Behavior-Based Strategies to Support Oral Health

For Individuals with Intellectual & Developmental Disabilities

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Before We Get Started…

The presenters have no relevant financial relationship with the manufacturer(s) or any commercial product(s) and/or provider of commercial products or services discussed in this presentation

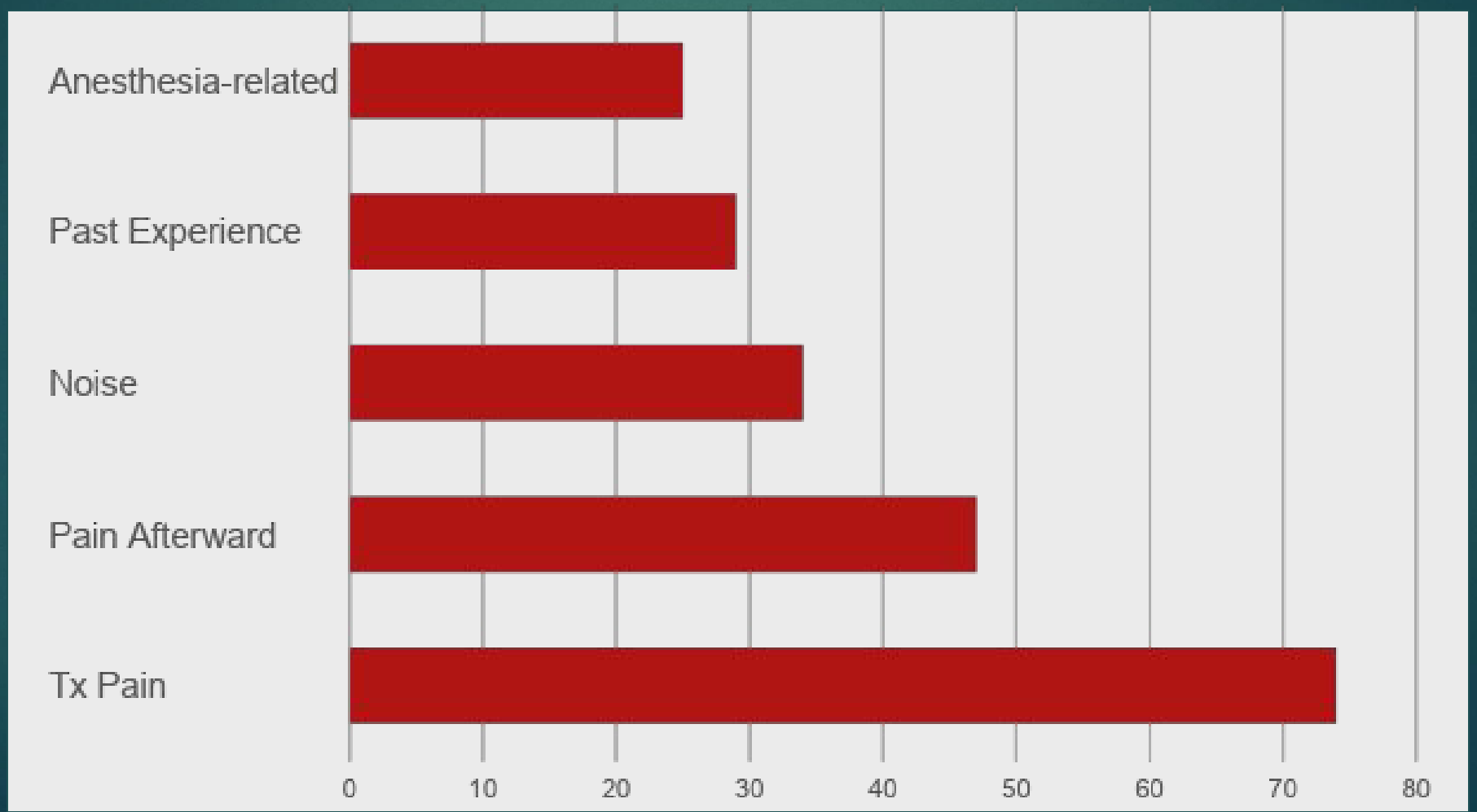
Going to the Dentist:
The Patient Experience

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"



www.studyfinds.org

Additional Considerations for Individuals with Developmental Disabilities (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.)

