Behavioral Therapy for Children with Down syndrome

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Types of Therapies

- Physical Therapy
- Occupational Therapy
- Speech Therapy
- Applied Behavior Analysis

Applied Behavior Analysis

- Based on proven principles of learning
- Response to a behavior (reward), influences how the behavior occurs in the future
- Strategic, targeted, and individualized instruction
- Dual approach of skill acquisition and behavior management
- Set up environment to maximize success and reinforcing skills and behaviors to see more of

ABA Focus...

- Thinking through the process of teaching
- Thinking through why a child is struggling with a skill
- Breaking down skills in a simple way
- A system for data collection, specific monitoring of maintenance of skills, and a plan for extending learned skills to other environments

Key Component: Shaping

- Providing rewards for “approximate” behaviors
  - Improvements
- Helps a child feel success while you continue to work on the desired behavior

Shaping Examples

<table>
<thead>
<tr>
<th>Desired Behavior</th>
<th>Child’s Approximation</th>
<th>Next Step</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I want more please&quot;</td>
<td>&quot;mmmo&quot;</td>
<td>&quot;want mmo&quot;</td>
</tr>
<tr>
<td>Throws trash away after lunch</td>
<td>Trash can 2 feet from child</td>
<td>Trash can 5 feet from child</td>
</tr>
<tr>
<td>Write name independently</td>
<td>Traces over solid line letters</td>
<td>Trace over dotted line letters</td>
</tr>
</tbody>
</table>
Reinforcement

Response that increases the chances that the behavior will occur again

Examples of Reinforcers

- Tokens or stickers,
- action figures, music,
- Social Praise,
- High 5

Guidelines of Reinforcement

1. Provide immediately and frequently for hard or new skills
2. Always paired with “behavior specific” verbal praise
3. “Fade” rewards as skill is learned
4. Variety and Choice

Guidelines continued

5. Keep rewards exclusive for specific times
6. Reinforcers should be earned
7. Use natural reinforcers if possible (juice for “juice”)

Incidental Teaching

Is a method of instruction that is employed in everyday settings and is child directed with the goal of strengthening functional social and communication skills.

Features of Incidental Teaching

- Activities are child-directed
- Occurs in the natural social environment
- Occurs within the context of ongoing activities
- Employs natural reinforcers
- Emphasizes generalization of functional skills across settings, people, and activities
Incidental Teaching Examples

<table>
<thead>
<tr>
<th>Target</th>
<th>Step 1 Set Up</th>
<th>Step 2 Child Initiation</th>
<th>Step 3 Prompt for Elaboration or expand</th>
<th>Step 4 Child response</th>
<th>Step 5 Natural Rx</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request</td>
<td>Control access</td>
<td>Reaches for item</td>
<td>&quot;Say &quot;Give me ___&quot;</td>
<td>Child says &quot;I want ___&quot;</td>
<td>Gains access</td>
</tr>
<tr>
<td>Initiate play with peer</td>
<td>Give preferred item to peer</td>
<td>Child says &quot;Want ___&quot;</td>
<td>&quot;I can’t get ___&quot;</td>
<td>Child says &quot;I want ___&quot;</td>
<td>Gain access to item</td>
</tr>
<tr>
<td>Ask for help</td>
<td>Give child food item they cannot open</td>
<td>Child says &quot;Help me open___&quot;</td>
<td>Adult helps child open container</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**If the child has lost interest or moved on to another activity, STOP TEACHING EPISODE**

Supports

**Visual Supports:**
- Visual schedule of activities or homework
- First/Then board → (First homework/Then cars)
- Visual Timer → use for breaks, finishing activity, quiet time

Examples of Visual Supports

If your child is prone to wandering you can place visual supports on doors or cabinets as a reminder

Behavior Management

- Focused on understanding why a behavior occurs or understanding the function

Antecedent → Behavior → Consequence

- Event Preceding behavior
- Response to Antecedent
- Event occurring after behavior to increase or decrease the likelihood of the behavior occurring again

Functions of Behavior

- Access:
  - Tangibles (toys or preferred activities)
  - Attention
- Avoidance
  - Demands (homework)
- Stimulation (sound or touch sensitivities)
- Automatic
  - Self-reinforcing behaviors

Potty Training

Steps for Hand Washing
Functional Assessment

• Observational data collected on ABC to determine function

• What precedes the behavior, that the behavior looks like, and what the child “gets” out of the behavior

• Information from other sources (parents, teacher, child)

Focus on Antecedents ➔ Primary

• Attention-motivated:
  • Provide attention regularly
  • Increase opportunities for appropriate social interaction (family play time)

• Escape-motivated
  • Provide choices
  • Adapt demands to optimize success
  • Provide breaks from demands (homework)

• Toy/Activity Motivated
  • Teach requesting for items (signs or PECS)

Replacement Skills

• Attention Motivated
  • Teach requesting interaction (peers, teachers, etc.)

• Escape Motivated
  • Teach asking for break (break cards)
  • Encourage making choices

• Tangible Motivated
  • Teach requesting for preferred items (signs, PECS)

Comprehensive Services

• ABA service providers should target all areas
  • Skill acquisition, promoting certain behaviors, managing more challenging behaviors

• Should work as team with other therapists
  • Target same words/sounds as speech therapist
  • Work on motor skills in conjunction with occupational therapist or physical therapist

• Should be sensitive to your needs ➔ teaching skills relevant to your family

Resources

• Social Stories:
  • http://www.thegraycenter.org/social-stories/carol-gray

• Visual Support Builders:
  • http://mrsriley.com/
  • Take pictures of things at home to use as visual supports as well

• About Applied Behavior Analysis:

• Additional Resources:
  • http://ndsccenter.org/