Learning Disabilities - Types and Symptoms

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Abstract

Learning disabilities are life-long. The way in which they are expressed may vary over an individual’s lifetime, depending on the interaction between the demands of the environment and the individual’s strengths and needs. Learning disabilities are suggested by unexpected academic under-achievement or achievement that is maintained only by unusually high levels of effort and support. Learning disabilities may also involve difficulties with organizational skills, social perception, social interaction and perspective taking. Learning disabilities are due to genetic and/or neurological factors or injury that alters brain function in a manner that affects one or more processes relate to learning. These disorders are not due primarily to hearing and/or vision problems, social-economic factors, cultural or linguistic differences, lack of motivation, inadequate or insufficient instruction, although these factors may further complicate the challenges faced by individuals with learning disabilities. Learning disabilities may co-exist with other disorders such as attention, behavioral or emotional disorders, sensory impairments, or other medical conditions.

Keywords: Learning Disabilities, Signs and Symptoms, Types.

1. Introduction

Learning disabilities are professionally diagnosed difficulties with reading, writing, speaking, listening, spelling, reasoning or doing math. People with learning disabilities have trouble taking in information through their senses and processing that information accurately to the brain.

According to the National Centre for Learning Disabilities, learning disability is a neurological disorder that affects the brain’s ability to receive process, store and respond to information. The term learning disability is used to describe the seeming unexplained difficulty a person of at least average intelligence has in acquiring basic academic skills.

The WHO defines a learning disability as ‘a state of arrested or incomplete development of the mind’. The Education Act 1996 states that: ‘a child has special educational needs if he or she has a learning difficulty which calls for special educational provision to be made for him or her.’ It also says that ‘a disability, which prevents or hinders them from making use of education facilities’, amounts to a learning difficulty if it calls for special educational provision to be made. Internationally three criteria are regarded as requiring to be met before a learning disability can be identified or diagnosed. These are:

2. Intellectual Impairment

IQ classification is primarily used by health professionals to assess the presence and degree of learning disability. It should not be seen as the only method of identifying the presence of learning disability in an individual and the language associated with IQ scoring is now seen as outdated.

50 - 70 mild learning disability
35 - 50 moderate learning disability
20 - 35 severe learning disability
Below 20 profound learning disability

There are problems in using IQ, in that measurements can vary during a person’s growth and development but more importantly it doesn’t capture the person’s strengths and abilities very well. IQ is an important measurement, but only if it is carried out alongside other assessment and measurement including social functioning and adaptation.
3. Social or adaptive dysfunction
Again, assessing the social function of an individual alone can also present problems and must be seen in the wider context of a person’s social environment, their support arrangements and general lifestyle. Social functions include; communication, eating and drinking, keeping safe, personal care and recognizing risks. When thinking about social functioning, it is important to remember that other factors that impact on these. For example; gender, religion, culture, age and ethnicity.

4. Early Onset
For the majority of individuals, the presence of a learning disability is from birth or during the early development period of life. Acquired learning disabilities as result of a brain injury in later life may also result in a learning disability.

5. Types of Learning Disabilities

Dyslexia (reading-based or print-based)
Dyslexia is a reading-based learning disability, which results in children having difficulty with word recognition and decoding print. They may have difficulty identifying and comprehending words from a book or with spelling. Because decoding printed words from a book becomes so much of a struggle, they often miss the meaning of what they have read.

Common signs include:
- Reads painfully slow
- Difficulty with basic letter sounds
- Has trouble decoding, order of letters become mixed up
- Cannot recall known words

Dysgraphia (writing-based)
Dysgraphia is a writing disability, which means a child may not have the complex set of motor and information processing skills to be able to write his or her own thoughts down on a piece of paper. They struggle with writing complete and grammatically correct sentences, and often have poor handwriting.

Common signs include:
- Awkward pencil grip
- Illegible handwriting
- Frustration with writing thoughts on paper
- Can talk about an idea, but cannot write it down on paper

Dyscalculia (math-based)
Dyscalculia is a math-based learning disability, which results in your child having trouble recognizing numbers and symbols and understanding basic math concepts. For older students, they often have issues related to reasoning.

Common signs include:
- Difficulty recalling number sequences
- May mistake numbers that look similar in shape (i.e. 3 and 8)
- Cannot retain patterns when adding, subtracting, multiplying, or dividing
- Difficulty with handling money or estimating cost

6. Central Auditory Process Disorder (auditory-based)
Central Auditory Process Disorder (CAPD) is an auditory disability, which means a child has difficulty processing information he or she hears and interpreting speech. A child with CAPD does not necessarily suffer from hearing loss, instead he or she has a hearing problem where the brain does not interpret information heard.

Common signs include:
- Distracted by background noises

7. Nonverbal Learning Disorders
Nonverbal learning disorders can be very difficult to diagnose, as children who have it are often very articulate and do well academically. But, they lack motor coordination, common social skills and interpreting nonverbal communication.

