

## Current challenges in managing specific learning disability in Indian children

Specific learning disability (SpLD) is a group of neurodevelopmental disorders which manifest in childhood as persistent difficulties in learning to efficiently read (“dyslexia”), write (“dysgraphia”), or do simple mathematical calculations (“dyscalculia”) despite normal intelligence, conventional schooling, intact hearing and vision, and adequate motivation and socio-cultural opportunity.<sup>[1,2]</sup> Up to 5-10% of “seemingly normal” school children have this hidden disability.<sup>[1,2]</sup> Dyslexia affects 80% of all those identified as learning-disabled.<sup>[1,2]</sup> SpLD is now believed to be a result of functional problem with brain “wiring” rather than an anatomic problem and is genetically inherited.<sup>[1,2]</sup>

These children present with academic difficulties such as reading slowly and incorrectly, skipping lines while reading aloud, making repeated spelling mistakes, untidy/illegible handwriting with poor sequencing, and inability to perform even simple additions and subtractions.<sup>[1,2]</sup> They invariably fail to achieve school grades commensurate with their intellectual potential.<sup>[1,2]</sup> Up to 15-20% of children with SpLD have associated attention-deficit hyperactivity disorder (ADHD) which is characterized by persistent hyperactivity, impulsivity and inattention and this co-morbidity further impairs their learning.<sup>[1,3,4]</sup> If SpLD remains undetected chronic poor school performance, class detention, and dropping out of school ensue.<sup>[1,3,4]</sup> This often leads to these children losing their self-esteem, developing withdrawn or aggressive behaviour, anxiety, depression and at times even anti-social behaviours.<sup>[1,3,4]</sup>

The cornerstone of treatment of SpLD is remedial (“special”) education.<sup>[1,5,6]</sup> Because of the central nervous system’s higher plasticity in early years this should ideally begin early, when the child is in primary school.<sup>[1,5,6]</sup> Using specific teaching strategies and teaching materials, the special educator formulates an Individual Educational Program to reduce or eliminate the child’s deficiencies in specific learning areas of reading, writing and mathematics identified during the child’s educational assessment.<sup>[5,6]</sup> The child has to undergo remedial education sessions twice or thrice weekly for a few years to achieve academic competence.<sup>[5,6]</sup> During these sessions the child with dyslexia undergoes systematic and highly structured training exercises to learn that words can be segmented into smaller units of sound (“phoneme awareness”), and that these sounds are linked with specific letters and letter patterns (“phonics”).<sup>[1,4]</sup> The child also requires practice in reading stories; both to apply newly acquired decoding skills to reading words in context and to experience reading for meaning.<sup>[1]</sup> For dyscalculia, remediation

involves rote learning of arithmetic facts, developing strategies for solving arithmetic exercises, and developing “number sense” or its access via symbolic information.<sup>[7,8]</sup> However, even after adequate remedial education, subtle deficiencies in reading, writing, and mathematical abilities persist.<sup>[5,7]</sup>

The management of SpLD in the more time-demanding setting of secondary school is based more on providing provisions (“accommodations”) rather than remediation.<sup>[1]</sup> These provisions (for example, exemption from spelling mistakes, availing extra time for written tests, dropping a language subject, substituting algebra and geometry with lower grade of mathematics) serve to “level the play field” for these students so that their academic performance would now be commensurate with their intellectual ability.<sup>[1,9]</sup> With remedial education and provisions most learning disabled children are able to continue their education in regular mainstream schools.<sup>[1,3,9]</sup>

It is important to remember that apart from SpLD, there are other causes for children to under perform, such as, chronic medical illnesses, borderline intelligence (“slow learners”), visual or hearing deficit, isolated ADHD, emotional problems, and poor socio-cultural home environment.<sup>[1,3]</sup> However, a history of language delay, or of not attending to the sounds of words (trouble playing rhyming games with words, or confusing words that sound alike), along with a family history, are important red flags for SpLD in preschool children.<sup>[1]</sup> A conclusive diagnosis of SpLD should not be made until the child is in the third grade, or about 7-8 years old as some children are “normal late developers” and they on their own outgrow their learning problems (unlike SpLD which is a life-long disorder).<sup>[1,3,7]</sup> However, children in the age group of 5-7 years who show signs of SpLD on educational assessment should be considered as “at risk for SpLD” and remedial education started.<sup>[1,3,7]</sup>

In 1969, the United States of America government passed “The Children with Specific Learning Disabilities Act” which for the first time acknowledged that SpLD was a disability, and ensured that these children are entitled to “publicly funded” remedial education services and facility to avail the benefit of provisions in their school curriculum.<sup>[10]</sup> In 1977, this law was strengthened and these children were empowered with a “legal right to continue education in regular mainstream schools”. This was done to protect them from discrimination in education.<sup>[10]</sup>

