Letter to the Editor

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# Why we need to talk about developmental language disorder

## Por que devemos falar sobre transtorno do desenvolvimento da linguagem

*Ana Manhani Cáceres-Assenço*[1], *Elisabete Giusti*[2], *Juliana Perina Gândara*[3,4], *Marina Leite Puglisi*[5], *Noemi Takiuchi*[6]

Developmental Language Disorder (DLD) is not a recent condition. On the contrary, the first descriptions of children with difficulties learning language in the absence of other problems date back to 1822[1]. However, even after two centuries of much scientific evidence on the theme, until 2016 there was still no consensus over the diagnostic criteria and terminology regarding these cases.

Several terms were used: congenital aphasia, delayed language, language disorder, deviant language, among others[1]. In 1981, Leonard coined the term *specific language impairment* (SLI)[2], which became the most used by researchers in the field. Classification systems, such as ICD-10[3] and DSM-IV[4], however, did not adhere to this terminology.

This multiplicity of terms also occurred – and still occurs – in Brazil, but two groups of researchers contributed to the predominant use of the term proposed by Leonard and translated into Brazilian Portuguese as *Distúrbio Específico de Linguagem* (DEL): the group of Phoniatrics professors Alfredo Tabith Junior and Dr. Mauro Spinelli (PUC-SP) and the group of the Speech-Language Pathology professor Dr. Debora Maria Befi-Lopes (USP-SP). Despite the pioneering work of the first group[5-8], the scientific and intellectual production in this subject is more expressive in the group led by Befi-Lopes[9-17].

The diagnostic of SLI used to be based on inclusion and exclusion criteria. To be included in this classification, the child should present results 1.25 standard deviation below the mean (10$^{th}$ percentile) in at least two measures of language[18]. The exclusion criteria were any alterations that explained the poor language performance, such as intellectual disability (ID), hearing impairment, neurological alterations, syndromes or psychiatric disorders[19]. The performance on intellectual quotient (IQ) tests, for instance, should be above 85 to guarantee that children with borderline performance (70-85) would not receive this diagnosis. This set of symptoms denoted its specific nature, emphasizing the discrepancy between the difficulty to develop language and the proficiency with other abilities (e.g., motor, intellectual, visual, etc).

Although conceptually satisfactory, more than 20 years of research have evidenced some problems with this classification. For instance, children with language performance that met the inclusion criteria but had borderline cognitive performance had simply no diagnosis, since they could not be classified as having either SLI or ID[20]. Moreover, several studies have shown that even children who met all the criteria for SLI had, in average, worse executive functioning than typically developing children[21]. These children had also more symptoms compatible with other conditions (e.g. attention deficit hyperactivity disorder – ADHD, developmental coordination disorder – DCD), suggesting comorbidity between them. These factors challenged the specific nature of SLI, and raised the discussion about the usefulness of adopting such strict diagnostic criteria[22,23].

In 2014, the International Journal of Language & Communication Disorders triggered a wide discussion by publishing a special issue on SLI[22]. After this debate, a group of British researchers developed the first multidisciplinary and international study to reach consensus on the subject. The study included child development experts of ten different areas (e.g. Speech-Language Pathology, Pediatrics, Psychology, and Education) and six English-speaking nationalities. Using the Delphi method, the researchers finally reached consensus regarding the diagnostic criteria and the terminology that should be used to define these conditions[24,25].

