Addressing the Needs of High School Aged Adolescents and Young Adults through Evidenced Based Practices

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Learning Outcomes

• Participants will be able to state the purpose and benefit of at least 2 different methods for skill development for adolescents with Autism (e.g. purpose and benefit of video modeling and self-monitoring).

• Participants will be able to utilize empirical research to develop treatment strategies for high school aged children with Autism of average or higher intelligence.

• Participants will identify the major steps to consider when planning for transition from high school to adult services (e.g. exploring vocational opportunities, establishing funding sources).
Why Should We Address these Needs?

- Increase in Autism prevalence
- Lack of availability
- Increase independence
- Increase community integration and inclusion
- Increase employability
- School vs. Adult Education
- Minimal professional oversight
- Need for more research
Difficulties That Arise

- Limited research
- Barriers to treatment such as...
  - Challenging behaviors (i.e., aggression, property destruction, SIB, etc.)
  - Expenses/Funding
  - Flexible scheduling
- Navigating in the community
Dealing with Challenging Behaviors
Challenging Behaviors

Which behaviors stand in the way of accomplishing individuals’ goals?

Optimize buy-in and motivation

Reinforcement

Avoid power struggles
Visual Cues and Reminders

- Posting visual reminders for tasks that must be completed each day (with or without pictures)
Making Happy Choices

- Sit quietly
- Stay calm
- Use a quiet voice
- Use quiet hands
- Use kind words

Stop, Think, Make a Good Choice

- I have a choice
- I need to stop
- I need to think
- I can make a good choice
- I feel happy when I make good choices!

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Implications of Unresolved Challenging Behaviors

• More intrusive and restrictive placements
• Quality of Services
• Exclusion
• Higher levels of physical restraint
• Risk of abuse
• Staff burnout
• Toll on family members
Transitioning to Adult Services
Things to Consider

- Creating a transition plan
  - Housing
  - Transportation
  - Vocational Abilities
  - Employment
  - College
    - [https://iancommunity.org/ssc/college-resources-autism](https://iancommunity.org/ssc/college-resources-autism)
Things to Teach

• When?
  • 14 years old at the latest
  • As early as 6 years old (recommended by professionals in the field)

• What?
  • Daily living skills
  • Independent living skills
  • Leisure skills
  • Self-advocacy
  • Money management skills
  • Vocational skills
  • Safety skills
Knowing Client Rights

• Transition Planning and the IEP
  • Section 300.43 of IDEA
    • IEP must include transition planning services for all special education students at age 16
    • Based on student’s needs
• What should be done?
  • Request Transition IEP
  • Meet and address:
    • Measurable postsecondary goals
    • Corresponding IEP goals
    • Transition services needed

Assessments of Skill Development
Skill Development Assessments

- **Curriculum Based Assessments**
  - Assessment of Functional Living Skills
  - Essential For Living
  - ACE

- **Standardized Assessment**
  - Vineland Adaptive Behavior Scale
  - Scales of Independent Behavior-Revised (SIB-R)

- **Other**
  - Task Analyses
Assessment of Functional Living Skills (AFLS)

Ages: 2 years and up

Assess, Track, and Evaluate Progress

Assessment protocols

- Basic Living Skills
- Home and Community Skills
- Vocational Skills
- School Skills
- Independent Living Skills

Includes a teaching companion containing task analyses, teaching suggestions, and prompting strategies
Essential for Living (EFL)

Ages: 2 years and up

Provides the tools for assessing, tracking, and teaching various skills

Domains addressed:

- Requests and Related Listener Responses
- Listener Responses, Names, and Descriptions
- Answers to Questions and Conversation
- Daily Living and Related Skills (Leisure and vocational skills included)
- Functional Academic Skills
- Tolerating Skills
- Tool Skills and Component Skills
ACE

Ages: 3 to 22 years

Lesson programs that utilize ABA based teaching that can be customized to learners needs

Assessment Domains:
- Academic skills
- Self-Help Skills
- Communication Skills
- Transitional Skills
- Social Skills
- Community Skills
- Vocational skills
- Leisure skills
- Discrimination skills
Vineland Adaptive Behavior Scale

