

Specific Learning Disabilities and Dyslexia in Hong Kong

Position Paper on Future Directions

This paper is based on the Forum on Specific Learning Disabilities (SLD) organized by the Hong Kong Society of Child Neurology &

Developmental Paediatrics on 28th July 2005 to arrive at a position paper on future directions for

Specific Learning Disabilities and Dyslexia in Hong Kong

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Background

Specific Learning Disabilities (SLD) (特殊學習障礙) is often referred to as the hidden handicap, with dyslexia (讀寫障礙) being present in the great majority of individuals in this group of disorders. Persons with dyslexia are characterized by severe deficits in reading, spelling and writing to dictation. The condition is disabling in that affected individuals' deficiencies in literacy, if not habilitated early and effectively, will lead directly and through secondary effects and emotional complications to severe impairments in learning, daily activities and contribution to society. It is today widely considered as a public health issue with marked educational and social dimensions, requiring multi-disciplinary and cross-sectoral attention.

SLD and dyslexia have received increasing professional and public awareness in Hong Kong over the past decade. Systematic measures to identify, assess and support affected individuals in education and the community are being continually developed. At the 2005-06 review of the Rehabilitation Programme Plan (RPP), the RPP Working Group and Rehabilitation Advisory Committee resolved that SLD is a disabling condition that should be added into RPP as a category of disability.

Definition¹

SLD is a term that refers to a group of disorders manifested as significant difficulties in the acquisition and use of listening, speaking, reading, writing or mathematical abilities, despite access to conventional teaching. These disorders are intrinsic to the individual and neurobiological in origin, with onset in childhood and extending beyond it. Language processing difficulties distinguish SLD as a group.

SLD is not the direct result of sensory impairment, mental retardation, social and emotional disturbance or environmental

¹ This operational definition was drafted jointly at the HK Society of Child Neurology & Developmental Paediatrics Forum on SLD on 28 July 2005, with academic and practicing representatives from medicine and allied health, education, psychology, social work, parent groups and administration (Appendix A). It is based on current knowledge of these conditions.

influences (e.g. cultural differences or insufficient / inappropriate instruction). Accompanying weaknesses may be identified in areas of speed of processing, working memory, phonological recoding, fine-grained auditory and/or visual processing, sequencing, organization, and motor coordination. Some individuals with SLD have outstanding skills. Some may have skills that are masked by their SLD, while other individuals may have strengths in aspects not affected by their SLD.

Developmental Dyslexia is one of the specific learning disabilities, characterized by difficulties with accurate and fluent word recognition, word reading and writing to dictation or spelling. Secondary consequences may include problems in reading comprehension and reduced reading experience that can impede growth of vocabulary and further acquisition of knowledge through print. Unexpected discrepancy exists between learning aptitude and achievement in school in one or more basic subject areas.

It is acknowledged that SLD may co-occur with other developmental disorders. Attention deficit / hyperactivity disorder (ADHD), with its own different neurological basis, diagnosis and treatment, is not a form of SLD, but may also occur in individuals with SLD.

Corresponding terminology for SLD in the *International Statistical Classification of Diseases and Related Health Problems – Tenth Revision (ICD-10)* is under the group “Specific Developmental Disorders of Scholastic Skills”, as listed in Appendix A.

Prevalence

Data reported by the Hong Kong Specific Learning Difficulties Research Team (Chan, Ho, Tsang, Lee & Chung (under review))¹ indicated that, based on a study at 27 schools in Hong Kong, Kowloon and the New Territories with the use of the *Hong Kong Test of Specific Learning Difficulties in Reading and Writing (HKT-SpLD)* (Ho CSH, Chan DWO, Tsang SM & Lee SH, 2000)², the prevalence rate of specific learning difficulties in reading and writing (dyslexia) in Hong Kong is 9.7% to 12.6% with 6.2% to 8.7%

mild cases, 2.2% to 2.3% moderate cases and 1.3% to 1.6% severe cases.

Figures on SLD cases reported by the Education & Manpower Bureau (EMB) were 461 in 2000-01, 948 in 2001-02, 980 in 2002-03, 922 in 2003-04 and 1,065 in 2004-05 respectively. A total of 4,376 students with SLD in all primary and secondary schools were identified within these past five years. While these figures may reflect the workload presented to EMB, they do not reflect how serious the Hong Kong situation is. Their distribution within schools of different academic achievement also varies significantly.

