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In May 2012, we brought to your attention that the American Psychological Association was revising the Fourth Edition of the Diagnostic and Statistical Manual of Mental Disorders, which included greatly changing the section on specific learning disabilities. Months later, after numerous petitions, countless discussions, various position statements, and many meetings, the DSM-5 was released. The changes were significant, but perhaps not as bad as predicted. Dr. Rosemary Tannock, a member of the DSM-5 work group, explains just what those changes mean.

## DSM-5 Changes in Diagnostic Criteria for Specific Learning Disabilities (SLD)<sup>1</sup>: What are the Implications?

By: Rosemary Tannock, Ph.D.<sup>2</sup>

### Q: What is SLD according to DSM-5?

**A:** DSM-5 considers SLD to be a type of Neurodevelopmental Disorder<sup>3</sup> that impedes the ability to learn or use specific academic skills (e.g., reading, writing, or arithmetic), which are the foundation for other academic learning. The learning difficulties are 'unexpected' in that other aspects of development seem to be fine. Early signs of learning difficulties may appear in the preschool years (e.g., difficulty learning names of letters or counting objects), but they can only be diagnosed reliably after starting formal education. SLD is understood to be a cross-cultural and chronic condition that typically persists into adulthood, albeit with cultural differences and developmental changes in the way the learning difficulties manifest. For example, in English-speaking countries, children struggle to learn the correspondence between letters and sounds in order to decode single words accurately, whereas adults may have mastered basic decoding skills but read slowly and with effort. By contrast, in countries with a non-alphabetic language or in which the correspondence between speech sounds of one's language and the letters used to represent those sounds is much simpler than in English, children with SLD (e.g., dyslexia) master letter-sound correspondence quickly, and both children and adults with SLD struggle with reading fluency.

SLD is a clinical diagnosis that is not necessarily synonymous with 'learning disabilities' as identified within the education system: that is, not all children with learning disabilities/difficulties identified by the school system would meet a DSM-5 clinical diagnosis of SLD. By contrast, those with a DSM-5 diagnosis of SLD would be expected to meet the educational definition.

### Q. What changes were made to SLD in DSM-5?

**A.** The DSM-5 diagnostic criteria for SLD reflect two major changes, each of which necessitated other changes: 1) one overarching category of SLD with 'specifiers' to characterize the specific manifestations of learning difficulties at the time of assessment in three major academic domains, namely reading, writing, mathematics (e.g., *SLD With impairment in reading*<sup>4</sup>; and 2) elimination of the IQ-achievement discrepancy requirement and its replacement with four criteria (A – D), all of which must be met.

Criterion A refers to the key characteristics of SLD (at least one of six symptoms of learning difficulties that have persisted for at least 6 months despite the provision of extra help or targeted instruction). Criterion B refers to measurement of those characteristics (the affected academic skills are substantially and quantifiably below those expected for age<sup>5</sup> and cause impairment in academic, occupational, or everyday activities, as confirmed by individually administered standardized achievement measures and comprehensive clinical assessment). Criterion C refers to age at onset of problems (during the school-age years, although may not fully manifest until young adulthood in some individuals), and Criterion D specifies which disorders (Intellectual Disabilities, uncorrected auditory or visual acuity problems, other mental or neurological disorders) or adverse conditions (psychosocial adversity, lack of proficiency in the language of instruction, inadequate instruction) must be ruled out before a diagnosis of SLD can be confirmed.

### Q. What are the implications of the DSM-5 changes to SLD?

**A.** These changes are likely to have some impact on daily clinical practice, clinical research, the educational system, professional organizations and advocacy groups for LD, as well as on individuals with LD, their families, and perceptions of LD in the community.

One substantial practice shift is necessitated by the change from subtypes of LD (Reading Disorder, Mathematics Disorder, Written Expression Disorder) to one overarching category. For clinicians and researchers, the change will require comprehensive assessment of academic skills and may reduce the challenges associated with defining the subtype of LD (e.g., when test scores vary across academic domains or tests, with some falling just below clinical threshold). Instead, specifiers may be used to more precisely characterize the range of problems present at the time of assessment. The identification of a single overarching category of LD is consistent with many educational systems in

