Mental Retardation (MR)

- Goes on Axis II
- Clinical Description
  1) Below-average intellectual functioning

  - IQ of 70 or below
    - 2-3% of general population

  - Statistical decision
    - 2 SD from mean
Mental Retardation (MR)

• Clinical Description (cont.)

  2) Adaptive problems

  • Must be present in two areas for diagnosis
    – Communication
    – Self-care
    – Home living
    – Social, interpersonal
    – Work
    – Leisure
    – Health, safety
Mental Retardation (MR)

• Clinical Description (cont.)
  3) Disorder of childhood
    • Present before age 18
    • Coded on Axis II
Levels of Mental Retardation (MR)

More than the others, this is Defined by society!

- **Mild**
  - IQ = 50 or 55 to 70

- **Moderate**
  - IQ = 35-40 to 50-55

- **Severe**
  - IQs = 20-25 to 35-40

- **Profound**
  - IQ = below 20-25
Other Classification Systems

• **American Association of Mental Retardation (AAMR)**
  – Based on assistance required
    • Intermittent
    • Limited
    • Extensive
    • Pervasive

• **Educational Systems Classification**
  – Educable (IQ = 50 to 70-75)
  – Trainable (IQ = 30 to 50)
  – Severe (IQ = below 30)

• **Implications**
  – Tough choice for parents deciding between label and services
Mental Retardation (MR): Statistics

• **Prevalence** = 1-3%
  - 90% with MR are considered to = mild MR (50-70 points Intelligence Score)

• **Male : Female** = 1.6:1

• **Chronic course**

• **Highly variable individual prognosis**
Causes: Psychological and Social Dimensions

• Nearly 75% not associated with biological cause
  – Mild levels, impairments
  – Good adaptive skills
• Cultural-familial retardation
  – Abuse
  – Neglect
  – Social deprivation
Causes of MR

- Hundreds of known causes
  - Environmental
  - Prenatal
  - Perinatal
  - Postnatal
Causes: Biological Contributions

- **Genetic Influences**
  - Multiple genes
  - Single genes
    - Dominant
      - Few because of evolution
    - Recessive
  - **Phenylketonuria (PKU)**
    - Protein contains phenylalanine, an amino acid that is essential for normal growth and development. People with PKU lack an enzyme to properly metabolize phenylalanine. Very high levels of phenylalanine in the blood can lead to irreversible brain and nervous system damage.
  - **Lesch-Nyham syndrome**
    - X-linked (males)
Causes: Biological Contributions

- **Chromosomal Influences**
  - **Down syndrome**
    - Extra 21st chromosome
    - Trisomy 21
    - Physical symptoms
    - Increased prevalence of Alzheimer’s
    - Risk increases with maternal age

- **Fragile X syndrome**
  - Learning disabilities
  - Hyperactivity
  - Perseverative speech
  - Gaze avoidance
Rates of Down Syndrome Births
Treatment of Mental Retardation (MR)

- **Vineland Scale**
- **Skill instruction**
  - Productivity
  - Independence
  - Education
  - Behavioral management
  - Task analysis
    - Living and self-care
  - Communication training
- Employment
- Community and supportive interventions
Prevention of Developmental Disorders

- **Early intervention**
  - At-risk children, families
  - Ex: Head Start Program
    - Educational
    - Medical
    - Social supports

- **Genetic screening**
  - Detection and correction
  - Prenatal gene therapy
Autism Spectrum Disorders
Pervasive Developmental Disorders

- Language, socialization, and cognitive problems
- Pervasive = significant impairment across lifespan
Clinical Description

1) Impairment in social interactions
   - Relative to age
   - Few to no friends
   - Joint attention problems
   - Social awareness
Autistic Disorder

2) Communication problems
   - 1/3 never acquire speech
   - Echolalia
   - Conversational impairments
• Clinical Description (cont.)
  3) Restricted Behavior, Interest and Activities
    • Behaviors
    • Interests
    • Activities

  – Maintenance of sameness
  – Stereotyped and ritualistic behaviors
Autistic Disorder: Statistics

- Autism and Intellectual Functioning
  - 40-55% with mental retardation

- Prevalence:
  - 1 in every 500 births
    - 1 in every 150 for spectrum
  - Gender and IQ interaction
    - IQs < 35 = Females
    - High IQs = Males
  - Occurs worldwide
  - Onset = age 3
Causes of Autism: Psychological and Social

• Historical Views
  – Bad parenting
  – Lack of self-awareness
  – Limited self-concept
  – Behavioral correlates
    • **Echolalia**
      – Repeating a word or phrase spoken by other
    • Self-injury

• Social deficiencies are primary distinguishers
Causes of Autism: Biological

• Genetic influences
  – Familial component
    • 5-10% risk of second child with autism
    • 50 to 200 fold increase in risk
  – Polygenetic influences
  – Oxytocin receptor genes
    • Bonding and social memory
Causes of Autism: Biological

• Neurobiological Influences
  – **Amygdala**
    • Larger size at birth = higher anxiety, fear
    • Elevated cortisol
    • Neuronal damage
    • Similar size when older
    • Fewer neurons

– **Vaccinations?**
  • **Mercury?**
Review

• Autism:
  1. Impairment in social interactions
  2. Communication problems
  3. Restricted Behavior, Interest and Activities
Asperger Disorder

• First described: Hans Asperger in 1944

• Clinical Description
  – Significant social impairments
  – Stereotyped behaviors
    • Restricted and repetitive
  – Coordination problems
  – Highly verbal
  – No severe delays
    • Language
    • Cognitive

The tendency to be obsessed with esoteric facts over people, along with their formal and academic style of speech has led for the nickname of “little professor syndrome”
Asperger Disorder

• Prevalence
  – Often under diagnosed
  – 1 to 2 per 10,000
  – Boys > Girls

• Causes
  – Genetics?
  – Amygdala?
Treatment of Pervasive Developmental Disorders

• Children with Autism can’t or will not imitate: this has major Consequences for learning language.

• Psychosocial Treatments
  – Behavioral approaches
    • Skill building
    • Reduce problem behaviors
    • Communication and language training
      - Shaping
      - Sign Language
      - Teaching to imitate (Lovaas)
      - Devices that can speak for the child
    • Increase socialization
  – Early intervention is critical
Treatment of Pervasive Developmental Disorders

• Medical Treatments are not affective
• Biological Treatments target specific problems unique to the individual
  — Decrease agitation
    • Tranquilizers
    • SSRIs
Treatment of Pervasive Developmental Disorders

- Integrated Treatments
  - Preferred model
  - Multidimensional, comprehensive focus
    - Children
    - Families
    - Schools
    - Home
  - Problems:
    - Too time intensive (40hrs+ per week)

- Community and social support
Scary Treatments

Autism
Review

• The difference between Autism and Asperger’s Syndrome is:
  – Asperger’s does have significant impairment in social interactions along with restricted and repetitive stereotyped behaviors.
  – It does not have language delays or cognitive impairments.
Links!!

- http://www.youtube.com/watch?v=dEnkY2iaKis
- http://www.youtube.com/watch?v=QWY3ntr3sdl
- http://www.articlesbase.com/videos/5min/326740302
- http://www.youtube.com/watch?v=ir05FOFkeXk