Common signs include:
- Does not perceive nonverbal cues such as facial expressions
- Can be very disruptive in conversation; asking too many questions
- Poor fine and gross motor skills
- Has difficulty dealing with change

8. Visual Processing Disorder (visual-based)
Visual Processing Disorder occurs when a child cannot receive, process, recall or express information in an accurate and timely way. This does not mean the child has poor eyesight, but that his or her brain has trouble processing visual information.

Common signs include:
- Often mistake letters and numbers that look similar in shape; misreads words
- Remembering the spelling of familiar words incorrectly
- Cannot copy words accurately; spacing letters or words poorly; writing outside lines, margins
- Loses place while reading; cannot find numbers or details on a page easily

9. Aphasia, Dysphasia or Global Aphasia (language-based)
Children who suffer from language-based disorders such as aphasia, dysphasia or global aphasia have a hard time expressing themselves using words as well as understanding spoken or written language.

Common signs include:
- Difficulty expressing thoughts verbally
- Poor reading comprehension
- Frustrated when speaking
- Has trouble labeling objects

If you think your child may have a learning disability, it’s best to find support right away. A learning disability cannot be “cured,” but with the right resources and support you can make sure your child can overcome learning disability barriers, gain confidence and achieve success.

10. Other disorders that making learning difficult
Attention deficit hyperactivity disorder (ADHD) - Children with ADHD often have problems sitting still, staying focused, following instructions, staying organized, and completing homework.

Autism – Difficulty mastering certain academic skills can stem from pervasive developmental disorders such as autism and Asperger’s syndrome. Children with autism spectrum disorders may have trouble communicating, reading body language, learning basic skills, making friends, and making eye contact.

11. Signs and Symptoms of Learning Disabilities
A range of environmental, biological, genetic, and perinatal conditions may be associated with adverse developmental
outcomes (see Shonkoff & Phillips, 2000) and may be risk indicators (i.e., warning signs) for LD. Also, advances in medical technology have kept an increasing number of fragile children alive, and these children often are at risk for developmental and later educational problems. Such risk indicators, especially when several are present, warrant careful monitoring of a child’s development and signal the need to ensure high quality learning opportunities for this population. Children who do not respond adequately to these opportunities may be at increased risk for LD. Furthermore, young children with identified disabilities (e.g., cerebral palsy) also may be at risk for LD. However, risk indicators do not always predict which children will have future learning problems. Risk indicators must be considered within the context of typical developmental expectations. For example, an inability to follow one-step directions is not a risk indicator for a 6-month-old, but is for a 4-year-old, especially in combination with other risk indicators, such as poor fine motor coordination.

- Protective factors that reduce risk and foster resilience can buffer children and families from circumstances that place them at risk. Risk indicators interact with protective factors in unique ways for each child. For example, some children with a history of birth complications may exhibit typical developmental patterns and require few if any special services, whereas other children without such histories may struggle to learn and may require formal assessment and intervention. Likewise, children who may have multiple risk indicators may not demonstrate learning problems if they receive strong culturally and developmentally appropriate early learning experiences. The two lists below, though not all-inclusive, identify possible risk indicators and protective factors for LD among infants, toddlers, and preschoolers:

- **Peri-natal conditions**
  - Low Apgar scores
  - Low birth weight and/or preterm birth
  - Hospitalization for longer than 24 hours in a neonatal intensive care unit
  - Difficulty with suckling, sucking, and swallowing
  - Chronic otitis media that may result in intermittent hearing loss

- **Genetic or environmental conditions**
  - Family history of LD
  - Adopted child status
  - Family history of spoken and/or written language problems
  - Exposure to environmental toxins or other harmful substances
  - Limited language exposure in home, childcare, and other settings
  - Poverty

- **Preschool signs and symptoms**
  - Problems pronouncing words
  - Trouble finding the right word
  - Difficulty rhyming
  - Trouble learning the alphabet, numbers, colors, shapes, days of the week
  - Difficulty following directions or learning routines
  - Difficulty controlling crayons, pencils, and scissors or coloring within the lines
  - Trouble with buttons, zippers, snaps, learning to tie shoes.

- **Ages 5-9 signs and symptoms of learning disabilities**
  - Trouble learning the connection between letters and sounds
  - Unable to blend sounds to make words
  - Confuses basic words when reading
  - Consistently misspells words and makes frequent reading errors
  - Trouble learning basic math concepts
  - Difficulty telling time and remembering sequences
  - Slow to learn new skills

- **Ages 10-13 signs and symptoms of learning disabilities**
  - Difficulty with reading comprehension or math skills
  - Trouble with open-ended test questions and word problems
  - Dislikes reading and writing; avoids reading aloud
  - Spells the same word differently in a single document
  - Poor organizational skills (bedroom, homework, desk is messy and disorganized)
  - Trouble following classroom discussions and expressing thoughts aloud
  - Poor handwriting.

