



**RAMA
UNIVERSITY**

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FACULTY OF NURSING

DYSLEXIA



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INTRODUCTION

- Greek word, 'dys' (poor or inadequate) & the word 'lexis' (words or language).
- Dyslexia and IQ are not interrelated.
- Commonly have difficulty in verbal skills, abstract reasoning, hand-eye coordination, concentration, perception, memory and social adjustment.
- Generally undetected in early ages.

DEFINITION

- The World Federation of Neurologists(1968): "a disorder in children who, despite conventional classroom experience, fail to attain the language skills of reading, writing, and spelling commensurate with their intellectual abilities."
- The U.S. National Institutes of Health: "dyslexia is a learning disability that can hinder a person's ability to read, write, spell, and sometimes speak".

CAUSES

- The real cause are still unknown.
- Some probable causes:
 - Hereditary
 - Neurological
 - Cross wiring
 - Hearing problems at an early age&
 - Brain injury

HEREDITARY

- Frequently found in families, and is often accompanied by left-handedness.

Chromosome 1, 2, 6, & 15 can be involved in the inheritability of dyslexia.

NEUROLOGICAL

- Bunches of cells beneath the surface of the brain have been detected.
- These groups of cells: 'ectopic' cells in normal children move to the brain's surface at the time when the brain was developing

- The magno-cellular system, deals with ability to see moving images, is smaller in dyslexic people.

CROSS WIRING

- Use of EEG show an unusual variation in left- and right-side activity.

HEARING PROBLEM

- Frequent colds and throat infections in the first 5 yrs.
- Sometimes known as 'glue ear'.
- Unable to hear the difference between words.
- Delay the child's phonemic awareness.

BRAIN INJURY

- Accidents occurring during the prenatal or postnatal periods.
- The most common occurrences noted during delivery.
- Very long periods of labor, breech birth, oxygen deprivation of the new born.
- Injuries that affect the left hemisphere of the brain.

SYMPTOMS

- A noticeable difference between the pupil's ability and their actual achievement;
- Difficulties with spelling;
 - Confusion over left and right;
- Writing letters or numbers backwards;
- Difficulties with maths;
- Difficulty following 2- or 3-step instructions, etc.

TYPES

Dyslexia is basically classified as three types:-

- Trauma dyslexia
- Deep dyslexia
- Developmental dyslexia

1.Trauma Dyslexia

- Acquired dyslexia
- Rarest type of this learning disability.
- Caused by a brain injury or conductive hearing loss.

2.Deep Dyslexia

- Also known as primary dyslexia
- Hereditary
- Chromosome effect left hemisphere & corpus callosum.
- Child compensate with the right brain.
- Hence include left-handedness.

3. Developmental Dyslexia

- Secondary dyslexia
- Developmental stages of the fetus
- Positive side: Severity decreases as the child grows older.

PROBLEMS

Common characteristics include problems with:

- Spelling
- Handwriting
- Confusion with directions
- Confusion with right/left handedness
- Confusion with opposites Mathematics
- Transposing letters in word.

- Delayed spoken language
- Below grade level reading achievement
- Slow reading
- Poor comprehension
- Fatigue after reading only for a short while Lack of enjoyment from reading.

DIAGNOSIS

- Dyslexia is a difficult disorder to diagnose exactly.
- Several general diagnosis methods include:
 - A classroom observation.
 - A developmental, medical, behavioral, academic and family history.
 - Information on cognitive processing
 - Tests of specific language skills -educational tests to determine level of functioning in basic skills

TREATMENT

- An evaluation must be done to determine the child's specific area of disability.
- Treatment of dyslexia ideally involves planning between the parent(s) and the teachers.
- May be implemented in a Special Education setting or in the regular classroom.
- Most important aspect of any treatment plan is attitude.
- There are also several therapies for the medical treatment.

ROLE OF PARENTS/ SUPERVISORS

- Encourage
- Explain tasks more than once, ensure back
- Provide additional time
- Avoid more instructions
- Avoid small prints, overcrowded text.
- Use bullet points, more space, colour, flow chart, white boards.
- Use full stop(.) before starting of sentences.

THANK

YOU