The Results

- 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?

Adaptive Skills

Problem Behavior

National Clearinghouse on Autism Evidence & Practices

- 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

The National Clearinghouse on Autism Evidence & Practice

NCAEP • BRIDGING SCIENCE AND PRACTICE

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

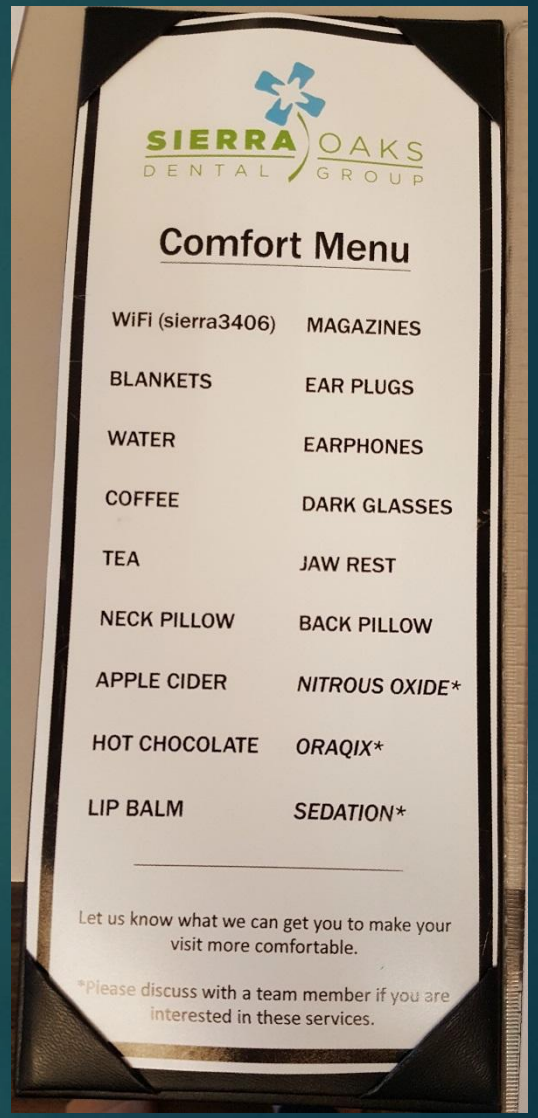
(things to do *before* the dental exam)

- 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

<u>Steps to Make Modeling Successful:</u>

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

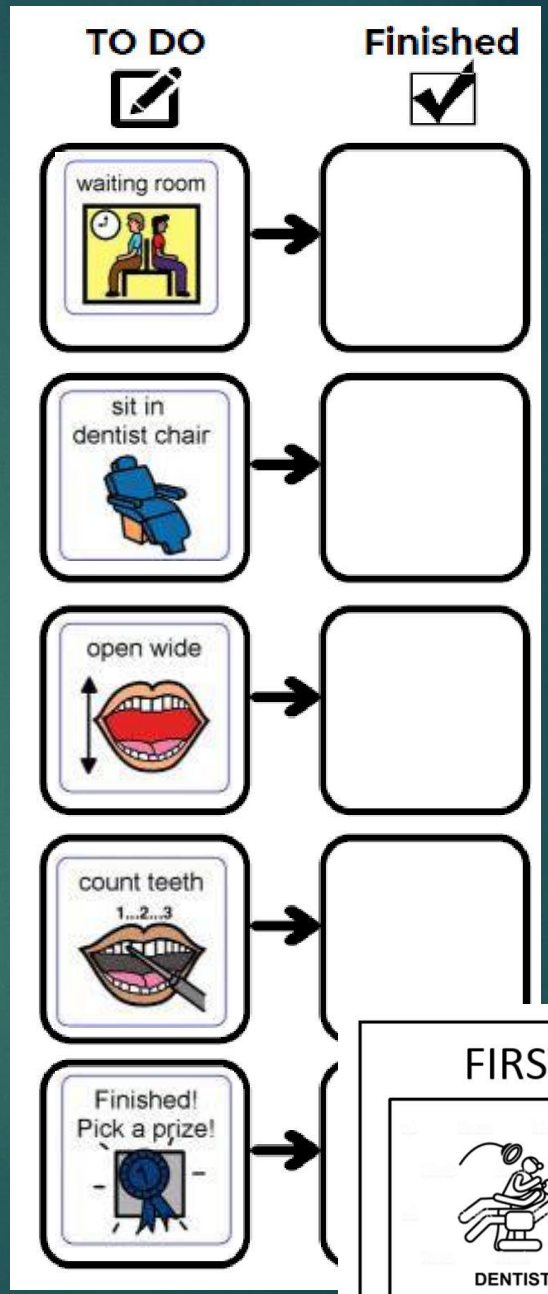
Look At Me Now- Personalized Self Video Models

