THE RELATIONSHIP BETWEEN INTELLIGENCE AND CAREGIVER RATINGS OF SOCIAL SKILLS FOR CHILDREN WITH AUTISM

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ABSTRACT

Social skills are pivotal skills in children with autism that impact learning and outcomes. Early intervention research has focused mainly on IQ, rather than social skills, as a primary target outcome. Given that social skills; not level of IQ; is a primary feature of autism, more information is needed on the influence of IQ on social skills. IQ scores were analyzed against caregiver ratings of social skills of 61 children with autism ($M_{age} = 5.08$ years old, $SD = 1.52$). Results showed a significant correlation between intelligence and social skills ($r = .294, p = .021$); however, only $8.6\%$ of the variance in social skills was explained by IQ scores.

METHODS

The DAS was administered to 61 children with autism ($M_{age} = 5.08$ years old, $SD = 1.52$). 34.5% were boys. The ECSSS is a criterion-based questionnaire that assesses social skills. It was used to rate social skills in the Socialization domain of the VABS and was administered to caregivers.

RESULTS

The reliability of the ECSSS was examined by calculating the internal consistency using Cronbach’s alpha, which measures reliability across items in a single test. Validity of the ECSSS was established by calculating the relationship between items on the ECSSS, items from the Socialization domain of the VABS, and items from the Social Interaction domain of the ADOS.

Simple linear regression analysis was used to determine the relationship between variance accounted by the General Cognitive Ability (GCA) scores obtained on the DAS with caregiver ratings of social skills from the ECSSS.

Table 1. Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECSSS</td>
<td>2.93</td>
<td>0.493</td>
</tr>
<tr>
<td>ADOS Social Interaction</td>
<td>7.54</td>
<td>4.99</td>
</tr>
<tr>
<td>VABS Socialization</td>
<td>63.05</td>
<td>13.49</td>
</tr>
<tr>
<td>DAS GCA</td>
<td>51.09</td>
<td>22.49</td>
</tr>
</tbody>
</table>

Reliability Estimates

- Internal consistency indicated an alpha of .91.

Validity Estimates

- A bivariate correlation was conducted to determine the relationship between items on the ECSSS and items from the Socialization domain of the VABS. A non-significant correlation ($r = .172, p = .101$) between the two measures was obtained.

Simple Linear Regression Analysis

- A bivariate correlation and regression analysis was conducted using GCA scores obtained on the DAS as a predictor of caregiver ratings of early social skills on the ECSSS. The model revealed that GCA account for 8.6% of the variance (based on r-squared) in caregiver ratings of early social skills with Pearson $r = .294$, $F(1,59) = 5.587, p = .021$.

DISCUSSION

Results obtained from the regression model indicated that although cognitive functioning, as measured by the DAS, correlates with early social skills, it accounted for little of the variance in social skills as rated by parents.

- Despite varying levels of cognitive functioning, children with autism display remarked impairment in development of early social skills as rated by caregivers.

- Based on the variance accounted for by the model (8.6%), it may be argued that using gains in cognitive functioning as an outcome measure for social skills interventions may be misleading because other residual variables may better predict and account for social skills development.

REFERENCES