assessment. The identification of a single overarching category of LD is consistent with many educational systems in which LD is delineated as an eligible category for special education, other services, and specific funding. This change may help reduce the confusion of parents and educators when 'additional' LDs are identified in later school years, and help them better understand the developmental changes in manifestation of SLD, which are in part triggered by the increasing learning demands of the curriculum (e.g., early struggles to read single words are often followed by difficulties learning math facts, spelling problems, and difficulties understanding what is read, including mathematical word problems). However, this change also may require retraining of clinicians, school psychologists, and educators to identify and understand this conceptualization of LD and how to design learning pathways for each student with LD, who will have divergent and changing manifestations of their learning difficulties. Hopefully, this change might lead to better alignment of practice between clinical and educational communities. Will this change have a negative impact on individuals with a diagnosis of dyslexia or dyscalculia (who often refer to themselves as 'dyslexic' or 'dyscalculic') or on dedicated professional organizations or advocacy groups (e.g., International Dyslexia Association)? It should not, since these terms may be used to specify the nature of their SLD, according to individual preference. Moreover, the requirement to use specifiers to characterize the range of academic skills affected by dyslexia, might increase awareness that 'dyslexia' typically encompasses far more difficulties than those related to decoding and spelling words.

A second practice shift is indicated by the abandonment of the IQ-Achievement discrepancy criterion, as well as the omission of cognitive processing deficits in the diagnostic criteria. The discrepancy model has served as the fundamental conceptualization of LD for decades, despite robust evidence that it is conceptually and statistically flawed. Thus, although intellectual assessment has been the core of psychological assessment for LD for decades, it will no longer be required for a DSM-5 diagnosis of SLD, except when Intellectual Disabilities are suspected. Similarly, in DSM-5, there is no requirement for lengthy and costly neuropsychological assessment of cognitive processing skills for a diagnosis of SLD: such assessment might inform intervention plans but is not required for diagnosis. This means that psychologists may be able to shift from 'assessment for diagnosis' to 'assessment for intervention' and have more time to provide psychoeducation and consultation with parents and teachers. For the education system, the elimination of the IQ-achievement discrepancy criterion might mean they are able to provide special education services to children with SLD and lower IQ (e.g., IQ score above  $70 \pm 5$ ), but who do not have an Intellectual Disability. These children show a similar response to intervention as do children with SLD and higher IQ scores.

A third and related shift will be needed by the new criteria (particularly Criteria A and B), which call for evidence of symptom persistence and the use of a wider array of data that may be used to confirm and quantify low academic achievement. By contrast to DSM-IV, psychometric data alone are insufficient for a DSM-5 diagnosis of SLD. A much closer collaboration is required between educators, clinicians, and parents, to provide access to formal and informal school records, academic portfolios, instructional history, as well as information from psychoeducational and clinical assessments. Closer and ongoing collaboration between clinicians, educators, parents, and the individual with SLD might lead to less confusion and frustration while navigating both worlds (educational, clinical) and better outcomes.

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<sup>1</sup>DSM-5 is an internationally used medical manual and so uses the term 'disorder': 'Learning Disabilities' is an educational term that is also used by Psychologists.

<sup>2</sup>Dr. Tannock was a member of the DSM-5 Work Group for ADHD and Externalizing Disorders and cross-appointed to the Neurodevelopmental Disorders Work Group to assist with the revision of Specific Learning Disorders

<sup>3</sup>Other Neurodevelopmental Disorders include Intellectual Disability, Autism Spectrum Disorder, Attention-Deficit/Hyperactivity Disorder, as well as Communication Disorders and Motor Disorders.

<sup>4</sup>Based upon formal testing, the clinician could further specify which aspects of reading are impaired (e.g., word reading accuracy, reading rate or fluency, reading comprehension) to guide intervention.

<sup>5</sup>Any cut-off scores are somewhat arbitrary because academic skills are measured on a continuum; clinicians are advised in the DSM-5 text to use clinical judgment but standardized scores below the 16<sup>th</sup> percentile might indicate SLD, and scores below 7<sup>th</sup> percentile would be most consistent with SLD.

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**Rosemary Tannock, Ph.D.**, is Professor Emeritus at the University of Toronto and a Senior Scientist at the Hospital for Sick Children in Toronto, Canada. Previously, she held a Tier 1 Canada Research Chair in Special Education at the Ontario Institute for Studies in Education in the University of Toronto. From 2007-2013, she was a member of the DSM-5 Work Group on ADHD and Externalizing Disorders and liaison-consultant to the Neurodevelopment Disabilities Work Group for Specific Learning Disabilities. Currently, she is an appointed member of the Steering Committee for the WHO International Classification of Functioning, Disability and Health (ICF) Core Set for ADHD.

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