Types of Services

Early Identification

With the aim of achieving early identification of varied needs of children so that appropriate services can be made available to them in a timely manner, an inter-sectoral community-based programme, the Comprehensive Child Development Service (0-5 years) will be launched (2005 Policy Address of the HKSAR Government)³. Needs of children at risk for SLD are expected to be included.

The *Hong Kong Learning Behaviour Checklist for Preschool Children (Parent Version)*, a tool for parents to identify preschool children at risk for SLD, was introduced at the end of 2005 (Hong Kong SLD Research Team 2006)⁴. A screening instrument for preschool teachers to identify at risk children for follow up still needs to be developed. A teacher's checklist for identifying SLD students in secondary schools is being considered, and should be completed as soon as possible.

In 2000, *The Hong Kong Specific Learning Difficulties Behaviour Checklist for Primary School Pupils* (Hong Kong SLD Research Team 2000)⁵ was made available to schools to assist teachers in identifying students suspected to have specific learning disabilities; and from 2004 September, a new Primary One Checklist screening for Learning Abilities (EMB, 2004)⁶ was launched, where Chinese, English, mathematics, social adaptation, verbal language and

motor abilities of Primary One students can be checked to identify any learning problems and further educational needs. Teachers are expected to provide additional support to those identified as at risk, and to refer out those who are identified as having significant difficulties.

Assessment

Assessment of suspected SLD cases generally takes place within the educational setting after learning problems are noticed. EMB and outsourced educational psychology services help to provide diagnosis. Assessment for diagnosis is made by educational psychologists with standardized tools. Timely response to request for assessment is needed, with parents informed of the results and plans in order to maximize school-family cooperation.

Sometimes, cases may present to the health care sector, such as those where the underlying SLD is masked by other problems, like behavioural, emotional or other developmental and health problems. These children will be assessed by relevant professional disciplines, including clinical psychologists, from child assessment centres, certain hospital teams, non-government organisations (NGOs) and private settings. Follow up management of dyslexia itself remains within the school system, while other conditions diagnosed, such as attention deficit, motor coordination, hearing, visual and emotional problems, will be referred to respective service providers for treatment.

In Hong Kong, the HKT-SpLD was developed in 2000 for assessing primary school children up to ages 10½ years². Further norming of three subtests of this HKT-SpLD for Primary 5 and Primary 6 students is being done, for these data to be included in the 2nd edition of the HKT-SpLD in 2006⁷. A tool for assessing dyslexia in Secondary 1 to 3 is being developed by the Hong Kong Specific Learning Difficulties Research Team, and is expected to be published around the end of 2006⁷. Reading achievement levels

for grade and age are needed in Hong Kong to document baselines and monitor progress.

Education

Remediation and Accommodations

Students with SLD are educated in mainstream schools. Both direct remediation for dyslexia and accommodations in schools and examinations should be provided for these students.

Direct evidence-based remediation for dyslexia in adequate amount and with outcome measures is important. Promoting oral language skills and phonological / orthographic awareness skills through heightened reading and literacy programmes for at risk children is valuable. Teachers delivering these programmes should have a relevant language background, with training in dyslexia remediation for Chinese, English, and English as a Second Language (ESL). For secondary schools, the availability of special education needs coordinators (SENCO) with a strong language background is desirable. A differentiated curriculum may be required for some children. Strength discovery and development outside of the formal curriculum as well as portfolio building should be emphasized for these children.

The format for delivering the above curriculum and programmes may include pull-out teaching, co-teaching within the classroom and Individualised Education Plans (IEP). After school support programmes will also be valuable for those without adequate support at home.

Examination Accommodations

Many schools and parents are still unaware of the availability of accommodations for eligible students with dyslexia (at schools' internal examinations during Primary 5 and 6 for secondary school entrance placement, at the Hong Kong Certificate of Education Examination (HKCEE) and the Hong Kong Advanced Level

Examination (HKALE)). Applications by secondary schools on behalf of these students for open examination accommodations are still minimal compared with actual need. Effort is needed from EMB and the Hong Kong Examination and Assessment Authority (HKEAA) to promote awareness of such examination accommodations to school administrators, parents and students, and to ascertain compliance within schools. The range of accommodation measures that can be provided for students with SLD needs to be widened as indicated, including the use of computers or having questions read out and answers given orally.