- **Attention and behavior**
  - Distractibility/inattention
  - Impulsivity
  - Hyperactivity
  - Difficulty changing activities or handling disruptions to routines
  - Perseveration (i.e., constant repetition of an idea)

12. Some protective factors associated to learning disabilities:

- Access to quality pre-, peri-, and postnatal care
- Maternal education
- High quality learning opportunities
  - Exposure to rich and varied vocabulary, syntax, and discourse patterns
  - Responsive learning environments sensitive to all cultural and linguistic backgrounds
  - Access to printed materials
- Involvement in structured and unstructured individual/group play interactions and conversations
- Engagement in gross and fine motor activities

- **Multiple supports**
  - Assistance adapted to the child’s responsiveness to instruction or intervention
  - Access to adaptive and assistive technology (AT) and services
  - Transition planning between early intervention services (birth to age 3 years) and preschool programs (ages 3–5 years), and between preschool and elementary school
  - Service coordination

In summary, symptoms do not necessarily predict later learning problems or indicate the existence of a disability, particularly when only a single indicator is present. Similarly, protective factors do not rule out the presence of a disability. However, the presence of risk indicators warrants substantial and serious efforts to facilitate early learning success, because many children at risk respond positively to high quality instruction and support. Therefore, children at risk, who may or may not have LD, need to receive carefully planned and
responsive services and supports to enhance their opportunities for learning (Coleman, Buyssse, & Neitzel, 2006) [2].

13. Systematic Observations - Systematic observations of a child’s behavior and abilities over time are an important addition to examining the presence of risk indicators and protective factors. Observations may be informal or may follow a standard observation protocol; in either case, they should be conducted multiple times and in varying contexts (e.g., home, diagnostic preschool, Head Start classroom, playgroup) to increase the reliability and validity of the hypotheses made regarding a child’s behavior. In many cases, an extended period of observations will be necessary. Observations should provide a description of the frequency, consistency, and severity of the behaviors causing concerns in relation to contextual demands.

- The child’s family should be involved throughout the entire process. When professionals raise a question about the course of the child’s development as a result of systematic observation, they should discuss the findings with the caregivers and family. When indicated, a referral should be made to appropriate professionals for further evaluation and, if warranted, provision of supports and services should be recommended.

14. Comprehensive Evaluation - When a screening, a review of risk indicators and protective factors, and systematic observations suggest that a child is at risk for LD, professionals should conduct periodic evaluations to ascertain whether development follows expected patterns. The major goal of a comprehensive evaluation is to determine the individual child’s specific pattern of abilities and needs and to identify strategies and resources to address learning and behavioral problems as soon as possible. These evaluations should occur across different settings and should consider multiple perspectives offered by caregivers and professionals. An interdisciplinary approach is especially valuable in obtaining and interpreting evaluation information derived from a variety of sources (see Wolraich, Gurwitch, Bruder, & Knight, 2005) [6]. Evaluations should focus on developmental norms across domains (e.g., cognition, communication, emergent literacy, motor and sensory abilities, and/or social–emotional adjustment); however, it is important to recognize that there is a wide range of individual differences, both within and between children, some of which may fall within the “normal” range of expected behaviors.

- A comprehensive evaluation involves the use of multiple instruments and procedures, including norm- and criterion-referenced tests, teacher/parent rating scales, and developmental checklists. The use of a single instrument or procedure does not constitute a comprehensive evaluation. Practitioners should use culturally and linguistically sensitive instruments to ensure appropriate assessment of children with potential LD. Evaluation of the child’s status and needs depends on an integrated assessment of the child’s functioning in the following domains:
  - cognition, including perceptual organization, memory, concept formation, attention, and problem solving;
  - communication, including speech/language form, content, and use for receptive and expressive purposes;
  - emergent literacy, including phonological awareness, awareness of print, and numeracy, including number recognition, and number concepts;
  - motor functions, including gross, fine, and oral motor abilities;
  - sensory functions, including auditory, haptic, kinesthetic, and visual systems; and
  - social–emotional adjustment, including behavior, temperament, affect, self-regulation, play, and social interaction.

15. Conclusion

If you think your child may have a learning disability, it’s best to find support in a right away. A learning disability cannot be “cured,” but with the right resources and support you can make sure your child can overcome learning disability barriers, gain confidence and achieve success. We do not underestimate the difficulties involved in delivering our ambitious new vision for people with learning disabilities. The principles of rights, independence, choice and inclusion we put forward are challenging and have far reaching implications for all those agencies – public, independent and voluntary – who work with people with learning disabilities. Enabling people with learning disabilities to have their voices heard and have wider opportunities for a fulfilling life as part of the local community is central to our message. Delivering this involves new ways of working in more effective partnerships. But getting it right for people with learning disabilities will show what can be achieved and for one of the most vulnerable and socially excluded groups in our society.

16. References

7. https://www.google.co.in/search?q=What+are+the+7+main+types+of+learning+disabilities%3F&oq=What+are+the+7+main+types+of+learning+disabilities%3F&aqs=chrome..69i57j69i60.6115j0j7&sourceid=chrome&es_sm=93&ie=UTF-8