A New Approach for Assessing Social Communication in ASD: ELSA
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Introduction

• Natural language samples can be a useful tool in the assessment of expressive language in ASD (Barokova & Tager-Flusberg, 2018; Tager-Flusberg et al., 2009).
• They are a great candidate for the evaluation of deficits in the broader domain of social communication.
• Yet, no study has examined the feasibility of using sample-derived measures in place of or as a complement to standardized assessments of communicative skills in ASD.
• Sample-derived measures have also been proposed to be good candidates for valid and reliable clinical outcome measures (Abbeduto, 2017; Barokova & Tager-Flusberg, 2018).

To validate the utility of the Eliciting Language Samples for Analysis (ELSA) protocol for individuals with ASD as a tool for assessing social communication.

Methods

Participants: 40 children and adolescents with ASD

Assessments:
ADOS was administered to confirm participants’ diagnosis.
ELSA samples were collected from each participant.
Vineland Adaptive Behavior Scales (VABS) and Social Communication Questionnaire (SCQ) were collected from participants’ parents.

Table 1. Standardized assessment and parent report data.

<table>
<thead>
<tr>
<th>Age in years</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADOS CSS</td>
<td>40</td>
<td>7.85</td>
<td>1.53</td>
</tr>
<tr>
<td>VABS Comm</td>
<td>40</td>
<td>44.8</td>
<td>13.16</td>
</tr>
<tr>
<td>VABS Social</td>
<td>40</td>
<td>46.68</td>
<td>11.41</td>
</tr>
<tr>
<td>SCQ Rec SI</td>
<td>35</td>
<td>5.97</td>
<td>2.63</td>
</tr>
<tr>
<td>SCQ Comm</td>
<td>35</td>
<td>2.89</td>
<td>2.43</td>
</tr>
</tbody>
</table>

VABS: Communication

Results

SCQ: Communication

ADOS CSS

SCQ Rec SI

ELSA

Frequency of speech utterances per minute

Number of conversational turns per minute

Discussion

• The ELSA-derived measures were positively correlated with gold-standard measures of social communication which provides preliminary support for the use as an alternative method of assessment in this domain.
• These findings have laid the foundation for research focusing on the use of language sampling as a measure of autism symptoms that go beyond expressive language ability alone.
• Future work should examine the convergent and divergent validity of the frequency of utterances and conversational turn measures, as well as identify expressive language proxies for restricted interests (e.g., number of topics discussed) and repetitive behaviors (e.g., amount of verbal imitation).

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