School Support

Teachers' knowledge and skills in managing SLD are necessary prerequisites. At least one teacher with a special education background should be available in each school to support students with special education needs (SEN). EMB recommends an explicit school policy for delivering and monitoring quality, timeliness and outcome of services for all SEN students. Small classes are essential if adequate frontline teachers' participation in identification and remediation is to be provided. It is also felt that the Government could encourage and reward dyslexia-friendly schools through a set of outcome indicators, where good support for students with SLD and a genuinely inclusive atmosphere are ensured.

EMB is currently providing support to children with a variety of SENs in primary schools either through its ongoing intensive remedial support programme or its New Funding Model where \$10,000 to \$20,000 per annum is provided to a student with SEN. Secondary schools with high intake of bottom 10% of junior secondary students are supported by the School-based Remedial Support Programme (SBRSP), which provides remedial teaching to students in basic subjects of Chinese, English and Mathematics; while all secondary schools are supported by school social work service which aims to identify and help students with academic, social and emotional problems. For SLD, it is proposed that earmarked resources within the school to support students with SLD at different stages of education be considered. Adequate access to computer use and related SLD software in schools is

necessary.

Motivational factors are important in helping students with SLD in schools. Although some of these students may not be able to achieve much concrete progress in terms of standard school achievement results at this juncture, the attention and understanding given to them by good school-parent-child teamwork are valuable in rejuvenating their interest in learning and self-esteem. Parent-school collaboration in helping these children is considered critical for success.

Studies at Hong Kong's Special Schools for Social Development (special schools set up for students with serious emotional and behavioural problems) have shown that over 50% of students universally tested upon admission to primary school have been positively diagnosed with SLD⁸, demonstrating a marked over-representation of SLD within groups of young people with serious emotional and behavioural problems. Such psychological problems are believed to be significantly related to the negative experience that students with SLD go through in regular schools, where their condition is either unidentified or not appropriately supported. Intensive psychosocial remediation through collaboration of school, family and community is needed for these young persons, before it is possible to redirect them into a positive academic learning path.

A special school for some students with SLD who need intensive and specialist attention (full time, part time or temporary enrolment), should actively considered.

Higher Education

Due to the relatively limited flexibility of today's curriculum and open examination systems, students with SLD in Hong Kong today usually can only manage to access tertiary education through vocational training and sub-degree programmes. With the proposed New Academic Structure for Senior Secondary Education and Higher Education (EMB, 2005)⁹, where whole-person development approach and liberal studies as a core subject are

highlighted, the time is ripe for considering a wider curriculum selection and credit based system for secondary students, particularly those with SLD. This would allow development and maximization of these students' areas of strength and enhance opportunities for them to access tertiary education in their areas of competence and special talents.

Concessions on language requirements at university entrance should be considered for students with dyslexia who demonstrate adequate standards for the subject applied, in order to remove undue barriers for access to tertiary education.

Learning disabilities support centres in tertiary institutions need to strengthen their resources and support for students with SLD, who comprise the large majority of students with special needs within tertiary institutions of developed countries.

Adults with SLD

Issues relating to adults with dyslexia, including adult literacy education, remedial training, accommodations in professional licence examinations and in the workplace, need to be addressed.

Community Support and Development of Self-help Groups

Public education to increase understanding of SLD, reduce misconceptions, and foster an inclusive atmosphere towards SLD is important.

Public organisations and NGOs are currently providing a number of parent support programmes for families of children with SLD. However, a system to ascertain the quality of such programmes is needed. More promotion is still needed to introduce these services to families. Peer support groups such as the Hong Kong Association for Specific Learning Disabilities (HKASLD) parent group provide valuable platforms for families of children with SLD in HK to share resources, experience and aspirations.

Professional Training

Because of the high prevalence of students with SLD within mainstream schools, all teachers and school administrators need to have a basic understanding and awareness of SLD. Modules in SLD for undergraduate teachers should be compulsory, and in-service training for all existing teachers and school administrators on SLD is recommended. It is proposed that the Advisory Committee on Teacher Education and Qualifications (ACTEQ) study the demands placed on teachers by students with SLD, and include the subject in pre-service teacher education, as well as promoting teachers' and principals' continuing professional development in this area.

