

Pediatric Mental Health Care Access Grant

Learning Disorders:

Recognition in Hopes of Early Intervention

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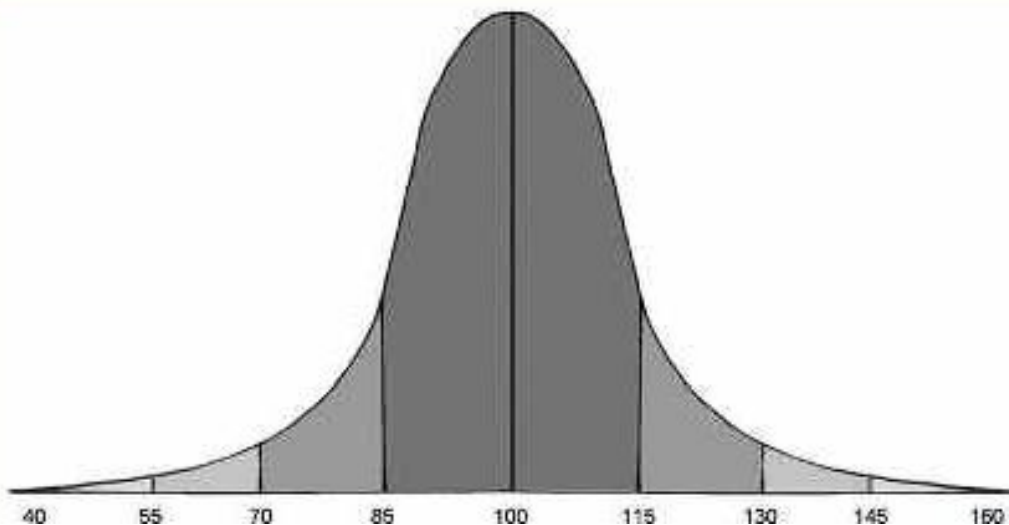
OBJECTIVES

1. Review Diagnostic Criteria of Learning Disorders
2. Identify the Effects of Learning Disorders
3. Describe Prevention Efforts, Treatment Strategies, and Accommodations

DIAGNOSTIC CRITERIA

DSM-IV

- A. Achievement, as measured by individually administered standardized tests, is substantially below that expected given the person's chronological age, measured intelligence, and age-appropriate education
- B. The disturbance in Criterion A significantly interferes with academic achievement or activities of daily living
- C. If a sensory deficit is present, the difficulties are in excess of those usually associated with the sensory deficit





DIAGNOSTIC CRITERIA

DSM-5

- A. Single overarching category of Specific Learning Disorder
- B. With Specifiers for current manifestations
 - A. Reading (“Dyslexia”)
 - B. Mathematics (“Dyscalculia”)
 - C. Written Expression (“Dysgraphia”)



DIAGNOSTIC CRITERIA

DSM-5

- A. Elimination of IQ-achievement discrepancy criterion.
- B. Replaced with 4 criteria:
 - A. Persistence of symptoms for at least 6 months despite focused intervention
 - B. Low academic achievement causing significant impairment
 - C. Age at onset in school-age years (may manifest fully later)
 - D. Not attributable to Intellectual Disorder, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language of academic instruction, or inadequate instruction
- C. Severity Rating



DIAGNOSTIC CRITERIA

DSM-5

1. Inaccurate or slow and effortful word reading
2. Difficulty understanding the meaning of what is read
3. Difficulties with spelling
4. Difficulties with written expression
5. Difficulties mastering number sense, number facts, or calculation
6. Difficulties with mathematical reasoning

TYPES OF LEARNING DISORDERS





TYPES OF LEARNING DISORDERS

Dyslexia

Learning Disorder with Impairment in Reading

Dyscalculia

Learning Disorder with Impairment in Mathematics

Dysgraphia

Learning Disorder with Impairment in Written Expression

DYSLEXIA





DYSLEXIA

Core deficits in:

- **Word reading accuracy**
- **Reading rate or fluency**
- **Reading comprehension**

DYSCALCULIA





DYSCALCULIA

Core deficits in:

- **Number sense**
- **Memorization of arithmetic facts**
- **Accurate or fluent calculation**
- **Accurate math reasoning**

DYSGRAPHIA





DYSGRAPHIA

Core deficits in:

