**Preliminary Validity of the Preschool Self-Regulation Assessment (PSRA)**
Radiah Smith-Donald, Kirsten Carroll, Paul Goyette, Molly Metzger, Ta-Tanisha Young, C. Cybele Raver

**Background**

- **Self-regulation and school readiness**
  - Components of self-regulation: attention regulation (focusing and shifting attention, executive control), behavior regulation (impulsivity, ability to wait), and emotion regulation (managing excitement, frustration, distress).
  - Effect of classroom environment on children's self-regulatory ability.
- **Developmental research indicates a significant correlation between preschoolers' self-regulation and social-emotional development.**
- **Head Start's** stated goals (2005):
  - Increase the school readiness of young children in low-income families
  - Provide programs to support social and emotional development, development of cognitive and language skills, and physical development.
- **The PSRA** is a one-on-one direct assessment measure developed to evaluate children's social and emotional development, including self-regulation skills, and physical development.

**Preliminary Validity of the Preschool Self-Regulation Assessment (PSRA)**

**Three Types of Validity**

**Concurrent Validity**

- **Method**
  - How does children's PSRA performance relate to their performance on other measures?
  - **Correlation coefficients were calculated between PSRA task scores and teacher report constructs:**
    - 1. Teacher report of behavior and social competence (SBCE, BPI)
    - 2. Preschoolers' early academic skills (Head Start NRS)

**Inter-rater Reliability**

- **Method**
  - Do different observers code a child's performance in the same way?
  - **Reliability correlations were calculated between the assessor's and reliability coder's scores** (Crohnbach's alpha for continuous variables and Cohen's kappa for categorical variables).

**Construct Validity**

- **Method**
  - Which developmental constructs does the PSRA actually capture?
  - **Factor analysis using principal component extraction was used to see if observed behavior and task performance clustered together as expected.**
  - Bivariate correlations between constructs were calculated.

**PSRA Tasks**

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Targeted self-regulation skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral Balance Beam</td>
<td>Social engagement, following rules</td>
</tr>
<tr>
<td>Stop Toy</td>
<td>Emotion inhibition</td>
</tr>
<tr>
<td>Toy Wrap</td>
<td>Attention, following rules, delay</td>
</tr>
<tr>
<td>Pencil Tap</td>
<td>Following rules, impulse control</td>
</tr>
<tr>
<td>Toy Sort</td>
<td>Attention, following rules, delay</td>
</tr>
<tr>
<td>Balance Beam</td>
<td>Social engagement, following rules</td>
</tr>
<tr>
<td>Snack Delay</td>
<td>Impulse control</td>
</tr>
<tr>
<td>Toy Wait</td>
<td>Attention, following rules, delay</td>
</tr>
<tr>
<td>Control</td>
<td>Impulse control</td>
</tr>
<tr>
<td>Emotion</td>
<td>Social engagement, following rules</td>
</tr>
</tbody>
</table>

**Task Reliability**

<table>
<thead>
<tr>
<th>Task</th>
<th>Reliability</th>
<th>Task Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Beam</td>
<td>0.98</td>
<td>Toy Wait</td>
</tr>
<tr>
<td>Pencil Tap</td>
<td>1.00</td>
<td>Toy Return</td>
</tr>
<tr>
<td>Tower Task</td>
<td>0.96</td>
<td>Snack Delay</td>
</tr>
<tr>
<td>Toy Sort</td>
<td>0.96</td>
<td>Positive</td>
</tr>
<tr>
<td>Toy Wrap</td>
<td>0.90</td>
<td>Defiant</td>
</tr>
</tbody>
</table>

**Results (n = 23)**

- **Task Reliability**
  - **Task Reliability:**
    - Balance Beam: 0.98
    - Pencil Tap: 1.00
    - Tower Task: 0.96
    - Toy Sort: 0.96
    - Toy Wrap: 0.90
  - **Cohen's kappa (for categorical variables):**
    - Balance Beam: 0.98
    - Pencil Tap: 1.00
    - Tower Task: 0.96
    - Toy Sort: 0.96
    - Toy Wrap: 0.90

**Results (N = 63)**

- **Assessor Report**
  - **Attention & Following Directions**
  - **Impulse Control**
  - **Emotion**
  - **Impulse & Emotion**

**Implications**

- **PSRA saves time & money, yet yields high-quality data**
- **May be used for different purposes:**
  - Assessment process
  - Inform intervention
  - Evaluate program effectiveness

**Implications**

- **Task reduction – can information on preschoolers' skills in each area be captured with fewer tasks?**
- **Which developmental constructs does the PSRA actually capture?**
- **Magnitude of the relationship between PSRA skills and teacher report of behavior and social skills is similar to that between preschoolers' self-regulation skills and early academic skills.**

**Assessment of PSRA tasks**

<table>
<thead>
<tr>
<th>PSRA tasks</th>
<th>Attention &amp; Following Directions</th>
<th>Impulse Control</th>
<th>Emotion</th>
<th>Impulse &amp; Emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Match, Pencil Tap, Tower Take, Toy Sort</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toy Wrap, Toy Wait, Snack Delay</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
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- **Implication:**
  - Could targeting self-regulation skills contribute to school readiness?

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