Developemental Characteristics and Profiles of High School Students on the Autism Spectrum

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Background

- Recent estimates of prevalence estimates for ASD are 1 in 68 individuals (CDC, 2014)
- There are increasing numbers of students on the autism spectrum in high schools
- Adult outcomes for individuals on the autism spectrum are poor relative to peers with other developmental disabilities with low levels of employment, post-secondary education, friendships, and community involvement (Kwon et al., 2012; Reschke et al., 2012; Risacher et al., 2012; Seltzer et al., 2011, Wagner et al., 2009)
- Social-communication skills are a core area of need for individuals with ASD (APA, 2013) and are critical for success in adulthood (Magiati et al., 2014)
- Kowing the range of social-communication characteristics and profiles of high school students on the autism spectrum could help to develop and identify effective treatments

About the CSESa Study

The Center on Secondary Education for Students with Autism Spectrum Disorders (CSES) is an 11-year research and development project that focuses on developing, adapting, and studying a comprehensive school- and community-based education program for high school students on the autism spectrum. The data for the current study is from the pretest data from a large randomized controlled trial. More information at http://csesa.fpg.unc.edu/

Results

1. What are the language and social profiles of high school students on the autism spectrum?

2. Do language and social profiles relate to (a) cognitive and adaptive functioning, (b) academic skills, and (c) social behaviors?

Methods

- Student Sample:
  - 545 total students
  - Recruited from 60 schools in 3 states (CA, NC, WI)
  - Educational label of autism (primary or secondary)
  - Receiving IDEA services with an IEP

- Student Demographics:
  - Age: 13-21 years (mean=16.2)
  - Gender: 86% male
  - Ethnicity: 20% Hispanic

- Race
  - Multiracial 10%
  - White 66%
  - Black 22%
  - Other 2%

- Primary Caregiver Education
  - College - 12%
  - High School - 35%
  - Some College - 45%
  - College Grad - 7%

Assessments

- Completed during fall semester of study entry
- Include direct assessments, parent report, & teacher report

- Measure
  - Language
    - Expressive Language
    - Comprehension
  - Interpersonal Relationship
    - Adaptive Behavior Composite
    - Passage Comprehension
  - Social
    - Social Responsiveness Scale-3

- Note
  - ns

Cognition and Adaptive Functioning

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Mean (SD)</th>
<th>Range</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonverbal IQ (Leiter-3)</td>
<td>460</td>
<td>15.5</td>
<td>(27.2)</td>
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<tr>
<td>Adaptive Behavior (Vineland)</td>
<td>460</td>
<td>75.8</td>
<td>(16.7)</td>
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<tr>
<td>Daily Living Skills (Vineland)</td>
<td>509</td>
<td>66.5</td>
<td>(32.5)</td>
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<tr>
<td>Woodcock-Johnson-III Academic Knowledge</td>
<td>500</td>
<td>69.1</td>
<td>(36.4)</td>
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Academic Skills

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<tbody>
<tr>
<td>Language Comprehension (WJ-III)</td>
<td>460</td>
<td>0.62</td>
<td>(0.38)</td>
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<tr>
<td>Adaptive Knowledge (WJ-III)</td>
<td>460</td>
<td>0.72</td>
<td>(0.50)</td>
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Social Behaviors

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<tbody>
<tr>
<td>Social Behavior Ratings-Teacher</td>
<td>302</td>
<td>0.67</td>
<td>(0.57)</td>
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<td>Social Behavior Ratings-Parent</td>
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<td>0.53</td>
<td>(0.41)</td>
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<td># of peers vs. interactions</td>
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<td>0.15</td>
<td>(0.26)</td>
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<td>Social Participation</td>
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<td>0.24</td>
<td>(0.30)</td>
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<td>Technology-based activities</td>
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<td>0.31</td>
<td>(0.40)</td>
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Conclusions & Clinical Implications

Language & Social Profiles

- Descriptive statistics of measures related to language, communication, and social characteristics

Results (01): Language & Social Profiles

1. High school students on the autism spectrum exhibit a wide array of language skills, social skills, and autism symptomatology
2. Overall, language and social skills are below expected ranges, even in high school
3. High school students continue to exhibit deficits that warrant speech-language pathology services

References


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