Ages: birth to 90 years

Assessment Form: Survey/Expanded Interviews and Parent/Caregiver rating scales

Assessment Domains:
- Communication
- Daily Living
- Socialization
- Motor Skills
- Maladaptive Behavior Index
Scales of Independent Behavior-Revised (SIB-R)

Ages: birth to 80+ years

Assessment Form: Interview and questionnaire
- Full, Short, and Early Development Forms

Assessment Domains:
- Adaptive Behavior (259 Items)
- Problem Behavior (8 Items)
Task Analysis

- Assessing mastery level
- 2 Methods
  - Single-opportunity
    - Assess ability to perform each behavior in the task analysis in the correct sequence
  - Multiple-opportunity
    - Assess ability to perform all behaviors in the task analysis
Evidenced-Based Teaching Strategies
Evidenced-Based Teaching Strategies

- Prompting/Prompt Fading
- Task Analysis
- Visual/Written Activity & Work Schedules
- Video Modeling
- Audio Cueing
- Self-Management
Things to Consider

- Maintenance
- Generalization
- Reinforcement
- Fading
Prompting/Prompt Fading

- Increase Independence
- Decrease prompt dependency
- Use methodology that decreases reliance on others and transfer it to another stimulus (e.g. video modeling or self monitoring)
- Error correction
- Need more research
Difficulties with Prompting Older Learners

- Aversive to physical prompting
- Self-sufficient
- Difficulty with error correction
- Resistance to using visual schedules or visual cues
Task Analysis

- Complex steps are broken down into smaller, teachable steps
- Sequentially ordered
- Individualized
- Mastery level of learner must be assessed in respect to each step

Types
- Forward chaining - Steps are taught in their naturally occurring order
- Total-task chaining (Aka whole-task presentation)
  - Variation of forward chaining
  - Whole task is presented and completed at each session
- Backward chaining - All steps are completed except for the final step
Why Should We Use a Behavior Chain for this Population?

- Increase independence in completing various living skills (showering, socializing, traveling)
- Can be used to add behaviors to an existing repertoire
- Can be combined with other behavior change procedures or evidenced based strategies as demonstrated in the research
Factors Affecting the Performance of a Behavior Chain

• Completeness of the task analysis
  • The more complete, the better the learning
  • SDs should be identified
  • Sequenced appropriately

• Length of complexity of the chain
  • The longer the chain, the longer it will take to learn

• Schedule of reinforcement
  • Use of appropriate schedule

• Stimulus variation
  • All variations of stimuli should be introduced to be encountered later which can help increase generalization of the chain

• Response variation
  • Varied responses may be needed to deal with stimulus variation
Research on the use of Task Analyses

- Chazin et al. (2017)
  - Assessed the effectiveness a clustered forward chaining (CFC) procedure to teaching following written recipes
  - Participant was 23 year old diagnosed with autism
  - Data collection - unprompted correct, unprompted error, prompted correct and prompted error
- Results
  - CFC was effective for teaching the individual to follow a written recipe
  - Maintained for 3-5 weeks for all recipes with support of a therapist
  - Maintained during 3 independence probes
Research on the use of Task Analyses

Chazin et al. (2017)
Research on the use of Task Analyses

Chazin et al. (2017)
Visual/Written Activity & Work Schedules

• Activity Schedules
  • Tends to focus on a sequence of activities using pictures, words or objects

• Work Schedules
  • Indicates activities to complete using pictures, words, or objects, focusing on the completion of the task.
  • Element of structured teaching developed by Division TEACCH (Treatment and Education of Autistic and related Communication handicapped Children). Hume, K., Boyd B., Hamm, J., & Kucharczyk, S. (2014)

• Teaches the concept of ‘finished’
• Requires a well-organized and structured work space with few distractions that compete for a student’s attention.

