Children with Developmental Language Disorder (DLD) and children at risk for dyslexia (RfD). Can they be told apart?

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Purpose: Developmental Language Disorder (DLD) and dyslexia present with considerable overlap. Approximately 50% of children diagnosed with DLD also have reading difficulties, and vice versa. Longitudinal research suggests that as development proceeds, several children with DLD tend to overcome their reading difficulties due to improved phonological processing skills, while language deficits in children with dyslexia increase. The purpose of the present study was to investigate whether 6-7-year-old Greek-speaking children with DLD and children at risk for dyslexia (RfD) can be distinguished based on their oral language and word decoding deficits and whether common or different underlying factors account for these deficits across groups.

Method: We recruited 45 first-grade students, equally divided into three groups: DLD (N=15), RfD (N=15), and TD (N=15). The groups were matched for age (Mage: 6.8 years), gender, and place of residence (urban-suburban). We assessed them on an array of cognitive tasks, including phonological processing (phonological awareness, RAN, verbal short-term memory) and verbal working memory, as well as oral language tasks such as listening comprehension, vocabulary knowledge, morphological awareness, narrative speech, and pragmatics (in both receptive and expressive levels), and word decoding tasks.

Results: Between-group comparisons showed that both children with DLD and children at RfD scored statistically significantly lower in oral language, cognitive, and word decoding skills compared to the TD group. The RfD group showed statistically significantly better performance compared to the DLD group in oral language skills, but not in cognitive and word decoding skills. Bivariate correlational analysis revealed significant associations between cognitive skills and oral language in the DLD group, but not in the RfD group. Additionally, word decoding skills were strongly correlated with phoneme awareness in the RfD group and with RAN speed in the DLD group.

Conclusion: Children with DLD and children at RfD at the specific developmental stage can only be distinguished by their oral language skills: the children with DLD demonstrate severe oral language deficits, while the children at RfD show subtle oral language difficulties. Also, despite both groups showing similar cognitive deficits, these factors are associated with different skills across the groups. The results are discussed in terms of three theoretical models of the relationship between DLD and dyslexia.

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