DEMYSTIFYING
DYSLEXIA

AOGPE Annual Conference
April 5-6, 2019
White Plains, NY

Sheryl Knapp, M.Ed., C/AOGPE, CDT/IDA
sknapp@literacylearningct.com

Katie Curra, M.S., CCC-SLP
katie@kidslanguagecenter.com
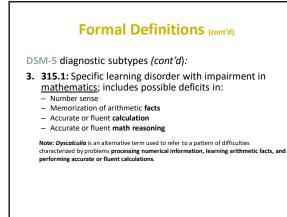
1

Formal Definitions

DSM-5 diagnostic subtypes:

1. **315.00**: Specific learning disorder with impairment in <u>reading</u>; includes possible deficits in:
   - Word reading **accuracy**
   - Reading rate or **fluency**
   - **Reading comprehension**

   Note: *Dyslexia* is an alternative term used to refer to a pattern of learning difficulties characterized by problems with **accurate or fluent word recognition, poor decoding, and poor spelling abilities**.

2. **315.2**: Specific learning disorder with impairment in <u>written expression</u>; includes possible deficits in:
   - **Spelling** accuracy
   - Grammar and punctuation accuracy
   - Clarity or organization of written expression

2

Formal Definitions (cont'd)

DSM-5 diagnostic subtypes *(cont'd)*:

3. **315.1:** Specific learning disorder with impairment in <u>mathematics</u>; includes possible deficits in:
   - Number sense
   - Memorization of arithmetic **facts**
   - Accurate or fluent **calculation**
   - Accurate or fluent **math reasoning**

   Note: *Dyscalculia* is an alternative term used to refer to a pattern of difficulties characterized by problems **processing numerical information, learning arithmetic facts, and performing accurate or fluent calculations**.

3

Formal Definitions (cont'd)

IDA Definition:

*"Dyslexia is a specific learning disability that is <u>neurobiological</u> in origin. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. These difficulties <u>typically result from a deficit in the **phonological** component of language</u> that is often <u>unexpected</u> in relation to other cognitive abilities and the provision of effective classroom instruction.*

<u>Secondary consequences</u> may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and background knowledge."

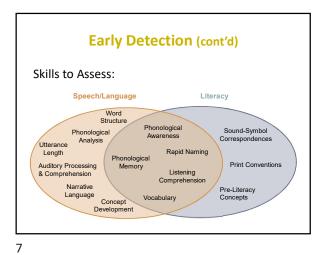(Adopted by the IDA Board of Directors, Nov. 12, 2002)

4

Early Detection

- Often identified initially by a Speech and Language Pathologist due to the existence of early language delays.

- Very young students who are dyslexic may meet grade level expectations due to compensatory strategies and curriculum-based interventions, making it critical that educators know how to detect early warning signs and effectively screen students.

- As many as 90% of at-risk children who receive intensive interventions in kindergarten or first grade achieve average reading performance levels (Torgeson, 2004).

5

Early Detection (cont'd)

- Common Signs: Preschool & Kindergarten
  - Speech delay
  - Frequently mispronounced words/sounds (simplifying blends, deleting final consonants or medial syllables)
  - Difficulty learning new vocabulary and retrieving words (uses *"this", "that", "thingie", "stuff"*)
  - Struggles with pre-academic skills/sequences (e.g., learning colors, shapes, alphabet song, counting to 10, days of the week)
  - Delayed phonological awareness (e.g., rhyming, syllabication, identifying initial sounds, segmenting and blending sounds)
  - Difficulty following multi-step directions and routines
  - Difficulty retelling events/stories in correct sequence
  - Family history of learning disorders   International Dyslexia Association

6

Early Detection (cont'd)

Skills to Assess:

Speech/Language   **Literacy**

Word Structure
Phonological Analysis
Utterance Length
Auditory Processing & Comprehension
Narrative Language
Concept Development

Phonological Awareness
Rapid Naming
Phonological Memory
Listening Comprehension
Vocabulary

Sound-Symbol Correspondences
Print Conventions
Pre-Literacy Concepts

7

Typical Detection

- As students progress through the grades, compensatory strategies typically grow less effective.

- Difficulties with reading/spelling, especially involving more lengthy and foreign-derived words, as well as higher level language deficits, begin to surface.

- It is critical that intervention begin as early as possible, especially as children transition from "learning to read" to "reading to learn" – and as secondary consequences surface.
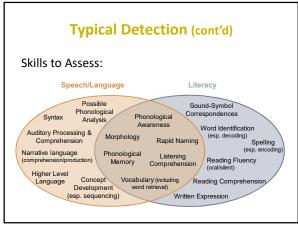
8

Typical Detection (cont'd)

- Common Signs
  - History of Early Detection signs (above)
  - Slow, labored reading rate/fluency
  - Frequent sound insertions/omissions/transpositions/ substitutions when reading and spelling – and speaking
  - Frequently misspelled words – even with spellcheck
  - Difficulty understanding text the first time it is read
  - Difficulty retrieving words
  - A general aversion to reading/writing.
  - Difficulty with sequencing (events, months, letters, etc.)
  - Difficulty with organization (assignments, ideas, etc.)
  - Difficulty learning a foreign language

International Dyslexia Association

9

Typical Detection (cont'd)