(Hume, K., Boyd B., Hamm, J., & Kucharczyk, S., 2014)
Examples of Visual and Activity/Work Schedules

- First Then Visual Schedule
- Specific work tasks
- Leisure schedules
- Choiceworks*
- Story Kit
Work Schedules

A work system visually communicates at least four pieces of information to the student:

1. The tasks the student is supposed to do
2. How much work there is to be completed
3. How the student knows s/he is finished (progress towards goal)
4. What to do when s/he is finished

Work Schedules

Types of work schedules:

- Left to Right
- Matching (uses visual cues - pictures, symbols or words - individual uses sequenced visual cues, matches them to the corresponding activity on the left, completes it, and then moves on to the next task in the sequence.)
- Icon Work Schedule (uses pictures, when each step is done, the picture goes in a ‘finished pocket’)
- Written Work System (uses words for each step)

Activity Schedules

3 types of symbols to represent activities: photographs, line drawings, and written words

Uses:
• Teaching skills
• Transitioning between activities
• Behavior changes
Clinical Application of an Activity Schedule

• 13 year old client diagnosed with Asperger’s Syndrome* who was unable to complete leisure activities independently.
• Implemented a leisure activity schedule which was taught via the use of a task analysis
• Results:
  • Client was able to complete the leisure activity schedule independently after 16 sessions.
  • We were able to fade out the activity schedule completely after 37 sessions.
Video Modeling

• A presentation of a model completing a total chained task that participants are required to view at the beginning of each training session
• Types include:
  • Basic video modeling
  • Video self-modeling
  • Point-of-view video modeling
  • Video prompting
Benefits of Using Video Modeling

• High generalization and maintenance of skills
• Preferred by clients
• Ease of implementation in community settings
• Acceptability by parents and teachers

(Carlile, DeBar, Reeve, & Reeve, 2018; Miltenberger & Charlop, 2015)
Disadvantages of Video Modeling

- Feasibility
- Typically only one model is presented
- Lack of availability of stimuli
- Problem solving is not taught
Research on the use of Video Modeling

• Scott, Collins, Knight & Kleinert (2013)
  • Utilized a self-operated podcast containing video modeling and auditory prompts to increase skill acquisition of withdrawing $20 from an ATM machine
  • Teaching Procedure
    • Video podcast of peer completing task presented on an iPod
    • Included an error correction procedure
    • Peer narrated praise for correct responses
    • Total Task Chaining
• Results
Clinical Applications of Video Modeling

● Advantages of First-Then Visual Schedule
  - Video record each steps of a task analysis separately for complex task for learners
    - Visuals of task analysis and record the steps with most challenges
    - Fade recordings of steps quickly of the task analysis that are mastered to a visual picture to increase independence

● Disadvantages of First-Then Visual Schedule
  - Prompt dependence if steps are not systematically faded
Audio Cueing

- An auditory stimulus indicating the need for a response or action
- Uses:
  - Vocational training
  - caregiver praise
  - Self-Monitoring
- Modes:
  - headphones
  - alarms
- Benefits:
  - Portable
  - Schedule/Task flexible
Audio Cueing Research

• Gentry, et al- iPod touch using alarms/reminder alerts to notify participants when to move from task to task or complete other skills.
• Used task lists in the Notes section to complete the tasks.
  • Modification: for participant who did not read, used VoCal app
Audio Cueing Research

• Results:
  • Completed jobs without direct supervision
  • Early discharge from job coach services for 1 participant
  • Continued using iPod 1 year later
  • Eliminated self-calming stereotypy within the work shift (spinning and humming) in 1 participant.
  • *1 participant lost the iPod Touch during treatment phase and increased problem behaviors were noted and increased job support was required. Reminders on the phone and picture prompts were used but ineffective.
Self-Management

- Teach individual to regulate their own behaviors
  - Discriminate between inappropriate vs. appropriate behavior
  - Select their own goals
  - Self-monitor
  - Select their own procedures and reward their own behavior
  - Self-evaluate

(Mayer, Sulzer-Azaroff, & Wallace, 2014)
Advantages to Self-Monitoring

- Can be used to change behaviors that are not observable by others
- External change agents may miss important instances of appropriate behavior
- Can promote generalization and maintenance of behavior change
- Small repertoire of self-management skills can control many behaviors
- Can be used with anyone
- Some individuals perform better when they select their tasks and performance criteria
- Benefits society
- Provides a good feeling for the individual

