MENTAL RETARDATION

“This disorder is characterized by significantly subaverage intellectual functioning (an IQ of approximately 70 or below) with onset before age 18 years and concurrent deficits or impairments in adaptive functioning.” (APA)

American Association of Mental Retardation (AAMR) considers an IQ of 75 and below deficient intellectual functioning and maintains the necessity for concurrent impairment in adaptive functioning as well as onset before 18 years

Mental Retardation

(ICD-10) has a divergent opinion on classification of mental retardation from the DSM-IV-TR and AAMR

“A condition of ‘arrested or incomplete development of the mind’ characterized by impaired developmental skills that ‘contribute to the overall level of intelligence.’” (Kaplan & Sadock)

Mental Retardation - Categorization

The DSM-IV-TR and AAMR’s classification systems separate mental retardation into categories based on the degree of severity (Intellectual Quotient)

1. Mild Mental Retardation ~ IQ level 50 to approximately 70
2. Moderate Mental Retardation ~ IQ level 35 to 50
3. Severe Mental Retardation ~ IQ level 20 to 35
4. Profound Mental Retardation ~ IQ level below 20 or 25

Mental Retardation – Adaptive Deficits

Impairments/Deficits in Adaptive Functioning

“The person’s effectiveness in meeting the standards expected for his or her age by his or her cultural group” are effected (APA)

Such impairments/deficits must be present in at least 2 of the following areas

1. Communication
2. Self-care
3. Home Living
4. Social/Interpersonal Skills
5. Use of Community Resources
6. Self-Direction
7. Functional Academic Skills
8. Work
9. Leisure
10. Health and Safety

Mental Retardation – Clinical Features

“Clinical features that occur with greater frequency in people who are mentally retarded than in the general population”:
1. Hyperactivity
2. Low Frustration Tolerance
3. Aggression
4. Affective Instability
5. Repetitive, Stereotypic Motor Behaviors
6. Self-Injurious Behaviors

**Mental Retardation - Statistics**

Prevalence Approximately 1%

- Different studies report different rates due to various classification systems
- Also difficult to assess because of varied onset

“Mental Retardation is about 1+ times more common among men than among women”

Possibly due to existence of X-linked syndromes leading to Mental Retardation

In older populations the prevalence of Mental Retardation is less due to high mortality rates

**Mental Retardation - Etiology**

Many cases of Mental Retardation (MR) are of idiopathic origin (unknown cause)

- 45-60% of Mild MR cases the etiology is unknown
- 25-40% of Severe MR cases the etiology is unknown

85% of all mentally retarded individuals fall under the classification of Mild Mental Retardation

**Known Causes of Mental Retardation**

1. Genetic Factors
   1. Down’s Syndrome – most common genetic cause of mental retardation
   2. Fragile X Syndrome
   3. Prader-Willi Syndrome
   4. Phenylketonuria
   5. Rett’s Disorder
   6. Adrenoleukodystrophy

2. Prenatal Factors
   1. Fetal Alcohol Syndrome – leading single known cause of mental retardation, Prenatal Substance Exposure
   2. AIDS, Rubella, Herpes Simplex, Complications of Pregnancy (diabetes)

3. Perinatal Factors
   Premature infants who sustain intracranial hemorrhages

4. Acquired Childhood Disorders
   1. Infection
      - Meningitis and Encephalitis
   2. Head Trauma
   3. Brain Damage
5. Environmental and Sociocultural Factors
   1. Prevalent among people of culturally deprived low socioeconomic groups
   2. Poor prenatal and postnatal care
   3. Family instability with inadequate caretakers is common
   4. Parents with psychiatric disorders more common in low socioeconomic populations

Mental Retardation - Assessment

Referral is often for problem other than suspected mental retardation
   Academic problems, Learning Disorder, ADHD

Typical Presentation
   1. Not doing well in school
   2. Often overactive and inattentive
   3. Often uncoordinated
   4. Social problems
   5. Generally compliant child not following directions
   6. Delays in reaching developmental milestones

History

Pay particular attention to:
   1. Family history of mental retardation
   2. Family history of chromosomal abnormalities
   3. Difficulties with pregnancy, labor, or delivery
   4. Exposure to toxins
   5. Socioeconomic status and cultural background

Psychiatric Interview

Supportive explanation of the diagnostic process is important to ensure valid responding ~ especially when client is informant

Do not interact with client based on their reported mental age

Do not use leading questions or response options ~ suggestible and may respond in manner based on wish to please others

Give client plenty of time to respond ~ may process information slowly

Assess receptive/expressive language through observation

Evaluate self-confidence, impulse control, frustration tolerance, curiosity

Physical Examination

Head size, dysmorphic facial features, facial expression, tone

Neurological Examination

Assess for motor disturbances, poor coordination, hearing deficits, visual deficits, presence of seizure activity, hydrocephalus, and/or cortical atrophy

Laboratory Tests

Examine urine and blood specimens for evidence of metabolic disorders and/or chromosomal disorders
**Hearing and Speech Evaluations**

Important to continue throughout development to rule in or out hearing and/or language deficits as explanation for overall deficits

**Psychological Evaluation**

Psychological testing performed by an experienced psychologist is essential in diagnosis of MR

Significant controversy about correlation between developmental quotients based on tests administered to infants/toddlers and intelligence quotients later in life

*Must administer:*

- Standardized Intelligence Tests (WISC-III, SB-IV)
- Standardized Adaptive Measures (Vineland, SIB-R)

