

DYSLEXIA

Dyslexia is a specific learning disability that is neurological (of the nervous system) in origin.¹ It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities [1].

Varying in degrees of severity, [dyslexia] is manifested by difficulties in receptive and expressive language, including phonological (letter sounds) processing in reading, writing, spelling, handwriting, and sometimes in arithmetic [1].

There is no cure for dyslexia, and individuals with this condition must learn coping strategies. Research indicates that dyslexia has no relationship to intelligence. Individuals with dyslexia are neither more nor less intelligent than the general population [2].

Causes and Incidence

Causes. Recent studies suggest that the reading difficulties people with dyslexia experience are caused by "faulty wiring" in certain areas of the brain, and there are indications that this faulty wiring is due, at least in part, to identifiable genetic defects or variations [3].

Over the years, several candidate genes have emerged as possible contributors to dyslexia, but only recently have researchers been able to establish a strong link between one specific gene and this common learning disability [3].

Incidence. Of people with reading difficulties, 70-80% are likely to have some form of dyslexia. It is estimated that between 5-10% of the population has dyslexia, but this number can also be as high as 17%. The symptoms of dyslexia range from mild to severe. Because dyslexia may not be recognized and diagnosed in some individuals, they do not receive the necessary treatment; others may not disclose that they are diagnosed. These mitigating factors make the prevalence of dyslexia difficult to precisely determine [4].

Behaviors and Symptoms

Behaviors. Letter and number reversals past age 7 or 8 are a common warning sign. Dyslexics may also experience hardship copying from the board or a book, and they may exhibit disorganization in their writing. Children with dyslexia may also appear uncoordinated and have difficulty in an organized-game setting [4].

¹ This extended definition is intended for primary and secondary educators with little knowledge of dyslexia. The information in this paper can help teachers identify signs of dyslexic behavior and learn about suggested basic strategies that can benefit primary and secondary dyslexic students in the classroom.

Symptoms. Any of these symptoms may be present in various levels of severity. The variance in signs and symptoms is the reason why many children with dyslexia and other learning disabilities are never diagnosed. Some common symptom examples are:

- Difficulty understanding the individual sounds in words
- Difficulty remembering words
- Difficulty reading different styles of type
- Difficulty writing
- Difficulty telling time [4]

Strengths. [Dyslexics] can be highly skilled at spotting patterns and taking a more global view of a situation. They are holistic rather than linear thinkers. They often have very good reasoning skills and an ability to integrate personal experiences with acquired knowledge to form new connections. They can make great team players. They can also be extremely creative people who are artistically gifted and have a keen sense of spatial organization [5].

Diagnosis

Assessments. The basic procedure is to gauge an individual's strengths and weaknesses in oral language, reading, spelling, and writing through standardized tests or non-standardized assessments [4]. Some of the common tests administered are:

- Wechsler Intelligence Scale for Children-Third Edition (WISC-III)
- Stanford-Binet Intelligence Scale
- Woodcock-Johnson Psycho-Educational Battery [4]

Strategies

Primary students. Strategies that can benefit young students with dyslexia are:

- Choosing rhyming books with high repetition of words and phrases.
- Playing sound matching games.
- Making personalized books and stories with the student's name and photos [6].

Secondary students. Strategies that can benefit older students with dyslexia are:

- Allowing students to tape record lessons.
- Providing written notes before or after the lecture.
- Creating checkpoints for large assignments.
- Choosing books that are available on audio [7].

References

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