



Council on  
Developmental  
Disabilities

# **Smiles United: A Virtual Model for Delivery of Oral Health Education to Agencies**

**Raquel M. Rozdolski, D.M.D. & Susan DiSenso-Browne, D.D.S.**

**5<sup>th</sup> Annual Conference on Multi-Disciplinary Clinical Care for  
Patients With Intellectual and Developmental Disabilities (I/DD)**

November 2, 2023



# OVERVIEW

- People with IDD are prone to poor oral health and have more complex oral health care needs than people without IDD.
  - “11% of individuals with IDD have no teeth compared to 2% of the general population.” (Tegtmeier, C. & Rozdolski, R)
- Decreased access to care and a general increased need for assistance only potentiate the issue.
  - A study from the American Academy of Pediatric Dentistry showed that:
    - Only 10% of surveyed general dentists reported that they treat patients with Special Health Care Needs (SHCN) often or very often,
    - while 70% reported that they rarely or never treat patients with SHCN
- These disparities were only exacerbated with the COVID-19 pandemic







# Effects of COVID-19 Lockdown and Beyond

- Wheelchair-adapted vehicles and ambulances were transporting patients with COVID-19 to and from hospitals, and were unavailable for transportation to dental appointments
- Transportation supplied by the long-term care facilities were only being used for hospital visits
- Patients often require more frequent dental recalls for oral health maintenance; COVID-19 made these visits impossible, increasing the oral health risk
- those with cognitive impairment, mental health issues, dementia, and developmental disabilities may not have been able to process the pandemic and changes in behavior. Reactions ranged from fear to physical aggression, leading to even less patients able to be treated in the ambulatory setting
- Additional support people accompanying patients was discouraged
- Increased PPE in the head and neck affected patients with limited hearing capacity
- patients who were deaf or needed to lip read suffered diminished or absent communications





# Surgeon General Report

## *Oral Health in America:*

### Advances and Challenges

- Follow up to the Surgeon General's 2000 Report, *Oral Health in America*
- expanded dental coverage through Medicaid , the Children's Health Insurance Program (CHIP), and other market-place initiatives authorized under the Affordable Care Act, improving coverage for children
- Reduction of more than 40% in untreated caries among preschool children ( $\leq 5$  years), including those from low-income families attributed to:
  - Collaborations between oral health and other medical professionals
  - Promoting early visits
  - Promoting interventions

Dye, et al





# Surgeon General Report *Oral Health in America: Advances and Challenges*

- “Untreated dental caries in permanent teeth affect one of four Americans aged 6 years and older, with no improvement since the 2000 report.
- Two in five adults aged 30 years and older have some form of gum disease, and prevalence is even higher for people aged 65 years and older.
- The disparity in tooth retention among those 65 years and older between those living in poverty and those who are more affluent has nearly *doubled* in the past 20 years.
- The report suggests that coordinated efforts among policy makers and key stakeholders are needed to mitigate the influences of these upstream determinants so as to improve the overall health and the oral health for millions of Americans.”

Dye, et al







# OUR MISSION

- to ***diminish*** oral health care barriers and equip caregivers with ***educational resources*** on the ***importance*** of oral hygiene and ***delivery of*** oral hygiene care for individuals with IDD
- With a Focus on:
  - Training ***Caregivers*** of people with IDD living in group homes via a virtual training module
- With a Goal of:
  - Implementing caregiver training throughout NYS group homes during on-board training
  - Via FREE virtual video modules





# Factors Affecting Oral Health & Access to Care

- Complex medical histories
- Physical, behavioral, and psychological challenges
- Reliance on others for daily home care
- Reliance on others for transportation
- Lockdowns and quarantines
- High turnover rate of caregiver staff (DSPs) in group homes
- Cultural diversity
- Poor reimbursement
- Lack of provider training
- Lack of caregiver training







**Council on  
Developmental  
Disabilities**

- Originally implemented as a ***pilot demonstration project*** in 2020 - 2021 through generous grant funding by the NYS DDPC (now known as the Council on Developmental Disabilities)
- Built the pilot project to be adaptable and scalable throughout NYS
- Our team is comprised of dental students guided by faculty members experienced in special care dentistry
- Due to the success of the pilot project, we were granted continued funding by the DDPC in 2022 to expand the project





