

## Poor Scholastic Performance in Children and Adolescents

T U S U K U M A R A N

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Scholastic achievement has become an index of child's future in this highly competitive world. Unrecognized and unresolved, scholastic backwardness has a lifelong impact on the child and adolescent, affecting school completion, higher education, interpersonal relationships, prospects for employment, marriage etc. Awareness of the varying causes, methods of presentation and the principles of management are essential to be known by all physicians dealing with children.

### PREVALENCE

During the last decade, the learning disability movement has definitely picked up momentum in India, and more and more children with this 'invisible handicap' are being identified. There is paucity of epidemiological studies in India to determine the exact prevalence of scholastic backwardness. Studies confirm that a large percentage of school dropouts in India are due to unsatisfactory academic performance [1]. The prevalence may be the same or slightly more than the western figure of 20% of the child and adolescent population [2].

### ETIOLOGY

Scholastic backwardness has a multifactorial etiology:

**1. Neurodevelopmental disorders** *Specific learning disability:* Specific learning disabilities (SpLD) viz. dyslexia, dysgraphia and dyscalculia is a generic term that refers to a heterogeneous group of disorders manifested by significant unexpected, specific and persistent difficulties in the acquisition

and use of reading (dyslexia), writing (dysgraphia) or mathematical (dyscalculia) abilities despite conventional instruction, average or above average intelligence, proper motivation and adequate socio-cultural opportunity. SpLD, an invisible handicap, constitute an important cause of poor school performance in children and are presumed to be due to central nervous system dysfunction.

**ADHD:** ADHD may be accompanied by learning disabilities, depression, anxiety, conduct disorder, and oppositional defiant disorder. ADHD makes the individuals less available for learning because of the activity level, inattention, and/or impulsivity.

**Slow learners:** Children with an IQ range of 70-89 are classified as slow learners. Slow learners are those with below average cognitive abilities who are not disabled, but who struggle to cope with the traditional academic demands of the regular classroom.

**Mental retardation:** Children with mental retardation, with IQ below 70 have a generalized learning deficit differing from specific learning disability such as dyslexia, which is significant in severity. The common genetic causes of MR include Down's syndrome, Fragile X, and Klinefelter's syndrome.

**Language disorders:** From 1% to 13% of the population have either a developmental expressive or receptive language disorder. As most learning takes place in schools through the medium of language, children with language disorders struggle in school.

**Autism spectrum disorder:** Autism exists with any level of intelligence, but many individuals with autism suffer also from learning disability. The core

features of autism - social, emotional, communication and language deficits interfere at all levels learning and psychosocial functioning.

## 2. Emotional disorders

Emotional disorders such as anxiety, obsessive-compulsive, mood disorders, depression, and psychosomatic disorders are common in children. Conduct disorders, oppositional defiant disorders are also seen in children frequently and may occur as comorbid with ADHD.

## 3. Environmental factors

Poor school performance may also be due to environmental factors especially at home, school and friends [3,4].

## 4. Medical factors

This may be the direct effect of the condition itself, or due to effects leading to recurrent school absenteeism, adverse effects of medication, poor self-esteem affecting motivation and performance. Common chronic conditions such as asthma, allergies, repeated otitis media, lead poisoning, cancer, epilepsy, cerebral palsy type 1 diabetes mellitus, hypothyroidism, hearing loss - even unilateral [5] and visual impairment, are known to be associated with poor academic performance.

## DIAGNOSIS

There are warning signs that teachers and parents can look out for. Avoidance of reading and writing, tendency to misread information, difficulty in summarising text, reading / comprehension problems, trouble with open ended problems, continued difficulty with spelling, poor grasp of abstract concepts, difficulty in learning the languages and poor ability to apply mathematical skills are some of the signals that could be closely analysed.

Formal assessment for diagnosis of a specific learning disability includes Wechsler intelligence tests (WAIS – III or WAPIS – Indian Adaptation) or Stanford Binet-IV. Academic skills may be assessed using Graded Word Lists and Reading Comprehension List compiled by Wima H Miller,

NIMHANS Index of Specific Learning Disabilities, Mann-Suiter Written Language Expression Screen, Developmental Word Vocabulary Lists etc.

## MANAGEMENT

Remediation, life skills training and management of co-morbid conditions need to go hand-in-hand with development of appropriate support systems to ensure that the learning disabled develop to his potential.

## ROLE OF INDIAN ACADEMY OF PEDIATRICS

The Indian Academy of Pediatrics is committed to support all programs for the child and adolescent and this year has taken an important step in helping children with learning disorders by reinforcing the IAP Action Plan 2011 – Poor Scholastic Performance Program (PSPP) – which envisages creating an awareness about this problem among the public, school teachers, administrators, school boards and among paediatricians. Advocacy in this field also finds a place of importance in this program. We hope that with a combined effort of IAP workforce, there would be some relief for the large number of children and adolescents in our country who are suffering as a result of this invisible handicap.

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