

Identifying and Describing Developmental Language Disorder (DLD) in Children



Alyssa Kuiack¹ & Lisa Archibald¹

1. School of Communication Sciences and Disorders, University of Western Ontario

akuiack2@uwo.ca; @AlyssaKuiack

Introduction

- In 2016/2017, consensus was reached regarding use of the term developmental language disorder (DLD)^{1, 2}
- In 2018, a survey of 370 speech-language pathologists on use of labels in clinical practice³ was conducted
- Results showed inconsistent use of the DLD label

Research Question:

Which types of clinical profiles are viewed as warranting the diagnostic label DLD?

Methods

Participants:

- 224 SLPs

Procedure:

- 61-question online survey
- 10 case studies describing various childhood language profiles and assessment results

Asked:

- is DLD diagnosis warranted
 - list symptoms consistent or inconsistent with DLD
 - further information/testing needed for diagnosis
- Open-ended responses for (b) & (c)

Qualitative Analysis:

- Responses analyzed to determine semantic equivalence and to produce a list of common themes

Results

Profile Characteristics			Symptoms Viewed as Consistent with DLD		Symptoms Viewed as Inconsistent with DLD		Other Info Required for Diagnosis
Dx	% Yes	% No	>50%	15% - 50%	>50%	15% - 50%	
7;2 DLD	92%	8%	<ul style="list-style-type: none"> 11th %tile receptive language 15th %tile expressive language 	<ul style="list-style-type: none"> Difficulty with socialization Concerns re: word finding and sentence formulation Parental anxiety re: language 		<ul style="list-style-type: none"> Difficulty with socialization 	<ul style="list-style-type: none"> 40% called for more robust language testing (e.g., narrative) 39% called for social communication testing 25% called for a more complete review of the child's medical history
6;11 DLD	83%	17%	<ul style="list-style-type: none"> Persistent language deficits after 2 intervention periods Low scores on 2 informal narrative language tests 			<ul style="list-style-type: none"> Lack of information re: other areas of language development Persistent language deficits after 2 intervention periods All symptoms ARE consistent 	<ul style="list-style-type: none"> 78% called for more robust language testing (e.g., standardized) 25% called for a more complete review of the child's medical history 21% called for a referral to either a psychologist/audiologist
4;6 DLD	78%	22%	<ul style="list-style-type: none"> 2nd %tile receptive language 9th %tile expressive language 	<ul style="list-style-type: none"> Short, ungrammatical sentences Difficulty following instructions Functional impact 	<ul style="list-style-type: none"> 35th %tile on a speech screening 	<ul style="list-style-type: none"> Age <5 years 	<ul style="list-style-type: none"> 49% called for a more complete review of the child's medical history 35% called for more robust language testing (e.g., narrative) 31% called for referral to an audiologist
5;9 DLD	78%	22%	<ul style="list-style-type: none"> Grammatical errors in spontaneous speech 	<ul style="list-style-type: none"> Difficulty following instructions Difficulty with classroom vocabulary Difficulty with narrative language Difficulty communicating with peers Teacher concerns re: academics 		<ul style="list-style-type: none"> Desire/ability to communicate with peers Reported difficulty paying attention in class 	<ul style="list-style-type: none"> 61% called for a full standardized assessment 37% called for a more complete review of the child's medical history 25% called for more robust language testing (e.g., narrative)
12;0 DLD	49%	51%	<ul style="list-style-type: none"> 10th %tile formulating sentences subtest 	<ul style="list-style-type: none"> Concerns re: written language 6th %tile reading comprehension 4th %tile non-word repetition Documented Hx of Tx prior to 5 		<ul style="list-style-type: none"> No observed errors in language sample 36 %tile recalling sentences 28th %tile word definitions 	<ul style="list-style-type: none"> 51% called for more robust language testing (e.g., narrative) 25% called for the probing of phonological awareness skills
8;4 Not DLD	4%	96%	<ul style="list-style-type: none"> Vocabulary gaps in L1 and L2 	<ul style="list-style-type: none"> Disorganized narrative retell Teacher concerns re: L2 acquisition NO symptoms are consistent 	<ul style="list-style-type: none"> No reported concerns in L1 Success with dynamic assessment 	<ul style="list-style-type: none"> Limited exposure to L2 (2.5 years) 	<ul style="list-style-type: none"> 26% called for more detailed testing of L1
5;4 Not DLD	5%	95%	<ul style="list-style-type: none"> Difficulty following instructions 	<ul style="list-style-type: none"> Behavioural outbursts during moments of frustration 	<ul style="list-style-type: none"> Immediate success following strategy implementation 	<ul style="list-style-type: none"> Behavioural issues during transitions Engrossed play/attention issues 	<ul style="list-style-type: none"> 68% called for more robust language testing (e.g., receptive) 35% called for referral to an audiologist 20% called for a more complete review of the child's medical history
5;7 Not DLD	8%	92%	<ul style="list-style-type: none"> 4th %tile test of morphology 	<ul style="list-style-type: none"> Teacher concerns re: word finding NO symptoms are consistent 	<ul style="list-style-type: none"> Previous Dx of CAS 53rd %tile receptive language 		<ul style="list-style-type: none"> 47% called for more robust language testing (e.g., PA) 29% called for more complete expressive language testing 20% called for a more complete review of the child's total history
8;4 Not DLD	18%	82%	<ul style="list-style-type: none"> 7th %tile test of phonological awareness 	<ul style="list-style-type: none"> Referral for below-grade-level reading ability NO symptoms are consistent 	<ul style="list-style-type: none"> 62nd %tile receptive language 48th %tile expressive language 	<ul style="list-style-type: none"> 7th %tile phonological awareness (and linkage of difficulties to this deficit) 	<ul style="list-style-type: none"> 43% called for more robust language testing (e.g., written, vocab) 22% called for the investigation of dyslexia
9;2 Not DLD	40%	60%		<ul style="list-style-type: none"> Teacher concerns re: oral and written language 11th %tile formulating sentences Concerns re: general language 14th %tile sentence assembly 	<ul style="list-style-type: none"> Comorbid Dx of ADHD 	<ul style="list-style-type: none"> Concerns regarding Hx of trauma and unstable housing 	<ul style="list-style-type: none"> 53% called for more robust language testing 34% called for a more complete review of the child's total history 24% called for information regarding ADHD management

- Average diagnostic consensus was **81%** (range: 51% to 96%)
- If standardized test scores were **INDICATIVE** of a language disorder, clinicians **MAY NOT** provide a diagnostic label if: the child exhibits a comorbid diagnosis (57%), the child is an English language learner (34%) or if the child exhibits attentional difficulties (23%).
- If standardized test scores were **NOT INDICATIVE** of a language disorder, clinicians **MAY** provide a diagnostic label if: there is clear functional impact of the child's language difficulties (44%) or if an informal assessment has been completed (25%).
- 57% make decisions regarding DLD severity based on observed levels of functional impact while 53% make decisions based on standardized test scores
- 41% rely on a <16th percentile cutoff score, 17% on clinical judgement, the remainder on variable other criteria

Conclusions

- SLPs are fairly consistent in their application (or lack thereof) of the diagnostic label DLD
- The greatest discrepancies in diagnosis were due to the presence of comorbid disorders and written language challenges
- A proportion of participants called for **more robust language testing** for each case study
- Diagnostic practices vary considerably but consistencies do exist across clinicians

References

Bishop, D., Snowling, M., Thompson, P., Greenhalgh, T., & CATALISE consortium. (2016). CATALISE: A multinational and multidisciplinary Delphi consensus study. Identifying language impairments in children. *Plos One*, 11(7): e0158753.

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