Language Contributions to Early Word Reading Success

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Presenter Information
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Introduction

- Due to the high prevalence of Developmental language disorder (DLD) and dyslexia in schools, there is a demand to identify these early on in order to prevent language and literacy failure.
- Currently, most schools screen students individually, which is time consuming and not cost effective. Many of these assessments do not assess all area of reading and language important to screen.
- Successful reading is defined as the product of word reading and comprehension (Simple View of Reading [SVR]; Gough & Tunmer, 1996).
- We developed a universal kindergarten screener using the SVR model to be used for identifying children in poor reader subgroups such as dyslexia, developmental language disorder (DLD), or both dyslexia and DLD in schools in an effective and efficient classroom setting.
- The screener measures children’s knowledge of sounds (phonology; PA) and letters (orthography; OA) and grammar (morphological awareness; MA).

Methods

- 630 kindergarten children (6;0; years; months) from the public-school system participated: 22 students with TLD and 22 students with DLD.
- The children were 84.8% Caucasian and there were 34.4% differences between the groups on race.
- The children were administered the following standardized assessments (Table 1):

<table>
<thead>
<tr>
<th>Table 1</th>
<th>DLD</th>
<th>TLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language (CELF-S SC, WS, FS, RS subtests)*</td>
<td>81.64</td>
<td>105.55</td>
</tr>
<tr>
<td>Nonverbal IQ (PTONI)</td>
<td>95.86</td>
<td>102.64</td>
</tr>
<tr>
<td>Word Reading (Wi-IV Letter-Word ID)</td>
<td>87.36</td>
<td>96.73</td>
</tr>
</tbody>
</table>

Core Language Score*

Results

Figure 1. Population Tested in Session 1

- The language classroom screener showed acceptable sensitivity and specificity for identifying children at risk for DLD: (sensitivity = 82% and specificity = 39%).
- The literacy classroom screener showed acceptable sensitivity and specificity for identifying children at risk for dyslexia: (sensitivity = 87% and specificity = 34%).
- Therefore, these whole classroom screens show potential for efficient identification of children at risk for DLD and dyslexia who may benefit from further assessment.
- The efficient nature of the whole classroom screen will save time and resources in addition to allowing for early identification of at-risk children.
- Further research should compare our language and literacy screeners with other individually administered screeners that are known to be highly valid.
- Until follow up validity research conducted, may want to raise the cut point (erring on the side of more false positives) to ensure we capture every possible at-risk child.

Discussion

- Due to the high prevalence of Developmental language disorder (DLD) and dyslexia in schools, there is a demand to identify these early on in order to prevent language and literacy failure.
- Currently, most schools screen students individually, which is time consuming and not cost effective. Many of these assessments do not assess all area of reading and language important to screen.
- Successful reading is defined as the product of word reading and comprehension (Simple View of Reading [SVR]; Gough & Tunmer, 1996).
- We developed a universal kindergarten screener using the SVR model to be used for identifying children in poor reader subgroups such as dyslexia, developmental language disorder (DLD), or both dyslexia and DLD in schools in an effective and efficient classroom setting.
- The screener measures children’s knowledge of sounds (phonology; PA) and letters (orthography; OA) and grammar (morphological awareness; MA).

Research Question

Do PA, OA, and MA uniquely predict word reading success in typically developing children (TLD) and those with developmental language disorder (DLD)?

Hypothesis

We predicted that all three linguistic factors (PA, OA, MA) would have a different and unique influence on word-reading success in typically developing children and in those with DLD and/or dyslexia.

References
