**Supplemental Materials**

**Table SM1: Cognitive Ability Standard Scores**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Males | Females | Main effect of sex |
| DAS-II GCA SS | 101.78 (18.66) Range: 67-167 | 101.37 (19.87)Range: 70-162 | *F*(1,143) = 0.02 |
| DAS-II NVR SS | 101.97 (17.93)Range: 57-149 | 100.37 (18.60) Range: 67-158 | *F*(1,143) = 0.28 |
| DAS-II Spatial SS | 99.94 (16.58) Range: 58-159 | 98.89 (18.61) Range: 58-154 | *F*(1,143) = 0.13 |

Note. \**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001. For these measures, mean = 100, *SD* = 15. DAS-II = Differential Ability Scales, 2nd edition (Elliott, 2007).

**Table SM2: CELF-4 Language Subscales Included in the Core Language Score**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Subdomains | Core Language ScaleAdministration Age | Males | Females | Main effect of sex |
| Concepts & Following Directions | 5-12 | *N* = 448.32 (3.54) Range: 1-14 | *N* = 348.97 (3.33) Range: 1-14 | *F*(1,76) = 0.69 |
| Word Structure | 5-8 | *N* = 88.62 (2.50) Range: 4-12 | *N* = 78.86 (2.91) Range: 5-13 | *F*(1,13) = 0.03 |
| Recalling Sentences | 5-21 | *N* = 808.21 (3.76) Range: 1-17 | *N* = 659.38 (3.42) Range: 2-16 | *F*(1,143) = 3.78 |
| Formulating Sentences | 5-21 | *N* = 798.38 (3.54) Range: 1-14 | *N* = 659.52 (3.18) Range: 2-16 | *F*(1,142) = 4.08\* |
| Word Class Total | 9-21 | *N* = 729.24 (3.98)Range: 2-19 | *N* = 579.89 (3.08) Range: 4-18 | *F*(1,127) = 1.06 |
| Word Class Expressive | 9-21 | *N* = 688.59 (3.78)Range: 2-19 | *N* = 569.79 (2.91) Range: 5-19 | *F*(1,122) = 3.78 |
| Word Class Receptive | 9-21 | *N* = 669.58 (3.99)Range: 1-18 | *N* = 5510.35 (3.35) Range: 3-18 | *F*(1,119) = 1.29 |
| Word Definitions | 13-21 | *N* = 3410.00 (3.91)Range: 2-18 | *N* = 3211.75 (2.98) Range: 4-17 | *F*(1,64) = 4.14\* |

Note. \**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001. For these measures, mean = 10, *SD* = 3. CELF-4 = Clinical Evaluation of Language Fundamentals, 4th edition (Semel et al. 2003).

**Table SM3: Correlations Between Communication Measures (Standard Scores) for the Full Sample and by Participant Sex**

|  |  |  |
| --- | --- | --- |
|  | **CELF-4** **CLS** | **Vineland-II Communication** |
| **Full Sample (N=145)** |  |  |
| **DAS-II Verbal**  | .77\*\*\* | .29\*\* |
| **CELF-4 CLS** | -- | .41\*\* |
| **Males with ASD (N=80)** |  |  |
| **DAS-II Verbal**  | .81\*\*\* | .16 |
| **CELF-4 CLS** | -- |  .33\*\* |
| **Vineland-II Communication** | -- | -- |
| **Females with ASD (N=65)** |  |  |
| **DAS-II Verbal**  | .74\*\*\* | .41\*\* |
| **CELF-4 CLS** | -- |  .47\*\*\* |
| **Vineland-II Communication** | -- | -- |

Note. \* *p* < 0.05. \*\* *p* < 0.01. \*\*\* *p* < 0.001. DAS-II = Differential Ability Scales, 2nd edition (Elliott, 2007). CELF-4 = Clinical Evaluation of Language Fundamentals, 4th edition (Semel et al. 2003).

