academic learning

• Measure intellectual functioning with IQ test
  o IQ test score < 70

Adaptive Behavior

1. Communication/Conceptual
2. Daily Living Skills/Practical
3. Socialization

  o Personal care
  o Communication & social skills
  o School or work skills
  o Learning routines
  o Being safe
  o Asking for help
  o Using money
Severity Levels of ID *(DSM-IV-TR)*

- Borderline Intellectual Functioning (IQ ≥ 70)
- Mild (IQ = 50-69)
- Moderate (IQ = 36-49)
- Severe (IQ = 20-35)
- Profound (IQ < 20)

- DSM-V uses Adaptive Functioning
  - Conceptual, Social, Practical
Comorbid Conditions & Disorders

Medical Diagnoses
• ASD
• Cerebral Palsy
• Down Syndrome
• Fetal Alcohol Syndrome
• Fragile X syndrome
• Epilepsy

Psychiatric Diagnoses
• Attention-deficit/hyperactivity disorder (ADHD)
• Impulse-control disorder
• Anxiety disorder
• Major depressive disorder
• Bipolar disorder
Causes

I. Fragile X Syndrome
   CGG Triplet Repeats

II. Chromosomal Aberration

III. Defect of Imprinted Genes

IV. De Novo Mutations

V. Prenatal disorder
   Maternal Infection/Illness, Birth Defect

VI. Environmental Factors
   Trauma, Abuse and Neglect, Malnutrition

VII. Childhood Illness
   Meningitis, Encephalitis

VIII. Infections
Causes

- **Prenatal**
  - Genetic syndromes (i.e., Down syndrome, Fragile X syndrome)
  - Brain malformation (i.e., Microcephaly)
  - Maternal complications (i.e., Placental disease, malnutrition)
  - Environmental influences (i.e., alcohol, other drugs, toxins, teratogens)

- **Perinatal**
  - Labor and delivery–related events (i.e., neonatal brain damage)
  - Loss of oxygen at birth

- **Postnatal**
  - Traumatic brain injury
  - Infections (i.e., Meningitis, whooping cough, measles)
  - Seizure disorders
  - Toxic metabolic syndromes and intoxications (i.e., lead, mercury)
  - Demyelinating disorders
  - Severe and chronic social deprivation
ID Prevalence

• 1.04% prevalence across life span
  ○ Ranges from .05 to 1.55%

• Childhood female-to-male ratio with ID: 0.4 and 1.0
ID/DD SCREENING
Developmental Monitoring vs Screening

Developmental **Monitoring**
- **Who:** Parents & guardians
- **What:** Assess developmental milestones
- **When:** Birth - 5 years
- **Why:** Celebrate child’s development
  - Talk about child’s progress with doctors
  - Learn what to expect
  - Identify concerns early
- **How:** Easy, free checklists

Developmental **Screening**
- **Who:** Healthcare provider, teacher
- **What:** Assess developmental milestones
- **When:** 9, 18, & 24 or 30 months, or whenever there is concern
- **Why:** Determine if child needs formal evaluation & services
- **How:** With a formal, validated screening tool

[www.cdc.gov/Milestones](http://www.cdc.gov/Milestones) [www.hhs.gov/WatchMeThriveexternal icon](http://www.hhs.gov/WatchMeThriveexternal icon)
Screening Measures

Profiles of Individual Measures: Developmental Screeners
• Ages and Stages Questionnaire—3rd Edition
• Ages and Stages Questionnaire—Social-Emotional
• Brigance Screens
• Developmental Assessment of Young Children – Second Edition
• Early Screening Profiles
• FirstSTEp Screening Test for Evaluating Preschoolers
• Learning Accomplishment Profile—Diagnostic Screens
• Parents’ Evaluation of Developmental Status
• Parents’ Evaluation of Developmental Status—Developmental Milestones

Profiles of Individual Measures: Abbreviated Profiles
• Infant Development Inventory
• Survey of Well-Being of Young Children
IQ Assessments

REFERRAL FOR ASSESSMENT
Differential Diagnoses

- Developmental Delay
- Attention-Deficit/Hyperactivity Disorder (ADHD)
- Learning Disorder
- Autism Spectrum Disorder
Differential between ID & ASD

**Commonalities**
- Developmental period onset
- Deficits in nonverbal & verbal communication
- Social limitations
- Executive function delays
- Poor academic performance