The results proposed two stages for the diagnostic process. The first is to identify whether the child's language difficulties are persistent and significant. At this stage, it is necessary to answer: 1) if the language deficits have functional impact on the child's daily routine; 2) if the child has had enough opportunities to learn the language (especially for those exposed to bilingual or multilingual contexts); and 3) if there are linguistic features suggesting poor prognosis (e.g. comprehension or imitation

Study carried out at São Paulo (SP) and Natal (RN), Brazil.
[1]Departamento de Fonoaudiologia, Universidade Federal do Rio Grande do Norte – UFRN – Natal (RN), Brasil.
[2]Clínica de Fonoaudiologia Dra. Elisabete Giusti – São Paulo (SP), Brasil.
[3]Clínica de Reabilitação e Aprendizagem Motivação – São Paulo (SP), Brasil.
[4]Centro de Desenvolvimento e Comportamento Baobá – São Paulo (SP), Brasil.
[5]Departamento de Fonoaudiologia, Universidade Federal de São Paulo – UNIFESP – São Paulo (SP), Brasil.
[6]Faculdade de Ciências Médicas da Santa Casa de São Paulo – FCMSCSP – São Paulo (SP), Brasil.
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**Corresponding author:** Noemi Takiuchi. E-mail: noemi.takiuchi@gmail.com
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difficulties, restricted use of gestures and facial expressions). Positive responses to these questions increase the chances that the child actually has a language disorder (LD).

Considering the existence of a disorder, the second stage is to identify whether there are other associated conditions. When there is a biomedical condition associated with the language difficulties, the consensus suggests that the term "language disorder associated with…" should be used. For example, children with autism spectrum disorder (ASD) that have persistent difficulties developing language should receive the diagnosis of LD associated with ASD. On the other hand, when there is no known biomedical condition, the term "developmental language disorder" (DLD) should be used[24].

Unlike the criteria for SLI, the diagnosis of DLD allows for the existence of comorbidity with conditions that are not directly associated with language development, such as ADHD and DCD. Thus, within the consensus, DLD includes all individuals that met criteria for SLI, but also those cases that were not previously contemplated: children with borderline cognitive performance in nonverbal tasks that do not characterize ID, and children with some comorbidities.

The proposal that resulted from the consensus was careful and democratic, and had broad repercussion. A survey of the terminology used in studies published in the last ten years, listed on the Web of Science[23], showed significant changes in the prevalence of the consensual term DLD over SLI. The new terminology also stimulated awareness actions that have been positively impacting individuals with DLD and their families as well as clinical practice[26].

However, the adoption of these recommendations has been questioned by some researchers. Debates on the subject were promoted by the American Speech-Language-Hearing Association (ASHA) during their 29th annual convention in November 2019, coordinated by Dr. Mabel Rice, and also in the first volume of 2020 of their journal Perspectives of the ASHA Special Interest Groups[27].

The arguments against the consensus refer mainly to the scope of diagnostic criteria regarding cognitive abilities[28]. The group led by Rice argues that the term DLD is too comprehensive and unspecific, hindering the identification of children who fail specifically in verbal abilities (SLI). To resolve this issue, Leonard suggests that studies on DLD specify whether the sample studied would fit into a more restrictive definition, compatible with that of SLI, which would make it possible to analyze the impact of the classification choice criteria[29].

There will never be absolute agreement among experts. However, the high prevalence of DLD (approximately 7%)[18,20,30], combined with the persistence of difficulties, makes the adoption of a consensus necessary and urgent. Any terminology has positive and negative aspects. Diagnostic criteria, like terminological ones, are dynamic and advance with the production of knowledge. One should not ask if a new term is infallible, but rather if it brings advantages over the previous term. In many countries, the rigidity of the SLI diagnosis restricted the access to assistance services for a large portion of the population that did not fit into any category and did not receive diagnosis or assistance.

Moreover, the lack of consensus over the terminology hindered the promotion of unified awareness campaigns directed towards professionals, parents, the public community and managers of public and private institutions. Currently, the RADLD campaign (Raising Awareness of Developmental Language Disorder) has a fundamental role in spreading this movement and, today, relies on ambassadors in many countries, and speakers of several languages. Since 2017, they proposed a day dedicated to promoting awareness and coordinated actions all over the world to confer visibility to the condition. It is believed that children with DLD need a joint mobilization of efforts from many professionals in order to advance in differential diagnosis, in the implementation of effective treatments, and in the achievement of social rights associated with this condition.

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