Skills to Assess:

10

Assessing Phonological Awareness

- Should be done on purely phonological level.
- Assessment tools include:
  - ➢ **CTOPP-2** (Comprehensive Test of Phonological Processing)
  - ➢ The **PAT-2 (**Phonological Awareness Test) – standardized only through ages 5-9
  - ➢ The **KTEA-3** (Kaufman Test of Educational Achievement)
  - ➢ The **WRMT-III** (Woodcock Reading Mastery Test)
  - ➢ The **Intermediate Phonological Awareness & Reading Profile** (for secondary level students)
  - ➢ The **CORE Assessments**

11

Assessing Word Recognition & Spelling

- Areas to assess:
  - ➢ Phonetically regular and irregular words
  - ➢ Real and made-up words
  - ➢ Words in isolation as well as in context/passages
- Include a comprehensive <u>error analysis</u> across <u>all</u> reading assessments/subtests
  - ➢ Often the pattern of errors is as important as the scores.

12

Assessing Word Recognition/Spelling (cont'd)

- Commonly used assessments include:
  - Standardized Achievement "Batteries" **(WIAT-III, WJ-Ach-III, KTEA-3)**
  - Skill Inventories, Criterion-Referenced (**WADE**, **Gallistel-Ellis Test of Coding Skills, CORE Assessments**) and Standardized (**WIST**)
  - Standardized Reading/Writing Assessments (**GORT-5, WRMT-III, TOWL-4**)
  - Informal Reading Inventories (e.g., **QRI-6** and **Jerry Johns**) – non-standardized, more curriculum-related

13

Assessing Fluency

- Areas to assess:
  - **Reading rate** – typically as words per minute (*wpm*)
  - **Reading accuracy** – both the percentage of words correctly, and correct words per minute (*cwpm* or *wcpm*)
  - **Prosody** – including phrasing and intonation/inflection, reflecting spontaneous speech
- Utilize a variety of assessment tools to encompass:
  - Real and made-up words
  - Words in isolation as well as in context/passages
  - Oral and silent reading

14

Assessing Fluency (cont'd)

- Commonly used assessments include:
  - Standardized Achievement "Batteries" **(WIAT-III, WJ-Ach-III, KTEA-3)**
  - Standardized Reading Assessments (**GORT-5, WRMT-III**)
  - Standardized fluency assessments (**TOWRE-2, TSWRF, TSCRF**)
  - Informal Reading Inventories (**QRI-6**, **Jerry Johns**)
  - Progress monitoring tools (**DIBELS, AIMSWeb**)

15

Assessing Vocabulary

- Receptive vocabulary is the best measure of general knowledge; expressive vocabulary, and the comparison between the two measures, is critical for assessing word retrieval skills.
- Commonly used assessments measure:
  - Receptive (**PPVT-5, ROWPVT-4**) and expressive (**EVT-3, EOWPVT-4**) vocabulary, including comparison analyses
  - Word associations (**WRMT-III, CASL-2**)
  - Word retrieval (**TWF-3**)
  - "Embedded" skills – reading/contextual vocabulary (**KTEA-3**), written definitions (**TOWL-4**)

16

Assessing Comprehension

- Comprehension – especially reading comprehension – is extremely difficult to assess
  - There is no single measure of "reading comprehension"
  - Other contributing factors must first be ruled out
  - Bright students are often able to correctly guess the answer to questions without reading the text

17

Assessing Comprehension (cont'd)

- Commonly used assessments include:
  - Standardized Achievement "Batteries" (**WIAT-III, WJ-Ach-III, KTEA-3**)
  - Standardized Reading Assessments (**GORT-5, WRMT-III**)
  - Standardized Reading Comprehension Assessments (**TORC, GSRT**)
  - Informal Reading Inventories (**QRI-6, Jerry Johns**)
- Look for examples of applications of specific comprehension strategies to isolate any struggles
- For students suspected of having dyslexia, always assess listening comprehension

18

Assessing Language

- A comprehensive language evaluation for a student suspected of having dyslexia should include:
  - ➢ A broad based receptive and expressive language assessment (e.g., **CELF-5, CASL-2)**
  - ➢ An auditory processing and comprehension assessment (e.g., **TAPS-4**, **OPUS**)
  - ➢ A higher-level language assessment (e.g., **CELF-5 Metalinguistic**)
  - ➢ A narrative language assessment (e.g., **SALT**, **TNL-2**)

19

Assessing Written Expression

- In the same way that reading comprehension ability is impeded by poor/dysfluent word identification, written expression is impeded by poor/dysfluent spelling, coupled by a mastery of syntactical and grammatical structures
- Commonly used assessments include:
  - ➢ Standardized Achievement "Batteries" **(WIAT-III, WJ-Ach-III, KTEA-3)**
  - ➢ The Test of Written Language **(TOWL-4)**

20

Case Study

- 10 year, 1 month old female
- In fourth grade
- Recently unilaterally outplaced by parents into private school specializing in language-based learning disabilities

21

Putting it All Together

- Dyslexia is frequently difficult to detect, especially at the earliest stages.

- However, remediation is often most effective when provided at an early age.

- Early detection can also prevent later academic struggles and the other secondary effects of dyslexia.

22

_____

_____

_____

_____

_____

_____

_____