



Oral Hygiene Assessment and Treatment Strategies

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Oral Health and Disability

- Research on oral health and adults with I/DD.
 - 32% had untreated cavities
 - 80% had gum disease
 - Over 10% - missing teeth
 - Retrospective study of electronic dental records of over 4,700 people with I/DD in Massachusetts. 61% mild to mod. and 39 % severe disability.
- Morgan, J.P., et. al (2012). The oral health status of 4,732 adults with intellectual and developmental disabilities. *The Journal of the American Dental Association*, 143(8), 838-846



Oral Health and Systematic Disease

- Research has linked poor oral hygiene to a variety of systematic diseases.
 - Cardiovascular disease
 - Diabetes
 - Low birth weight
 - Stroke
 - Bacterial Pneumonia



Oral Hygiene and Aspiration

- Saliva contains many bacteria. Bad oral hygiene and periodontal diseases lead to the proliferation of pathogenic bacteria that can cause aspiration pneumonia.
- We all have a certain amount of bacteria in our oral cavities. Good oral hygiene helps keep the bacterial load to a manageable level.
- In a variety of studies, high oral bacterial loads have a significant association with pneumonia.

Scannapieco, FA (1999) Role of oral bacteria in respiratory infection. J Periodontol 70 (7):793-802.



OVERVIEW

- Review of the “Occupational Therapy Eating, Oral Care and Oral-Motor Assessment”
- Using assessment for treatment planning
- Discussion of intervention strategies and Assistive Technology options
- CARMP Sample
- Case Study - Discussion

Assessment → Tx Planning → Intervention

- Review of Items related to Oral Care
 - Tube feeding
 - In a prospective outcomes study of 189 elderly persons, dependent feeding, dependent oral care, number of decayed teeth and tube feeding were the four highest risk factors for aspiration pneumonia.*
 - Aspiration pneumonia remains a primary cause of death in persons fed by feeding tubes.
 - People with enteral feedings need good oral care. Feeding tubes do not protect and individual from aspirating saliva that may have a high bacterial load.

* Langmore SE, Terpenning MS, Schork A, et al. (1998) Predictors of aspiration pneumonia: How important is dysphagia? *Dysphagia* 13: 69-81.

Assessment → Tx Planning

- Level of Alertness → Strategies in Oral Care Sensory Preparation section.
- Hx of Aspiration → Even more attention to Positioning Strategies, Clearance of Oral Secretions, Little or no toothpaste, etc.
- Hx of GERD → Acid erosion of dentition.
Frequently rinse the oral cavity. Positioning considerations.



Assessment → Tx Planning

Know the recommended consistency of liquid on mealtime plan.

- Has difficulty handling/swallowing thin liquids → consider dry brush, methods for clearing oral cavity, positioning, etc.

Assessment → Tx Planning

- Bite Reflex → Inhibition techniques, bite blocks, coated/soft TB handles, caution...
- When should you consider use of Bite Blocks?
 - Safety for individual or for staff/family.
 - Can't provide oral care without one and other methods have been considered first.
 - Discuss with IDT.
 - HRC Review





Assessment → Tx Planning

Hypersensitive Gag Reflex → Sensory Strategies, Oral and Sensory Prep., size of toothbrush head, moisten with mouthwash or water instead of toothpaste, frequent breaks, oral-motor intervention.

Oral Pocketing and Residue → Sensory Strategies, visually inspect and clear after oral intake, alternate liquids and solids, oral-motor intervention.

Functional Performance Skills

Squeezes Toothpaste

- AT
- motor interventions
- graded cueing



Slide on the Cover.
Touch N Brush

Functional Performance Skills

Grasping Toothbrush

- built-up handles
- utensil holder
- wrist support,
- weighted cuff
- cueing strategies
- proximal support



Scuba Brush

Functional Performance Skills

Bringing Toothbrush to Mouth

- Proximal Support
- Graded Cueing

Moving Toothbrush Effectively

- Proximal Support
- Graded Cueing
- Electric Toothbrush



Functional Performance Skills

Brushing all surfaces

- Plaque Identifying Rinses or Swabs
- Cueing Cards
- Tooth brushing routine
- Timers



Assessment → Tx Planning

Functional Performance Skills

Spitting out excess saliva or toothpaste

- Positioning, flexion and rotation to drain
- Suction toothbrushes
 - Not with dry mouth
 - Generally meant for I/x use
 - Bristles are not best at plaque removal
- Suctioning machine with soft catheter
- Oral Swabs
- Dry toothbrush or moisten with minimal liquid
- Oral-Motor Treatment





Assessment → Tx Planning

CONSIDERATIONS FOR TOOTHPASTE USE

- Toothpaste is not needed for plaque removal.
- Can foam and decrease vision of teeth and oral areas.
- Can increase saliva formation.
- Can increase swallowing difficulty.
- Taste can be a motivator.
- Various types can have oral hygiene benefits: low foam, fluoride, tartar control, sensitivity control.
- Dentist recommendation.



Assessment → Tx Planning

Positioning

- May often be the same as positioning recommended in the mealtime program/strategies.
- Consider need to drain the oral cavity of excess saliva during and after tooth brushing. Trunk forward with head flexed or head flexion combined with rotation might be recommended during “breaks” during and after oral hygiene.
- Use of a lap-tray or other surface to support the upper extremities might be needed to implement recommended positions.



