



The Current Status of Compliance with Dental Procedures Among Individuals with Developmental Disabilities



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Background

Global developmental delay (GDD) is a subset of developmental disabilities defined as a significant delay in two or more of the following developmental domains which can affect various activities of daily living:

- gross/fine motor skills
- speech/language skills
- cognition
- social/personal skills
- self-care (feeding, dressing, eating, bathing)

One of the most problematic areas affected for individuals with developmental disabilities is oral hygiene and dental care. Glassman (2009) found that people with developmental disabilities have an increased incidence of dental problems such as missing teeth and dental disease as compared to members of the general population. Several factors including greater difficulty tolerating dental procedures, increased sensitivity to pain and presence of interfering, challenging behaviors contribute to this higher incidence.

Some adults with developmental disabilities exhibit considerable resistance to dental treatment



- Dental caries
- Gingivitis
- Increased number of dental extractions
- Periodontal disease
- Higher level of plaque

WIHD Dental Clinic and Community Liaison

Dr. Dougherty's expertise lies in oral healthcare for individuals with developmental disabilities. Her accomplishments include:

- Clinical Associate Professor of Pediatric Dentistry at NYU
- Director of the Roosevelt Kennedy Center in the Bronx
- Diplomat of the American Board of Pediatric Dentistry
- Diplomat of the American Board of Special Care Dentistry



Dr. Nancy Dougherty, DMD

Dr. Dougherty's research interests focus on the dental care of the special needs population and she has co-authored many articles related to this topic.



WIHD Mobile van dental outreach program serves individuals with disabilities throughout the Hudson Valley Region and Westchester Medical Center

Results of Literature Review

Prevalence

People with developmental disabilities have increased dental problems.

"Many reports show that people with disabilities have more dental disease, more missing teeth, and more difficulty in obtaining dental care than other members of the general population"

Restraints

The American Dental Association and the American Academy of Pediatric Dentistry has no official policy on which sedation should be used and when restraint should be used. Types of restraints and sedation include but are not limited to:

- Hand over mouth
- Anesthesia
- Sedatives

A common indication for using general anesthesia is due to uncooperative behavior by dental patients, such as oral defensiveness, escape, and avoidance behavior.

Behavioral

By using applied behavioral analysis techniques, dentists can minimize the use of physical and chemical restraints. Such techniques include but are not limited to:

- Desensitization
- Tell-show-do

Goals and Objectives

This study aims to review dental records of current and past WIHD dental patients to determine the prevalence of chemical and physical restraints used at the WIHD dental clinic. This study hypothesizes that dental patients with developmental disabilities require the use of chemical and physical restraints more often than the general population. This study supports the need to continue research regarding alternatives to restraints.

Intervention techniques based on the principles of Applied Behavior Analysis (ABA) have been shown to be effective in reducing the need for chemical and physical restraints. A study completed by Cuvo et al. (2010) found that by using ABA-based approaches, such as desensitization, could improve compliance with an oral assessment in children who had a diagnosis of Autism Spectrum Disorder (ASD). The focus of ABA is on modifying socially significant behavior, including challenging behavior, using evidence-based strategies such as tell-show-do, positive and negative reinforcement, and visual cues.

In addition, patients with developmental disabilities will be able to use these techniques in other facets of life, thereby improving their quality of life, ability to exercise self-control, and improve self-esteem and confidence.

Method for Literature Review

• Databases used included PubMed, ScienceDirect, OneSearch, and Google Scholar

- Search terms included:
 - ✓ intellectual disability and dental practices
 - ✓ developmental disability and restraints
 - ✓ chemical and physical restraints in dental practices
 - ✓ chemical and physical restraints and intellectual disability
 - ✓ dental procedures and applied behavioral analysis
 - ✓ behavioral problems and developmental disability
 - ✓ dental problems and intellectual disability
 - ✓ applied behavioral analysis and developmental disability

Discussion

Current Practices

Since cooperation in dental treatment and dental care is an issue for those with such diagnoses, caregivers and dental care providers are hesitant to treat the disability community. According to Reichard, Turnbull & Turnbull (2001), 32% of dentists feel there is a lack of training within their schooling with regards to the dental treatment of this patient population. Dr. Dougherty reported that NYU teaches residents to treat higher-functioning patients who are non-compliant by using "tell, show, do" techniques and de-sensitization procedures.

Dental Education

- Lack of oral hygiene education for individuals with developmental disabilities and their caregivers
- Lack of oral hygiene implementation for individuals with developmental disabilities and their caregivers

Next Steps

- Awaiting IRB Approval
- Identify variables to be included in the chart review
 - Patient population (ethnicity, sex, diagnoses)
 - Types of sedation used vs. behaviors observed
- Collect, record, and analyze data from dental records