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Preparing Health Professionals to Provide Care to Individuals with Disabilities

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Abstract

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Aim To review the perceptions of dental/medical educators and their students in the United States on the adequacy of didactic and clinical preparation to provide service for individuals with disabilities.

Methodology An e-mailed questionnaire with follow-up was sent to 198 deans of dental/medical schools, 1,628 directors of residency programs in nine medical/dental residency programs, 427 medical students in 12 medical schools, and 368 health related organizations, facilities and programs.

Results More than half (58%) of the responding deans of medical schools and 50% of the deans of dental schools reported that a curriculum for patients with disabilities was not a high priority at their school. A majority (61%) of deans of medical schools, and 47% of the deans of dental schools, reported that their graduates were competent to treat patients with disabilities. However, majorities of dental/medical school seniors and graduates expressed inadequate competency in the care of these patients. A majority of the directors of medical/dental residencies indicated a need for additional training for their residents.

Conclusion There is need for increased didactic and clinical preparation of dental/medical school graduates in the care of individuals with special health needs. The interest expressed by health profession educators in an effort to develop appropriate curriculum modules provides an opportunity to prepare new graduates for the care of an increasing population of individuals with disabilities.

Keywords dental education, disabilities, medical education

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Introduction

There are more than a half of a billion people in the world who are disabled as a consequence of mental, physical and sensory impairment (United Nations, 2009). In the United States, almost all of the more than 50 million individuals with developmental disabilities, complex medical problems, significant physical limitations and a vast array of other conditions considered under the rubric of "disabilities" live in local communities; many as a result of deinstitutionalization and mainstreaming them into community housing, education and employment (U.S. Census Bureau, 2008).

Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions that is used regarding individuals with "special needs". For example, the World Health Organization (WHO) refers to an "…impairment as a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situ-

ations…Thus disability is a complex phenomenon, reflecting an interaction between features of a person's body and features of the society in which he or she lives." (World Health Organization, 2008).

The U.S. Census Bureau reported for 2006, among the population:

- 5 years and over – 6.8% had one disability, 8.3% had two or more disabilities.
- 5-15 years – 536,400 had a sensory disability, almost 500,00 had a physical disability and 2.8 million had a mental disability.
- Adults – 37 million had a hearing disability, 21 million had a vision disability and 15 million had a physical functioning disability. Specifically for seniors, 14.6 million had one or more disabilities (U.S. Census Bureau, 2008).

The reality is that these individuals are our neighbors and in many instances are members of families of record in current community health practice settings. As a result, they are dependent upon local physicians, dentists and other health practitioners for all phases of health services. The number of these persons with disabilities is to increase dramatically as the population age sixty-five years and over reaches one-in-five residents during the next two decades (U.S. Census Bureau, 2006).

While economists and ethicists labor over the practicality of coming to terms with the mounting resources necessary to respond to the needs of these individuals with disabilities, a parallel question faces the educators of the next generations of health professionals. Advances in modern basic and clinical sciences increasingly assure extended lives into advanced age for individuals with disabilities who will reside in our communities. How well are we preparing future practitioners (in terms of training, experiences, even in their personal attitudes regarding individuals with disabilities, *etc*.) to meet the complex needs of this vast array of persons with disabling conditions?

Despite the fact that currently there are more than 50 million U.S. residents with disabilities (with projections for increasing numbers), there are no specific accreditation requirements which set required curricula standards and programs for schools of medicine to address the obligation to prepare graduates to provide services for these individuals. By contrast, in 2004 the Commission on Dental Accreditation adopted the standard for schools of dental and dental hygiene, that, "Graduates *must* (sic) be competent in assessing the treatment needs of patients with special needs." (Commission on Dental Accreditation, 2004). Specifically, "patients with special needs" has been defined in this standard as "those patients with medical, physical, psychological, or social situations that make it necessary to modify normal dental routines in order to provide dental treatment for that individual. These individuals include, but not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations." (Commission on Dental Education, 2004)