(Cooper, Heron, & Heward, 2007)
Antecedent-Based Self-Management Skills

- Manipulate motivating operations
- Provide response prompts
- Perform the initial steps of a behavior chain
- Remove materials required for inappropriate behavior
- Limit inappropriate behavior to restricted stimulus conditions
Self-Administered Consequences

- Increasing Desired Behavior
  - *Self-Management Analogs of Positive Reinforcement*
    - Self-determined amount of positive reinforcement (i.e., tokens, points, minutes of free time, etc.)
    - Self-delivered or delivered by others
  - *Self-Management Analogs of Negative Reinforcement*
    - Self-determined escape/avoidance contingent on the target behavior
    - Set up a small but effective aversive outcome and engage in the target behavior to avoid the outcome
Recommendations for Self-Administered Consequences

• Select small and easy-to-deliver consequences
• Help set a meaningful but easy-to-meet criterion
  • Common mistakes: too low or too high
• Eliminate bootleg reinforcement
• When necessary, have someone else deliver the consequences
• Keep it simple
Teaching Individuals to use Self-Management

- Utilize prompt procedures and fade added prompts
- Teach individual to self-record
- Teach discrimination of inappropriate and appropriate responses
- Train individual to gain access to reinforcement when they reach the criterion
- Conduct ongoing, intermittent checks
- Gradually increase the initial criterion once mastered
- Gradually increase duration of self-management session
- Gradually increase the interval length as the session length increases

(Busick & Neitzel, 2009)
Research on the Use of Self-Management

- Faloon & Rehfeldt (2008)
  - Use of overt and covert self-rules for skill acquisition, maintenance, and generalization via task analysis
  - 3 Participants between the ages of 19 and 22 with mild developmental disabilities and well-developed receptive & expressive language skills
- Training Sessions
  - Overt Self-Instruction
  - Blocking and Nonblocking for Overt and Covert
  - Covert Self-Instruction
Research on the Use of Self-Management

• Faloon & Rehfeldt (2008) Cont’d
  • Results
    • Self-rules assisted with control over participants’ responding
    • Generalized in the absence of experimenter delivered reinforcement
    • Performance deteriorated when the emission of overt self0-rules were blocked but not when covert self-rules were blocked
    • Rapid acquisition
Research on the Use of Self-Management

• Beaver et al. (2017)
  • Assessed whether participants would remain on-task for more intervals and complete tasks independently with self-reinforcement or teacher-delivered reinforcement
  • Text-based activity schedule was followed on an iPod
  • Dependent variables
    • Independent schedule completion - task analysis
    • On-task behavior
  • Taught to utilize a golf counter to deliver tokens to themselves
Research on the Use of Self-Management

- Beaver et al. (2017)
  - Results
    - Schedule Completion - Minor differences between the two
    - On-Task Behavior - No difference between the two
    - Results maintained during the generalization and maintenance probes
    - Self-reinforcement was just as effective as teacher-delivered reinforcement
Clinical Application of Self-Management

- Self-Match (a form of self-management) was utilized with a 15 year old boy diagnosed with Autism Spectrum Disorder of higher intelligence
- A reward and criteria (low enough) for earning that reward was established prior to implementation. Client participated in creating the criteria and chose his reward from a list of available reinforcer
- Together the team came up with a list of tasks.
- Each day, the client completed the checklist each day and checked off when he completed the assignment
- Parent/Caregiver checked to ensure that the task was completed and checks off as well
- Child earns specified reward after meeting the criterion
<table>
<thead>
<tr>
<th>Task</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
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<tbody>
<tr>
<td>1 Brush Teeth</td>
<td>Client</td>
<td>Mom/Dad</td>
<td>Client</td>
<td>Mom/Dad</td>
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<td>2 Get Dressed for School</td>
<td>Client</td>
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<td>3 Eat Breakfast</td>
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<td>4 Clean Bedroom</td>
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<td>5 Homework</td>
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<td>6 Eat a Healthy Snack</td>
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<td>7 Take a Shower</td>
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<td>8 Read for 30 minutes</td>
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<td>9 Exercise for 30 minutes</td>
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<tr>
<td>10 Compliment a family member</td>
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**Total**
Case Studies
Case Studies

- Separate into groups
- Review case study and use the research presented to develop a treatment plan
Questions