

Preparing Dental Graduates to Provide Care to Individuals with Special Needs

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Abstract: In 2004, the Commission on Dental Accreditation (CODA) adopted a new standard that directs dental and dental hygiene programs to prepare dental professionals for the care of persons with special health care needs. This article reviews the demographics of individuals with special needs, documents that most dental schools provide their students with very limited educational opportunities related to the care of this population, describes the path that was followed to bring about change in the accrediting standard, and discusses the difficulties involved in developing the needed educational programs. Educational programs at two dental schools are presented as examples of how schools can provide students with learning experiences pertinent to the new CODA standard that states: "Graduates must be competent in assessing the treatment needs of patients with special needs."

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On July 30, 2004, the Commission on Dental Accreditation adopted new standards for dental and dental hygiene education programs to ensure didactic and clinical opportunities to better prepare dental professionals for the care of persons with developmental disabilities, complex medical problems, significant physical limitations, and a vast array of other conditions considered under the rubric of "individuals with special needs." The standard states: "Graduates *must* be competent in assessing the treatment needs of patients with special needs."¹ Implementation of this revised standard is required by January 1, 2006. Specifically, "patients with special needs" has been defined in the standards as "those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual. These individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations."¹

Accreditation standards relevant to the teaching of the care of individuals with special needs have undergone a number of changes during the past decade. Until the mid-1990s, standards required a

"clinical experience designed to complement didactic instruction in the dental management of the handicapped or medically compromised patients."² In line with the competency-based review process, schools next were challenged to ensure that, "at minimum, graduates are competent in providing care within the scope of general dentistry, as defined by the school, for child, adolescent, adult, geriatric, and medically compromised patients."³ The recent modification in standards for dental education programs seeks to recognize and specifically prepare the next generations of practitioners who will be called upon to care for individuals who live in our communities and whose physical and intellectual limitations extend beyond the traditional definition of a "medically compromised patient."⁴

Numbers

More than 50 million U.S. residents have a developmental, physical, or intellectual disability that hinders them in functioning on their own or contributing fully to work, education, family, and community life.⁵ About 17 percent of U.S. children under

eighteen years have a developmental disability. In 2000, U.S. births included:

- 12,500 children with cerebral palsy,
- 5,000 children with hearing loss,
- 4,400 children with vision impairment,
- 5,000 children with heart malformations,
- 5,500 children with other circulatory/respiratory anomalies,
- 800 children with spina bifida/meningocele,
- 3,300 children with cleft lip/palate, and
- 8,600 children with a variety of musculoskeletal/integumental anomalies.⁶

Approximately 2 percent of school-age children have a serious developmental disability such as mental retardation or cerebral palsy and need special education services or supportive care.⁷

Results from the 2000 census indicated that:

- 9.3 million residents had a sensory disability involving sight or hearing;
- 21.2 million persons had a condition limiting basic physical activities, such as walking, climbing stairs, reaching, lifting, or carrying;
- 12.4 million individuals had a physical, mental, or emotional condition causing difficulty in learning, remembering, or concentrating;
- 6.8 million residents had a physical, mental, or emotional condition causing difficulty dressing, bathing, or getting around inside the home;
- 18.2 million individuals age sixteen and older had a condition that made it difficult to go outside the home to shop or visit a doctor; and
- 21.3 million persons age sixteen to sixty-four had a condition that affected their ability to work.⁸

Deinstitutionalization

For more than three decades, changing social policies, favorable legislation for people with disabilities, and class-action legal decisions that delineated the rights of individuals with intellectual/development disabilities have led to deinstitutionalization of these individuals—including “mainstreaming” them, establishing community-oriented group residential settings, and closing many large state-run facilities that provide comprehensive care to individuals with a wide variety of intellectual and development disabilities.

In the past, large state facilities, to some degree, offered a wide range of in-house health services provided by medical and dental staff employ-

ees. Almost all of the current community residential facilities, however, are too small to provide in-house intramural services beyond the annual examination required in some states.⁹ As a consequence, the residents in community facilities are dependent upon local practitioners for health services.

