The Effects of Photographic Activity Schedules on Moderate-to-Vigorous Physical Activity in Children with ASD

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Physical Activity and Autism Spectrum Disorders

1. Ogden, Carroll, Kit, & Flegal (2012)
## Physical Activity and Autism Spectrum Disorders

<table>
<thead>
<tr>
<th>MVPA</th>
<th>Moderate-to-vigorous physical activity reduces risks associated with obesity in children&lt;sup&gt;1&lt;/sup&gt;</th>
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<tbody>
<tr>
<td>OSRAC&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Observational System for Recording Physical Activity Codes</td>
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| Activity Schedules<sup>3</sup> | Sequence of pictures that prompt engagement  
Increase number of engaging activities |
| Purpose | Assess the effects of photographic activity schedules on MVPA and varied play across two contexts for preschoolers with ASD |

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Settings & Materials
Hustyi, Normand, Larson, & Morley (2012)
Method

• Participants
  • Three 4-year-old preschoolers with ASD
  • Mastery of activity schedules (academic/leisure items)

• Dependent Variable
  • Percent MVPA
  • Percent activity schedule following
  • Number of different activities
Design and Conditions

- Non-concurrent multiple baseline across participants

<table>
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<tr>
<th>Context Assessment (Multielement design)</th>
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<tr>
<td>Picture-Activity Correspondence Pretraining</td>
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<th>Baseline</th>
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<td>Schedule probe</td>
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<td>Generalization probe</td>
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<th>Activity Schedule Teaching</th>
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<td>No schedule probe</td>
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<td>Generalization probe</td>
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2-week Maintenance Probe
Context Assessment Results

1. **Penny**: Empty Field
   - Outdoor Toys

2. **Nathan**: Outdoor Toys
   - Fixed Equipment

3. **Kendra**: Empty Field
   - Outdoor Toys
Baseline Example
Activity Schedule Results
Activity Schedule Results
Activity Schedule Results

Graph showing the activity schedule results for Penny, Nathan, and Kendra over different sessions. The graph tracks the percentage of MVPA (Moderate to Vigorous Physical Activity) and percent activity schedule independence over time.
Video Example
Discussion

Varying levels of MVPA evoked during context assessments across conditions for all participants.

Increase in MVPA after activity schedules were implemented.

Increase the number of different activities completed.

Future Research

Appropriate social activities.