Introduction

- Children with SLI struggle to learn their native language and face many language-related problems, although little is known about typical and atypical language development in Arabic-speaking children (Lewis, 2009).
- Arabic is a Semitic language with a nonconcatenative morphology, it is a root and pattern language with complex interaction between syntax morphology and phonology.

Study purpose

- To provide normative data related to language and cognitive development in a large epidemiological sample of 6-9 year old monolingual Arabic children.
- To examine those linguistic and cognitive characteristics that may differentiate Arabic-speaking children with and without SLI.

Methods

Participants

- Recruited from 10 elementary schools in Saudi Arabia

<table>
<thead>
<tr>
<th>Age (yrs)</th>
<th>TD (n=8)</th>
<th>SLI (n=10)</th>
<th>Total (N=49)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>96</td>
<td>10</td>
<td>106</td>
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<td>7</td>
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<td>8</td>
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<td>11</td>
<td>106</td>
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<tr>
<td>9</td>
<td>96</td>
<td>9</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>383</td>
<td>38</td>
<td>421</td>
</tr>
</tbody>
</table>

- SLI Criteria:
  - z < -1 SD on 2 subtests from Arabic Language Test (Shaalan, 2010)
  - Sentence Comprehension Test (SC) Expressive Language Test (EL)
  - Sentence Repetition Test (SR) The Arabic Vocabulary Test (AVPT)
  - z > -1 SD on The Test of Non-verbal Intelligence (TONI-3) (Brown et al., 1997)

Procedure

Linguistic measures:
- Arabic Language Screening Test (ALST; El-Halees and Wiig, 1999)
- Arabic Receptive-Expressive Vocabulary Test (AREVT; El-Halees and Wiig, 1999)
- Arabic Sight Word Reading Task (ASWR; Oweini and Hazouyr, 2010)

Cognitive measures:
- Arabic Nonword Repetition Test (ANWR; Shaalan, 2010)
- The Automated Working Memory Assessment (AWMA; Alloway, 2007)

Other measure:
- The Intelligibility in Context Scale (ICS) (McLeod et al., 2012)

Results

Group comparisons on linguistic measures

Figure 1: Nonword repetition

- Group: F(1,413)=10.181, p<0.001, η_p²=0.024
- TD: 50 ± 10
- SLI: 40 ± 10

Figure 2: Expressive/Receptive vocabulary

- Group: F(1,413)=25.795, p<0.001, η_p²=0.06
- TD: 50 ± 10
- SLI: 40 ± 10

Figure 3: Language screening test

- Group: F(1,413)=20.953, p<0.001, η_p²=0.05
- Age: F(1,413)=13.254, p<0.001, η_p²=0.09

Figure 4: Sight word reading

- Group: F(1,413)=2.502, p=n.s.
- Age: F(1,413)=10.50, p<0.001, η_p²=0.10

Figure 5: Intelligibility in context

- Group: F(1,413)=3.297, p=0.07, η_p²=0.01
- Age: F(1,413)=4.533, p<0.05, η_p²=0.07

Figure 6: Working memory

- Group: LR, F(1,413)=14.741, p<0.01, η_p²=0.33; S5, F=1.387, p=n.s.

References


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