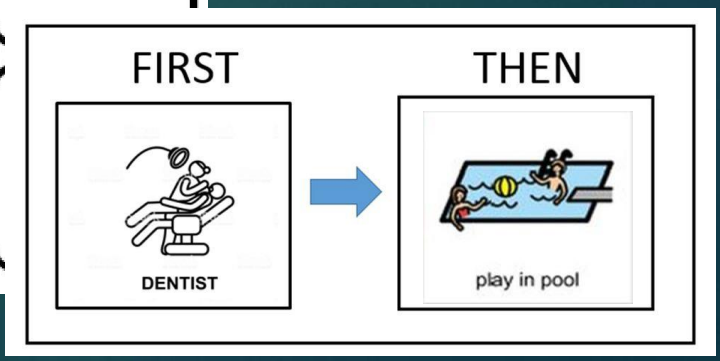
How to Create a Video Model

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





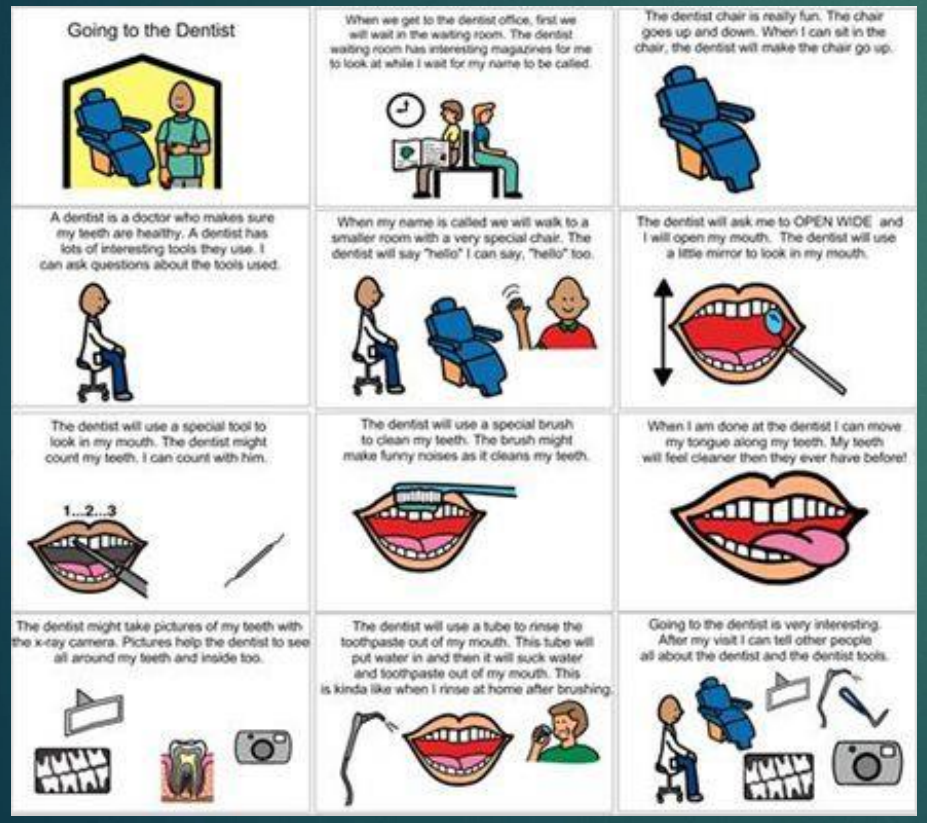
How to Use Reinforcement Effectively:

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

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:

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.