In 2005, EMB commissioned a 30-hour basic course for in-service teachers on SLD in Chinese and English. The first batch of training commenced in the 2005 September school year. More advanced courses focusing on SLD are recommended in future. Specific functional posts with positive career paths are recommended for these specially trained teachers.

Because courses today mainly provide basic awareness of the condition and the whole process of teacher empowerment is expected to take a number of years, Hong Kong teachers at this time rely strongly on specialist support, especially by educational psychologists, to provide timely diagnosis and delivery of effective remediation programmes. A system to ascertain the quality of such support is needed.

Issues of Special Concern

The following areas for research and development in Hong Kong are identified:

- (a) Studies on emerging literacy milestones in Chinese for identifying at risk preschool children;
- (b) Identification instruments for parents and teachers for preschool and all school levels;

- (c) Diagnostic assessment instruments at different ages;
- (d) Reading achievement levels for grade and age in Hong Kong to document baselines and monitor progress;
- (e) Development of validated intervention methods for step-wise reading remediation in Chinese and in English as a second language;
- (f) Teaching approach for language and other content subjects for students with SLD, especially in higher grades;
- (g) Stock-taking of higher education opportunities for students with dyslexia in Hong Kong;
- (h) Development of counselling and social remediation programmes for students with dyslexia with significant and prolonged school failure;
- (i) Parents' role in supporting the child at home and as a team member within the school;
- (j) Effects of dyslexia-friendly teaching on students with and without dyslexia.

The following SLD related concerns in public education should be addressed:

- (a) Public awareness of the presence and nature of SLD to be promoted;
- (b) Concept of equal opportunity and rights from the perspectives of both affected and unaffected individuals and families, to be made understood to the public;
- (c) A supportive community for adults with SLD to be developed and enhanced.

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F81	<p>Specific developmental disorders of scholastic skills</p> <p>Disorders in which the normal patterns of skill acquisition are disturbed from the early stages of development. This is not simply a consequence of a lack of opportunity to learn, it is not solely a result of mental retardation, and it is not due to any form of acquired brain trauma or disease.</p>
F81.0	<p>Specific reading disorder</p> <p>The main feature is a specific and significant impairment in the development of reading skills that is not solely accounted for by mental age, visual acuity problems, or inadequate schooling. Reading comprehension skill, reading word recognition, oral reading, skill and performance of tasks requiring reading may all be affected. Spelling difficulties are frequently associated with specific reading disorder and often remain into adolescence even after some progress in reading has been made. Specific developmental disorders of reading are commonly preceded by a history of disorders in speech or language development. Associated emotional and behavioural disturbances are common during the school age period.</p> <p>“Backward reading”</p> <p>Developmental dyslexia Specific reading retardation</p> <p>Excludes: alexia NOS (R48.0) dyslexia NOS (R48.0) reading difficulties secondary to emotional disorders (F93.-)</p>
F81.1	<p>Specific spelling disorder</p> <p>The main feature is a specific and significant impairment in the development of spelling skills in the absence of a history of specific reading disorder, which is not solely accounted for by low mental age, visual acuity problems, or inadequate schooling. The ability to spell orally and to write out words correctly are both affected.</p> <p>Specific spelling retardation (without reading disorder)</p> <p>Excludes: agraphia NOS (R48.8)</p> <p> spelling difficulties:</p> <ul style="list-style-type: none"> ♦ associated with a reading disorder (F81.0) ♦ due to inadequate teaching (Z55.8) ♦
F81.2	<p>Specific disorder of arithmetical skills</p> <p>Involves a specific impairment in arithmetical skills that is not solely explicable on the basis of general mental retardation or of inadequate schooling. The deficit concerns mastery of basic computational skills of addition, subtraction, multiplication, and division rather than of the more abstract mathematical skills involved in algebra, trigonometry, geometry, or calculus.</p> <p>Developmental:</p> <ul style="list-style-type: none"> ♦ acalculia ♦ arithmetical disorder ♦ Gerstmann’s syndrome <p>Excludes: acalculia NOS (R48.8)</p> <p> arithmetical difficulties:</p> <ul style="list-style-type: none"> ♦ associated with a reading or spelling disorder (F81.3) ♦ due to inadequate teaching (Z55.8) ♦