Behavior-Based Strategies to Support Oral Health For Individuals with Intellectual & Developmental Disabilities

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Before We Get Started...

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Going to the Dentist: The Patient Experience

Ideally it goes like this..... but sometimes it’s like this
Why do so many people dread going to the dentist?

- 60% of people have anxiety about going to the dentist (www.ada.com)
- 5-10% have “dental phobia”
Additional Considerations for Individuals with Developmental Disabilites (DD)

- Difficulty interpreting environment from existing cues (what is going to happen next?)
- Schedule/routine rigidity; insistence on sameness
- Communication differences - expressing wants and needs
- Sensory sensitivities
- Ability to self-regulate when anxious or stressed
- Challenging behaviors (self-injury, aggression, hyperactivity etc.)
In a study assessing the oral health of 4,732 individuals with developmental/intellectual disabilities:

- 88% experienced tooth decay/cavities
- 32.2% had untreated dental decay/cavities
- 10.9% were lacking teeth
- Approximately 25% required behavior management interventions (including general anesthesia) to access dental intervention

(Morgan, Minihan, et al., 2012)
Most Common Barriers Impacting Dental Care/Treatment

Barriers Impacting Oral Health

- Limitations in performing daily oral care routines (i.e., cognitive, physical, behavioral)
- Medication side effects
- Consent (client rights)

Barriers Impacting Dental Care

- Challenging Behaviors
- Cost
- Lack of insurance
- Scarcity of dental providers available
- Consent

(Lai, Milano, Roberts & Hooper, 2012)
So then, how do we get more patients with DD to experience dental visits like this?
Taking an Evidence-Based Approach

What is an Evidence-Based Practice?

► Interventions that have been scientifically proven to be effective
► Identified through analyzing ONLY high-quality research studies
► Produce desirable effects
► Can be used individually or in combination

EBPs = THINGS THAT WORK!

Adapted from: (Embry, 2004)
How do we know what works for teaching skills & managing problem behaviors for individuals with developmental disabilities?
Published a new report in 2020 evaluating intervention research between 1990 and 2017

Details 28 Evidence-Based Practices for both skills teaching and/or behavior reduction

Provides FREE online video training modules on most of the practices
28 Evidence Based Practices- NCAEP (2020)

Antecedent Based Intervention
Augmentative & Alternative Communication
Behavioral Momentum Intervention
Cognitive Behavioral Intervention
Differential Reinforcement
Direct Instruction
Discrete Trial Teaching
Exercise
Extinction
Functional Behavior Assessment
Functional Communication Training
Modeling
Music Mediated Intervention
Naturalistic Intervention
Parent-Implemented Intervention
Peer-Mediated Instruction and Intervention
Prompting
Reinforcement
Response Interruption/Redirection
Self Management
Sensory Integration
Social Narratives
Social Skills Training
Task Analysis
Technology-Aided Instruction and Intervention
Time Delay
Video Modeling
Visual Supports

PLUS- A set of Manualized Programs:

- Picture Exchange Communication System
- Pivotal Response Training
- JASPER
- Milieu Training
- PEERS
- Project Impact
- Social Stories
- Stepping Stones
- Mindreading
- FaceSay
Using These Strategies for Dental Appointments:

► Antecedent-Based Interventions
► Modeling & Video Modeling
► Reinforcement
► Social Narratives
► Visual Supports
Antecedent-Based Interventions
(things to do before the dental exam)

► Be strategic about appointment times (for office and individual)
► Break up the initial appointment into several parts
► Keep the individual’s daily schedule “light”
► Encourage use of additional support (an extra person)
► Have sensory blocking and/or comfort items available
► Priming
  (the dental treatment process and reinforcement)
Make the Dental Visit More Enjoyable!

- Ask if dental office provides fun activities that can be incorporated into the visit (video games in lobby, movies in ceiling etc.)
- Ask dentist to use a “tell, show, do” method for communicating during visits
- Ask if dentist offers or allows for accommodations such as noise cancelling headphones, sunglasses, lower lighting etc.
- Take time to share with the dentist about the individual’s specific needs (complete a pre-visit questionnaire)
Modeling/ Pretend Play “Dentist”

In preparation for the dental visits, pretend-play/ role-play “Dentist” activity

Steps to Make Modeling Successful:

1. Gather materials (pretend dental tools, mask etc.)
2. Develop your “script”
3. Determine a good time & place
4. Keep practice sessions short to start
5. Determine how to reward
6. Take turns being both “patient” & Dentist
Video Modeling

In preparation for dental visits, the individual is shown a video depiction of another person going through the steps of a dental appointment.

