Developmental language disorder: an introduction to a hidden condition

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Comment (939/900 words)

Developmental language disorder (DLD: [link1 to ICD-11]) is the consensus term for neurodivergence characterized by challenges with speaking and listening that limit communication. Difficulties with speaking may manifest as delayed early language milestones, saying less overall, and using simple sentences with limited vocabulary, making it difficult for listeners to follow the child's intended meaning. Problems with understanding may appear as not listening, not following directions, misunderstanding what others say, or rapidly forgetting what has been said. The term DLD was agreed by individuals and families with lived experience and the professionals that support them, to highlight the profound and often negative impacts these communication differences have on everyday life(1).

Delays in acquiring first words are often the earliest signs that prompt parents to seek advice from general practitioners, paediatricians, and health visitors concerning their child's development, and may prompt referral to speech-language therapy (SLT) services. However, parents report that often professionals underestimate language concerns and assume that most children will spontaneously improve, leading to inappropriate advice and delays in seeking SLT support(2). For school-aged children, teachers are the primary agents of referral, but there is considerable under-identification because language difficulties may be confused with other issues such as behavior, learning and literacy, or social-emotional difficulties(3).

DLD is a lifelong condition that affects approximately 7.5% of school children, with an additional 2.3% experiencing language disorder as part of another condition, such as autism or intellectual disability(4). DLD is more common in vulnerable populations such as looked after children, and those

in the youth justice system. Despite high prevalence, public and professional awareness of DLD remains poor, with less funding for research on identification, diagnosis, and treatment relative to other neurodevelopmental conditions such as autism(3).

Language is critical for developing nuanced understanding of our own and other people's emotions, regulating emotional responses, and participating in social interactions. Language is also the foundation for literacy, and a key predictor of academic achievement and later employment(5). DLD therefore increases risk for adverse outcomes, with considerable costs to affected individuals and society. As noted in Figure 1, many young people with DLD experience increasing anxiety as they approach adolescence, due to the increasing language demands of the school curriculum and peer relationships. They describe the constant struggle associated with trying to keep up with lessons and conversation, and often try to mask their difficulties by nodding and agreeing even when they don't understand, or withdrawing from social situations in which they may be exposed, including school(6).

Prospective longitudinal studies reflect these insights, indicating that children identified as having DLD have 1.8 to 2.3 fold risk of developing poor mental health by adolescence, relative to peers(7). In addition, 45-64% of youth referred to tertiary mental health services have language disorder, often undiagnosed(8). Under-identification means that many young people seeking mental health support may be unaware that they have DLD, and face barriers to discussing their strengths and needs with professionals, peers, and family members.

Both school-based mental health interventions and traditional 'talking therapies' are verbally mediated, yet there is little research concerning efficacy of these treatments for young people with DLD. Professional boundaries limit the capacity of SLTs to address the mental health needs of their clients, while clinical psychologists feel equally ill-equipped to assess or adapt to the language needs of their patients(9). Parents stress the importance of joint working to ensure timely language assessment and diagnosis, and delivery of blended therapies that can address both communication and mental health needs.

We therefore suggest that all healthcare professionals, including general practitioners, paediatricians, and clinical psychologists, should be familiar with DLD and refer any child who is not developing as expected for further evaluation by SLTs. Clinicians should note that behaviour and learning challenges may reflect underlying language needs, and young people with DLD may be adept at masking their difficulties. Language interventions generally yield small, but clinically meaningful improvements in language competencies(10). Targeting language skills that specifically support social and emotional understanding has the potential to build resilience and protect mental

health. Such language skills include nuanced emotion vocabulary, complex grammar to represent the causal and temporal relationships between feelings and actions, conversation for social participation, and personal narratives that allow us to reflect on our experiences. Any language intervention should include support and guidance for conversation partners and significant others (e.g. teachers) to adapt their language levels and use non-verbal strategies to make communication easier for the affected young person. Future research should determine if such language interventions can attenuate risk for later mental ill health. In addition, adaptations to existing mental health interventions, such as cognitive behavioural therapy, are urgently needed to make them more accessible. Multidisciplinary teams are best placed to meet the complex needs of young people with DLD who require mental health support. Until this is a reality, clinicians can support young people with suspected communication challenges by slowing their rate of speech, breaking instructions down into component parts, leaving plenty of time for young people to process what has been said and to formulate responses, giving choices rather than asking yes/no questions, and using visual supports such as gestures, pictures, bullet point lists, and photos, to make their services more equitable and accessible for young people with DLD.