# PHASE ONE





# COORDINATION & SUPPORT



- Coordinated with the New York State Office for People with Developmental Disabilities (OPWDD)
  - NYS OPWDD: agency that manages services for New York residents with developmental disabilities (about 130,000 individuals)
  - With the support of Jill Pettinger, Psy.D, Deputy Commissioner
  - Connected virtually with OPWDD residences via Zoom
  - Coordinated directly with nursing staff
  - Identified specific dental health care challenges
  - Confirmed availability of time and access to internet for staff







# CAREGIVER SURVEY

## Purpose:

- to obtain **DATA**

## Development of survey by dental experts

- Reviewed by individuals with expertise in instrument development
- Included demographic, knowledge, and behavioral questions, as well as attitude assessments

## Delivery of Pre-Survey

- Sent via Qualtrics email link, distributed by nursing directors to Direct Support Professions working with individuals with IDD
- 126 participants across 17 OPWDD group homes completed the survey
- Survey completed prior to delivery of Phase 2



# ORAL HEALTH INSTRUCTIONAL VIDEOS

SCAN ME





# **INTRODUCTION VIDEO: “Helping People With IDD Overcome Barriers To Oral Health Treatment”**

- ❖ Effects of poor oral health and hygiene on systemic, psychological and social health
- ❖ LEND (Leadership Education in Neurodevelopmental and Related Disabilities) Self-Advocate Interviews
  - Individuals with IDD and/or their parents
  - Discuss their personal experience with oral health care and insight for caregivers



SCAN ME



# LESSON 1: “Basics of Oral Hygiene”

- Prevention
- What causes cavities?
- Oral risk factors
  - How diet affects oral health and oral hygiene
  - Increased dental disease risk for people with IDD compared to neurotypical individuals
- Recognition of disease
  - When to contact a dental professional



SCAN ME





## LESSON 2: “Tools of the Trade and Helpful Substitutions”

- Review of common oral home care products:
  - toothbrushes
  - toothpastes
  - floss
  - mouth props
  - denture adhesive
  - denture care products
- Modifications of toothbrushes



SCAN ME



# LESSON 3:

## “Oral Hygiene Instructions for Caregivers”

- Tips for individuals and caregivers
- Toothbrushing demonstrations with alternative methods: roll method, circular method, modified toothbrush handles
- Flossing demonstrations with alternative methods
- Resident/Caregiver Positioning
- Denture care



SCAN ME





# LESSON 4:

## “Behavior Guidance Techniques”

- Tell-Show-Do
- Positive Reinforcement
- Counting Technique
- Distraction Techniques



SCAN ME



# LESSON 5: “Troubleshooting Common Oral Hygiene Issues”

- Advanced modifications including positioning and head support
- Tips for aided toothbrushing

Smiles United Lesson 5: Troubleshooting Common Oral Hygiene Issues



**Tips:**

- Have good head support whether the individual is sitting or lying down.

1:03 / 2:53

Scroll for details

SCAN ME







# ORAL HYGIENE SUPPLIES





## **DELIVER ORAL HEALTH INSTRUCTIONAL VIDEOS AND HYGIENE SUPPLIES**

- The pre-filmed instructional videos were delivered to nursing staff of group homes via email with link to YouTube platform
- Nursing Directors scheduled time in the work-day for DSP's to review the videos
- The oral hygiene products discussed in the instructional videos were then delivered to each group home for distribution and use for all residents
- After about 3 months, a post-survey was delivered virtually using Qualtrics





# REVIEWING THE PILOT PROJECT

## RESULTS & FINDINGS

- Participant caregivers had a strong baseline knowledge when it came to dental care
- Interventions had a positive effect on improving participants' opinions
- The success of the program was to provide assurance of the caregiver's ability to provide proper oral care when properly trained

## LIMITATIONS

- High turnover in caregiver staffing decreased the # of post-training surveys completed





A 3D rendering of a red puzzle piece standing upright on a surface of grey puzzle pieces. The red piece is the central focus, with its unique shape and color contrasting sharply with the surrounding grey pieces. The lighting creates soft shadows, giving the pieces a three-dimensional appearance.

