Special Care Dentistry

• Provision of oral care services to people with physical, medical, developmental, or cognitive conditions which may limit their ability to receive routine dental care
Developmental Disability

Physical

Learning

Language

Behavioral
Causes of Developmental Disability

• Genetic causes
  ▫ Fragile X syndrome
  ▫ Down syndrome
• Parental behaviors
  ▫ Medications, alcohol, drug use
• Infections during pregnancy
• Environmental toxins
Types of Developmental Disabilities

- Down syndrome
- Fetal alcohol syndrome
- Cerebral palsy
- Autism
- Intellectual disability
- Traumatic brain injury
- Neural tube defects
Prevalence

- 1 in 7 children in the US has a developmental disability (DD)$^2$
- Increasing trend of individuals with DD
- “...Resources directed toward improving health care and supporting families and communities are needed to prevent mental, emotional, and behavioral disorders...”$^3$
Developmental Disabilities

- Restricted movement of extremities
- Cognitive limitations
- Delayed/lack visual or auditory response
- Language delay
- Oral manifestations
- Low muscle tone
- Failure to reach appropriate age milestones
- Limited dexterity
Complex Medical Histories

- GERD\textsuperscript{5}
- Arthritis
- Bladder conditions
- Communication difficulty
- Previous surgeries/hospitalization
- Weight problems

- Sleep disturbance
- Mental health conditions
- Chronic conditions
- Seizures
- Feeding complications\textsuperscript{4}
Possible Behavior

• May be cooperative and have no behavioral complications during treatment
• Frequent sudden body/head movements
• Vocalizations
• Uncooperative behavior
• Leads to increased risk for injury of provider and patient
Oral Manifestations

- Bruxism$^{7,8}$
- Erosion
- Periodontal disease
- Dental caries
- Chipped teeth
- Tongue thrust
- Mobility
- Furcation involvement
- Retained root tips
- Cervical decay
- Oral lesions
- Malocclusion
Contributing Factors to Poor Health

- Transportation
- Reliance on caregivers/guardians
- Dexterity
- Complex medical conditions

- Financial limitations\textsuperscript{9,10}
- Architectural
- Lack of evidence and data
- Willingness and competence of providers
Historical Trauma

- **20th century**
  - Forced institutionalization
  - U.S. immigration laws excluded those with disabilities
- **Buck v. Bell:** U.S. Supreme Court upheld sterilization laws to prevent births of “mentally defective” people
  - Sterilization continued in 27 states until 1968 after Buck v. Bell case
  - 65,000 Americans with intellectual disabilities forced to sterilize
Historical Trauma

- 1953: Pennsylvania did not allow people with epilepsy to receive a marriage certificate
- 2007: 30 states still had statutes that banned the right of people with disabilities to get married
Access to Dental Care

• 1990 Americans with Disabilities Act\textsuperscript{10}
  ▫ Forbids discrimination of people with disabilities
  ▫ Goal: provide people with disabilities the same opportunities as the general population
  ▫ May still be unable to receive care
    • Cost, acceptance of insurance
    • Safety
    • Proper equipment
    • Adequate training
Perception of Providers

- Lack of experience
- Inadequate training
- Negative beliefs
- Undeveloped interest
- Misconception of population
Improving Perception

- Improving perception starts with educational experiences of dental and dental hygiene students
- Improving perceptions leads to improved access to care
Commission on Dental Accreditation\textsuperscript{14}
Dental Hygiene Programs 2-12
and Dental Programs 2-24

“Graduates must be competent in assessing the treatment needs of patients with special needs.”
Dental hygiene programs in US provide clinical experience with DD in 2008\textsuperscript{13}

Dental hygiene programs in US provided lectures on individuals with disabilities

Graduates from US dental schools reported 5 hours or less of classroom instruction in SCD\textsuperscript{11}

US dental school graduates report “little to no confidence” with patients with DD
Dental students report interest in treating individuals with DD

53% Dental school deans 
Feel most graduates are not competent in care for those with developmental disabilities

60% Dental students

50% Dental school directors
Report their programs do not provide appropriate training in patients with DD

53% Dental residency directors

75% Dental students report interest in treating individuals with DD
UNM Department of Dental Medicine

- HRSA grant in 2015
  - Create additional clinical and educational opportunities
- Special needs clinic housed within dental hygiene school
- Goal: enhance training of students and community providers in treating patients with developmental disability, improve access to care
UNM Novitski Dental Clinic
Student Clinical Rotations

• Dental residents
  ▫ 4 day rotation: 32 hours

• Dental hygiene students
  ▫ 3-hour shadowing experience (1st year)
  ▫ 3.5 hour clinical experience (2nd year)
  ▫ Additional clinical enrichment (up to 44 hours)
Provision of Dental Care

- Communication tools
  - Tell-show-do
- Medical immobilization
  - Physical: hand guarding, etc.
  - Chemical: anxiolytic medications, anesthesia, nitrous oxide
  - Mechanical: papoose boards, mouth props, arm restraints, etc.
Oral Hygiene Instruction

• Provided to the patient, caregiver, and/or guardian
• Give tools to help with home habits
  ▫ Plastic mouth mirrors
  ▫ Foam mouth props
• Appropriate recommendations
Dental Considerations

• Thorough examinations for lesions, mobility, malocclusion, caries
• Chlorhexidine .12%
• Higher concentration fluoride products
• Using adaptations for patient and operator safety
Summary

- Individuals with developmental disability experience poor oral health outcomes
- Many contributing factors to oral health
- Providers have a role in improving oral health for this population
  - Education
  - Continuing education
  - Willingness
Questions?

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Thank you!