Dental Student Education

Since the mid-1950s, a number of dental schools have introduced instruction in the care of patients with special needs. These efforts were made to overcome dentists’ reluctance to treat these patients because of their lack of knowledge and experience in clinical management. However, by the end of the 1990s and into the present century, a series of studies have found that, during the four years of education, more than half of U.S. dental schools provided fewer than five hours of classroom presentations and about 75 percent of the schools provide from 0 to 5 percent of patient care time for the treatment of patients with special needs.¹⁰⁻¹⁴ In the most recent study, 50 percent of the students reported no clinical training in care of patients with special needs, and 75 percent reported little to no preparation in providing care to these patients.¹⁴

As a result, one should not be surprised that only 10 percent of general dentists responding in one study said that they treat children with cerebral palsy, mental retardation, or medically compromising conditions often or very often. Seventy percent reported that they rarely or never treated children with cerebral palsy in their practice.¹⁵

In addition, a national study of dental hygiene programs reported comparable findings: 48 percent of 170 programs had ten hours or less of didactic training (including 14 percent with five hours or less); and 57 percent of programs reported no clinical experience.¹⁶

Bringing About Change

In 2001, under the auspices of Special Olympics, two of us (HBW and SPP) proposed that CODA reestablish standards deleted in the mid-1990s ensuring that dental and dental hygiene student graduates were competent in providing oral health care to individuals with special needs.

The following series of events and activities led to the establishment of the current CODA standard related to the care of patients with special needs:

- A series of national organizations including the American Academy of Developmental Medicine and Dentistry, American Dental Education Association, American Academy of Pediatric Dentistry, Academy of Dentistry for Persons with Disabilities, and Special Care Dentistry requested that CODA revise its standards to ensure appropriate educational efforts for the dental management of patients with special needs.¹⁷
- The lack of adequate primary education for health care professionals to provide care to special needs populations was emphasized at the 2001 Surgeon General's Conference on Health Disparities and Mental Retardation.
- In 2002, CODA formed a committee to review its accreditation standards for dental and dental hygiene schools, regarding clinical preparedness in the care of patients with developmental disabilities.
- In late 2002, the House of Delegates of the American Dental Association unanimously adopted a resolution to improve access to comprehensive dental services for persons with special health care needs.
- In 2003, Commissioners of CODA proposed revised standards to ensure competency of dental programs in the care of patients with special needs. Public hearings produced no negative testimony.
- In 2004, a major letter writing effort, combined with personal contact, was instituted by lay and professional advocates. Finally, in July 2004, CODA adopted the accreditation standard that "Graduates of dental schools and schools of dental hygiene *must* be competent in assessing the treatment needs of patients with special needs."¹⁸

Realities

As in all aspects of dental education, there are a series of significant difficulties that can undermine efforts to expand programs. Many of these challenges can become even worse by the addition of curriculum time to teach students to address the oral health care of patients with special needs.

The first of these difficulties involves economics. In an effort to meet operating costs of dental schools, the price for a four-year dental education at

some private schools has reached the range of a quarter of a million dollars. In the past year, dental school financial difficulties were exacerbated by the federal government's elimination of Graduate Medical Education funds for dental school-sponsored general practice and specialty education programs. In 2002, student education debt for almost three out of five dental school graduates was in excess of \$100,000.¹⁹

Another significant area of difficulty involves faculty. Unfilled faculty positions continue as practitioners are unwilling to leave lucrative practices for teaching appointments with limited compensation, which in turn results from the precarious financial state of schools of dentistry. Recent graduates are reluctant to pursue a full-time academic career because of their outstanding debt load and inadequate level of remuneration.

In addition, there is the added reality that there may be limited numbers of trained and prepared practitioners to provide the didactic and clinical programmatic support for the development of education experiences for patients with special needs for predoctoral students. Nevertheless, there are programs that offer models for schools to follow as they develop educational opportunities for their students.

