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Victory Over Learning Disorders In Children

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Abstract

Learning disorders are common developmental disorders seen in the school-age children. The intelligence quotient of these children will be normal. But they will have significant difficulties in using the key academic skills. The prevalence among school-age children is 5% to 15% across different languages and cultures. Children with specific learning disorder can have impairment in reading, writing and mathematics. 62.2% of the children with learning disorders have comorbidities which include attention-deficit/hyperactivity disorder, anxiety disorder, developmental coordination disorder, language disorder and mood disorder. The poor academic performance due to learning disorders cause significant stress for children, their parents and teachers. Hence early identification of students with learning disorders is essential and individualized interventions should be provided at the earliest. The treatment for learning disorders is implementation of individually tailored one to one remedial education program, which will definitely help in attaining victory over learning disorders. Comorbid problems also should be managed scientifically. Prevention of learning disorders is a much more efficient approach in management. Early interventions in kindergarten-age children, focusing on learning difficulties, will prevent the development of learning disorders.

Introduction

Children with learning disorders have significant difficulties in using the academic skills. Fluent reading of words, reading comprehension, spelling skills and arithmetic calculations are the key academic skills. In specific learning disorder, the affected academic skills are substantially below those expected for the age of the child. These children will have impairment in reading, impairment in writing or impairment in mathematics. The learning difficulties become apparent in the early school years in most of the children. The intellectual functioning of these children will be normal. The vision and hearing are also normal. Children with mathematics disorder have deficits in visual-spatial memory and children with reading disorder have deficits in phonological awareness as well as central executive functioning [1].

Learning disorders are common developmental disorders which negatively affect the children and finally the society in general [2]. The poor academic performance cause significant stress for children, their parents as well as educators. The school dropout rate for these children is very high. Early identification of students with learning disorders is essential and individualized interventions should be provided at the earliest [3].

Prevalence

About 5% to 15% of school-age children across different cultures have learning disorder. In a study conducted in South India, the prevalence of specific learning disabilities was 15.17% in children aged eight to eleven years. 12.5% of children had dysgraphia, 11.2% had dyslexia and 10.5% had dyscalculia [4].

Several studies have reported prevalence rates of 4 to 9% for reading disorder and 3 to 7% for mathematic disorder. Children having a deficit in one learning domain usually experience deficits in other learning domains also [5].

Specific Learning Disorder with Impairment in Reading

The clinical features include poor reading fluency, slow reading speed, inadequate comprehension, impairment in properly sequencing words, mirror reading (reversal of words or letters), omissions, substitutions or distortions of letters and words, inability to recall facts that have been read, as well as inability to draw conclusions or inferences from the material that has been read.

Specific Learning Disorder with Impairment in Writing

These children have poor handwriting, poor paragraph organization, lots of grammatical errors, spelling errors, punctuation errors, reluctance to do assigned written homework and mirror writing of letters or words.

Specific Learning Disorder with Impairment in Mathematics

The clinical features include significant difficulty in acquiring even the basic mathematical skills like addition, subtraction, multiplication and division; severe difficulty in mastering number sense; and defect in attention skills required to copy numbers and figures correctly.

Comorbidity

The learning disorders not only impair the learning process of children, but also lead to negative impacts on various aspects of their lives. Emotional and social deficits are seen in children with learning disorders. Children with learning disorders have lower self-esteem, increased anxiety and behavior problems, as well as reluctance to go to school [6]. Neuropsychopathological comorbidities are seen in 62.2% of the children with learning disorders. The common comorbidities include attention-deficit/hyperactivity disorder, anxiety disorder, developmental coordination disorder, language disorder and mood disorder [7]. Attention-deficit/hyperactivity disorder and learning disability co-occur in children and the mean comorbidity rate is 45.1% [8]. Children with specific learning disorders also have self-stigma and poor quality of life [9].

Treatment

Learning disorders should be diagnosed early and managed scientifically to enhance the quality of life of these children. The deficits in academic skills of each child with learning disorder will be different. The remediation programs should target the specific needs of each child in order to facilitate learning [10]. The treatment of choice for learning disorders is implementation of intensive individually tailored one to one remedial education program lasting for months. This will definitely help in achieving victory over learning disorders.

The neuropsychopathological comorbidities should be promptly managed. Specific interventions are needed to reduce the long-range consequences of the comorbid problems. Comprehensive intervention services are required for students with comorbid attention-deficit/hyperactivity disorder

and learning disorder, that address both disorders [8].

The families of children with learning disorders, experience significant difficulty in parent-child relationships and the caregiver burden is usually high. Parental social wellbeing influence the child's quality of life [11]. Involving parents of children with learning disorders in the remedial programs help to improve the scholastic skills of these children. Hence parental guidance is essential in the management of learning disorders of children.

When compared to post-diagnosis remediation, prevention of learning disorders is a much more efficient approach in management. Early interventions in kindergarten-age children, focusing on learning difficulties in reading, mathematics and written expression, will help to prevent the development of learning disorders and thus we can lead the children to academic brilliance in future.

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