Background
Differentiating ASD from other developmental disorders can be particularly difficult among non-verbal patients (NV). Comparison of non-verbal children with ASD (ASD-V) and, as with the ASD assessment procedures for ASD, may yield valuable insights to assist in such differentiation.

Objective
To compare autism symptom profiles of ASD-V and NV children.

Methods
ASD-V children were initially recruited as part of a validation study for a large, internet-mediated, parent-report autism registry. Eligibility and assessment procedures for ASD-V cohort are shown in Figure 1. below

ASD-V children were recruited at a university-based ASD research program and, as with the ASD-V children, received an in-person clinical assessment. ASD-V children received the Vineland-II rather than the ASQ-II as a measure of adaptive behavior.

Results
See Table 1 and accompanying explanations.

Conclusions
ASD-V children share Restricted Interests/Repetitive Behavior characteristics with ASD-V children, with seventy either comparable or greater than those of ASD-V children.

There was increased severity of RBS-R’s “Stereotypic Behavior” and SRS-Teacher Report RRB T-Scores as level of functioning decreased (ASD-V Higher Socialization to ASD-V Lower Socialization to ASD).

ASD-V and ASD-V Lower Socialization children had comparable RBS-R scores for “Self-Injurious Behavior” and “Compulsive Behavior” and SRS Parent-Report RRB T-Scores, with both Lower Socialization groups exhibiting more severe behaviors than the ASD-V Higher Socialization group.

Based on the differing patterns in SRS Parent- and Teacher-Report RRB T-Scores, we note that ASD-V children are more likely to exhibit Restricted Interests/Repetitive Behavior in the school setting than at home.

There were no statistically significant differences across the three ASD groups for RBS-R’s “Ritualistic/Sameness Behavior” and “Restricted Interests”, which suggests that these characteristics are present in ASD children independent of verbal status or socialization level.

Table 1: Group Comparisons of Key Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>ASD-V Lower Socialization</th>
<th>ASD-V Lower Socialization</th>
<th>ASD-V Higher Socialization</th>
<th>ANOVA</th>
<th>All Groups</th>
<th>Post Hoc Comparison Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>(S.D.)</td>
<td>(S.D.)</td>
<td>(S.D.)</td>
<td></td>
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<tr>
<td>Stereotypic Behavior</td>
<td>11.8 (4.88)</td>
<td>7.3 (5.12)</td>
<td>5.3 (3.99)</td>
<td>***</td>
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<tr>
<td>Ritualistic/Sameness Behavior</td>
<td>8.7 (7.77)</td>
<td>8.7 (7.66)</td>
<td>7.4 (5.84)</td>
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<tr>
<td>Restricted Interests</td>
<td>4.1 (2.56)</td>
<td>4.0 (2.52)</td>
<td>3.0 (2.42)</td>
<td>ns</td>
<td>ns</td>
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<tr>
<td>Social Responsiveness Scale, Second Edition (SRS-2) - Parent</td>
<td>84.2 (10.6)</td>
<td>87.3 (10.47)</td>
<td>76.8 (11.29)</td>
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<td>ns</td>
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<tr>
<td>Social Responsiveness Scale, Second Edition (SRS-2) - Teacher</td>
<td>75.3 (8.32)</td>
<td>80.6 (7.08)</td>
<td>71.4 (9.79)</td>
<td>***</td>
<td>***</td>
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</tbody>
</table>

SRS-Parent Report RRB T-Scores were comparable for ASD-V and ASD-V Lower Socialization; both lower-socialization groups more prone to such behaviors than the ASD-V Higher Socialization group. F(4,156)=7.086, p<.000 and F(4,156) = 24.810, p<.000.

SRS-Teacher Report RRB T-Scores were severely inversely related to level of socialization/verbal status. F(3,12)=24.810, p<.000.

Restricted Interests and Repetitive Behaviors as a Distinguishing Feature of Autism Spectrum Disorder (ASD) in Non-Verbal Children

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