# PHASE TWO



# PHASE TWO

- Due to the success of the pilot project, Smiles United received additional grant funding from the CDD for continuation of the oral health educational program
- How can we adapt and scale the program?



Council on  
Developmental  
Disabilities



# GOALS OF PHASE TWO

- **Video Accessibility:** modify existing videos for inclusivity
  - Create QR code for ease of distribution
  - Closed captioning
  - Translation in multiple languages
- **Gain Additional Partnering Agencies**
- **Develop Pre/Post Survey**
- **Advanced Video Modules**
- **Distribution of Videos:**
  - Implementation of training videos as onboard training for new staff and interval refresher courses
    - Incorporating oral health into the organization's missions and goals by establishing organizational structure and benchmarks for group homes
    - Create incentive programs (badges, certificates, etc)
  - Demonstrate a successful model that can be adapted and scaled







Office for People With  
Developmental Disabilities



# PARTNERS

- **OPWDD**

- Continued collaboration with the deputy commissioner to assist with implementation of 10-minute on-board training video for all new hires





# PARTNERS

- **The Anderson Center for Autism**
  - A nationally renowned autism service agency
  - Serving 500 children and adults with autism
  - Employing over 850 staff
  - 24 IRA's and 4 LifeLong Learning Centers
    - 255 Residents
    - 270 DSP's







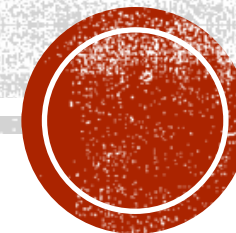
Seeing beyond disability.



# PARTNERS

- **The Young Adult Institute**

- NYC borough locations, offering outpatient services including primary care, dentistry, pediatrics, etc
- Residential Services through NYC, LI and Westchester
- Partnered with 11 YAI residential sites throughout Westchester



# IRB PROTOCOL

- Hypothesis:
  - *Providing virtual oral health education to Direct Support Providers (DSP) of individuals with intellectual, developmental and/or acquired disabilities promotes confidence in the DSP's ability to provide oral home care under their care.*
- Inclusion criteria: DSPs who provide direct care to individuals with intellectual, developmental and related disabilities in group home and school settings
- Exclusion criteria: DSPs who do not provide direct care to individuals with IDD
- Informed Consent: not required as data is de-identified by using an anonymous survey through Qualtrics.





# SURVEY DESIGN

- A pre-survey was designed by oral health professionals, reviewed by a biostatistician and tested for reliability and validity. The anonymous survey was sent out to caregivers at group homes via Qualtrics. The pre-surveys were completed by the caregivers and responses reviewed by the biostatistician.
  - **Demographics:** This category comprises 17 questions. These questions aim to gather information about the participants utilizing the educational resources and their experiences in providing oral home care.
  - **Knowledge:** These 6 questions are intended to gauge the respondents' knowledge related to overall oral health.
  - **Attitude:** 6 of these 10 questions are the primary target of the intervention as they assess the comfort level of the respondents/DSPs when providing home oral care. The remaining 4 provide insights into the respondents' desired access to training resources and their perceptions of barriers associated with receiving training or providing oral home care.



# ADVANCED VIDEO MODULES

- **Lesson 6:** Autism Spectrum Disorder and Oral Care
- **Lesson 7:** Cerebral Palsy and Oral Care
- **Lesson 8:** Intellectual Disabilities and Language and Speech Disorders
- **Lesson 9:** Preparing for your Dental Office Visit as a DSP
- **Overview Video:** 10 Minute “Best-Of” Caregiver Onboard Training

SCAN ME





# LESSON 6: AUTISM SPECTRUM DISORDER AND ORAL CARE

- Discuss behavioral disorders through the lens of Autism Spectrum Disorder (ASD)
- Importance of utilizing an individualized oral home care routine to establish a complete oral hygiene routine
- Understanding social and behavioral challenges associated with ASD
- Behavior guidance techniques



# LESSON 7: CEREBRAL PALSY AND ORAL CARE

- Different types of CP
- Types of movement disorders
- Oral motor dysfunction and understanding aspiration risks
- Developing an individualized oral home care plan
- Supports for movement disorders during oral home care