**Table SM4: Child Behavior Checklist Domain Scores Related to Externalizing**

|  |  |  |  |
| --- | --- | --- | --- |
| Standard Scores | MalesMean (*SD*)Range% in Borderline or Clinical range | FemalesMean (*SD*)Range% in Borderline or Clinical range | Main effect of sex |
|  |  |  |  |
| Externalizinga  | 55.10 (10.73) Range: 33-7737.5% | 56.74 (10.95)Range: 34-8240.0% | *F*(1,143)=0.82*χ*2=0.10 |
| Aggressive Behaviorb | 58.50 (8.52)Range: 50-8121.3% | 60.03 (9.86)Range: 50-9427.7% | *F*(1,143)=1.01*χ2*=0.81 |
| Rule Breaking Behaviorb | 55.91 (6.48)Range: 50-768.8% | 56.63 (5.96)Range: 50-7410.8% | *F*(1,143)=0.47*χ2*=0.17 |
| Attention Problemsb | 64.66 (9.42)Range: 50-8841.3% | 69.37 (11.87)Range: 50-9760.0% | *F*(1,143)=7.09\*\**χ*2=5.04\* |
| ADHD Problemsc  | 61.64 (7.84)Range: 50-8040.0% | 63.86 (8.74)Range: 50-8047.7% | *F*(1,143)=2.61*χ*2=0.86 |
| Oppositional Defiant Problemsc | 58.93 (8.13)Range: 50-8026.3% | 58.77 (8.03)Range: 50-8026.2% | F(1,143)=0.01*χ*2=0.00 |
| Conduct Problemsc | 56.44 (7.41)Range: 50-7718.8% | 57.68 (8.25)Range: 50-8218.5% | F(1,143)=0.91*χ*2=0.00 |

Note. \**p*<0.05. \*\**p*<0.01. \*\*\**p*<0.001. aBroadband scale; Borderline clinical range corresponds to standard scores ≥60. **b**Empirically-based syndrome scales; Borderline clinical range corresponds to standard scores ≥65. cDSM-oriented scales; Borderline clinical range corresponds to standard scores ≥65. CBCL = Child Behavior Checklist (Achenbach & Rescorla, 2001).

**Table SM5: Unstandardized Model Results for Aggressive Behavior**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Full sample | Males with ASD | Females with ASD |
|  | **B** | **SE** | **B** | **SE** | **B** | **SE** |
| Level 1: Child Demographic Factors |  |  |
|  Age | -0.06 |  0.02 |  -0.10 | 0.03 |  -0.03 | 0.04  |
|  Race | -0.72 |  1.87 |  -0.55 | 2.11 |  -0.33 | 3.48 |
| Level 2: Family Factors |   |   |   |   |   |   |
|  Household Annual Income ϯ |   |   |   |   |   |   |
| * 100 to 170% of median
 | -1.24 |  2.25 |  -2.60 | 2.80 |  1.99 | 3.93 |
| * Over 170% of median
 | -4.92 |  2.16 |  -3.24 | 2.75 |  -5.99 | 3.72 |
|  Maternal Education ϯϯ |   |   |   |   |   |   |
| * Bachelor’s degree
 |  0.63 |  2.03 |  0.39 | 2.35 |  0.25 | 4.08 |
| * More than bachelor’s degree
 | -2.75  |  1.99 |  -3.34 | 2.50 |  -3.77 | 3.37 |
|  Paternal Education ϯϯ |   |   |   |   |   |   |
| * Bachelor’s degree
 |  1.71 |  2.20 |  1.37 | 2.60  |  2.21 | 4.01 |
| * More than bachelor’s degree
 |  4.58 |  2.02 |  4.14 | 2.37  |  5.47 | 3.86 |
| Level 3: Child Communication Skills |   |   |   |   |   |   |
|  DAS-II Verbal  | -0.07 |  0.06 |  -0.10 | 0.08  |  -0.01 | 0.12 |
|  CELF-4 Core language |  0.08 |  0.07 |  0.07 | 0.09  |  0.04 | 0.14 |
|  Vineland-II Communication | -0.27 |  0.08  |  -0.41 | 0.11  |  -0.22 | 0.13 |

Note. ϯRelative to income below median. ϯϯRelative to less than college degree. DAS-II = Differential Ability Scales, 2nd edition (Elliott, 2007). CELF-4 = Clinical Evaluation of Language Fundamentals, 4th edition (Semel et al. 2003).