In the year 1996 the state government of Maharashtra was the first in India to formally grant children with SpLD the

benefit of availing the necessary provisions to enable them to complete education in regular mainstream schools.<sup>[11]</sup> Initially these provisions were only given for the standard IX and X examinations; but subsequently in the year 2000 they were given from standard I to XII.<sup>[12]</sup> In a recent study carried out at our clinic, children with SpLD who availed the benefit of provisions showed a significant improvement in their academic performance at the Secondary School Certificate board examination.<sup>[9]</sup> Their mean total marks increased by 22% (from 41% before diagnosis of SpLD to 63% after availing provisions).<sup>[9]</sup>

In the year 2003 the government of Maharashtra extended the facility of provisions to college courses; and even seats were reserved for these adolescents in the physically handicapped category.<sup>[13]</sup> A recent judgment of the Mumbai High Court has clearly stated that in the state of Maharashtra it is mandatory for the school and college authorities to provide these provisions and denial would be regarded as contempt of court and the school/college authorities would be liable to prosecution.<sup>[14]</sup>

Following the good example set by the government of Maharashtra awareness about the needs of these children has grown in India. Since 1999, the national Educational Boards which conduct the Indian Certificate of Secondary Education and the Central Board of Secondary Education examinations have also formally granted children with SpLD the benefit of availing the necessary provisions. Subsequently, the state governments of Karnataka and Tamil Nadu have granted these provisions, and in the near future the state of Gujarat is to follow suit.

The recent Hindi movie *Taare Zameen Par* ("Stars on the Earth") has sensitively and accurately depicted the plight of an 8-year-old boy battling SpLD. The commercial success and critical acclaim of this movie has created a tremendous impact and will help sensitise viewers about this hidden disability. However, a lot needs to be done to ensure that every child with SpLD is detected and receives remedial education in our country. At present, there is a general lack of awareness about SpLD in India. Even in the mega cities like Mumbai, Chennai, Bangalore, New Delhi, and Kolkata, there are very few clinics for doing the psychoeducational testing for diagnosing SpLD; and there is a dearth of remedial teachers. In smaller towns and rural areas such clinics are non-existent.

Firstly, awareness of this hidden disability has to be increased and the topic of SpLD should be compulsorily taught to doctors, school teachers, counsellors, and general public (who are the future parents) during their undergraduate studies. It is known that a supportive home environment is one of the factors that can favourably determine the outcome of SpLD in a school-going child.<sup>[1,3]</sup> Secondly, an evaluation for SpLD should be considered for all children presenting with learning problems in preschool/school.<sup>[1,3]</sup> At present many children with SpLD studying in non-English (vernacular) medium schools, and especially in rural areas, are going undetected for non-availability of standardized psychological and educational tests. This lacunae needs to be corrected by developing standardized

psychological and educational tests in all Indian languages. Also, few special educators are available to do the educational testing necessary for diagnosing SpLD. Many more universities in our country should start the undergraduate degree course, namely, B.Ed. (Special Education) and the postgraduate degree course, namely, M.Ed. (Special Education) for people wanting to become remedial teachers and special educators, respectively. Regular school teachers should be encouraged to take up the additional responsibility of becoming remedial teachers. Thirdly, SpLD should be recognised as a disability by the union government of India. For this advocacy groups will have to convince the policy makers to amend the Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995 which is guided by the philosophy of promoting equality and participation of persons with disabilities and eliminating discriminations of all kinds.<sup>[15]</sup> At present the Act recognises visual impairment, hearing impairment, locomotor disability, mental retardation, leprosy-cured and mental illness to be disabilities.<sup>[15]</sup> The government of India since 2001 has launched the Sarva Shiksha Abhiyan ('Education for All' Movement) which is a comprehensive and integrated flagship program to attain universal elementary education in the country in a mission mode.<sup>[16]</sup> Launched in partnership with the state governments, the program aims to provide useful and relevant education to all children, including children with disabilities.<sup>[16]</sup> Once SpLD is recognised as a disability by the government of India, children with SpLD would be able to benefit significantly. Funds from the Sarva Shiksha Abhiyan would be available to set up detection centres in every city/town/district headquarter and remediation centres in each school all over the country. At present, the facility of remedial education is still not available in many schools even in a mega-city like Mumbai and many parents cannot afford the services of special educators working in the private sector (one session costs about Rs. 250).<sup>[17]</sup>

Therefore, the problems faced by children with SpLD in our country can and have to be addressed at a national level on a war footing. We owe it to them, because education is one of the most important aspects of human resource development.

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**Source of Support:** The Learning Disability clinic at my institute is partially funded by a charitable grant from Tata Interactive Systems, Mumbai. However I do not get any pay or perks from Tata Interactive Systems, Mumbai.