1. Grab toothbrush
2. Grab toothpaste
3. Open toothpaste
4. Put toothpaste on toothbrush
5. Brush teeth
6. Spit
7. Rinse
8. Put iten

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)

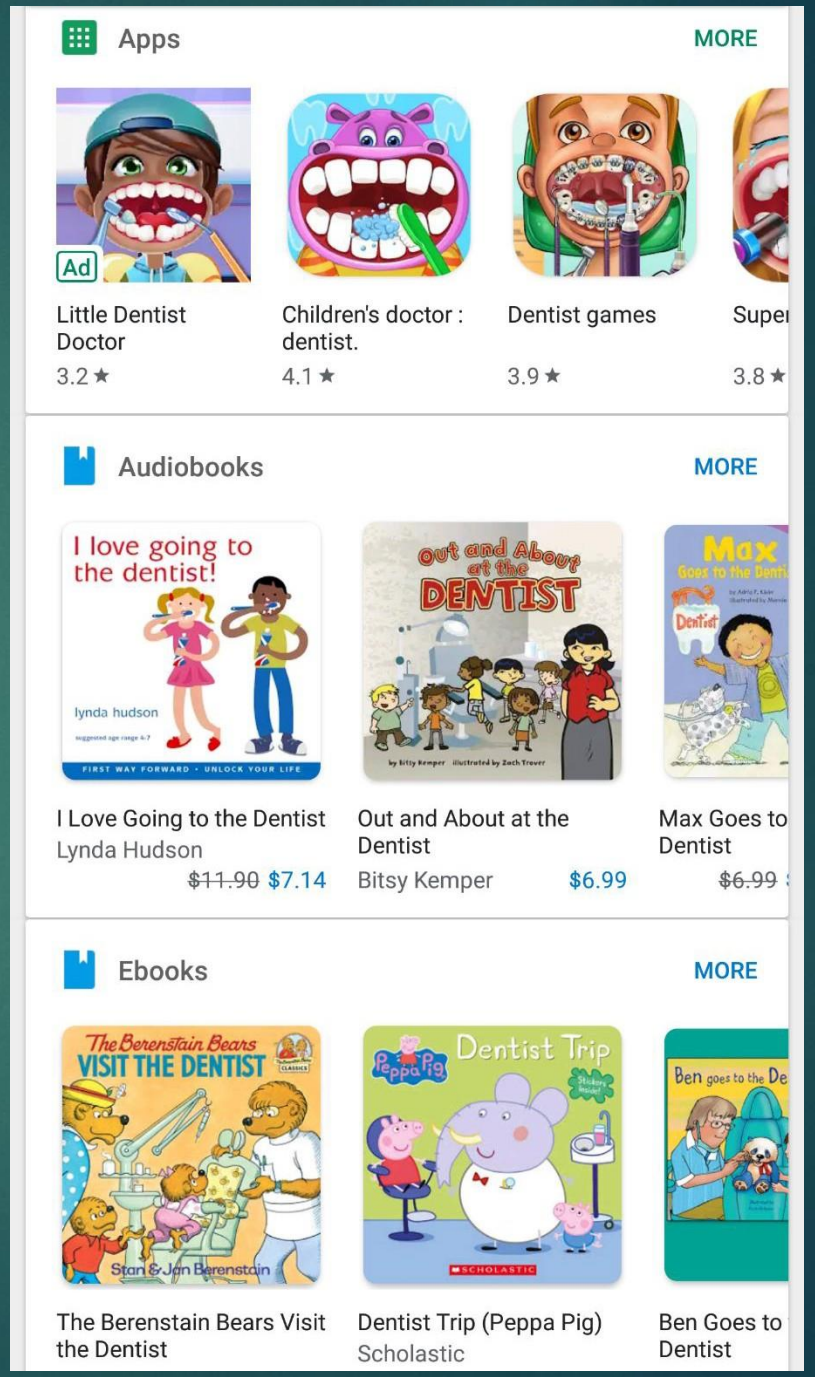
https://www.wikihow.com/Video/Brush-Your-Teeth

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**

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 ≥ 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=1x0dF9lUvUBI_uiu3J_g1bF2vuGP-k1eg

ANY
QUESTIONS

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

  https://www.colgate.com/en-us/bright-smiles-bright-futures/program-materials/for-teachers

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