**Mental Retardation – Intervention**

**Special Education Services for Child/Adolescent**

Comprehensive program that addresses ~

1. Adaptive Skills Training
2. Social Skills Training
3. Vocational Training
4. Group Therapy ~ Practice managing hypothetical real-life problems while receiving supportive feedback

**Behavioral and Cognitive Therapy**

Positive reinforcement for desired behaviors and punishment for objectionable behaviors

Relaxation exercises with self-instruction

**Family Education**

Education about methods to enhance child’s competence and self-esteem while maintaining realistic expectations

Education regarding balance between fostering independence and providing a supportive environment

Encourage family members participation in psychotherapy

Express guilt, despair, anger, frustration

Provide family members with basic and current medical information regarding causes and treatment of mental retardation

**Social Intervention**

Address social isolation and social skills deficits

Special Olympics ~ raises social competence

**Pharmacological Intervention**

Aggression and Self-injurious Behaviors

Stereotypical Motor Movements
EXPLOSIVE RAGE BEHAVIOR
ATTENTION-DEFICIT/HYPERACTIVITY DISORDER
EMOTIONAL CONCERNS (E.G., DEPRESSION, ANXIETY, ETC.)

LEARNING DISORDERS

“These disorders are characterized by academic functioning that is substantially below that expected given the person’s chronological age, measured intelligence, and age-appropriate education” (APA)

Must be distinguished from difficulties arising from lack of opportunity, poor teaching, and/or cultural factors

TYPES OF LEARNING DISORDERS

1. Reading Disorder
2. Mathematics Disorder
3. Disorder of Written Expression
4. Learning Disorder Not Otherwise Specified

ICD-10 DESCRIPTION

Developmental Disorders of Scholastic Skills within Disorders of Psychological Development category

Onset during infancy or childhood

Delay or impairment of development strongly related to maturation of the central nervous system

Must exhibit a steady course

Usually of unknown cause ~ possible family history of related difficulties indicative of genetic origin

SPECIFIC DEVELOPMENTAL DISORDERS OF SCHOLASTIC SKILLS

Specific reading disorder
Specific spelling disorder
Specific disorder of arithmetic skills,
Mixed disorder or scholastic skills
Developmental disorders of scholastic skills unspecified

LEARNING DISORDERS - ASSESSMENT

Administer an individually administered standardized intelligence test
Administer an individually administered standardized academic achievement test
Compare the child’s IQ score with the child’s achievement standard score
A significant discrepancy between these two scores is indicative of a learning disorder

LEARNING DISORDERS - READING

Reading Disorder ~ Dyslexia
Reading achievement is substantially below that expected given chronological age, measured intelligence, and age-appropriate education

Equal among males and females with accurate assessment

More males may be identified initially due to disruptive behaviors

Prevalence ~ 4% of school-aged children

Etiology

Tends to be more prevalent among family members of those affected by the disorder ~ genetic studies not definitive currently

Possibly related to subtle deficits in particular cortical regions of the brain specifically associated with oral language, encoding, and working memory

Treatment

Modifications/accommodations provided by the school

   Extra time on written tests
   Marking but not downgrading spelling errors
   Oral exams for severely impaired dyslexics

Individual tutoring in phonics based approach to reading ~ phonological coding skills

Older dyslexics may need help with reading comprehension strategies and study skills

Caregivers take on the role of advocate, facilitator of appropriate interventions, and source of emotional support

Individual’s with a Reading Disorder can learn phonological coding and reading comprehension strategies ~ rate of learning is slower than general population

Learning Disorders - Mathematics

Mathematics Disorder

Mathematical ability is substantially below that expected given the person’s chronological age, measured intelligence, and age-appropriate education (APA)

   Measured by an individually administered standardized test of mathematical calculation or reasoning

Skills potentially impaired in Mathematics Disorder

Linguistic Skills ~ understanding or naming mathematical terms, operations, or concepts and decoding written problems into mathematical symbols

Perceptual Skills ~ recognizing or reading numerical symbols or arithmetic signs and clustering objects into groups

Attention Skills ~ copying numbers or figures correctly, remembering to add in carried numbers, and observing operational signs

Mathematical Skills ~ following sequences of mathematical steps, counting objects, and learning multiplication tables

Prevalence ~ estimated at 1% of school-aged children
Treatment
Modifications/accommodations within school setting
  Utilize graph paper to address perceptual difficulties
  Highlight arithmetic sign to address attention difficulties
  Extra tutoring to address deficits in mathematical skills and linguistic skills
Additional instruction/tutoring with focus on problem solving activities ~ including word problems ~ addresses social skills deficits as well

Learning Disorders – Writing
Disorder of Written Expression
Writing skills are substantially below those expected given the person’s chronological age, measured intelligence, and age-appropriate education (APA)
  Measured by an individually administered standardized test or functional assessment of writing skills
Difficulties in the individual’s ability to compose written texts as evidenced by
  Grammatical or punctuation errors within sentences
  Poor paragraph organization
  Multiple spelling errors
  Excessively poor handwriting
Diagnosis typically not provided if deficits in only spelling or only poor handwriting

Etiology
Possible neurological deficits in the central information processing centers of the brain
Most children with a disorder or written expression have relatives with the disorder

Treatment
Positive response to remedial treatment ~ intensive, continuous, individually tailored, one-to-one expressive and creative writing therapy (provided in school)
Psychological treatment of secondary emotional and behavioral problems