Assessment → Tx Planning

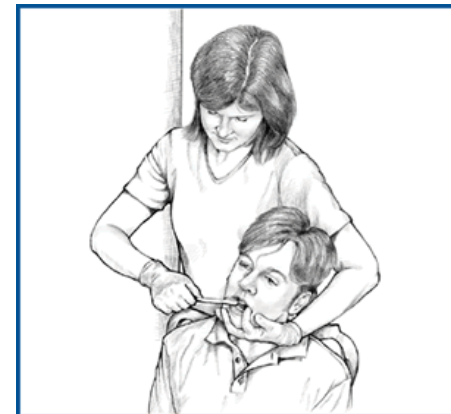
Positioning

- Positioning strategies can be combined with use of Oral Swabs to help remove excess or suctioning to assist in saliva management.
- Side lying positions can also assist with management of oral secretions and might be considered for Oral Hygiene Strategies.
- Positioning recommendations must be individualized and coordinated with PT / OT

Assessment → Tx Planning

Staff/family Positioning

- Those assisting need to be comfortable.
- Height is an important consideration. Toothbrush should approach so the individual does not have to extend head/neck.
- Support from the side or behind the individual.
- Support from in front of the individual.
- Trial various positions to see what works best for each individual.





Resisting Oral Care

Resisting tooth brushing is one of the main reasons for referral

- The mouth is a very vulnerable area.
- The mouth has more tactile nerve endings than any other part of our body.
- Bad experiences in the past?
- Staff rushed? Tooth brushing may be one of the last activities in a long morning routine.



Resisting Oral Care – Pain?

Is the person resisting because of pain?

- Interview staff/family.
- Has person always resisted oral care?
- Did visual oral evaluation reveal possible sources of pain
- Does tooth brush have soft, quality bristles?
- Would “Sensitive Toothpaste” help? (Check with Nursing/Dental first).
- Would an electric toothbrush help?
- One trial with “Oral-gel” type product may help with assessment (clear this with nursing first).
- Report to nursing if you suspect that oral pain may be a problem.

Resisting Oral Care: Trust/Anxiety

- Interview staff/family: past experiences, new staff, oral hygiene routine.
- Observe the Oral Hygiene Routine.
- Some intervention areas to consider:
 - How much time is allowed for oral hygiene? Can schedule be adjusted?
 - Oral Hygiene may be done after meals so it can be anticipated as part of a regular routine and oral eaters mouth is already more prepared for input.
 - Is the bathroom the best location for oral care? (fight/flight)
 - Establish a routine. Encourage everyone to use the same routine and cueing techniques.
 - It is important to try to “get permission” before putting any thing in someone’s mouth!
 - Consider Environmental Factors and Cognitive/Communication factors. (Picture Cues, lighting, music, calming scents, etc.....)

Resisting Oral Care: Swallowing Problems

Is the person resisting because of inability to swallow secretions safely during oral care?



- For most, head should be properly aligned with slight chin tuck. Following positioning recommended in mealtime plan is often appropriate.
- Consider positioning for oral drainage.
- Suction, oral swabs to assist with clearing oral secretions, no toothpaste?
- Make sure to squeeze or shake out any excess moisture from tooth brushes and/or oral swabs.

Resisting Oral Care: Respiration Issues

Is the person resisting because of inability to breathe?

- Mouth Breathers need an open airway!
- Clear nasal congestion first.
- Give lots of breaks!
- Positioning
- Little or No toothpaste but some moisture may be needed due to dry mouth.
- Smaller size brush head.
- Use strategies to decrease anxiety.
- Staff need time and a gentle, consistent technique.





Resisting Oral Care: Sensory Processing

Is the person resisting because of Sensory Processing Dysfunction?

Oral Defensiveness

- Does the individual have a Sensory Processing Support Plan that integrates a Sensory Diet to help address overall sensory needs?
- Consider Oral-Motor Treatment to help normalize response to oral input.
OT or SLP

Resisting Oral Care: Sensory Processing

Oral Defensiveness

- Consider Environmental Factors
- Sensory Prep Strategies (OT)
- Type of Tooth Brush (soft bristles, three-head or “Collis-curve” may reduce time needed in mouth, electric may help with some individuals)
- Sensory Qualities in the Mouth
- Teach staff/family about: firm touch, maintaining contact, using rhythm to help establish expectation and control.
 - Count “1,2,3,4,5...out”. Or ... use a song to do this.
- Give the individual control: hand-over-hand, hand-under-hand, choices as much as possible, use a timer.
- Establish communication, “safe” touch, trust and routine.



Assessment → Treatment Planning

Behavioral Considerations

- SIB
- Anxiety
- Aggression
- Rumination
- Collaborate with BSC
- Is there a Positive Behavioral Support Plan?

Behavioral Strategies to consider

- Environmental
- Music/Relaxation
- Breathing Activities
- ↑ Choice/Control
- Reinforcement
- Positive Verbal Support
- Increase awareness of good and bad consequences of poor oral hygiene.
- Self-esteem Strategies



Assessment → Tx Planning: Dietary Considerations

- Limit sugar intake
- Limit acidic foods/drinks
- Dietary Supplements like Ensure and thickening agents like Thick-It can coat teeth and oral cavity.
 - Rinse after?
 - Rinse or clean oral cavity before bed?

Oral Hygiene – Case Study

Video Case Study

- “Martha”
 - In mid-50’s
 - Communicates non-verbally.
 - Is independently ambulatory, poor balance.
 - Diagnosis: MR, autism, periodontal disease, osteopenia, GERD, and Hx. of rumination.
 - Current Meds: Zantac, Fosamax, Calcium, Vit. D.
 - Tactile Defensiveness, dislikes face washing and oral care.
 - Enjoys music (oldies), things she can throw, riding in the car, going for walks, Mexican food, looking nice, and swimming.



Oral Hygiene Strategies in the CARMP

- Coordinate and Collaborate with Nursing, OT, Dental, and other team members.
- IDT will discuss who will be the Lead for Oral Hygiene strategies in the CARMP Template.
- Include photos when helpful.