In sum, public and professional awareness of DLD is poor despite its prevalence and potential to negatively impact individuals and society, including increased risk for poor mental health. There is an urgent need to address inequality in access to health services, especially mental health provision. To fill this clinical and research gap, we must increase awareness of DLD, develop and test novel interventions, and amplify the voices of affected young people through international initiatives [link2 to RADLD].

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Hyperlinks:

Link1: https://icd.who.int/browse11/l-m/en#/http://id.who.int/icd/entity/862918022

Link2: https://www.youtube.com/RADLD

References:

1. Bishop DVM, Snowling MJ, Thompson PA, Greenhalgh T. Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: Terminology. J Child Psychol Psychiatry [Internet]. 2017 [cited 2019 Dec 6];58(10):1068–80. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpp.12721

2. Rannard A, Lyons C, Glenn S. Parent concerns and professional responses: the case of specific language impairment. Br J Gen Pract J R Coll Gen Pract. 2005 Sep;55(518):710–4.

3. McGregor KK. How We Fail Children With Developmental Language Disorder. Lang Speech Hear Serv Sch [Internet]. 2020 Oct 2 [cited 2022 Aug 16];51(4):981–92. Available from: http://pubs.asha.org/doi/10.1044/2020_LSHSS-20-00003

4. Norbury CF, Gooch D, Wray C, Baird G, Charman T, Simonoff E, et al. The impact of nonverbal ability on prevalence and clinical presentation of language disorder: evidence from a population study. J Child Psychol Psychiatry [Internet]. 2016 [cited 2019 Nov 28];57(11):1247–57. Available from: https://onlinelibrary.wiley.com/doi/abs/10.1111/jcpp.12573

5. Dubois P, St -Pierre Marie-Catherine, Desmarais C, Guay F. Young Adults With Developmental Language Disorder: A Systematic Review of Education, Employment, and Independent Living Outcomes. J Speech Lang Hear Res [Internet]. 2020 Nov 13 [cited 2022 Sep 13];63(11):3786–800. Available from: https://pubs.asha.org/doi/10.1044/2020_JSLHR-20-00127

6. Hobson HM, Lee A. Camouflaging in Developmental Language Disorder: The Views of Speech and Language Pathologists and Parents. Commun Disord Q [Internet]. 2022 Sep 19 [cited 2023 Jun 21];152574012211209. Available from: http://journals.sagepub.com/doi/10.1177/15257401221120937

7. Yew SGK, O'Kearney R. Emotional and behavioural outcomes later in childhood and adolescence for children with specific language impairments: meta-analyses of controlled prospective studies. J Child Psychol Psychiatry. 2013 May;54(5):516–24.

8. Cohen NJ, Menna R, Vallance DD, Barwick MA, Im N, Horodezky NB. Language, Social Cognitive Processing, and Behavioral Characteristics of Psychiatrically Disturbed Children with Previously Identified and Unsuspected Language Impairments. J Child Psychol Psychiatry [Internet]. 1998 Sep [cited 2023 Jul 19];39(6):853–64. Available from: https://onlinelibrary.wiley.com/doi/10.1111/1469-7610.00286

9. Hancock A, Northcott S, Hobson H, Clarke M. Speech, language and communication needs and mental health: the experiences of speech and language therapists and mental health professionals. Int J Lang Commun Disord [Internet]. 2022 Sep 18 [cited 2022 Oct 4];1460-6984.12767. Available from: https://onlinelibrary.wiley.com/doi/10.1111/1460-6984.12767

10. Donolato E, Toffalini E, Rogde K, Nordahl-Hansen A, Lervåg A, Norbury C, et al. Oral language interventions can improve language outcomes in children with neurodevelopmental disorders: A systematic review and meta-analysis. Campbell Syst Rev [Internet]. 2023 Dec [cited 2024 Jan 10];19(4):e1368. Available from: https://onlinelibrary.wiley.com/doi/10.1002/cl2.1368

Figure 1. *Molly finds it difficult to follow and understand what other people say and takes a long time to formulate answers to questions. She often gets things wrong in class, causing her teachers to accuse of her daydreaming and not listening. She worries that her peers think she is stupid and she is often excluded from lunchtime interaction, because she can't keep up with the pace of conversation. She has become more anxious and refuses to go to school, but has difficulty communicating her worries to the clinical psychologist. This image reflects her challenges with 'always balancing on a sea of talk.' Artwork by Siouxsie Webster.*