Translating Accreditation Standards into Programs

SUNY-Stony Brook University School of Dental Medicine

More than twenty years ago, a joint effort was developed between the Department of Children's Dentistry in the SUNY-Stony Brook School of Dental Medicine and the New York State Department of Developmental Disabilities and Mental Retardation to provide oral health care to children and adults with special needs, train health providers to deliver needed care, and prepare individual patients to assist in their own oral health activities.^{20,21} The program responded to the increasing rate of deinstitutionalization and movement of individuals with intellectual and other developmental disabilities into community settings by establishing a fellowship program funded by state, municipal, and service agencies.²² The components of this program are described below.

The didactic part of the predoctoral program begins in year two as an integrated component of the

Children's Dentistry curriculum. The course includes a seven-hour series that addresses the issues involved in assessing and treating individuals with varied disabilities. A step-by-step approach begins with risk management, followed by treatment planning and the delivery of care. Topics include how to identify risk of disease, along with the appropriate scope of care, informed consent, management of behavioral issues, and conventional vs. alternative treatment modalities. Lectures include case-based learning techniques and standard lecture formats. Patients with management challenges, including children with special needs, who require limited oral care are treated during this second-year period. Medical, developmental, and social topics specific to care of patients with special needs are presented in year three. As the students progress during the third year, they provide care to patients with increasingly complex treatment needs and management challenges. In their senior year, all students participate in a thirteen-week comprehensive care clinic that is specific to adults with special needs.

The postgraduate program includes a twelve-month fellowship and rotations for general practice residents from the University and Northport Veterans Hospitals and the New York University Hospital of Queens. Patient care is provided in clinic and operating room settings. The didactic component includes seminars and case presentations for case-based learning. The program encourages and supports fellows, graduate students, and predoctoral students to develop or participate in research projects.

In line with our management philosophy, SUNY-Stony Brook School of Dental Medicine promotes the concept that a responsibility of the dental professional is to educate and train caregivers to be competent and effective oral health providers. We promote behavior modification coupled with physical immobilization as needed for the individual. Oral sedation, if necessary, may be available for patients who are not amenable to any other form of treatment due to behavioral or medical concerns.

The predoctoral and postdoctoral programs generate approximately 2,000 outpatient visits annually for over 800 patients. A survey of school and program graduates revealed that the majority (68 percent) of former students are providing care for patients with special needs in their practices or supervised care in educational settings.²³ The frequently reported research finding that contact with individuals with special health care needs eases and encour-

ages a working relationship between provider and patients is borne out in our experience.¹⁴

West Virginia University School of Dentistry

Responding to the Call for Action announced during the National Conference on Dental Care for Handicapped Americans in 1979,²⁴ West Virginia University (WVU) School of Dentistry initiated a mandatory predoctoral didactic and clinical curriculum, which continued throughout the 1980s to the mid-1990s, to train student dentists to provide comprehensive dental care for individuals with developmental disabilities and/or other special health care needs. The full semester, third-year, sixteen-hour course provided an overview of the profession of dentistry's responsibility in the rehabilitation of persons with intellectual and/or other developmental disabilities. Students also received information regarding local, state, and national resources that could be utilized to provide financial, advocacy, or technical clinical assistance. These resources included the WVU Affiliated Center for Developmental Disabilities, Grottoes of North America (a fraternal organization that provides funding for dental care for eligible children identified with special health care needs), and the Academy of Dentistry for Persons with Developmental Disabilities.

Students received in-depth didactic instruction on the following ten special health care needs topics: intellectual disabilities, cerebral palsy, muscular dystrophy, epilepsy, attention deficit disorder, autism, visual and other communicative disorders, congenital and rheumatic heart disease, hemorrhagic disorders and blood dyscrasias, and respiratory diseases. Students also received instruction on the prevalence of dental disease in youngsters and adults with intellectual and other developmental disabilities (IDD) and the delivery of dental care for patients with IDD, including diagnostic evaluation and treatment planning, preventive dental therapies, comprehensive treatment modalities, and behavior management techniques.