**Differences**
- Individuals with ASD have range of IQs
- Individuals with ID usually develop skills slower than peers; those with ASD may not follow the typical developmental progression
  - Kids with ID can play well with younger kids
- Individuals with ASD have difficulty with theory of mind (i.e., understanding perspective of others)
Comprehensive Assessment

- Case history
  - Medical, educational, & vocational
  - Teacher, caregiver, & patient
- Review of auditory, visual, motor, and cognitive status

- Assessment of
  - Nonsymbolic (i.e., gestures) & symbolic communication (i.e., words)
  - Play
  - Social interactions & communications
  - Spoken language (expressive & receptive)
  - Written language (reading & writing)
  - Speech
  - Oral motor skills (swallowing)
  - Fluency
Psychological Assessment (IQ)

Cognitive
- Wechsler Intelligence Scale for Children (WISC-V) [6-16:11]
- Wechsler Preschool & Primary Scale of Intelligence (WPPSI-IV) [2:6-7:7]
- Stanford Binet (SB-5) [2-85]
- Mullen Scales of Early Learning (Mullen) [<5:8]
- Differential Abilities Scale (DAS 3) [2:6-17:11]
- Woodcock Johnson Tests of Cognitive Abilities (WJ-IV Cog)

Adaptive
- Vineland Adaptive Behavior Scale-3
- Adaptive Behavior Assessment System (ABAS 3)
TREATMENT
Possible Recommendations

• Interventions & support
• Communication system/device
• Referral to other professionals (e.g., PCP, SLP, PT, OT, psychologist)
• Community supports
• Transitional supports (e.g., early intervention into school age; school age into workplace).
Early Intervention Services

- Early intervention services help children 0-3
- IEP: Children 3+ with identified developmental delay
- **Child Find** programs: state provided to evaluate & identify children in need of IEPs
- Individuals with Disabilities Education Act (IDEA): children with diagnosed disability’s right to special education services
Behavioral Interventions

• **Applied Behavior Analysis (ABA)**
  o Individualized treatment builds skillsets (e.g., communication, social skills, self-control, and self-monitoring)

• **Environmental arrangement**
  o Increase interest in environment & create communication situations communication

• **Functional communication training (FCT)**
  o Extinction & replacement behaviors (more appropriate communication)

• **Incidental teaching**
  o Reinforce attempts to communicate by prompting with a question (e.g., “What do you want?”) or model a request (e.g., Say, “I need paint”).

• **Milieu therapy**
  o Integrate into a child’s natural environment
Question & Answer
RESOURCES
Referenced Resources

- ASHA: Intellectual Disability
- AAIDD: Intellectual Disability
- Child Find: Programs
- Parent Center Hub
- Screening Compendium
- Screening Time
- CDC Child Development

ASHA Resources

- Augmentative and Alternative Communication (AAC)
- Autism Spectrum Disorder
- Changes in Services for Persons With Developmental Disabilities: Federal Laws and Philosophical Perspectives
- Childhood Apraxia of Speech
- Childhood Fluency Disorders
- Collaboration and Teaming
- Communication Characteristics: Selected Populations With an Intellectual Disability
- Federal Programs Supporting Research and Training in Intellectual Disability
- Hearing Loss: Beyond Early Childhood
- Late Language Emergence
- Literacy in Individuals With Severe Hearing Loss
- Newborn Hearing Screening
- Pediatric Dysphagia
- Permanent Childhood Hearing Loss
- Social Communication Disorder
- Speech Sound Disorders: Articulation and Phonology
- Spoken Language Disorders
- Treatment Principles for Individuals With an Intellectual Disability
Other Resources

- American Association on Intellectual and Developmental Disabilities (AAIDD)
- American Occupational Therapy Association
- American Physical Therapy Association
- Association of Assistive Technology Act Programs
- Autism Speaks
- Centers for Disease Control and Prevention (CDC): Developmental Disabilities
- Council for Exceptional Children/Division for Communicative Disabilities and Deafness
- Easter Seals
- International Society for Augmentative and Alternative Communication
- National Down Syndrome Society
- National Fragile X Foundation
- FRAXA Research Foundation
- National Joint Committee for the Communication Needs of Persons With Severe Disabilities
- National Organization on Fetal Alcohol Syndrome
- RESNA: Rehabilitation Engineering and Assistive Technology Society of North America
- TASH: The Association for Persons with Severe Handicaps
- The Arc for People With Intellectual and Developmental Disabilities
- UCP: United Cerebral Palsy
- United States Society for Augmentative and Alternative Communication