Look At Me Now - Personalized Self Video Models

How to Create a Video Model

1. Plan your location, materials and script
2. Pick up your smartphone, tablet or camera
3. Make the video
4. Show the individual the video
5. Review the key concepts
6. Provide an opportunity for the individual to practice
7. Prompt and reinforce as needed
Planning for Reinforcement

Individual is provided a desired item/object/activity following the completion of the pre-determined task/activity

How to Use Reinforcement Effectively:

1. Determine both the CRITERIA to obtain the reward as well as WHAT the reward should be
2. Have a variety of options/choices available (prize box, treasure box)
3. Deliver the reward only after the task is complete
Social Narratives
Visual depiction of social situations that provides relevant cues and describes expectations of appropriate behavior

**Social Stories™** - Most well-known, developed by Carol Gray, description of a social situation and appropriate behaviors

For links to 12 different FREE pre-made social stories go to [www.pathfindersforautism.org](http://www.pathfindersforautism.org)
Steps for Using Social Narratives

1. Introduce the Social Narrative to the individual
2. Individual reads Social Narrative (or has it read to him/her)
3. Individual participates in identified social situation (or mock situation)
4. Review key concepts with individual
5. Provide prompts and reinforcement as needed
Visual Supports for Use to Support Dental Visits

Visual Timers

How I’m Feeling:

- OK
- Good
- I need a break
- stop

Today's Visit to the Dentist Office:

1. hang up coat
2. waiting room
3. sit in dental chair
4. put on sunglasses
5. open wide
6. count teeth
7. brush teeth
8. suction mouth
9. floss teeth
10. Finished! Pick a prize!
Strategies to Support Daily Oral Hygiene Practices at Home
Visual Supports

Picture of steps for tooth brushing posted above bathroom sink, list/picture schedule that includes tooth brushing and flossing, etc.
Reinforcement

• Make activity more fun by using materials that the individual enjoys (favorite color, character etc.)

• Parent/caregiver gives praise, toy, etc. when individual completes tooth-brushing routine
Modeling & Video Modeling

Individual watches a live person or video of someone tooth brushing and/or flossing prior to completing the tasks (teaching strategy)

https://www.wikihow.com/Video/Brush-Your-Teeth

https://www.pbs.org/video/fit-kids-how-brush-your-teeth/
Using Technology

There are a variety of games, applications, audio books, videos, music and more available online to make using these techniques easy, fun and interesting!

Fun Fact- **Technology Aided Instruction** is another EBP!
Using Technology- **Smart Toothbrushes**

[Image of a smart toothbrush and mobile app interface]

https://shop.colgate.com/products/magik
Additional Considerations

• Behavior change may not be quick
  Small steps may be necessary to shape the behavior and desired outcome
• Consult and seek the support of a qualified professional (BCBA)
• Collaborate and communicate with all professionals involved in the process
• Strive for consistency in intervention/treatment implementation
• Educate yourself on options
• Determine if the individual has the pre-requisite skills needed to participate in a dental visit (remaining seated, responding to single-step instructions, allows others to touch etc.)
  • Developmental age of $\geq 29$ months (B. Rud, E. Kisling, 1973)
Putting It Into Action!

Everyone will receive access to an electronic folder of resources which include:

- Strategy Selection Tool
- Patient Support Needs Questionnaire
- Visual Supports (First/Then, Picture Activity Schedule, brushing teeth mini schedule)
- Sample Social Stories
- Sample Video Models
- Autism Speaks Dental Tool Kit

https://drive.google.com/open?id=1x0dF9IUvUBI_uiu3J_g1bF2vuGP-k1eg
Resources

► Alta California Regional Center
  2241 Harvard Street, Suite 100
  Sacramento CA 95815
  (916) 978-6400
  https://www.altaregional.org/

► American Dental Association (ADA)
  http://www.ada.org/en

► Department of Health Care Services (Denti-Cal)
  https://www.denti-cal.ca.gov/

► California Autism Professional Training and Information Network (CAPTAIN)
  https://www.captain.ca.gov

► Autism Speaks Dental Toolkit
  https://www.autismspeaks.org/tool-kit/dental-tool-kit

► Colgate Dental Hygiene Classroom Materials & Curriculum for Teachers
References for this Presentation


Smith, Tristram (2013). What is Evidence-Based Behavior Analysis? The Behavior Analyst, (36) 7-33.