The didactic course was complemented with a one-year clinical course. The course consisted of clinical training in providing comprehensive dental care for persons with IDD in the WVU Pediatric Dentistry Clinic or authorized remote sites, including Spencer State Hospital, Weston State Hospital, or Potomac Center. On average, each student was

scheduled for one two-hour, biweekly clinic session of patient care in the Pediatric Dentistry Clinic or the equivalent in authorized remote sites for two semesters (thirty clock-hours) during which the treatment of two to four patients was completed. Students were evaluated on their ability to obtain medical and dental histories, perform clinical examinations, summarize the child and adult patient's condition and need for care, recommend the most favorable course of services, and perform the actual delivery of care.

Students also were assigned to participate in various WVU Hospital medical clinics, including special genetics, hematology, oncology, neurology, and cardiology. In addition, students participated in the Cleft Lip and Palate Clinic program. Participation in the WVU Hospital medical clinic rotations exposed students to forty to fifty patients with a variety of special health care needs. Students provided an oral health assessment on each of these patients during interdisciplinary staff meetings. This process maximized each student's clinical training in both diagnosing oral diseases and conditions associated with specific medical conditions and behavior management techniques without increasing the student's individual patient portfolio or significantly overburdening the school's clinical curriculum.

Other Programs

In addition to these two programs, substantial current training programs in the dental management of children and adults with developmental disabilities exist at dental schools at the University of Washington, University of Louisville, Ohio State University, University of Florida, and the University of Medicine and Dentistry of New Jersey.

Furthermore, in early 2004, the American Academy of Developmental Medicine and Dentistry (AADMD) in partnership with Special Olympics initiated the Curriculum Assessment of Needs (CAN) Project in response to both anecdotal information and evidence-based data which suggested that U.S. medical and dental students are not being prepared adequately to provide comprehensive health care services for persons with intellectual and/or other developmental disabilities.²⁵ Survey data released by Special Olympics University, an international teaching, sharing, and managing program to support individuals with intellectual disabilities, indicated that 75 percent of dental health students and professionals reported never having treated a person with intellectual disabilities and only 45.9 percent reported

that they were very comfortable around individuals with mental retardation.²⁶ Clearly, any long-term success in reducing the current disappointing access to care for persons with special needs will require a significant improvement in the educational programs in our dental schools.

The CAN Project initially will consist of a series of national surveys targeting the deans of all U.S. colleges of medicine and dentistry, as well as the directors of programs in the various medical and dental general and specialty practices. A second target audience will be the major medical and dental professional organizations and the University Centers for Excellence in Developmental Disabilities Education, Research, and Service (UCEDD). The deans' survey will assess the attitudes of medical and dental school deans regarding the value of required training focused on providing care for patients with developmental disabilities. The program directors' survey will probe for the presence and strength of postdoctoral specialty training for patients with special needs. Finally, the organizational/UCEDD survey will identify those major medical and dental professional organizations with significant curriculum focused on this population.

The CAN Project was developed to identify those faculty most knowledgeable in providing comprehensive health care services in conjunction with training future health care practitioners in the area of special needs at their respective institutions. The CAN investigators will utilize the information gained to formulate a multilevel, in-depth didactic and clinical curriculum that can be used by colleges of medicine and dentistry and postgraduate residency programs to adequately train their students to provide the necessary medical and dental services so often denied to persons with intellectual and/or other developmental disabilities.

The Search for Solutions

There is no simple or single solution to prepare soon-to-be dental professionals with the acumen and willingness to provide needed oral health services for individuals with intellectual and a host of other developmental disabilities. Yet millions of special needs children and adolescents, as well as adults, reside in our communities and are dependent upon the services of local practitioners for needed care. In many instances, the added reality is that these

individuals with special health care needs are members of families currently being served by community dentists.

Thus, as dental school educators have recognized the need to prepare their students for the care of our swelling geriatric population with its accompanying panorama of medical complications, so too must we develop innovative approaches to prepare our graduates for the care of special populations.

In this process, we must broaden our perception of special populations to include individuals with intellectual and development disabilities who reside in our communities and/or remain institutionalized, as well as the homeless, the homebound, and nursing home patients who also face barriers in receiving care. We must meet the challenge of the Commission on Dental Accreditation to ensure that graduates will indeed “be competent in assessing the treatment needs of patients with special needs.”

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