# **LESSON 8: INTELLECTUAL DISABILITIES AND LANGUAGE AND SPEECH DISORDERS**

- Define ID
- Understanding levels of severity and supports needed
- Define types of language disorders and speech disorders
- Discuss diagnostic overshadowing
- Understanding non-verbal cues and communication



# LESSON 9: PREPARING FOR YOUR DENTAL OFFICE VISIT AS A DSP

- Documents to prepare and bring
- Questions to ask/discussions to have prior to attending the appointment
- Identifying and discussing accommodations
- At home preparations
- Identifying supports (people, items, etc) to accompany the resident to the visit





# ORAL HEALTH EDUCATION VIDEOS

---



The Oral Health Education Videos modules were sent to our partnering agencies (via YouTube platform) to provide their DSPs



DSP's who participated in the pre-survey were allotted time to watch the 10 Oral Health Education video modules



# POST-SURVEY



After allowing time for implementation, the post survey was sent to our partnering agencies for the same DSP's to complete in order to evaluate the effectiveness of our educational resources and to test our hypothesis



The data will be evaluated by a biostatistion





## RESEARCH OPPORTUNITIES

- To better understand barriers (e.g. high turnover rate of staff)
- To investigate incentives (group home infrastructure, individual staff)
- Develop appropriate methods of assessment of success of training and intervention
  - *\*and provide data on these above points to support lobbying efforts for improved access, such as better insurance reimbursement, updating reimbursable codes, etc*



# HOW CAN WE HELP EACH OTHER?

---

1

Help us expand our training to caregivers by connecting us directly with nursing staff at Group Homes

2

Advocate for group homes to require our trainings for on-board training of caregiver staff

3

Communicate additional needs that may be addressed by adapting and scaling our programs



# REFERENCES

- American Academy of Pediatric Dentistry. Policy on transitioning from a pediatric to an adult dental home for individuals with special health care needs. *The Reference Manual of Pediatric Dentistry*. Chicago, Ill.: American Academy of Pediatric Dentistry; 2021:159-63.
- Casamassimo PS, Seale NS, Ruehs K. General dentists' perceptions of educational and treatment issues affecting access to care for children with special health care needs. *J Dent Educ* 2004;68(1):23-5
- Dye, Bruce A, Albino, Judith, D'Souza, Rena N. Oral health problems are global and need to be addressed in the USA. *The Lancet* VOLUME 399, ISSUE 10320, P127-128, JANUARY 08, 2022. DOI:[https://doi.org/10.1016/S0140-6736\(21\)02842-7](https://doi.org/10.1016/S0140-6736(21)02842-7)
- Ettinger, Ronald, Marchini, Leonardo, Zwetchkenbaum, Samuel. The Impact of COVID-19 on the Oral Health of Patients with Special Needs, *Dental Clinics of North America*, Volume 66, Issue 2, 2022, Pages 181-194, <https://doi.org/10.1016/j.cden.2022.01.001>.
- *NIDCR Strategic Plan 2021–2026*. (2021, December). National Institute of Dental and Craniofacial Research. Retrieved May 4, 2022, from <https://www.nidcr.nih.gov/about-us/strategic-plan>
- Tegtmeier, C. & Rozdolski, R. (2022). *Legislative Request for Medicaid and other Appropriations [White Paper]*.



*This project was supported, in part, by grant number 2301NYSCDD, from the U.S. Administration for Community Living, the Department of Health and Human Services, Washington, D.C. 20201 through the New York State Developmental Disabilities Planning Council (NYS DDPC). Grantees undertaking projects with government sponsorship are encourage to express freely their finds and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy or the opinions, interpretation or policy of the NYS DDPC.*



**Council on  
Developmental  
Disabilities**





# SMILES UNITED



**WITH TOURO COLLEGE OF DENTAL MEDICINE**

## **Thank You!**

**Contact Info:**

[Raquel.Rozdolski@touro.edu](mailto:Raquel.Rozdolski@touro.edu)

[Susan\\_Disenso@touro.edu](mailto:Susan_Disenso@touro.edu)

[SmilesUnited@touro.edu](mailto:SmilesUnited@touro.edu)



**Council on  
Developmental  
Disabilities**