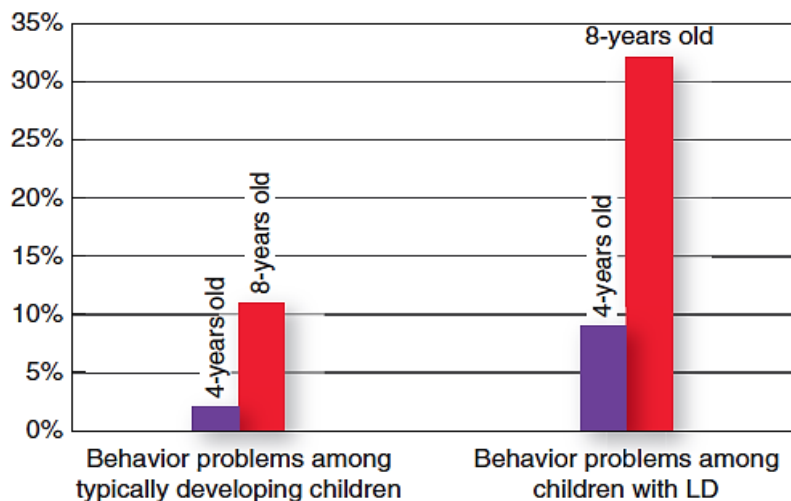
- **Efficiency in written expression**
- **Spelling accuracy**
- **Grammar and punctuation accuracy**
- **Clarity or organization of written expression**

EFFECTS OF LEARNING DISABILITIES

EFFECTS OF LEARNING DISABILITIES

- Three-fourths of children with a reading disorder in elementary school continue to have problems in high school and young adulthood
- Daily experience of being labeled and unable to keep up can lead to internalizing and externalizing
 - Comorbid behavior problems are three times higher than the norm by age 8
 - Comorbid problems include:
 - ADHD
 - Disruptive Mood
 - Oppositionality

EFFECTS OF LEARNING DISABILITIES



PREVENTION EFFORTS, TREATMENT STRATEGIES, AND ACCOMMODATIONS



PREVENTION EFFORTS

- **Individuals with Disabilities Education Improvement Act (IDEA) in U.S. and provincial Educational Acts in Canada**
- **Least Restrictive Environment (LRE)**
- **Free and Appropriate Public Education (FAPE)**
- **No Child Left Behind (2002)**
 - **State Standardized Testing**
- **Response to Intervention (RtI) movement**
 - **Three-tiered program for support**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyslexia

1. Early Intervention

- 1. Focus on phonological processing**
 - 1. Initial word identification skills**
 - 2. Phonemic awareness**
 - 3. Phonological memory**
 - 4. Alphabetic principle and phonological recoding**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyslexia

1. Early Intervention

- 1. Focus on word-level reading**
 - 1. Sound boxes**
 - 2. Word boxes**
 - 3. Sound sorts**
 - 4. Word sorts**
 - 5. Copy-cover-check**
 - 6. Repeated readings**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyslexia

- 1. Access to recorded materials**
Allow children to increase vocabulary and fund of knowledge
- 2. Access to compensatory assistive technologies (print-to-speech software)**
- 3. Additional time on reading tasks.**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyslexia

Increase opportunities to rehearse

- 1. Pull-out services at school**
- 2. Reading with caregivers at home**
- 3. Reading preferred subjects**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyslexia

Reading comprehension

- a. What was the main idea?
- b. Tell me 3 to 5 important details from the story.
- c. Who was your favorite character and why?
- d. Retell the story in your own words.
- e. Make up 5 “wh-” questions about the story – “Who? What? When? Where? Why?”
- f. Did this remind you of any other story you’ve read? Which one and why?
- g. What did you learn from the story that you didn’t know before?



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyscalculia

1. Essential to stress the need for practice and rehearsal, opportunities to respond, corrective feedback, and student engagement.
2. Rehearse early numeracy and math operations facts
3. Cover, copy, and compare
4. Taped problems
5. Interspersal
6. Explicit timing strategies



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dyscalculia

- 1. Visual Representation**
- 2. Peer-Assisted Learning**
- 3. Systematic Instruction**
- 4. Self-instruction**



ACCOMMODATIONS AND TREATMENT STRATEGIES

Dysgraphia

- 1. Occupational therapy evaluation**
- 2. Assess and treat fine-motor coordination deficits**
 - 1. Pencil grips**
 - 2. Slant boards**
 - 3. Raised paper**
 - 4. Highlighted paper**
 - 5. Graphic organizers**

ACCOMMODATIONS AND TREATMENT STRATEGIES

Dysgraphia

3. Multisensory techniques
4. Assistive technology
5. Extended time
6. Teacher-made outlines for taking notes
7. Access to speech-to-text (dictation)
8. Supplementing writing with an oral report or explanation
9. Keyboarding/typing instruction

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