Instrumental in the adoption of the new dental accreditation standard was the 2002 Surgeon General's report, *Closing the Gap: A National Blueprint to Improve the Health of Persons with Mental Retardation* (U.S. Public Health Service, 2002). An emphasis in the report was the call to prepare health practitioners early in their training to provide the needed care for individuals with disabilities. Studies prior to the Surgeon General's report had highlighted the reality that about half of graduating medical and dental students had never treated a patient with disabilities or had inadequate didactic or clinical experience to provide necessary service for patients with disabilities (Willer *et al*., 1980; Wolff *et al*., 2004). The relationship between inadequate educational preparation in medical and dental schools and the difficulties experienced by this patient population in gaining access to community based heath services was emphasized in an additional report (Fenton *et al*., 2003). Essentially, clinical experience with a given patient population increases the confidence of clinicians to treat that population (Marel *et al*., 2000; Ferrini and Klein, 2006).

The "technical" aspects of the medical and dental care that are provided to individuals with disabilities may vary to some degree, depending upon the type and intensity of the disability (e.g. in dental care – the need for mouth props, behavioral management techniques, or general anesthetics; in medical care – modification of testing procedures, such as the use chemical stress tests rather than physical stress tests). The intent of the educational program for medical and dental students is to train

students to "see beyond the obvious" particulars of a disability and considering, for example:

- The evidence of comorbidity; *i.e.* establishing the relations between the disabling conditions and understanding the implications for total health services, which can affect significantly the clinical management and referrals.
- Secondary conditions which can make a person more susceptible by virtue of having a primary disabling condition. These conditions can be : ①non-medical events, *e.g.* isolation, ② conditions that affect the general population, *e.g*. obesity, but more often affect people with a disabling condition, and ③problems that arise any time during the lifespan, *e.g*. inaccessibly to medical facilities (Centers for Disease Control and Prevention, 2008).

But any such effort to provide the "clinical educational opportunities" to prepare soon-to-be practitioners to provide needed services, also must include an appreciation of the extended series of barriers faced by individuals with disabilities, including:

- Physical access to the sources of health services
- Economic limitations
- Limitations in third party support, particularly the Medicaid program with its Byzantine administrative nightmare of regulations and paperwork
- Professional and lay attitudes regarding the value of services for individuals with extensive disabilities

In 2005, the Surgeon General issued a "Call to Action" to improve the health of people with disabilities by improving the educational preparation of health profession students (Department of Health and Human Services, 2005). In response, a study was undertaken by the American Academy of Developmental Medicine and Dentistry (The Academy) to assess the preparation of medical and dental students to provide need care for individuals with disabilities.

Study objective

The Academy's Curriculum Assessment of Needs (CAN) Project survey is an effort to assess ①the perception of US medical and dental educators on the curricula importance of the diagnosis and treatment of individuals with disabilities and their willingness to institute needed training programs, and ②the attitudes and perceptions of students regarding their training for care of these patients.

Materials and methods

A questionnaire was e-mailed to the deans of all allopathic and osteopathic medical schools, and all dental schools in the United States. In addition:

1) The directors and administrators of every university-affiliated residency program in the country for five specialties in dentistry and four specialties in medicine were involved in the study. The particular specialties were selected based upon the quantity of services provided to individuals with disabilities.

2) An initial online search for advocacy/disease specific organizations was carried out. However, the Exceptional Parent Magazine's Resource Guide provided a more "simplified" exhaustive listing of hundreds of organizations. All listed organizations were included in the survey process.

3) The medical students who attended the World Congress on Disabilities (WCD) and student attendees of the 2004 American Medical Student Association served as a "convenience sample" of students.

4) A literature search was carried out to determine the preparation of predoctoral dental students to provide services for individuals with disabilities prior to the institution of changes in accreditation standards. By the end of the 1990s and into the present century, "… more than half of U.S. dental schools provided fewer than five hours of classroom presentation and about 75 percent of the schools provided from 0–5 percent of patient care time for the treatment of patients with special needs. …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." (Fenton, 1993a; Fenton, 1993b; Fenton, 1999; Romer *et al.,* 1999; Wolff *et al,* 2004; Waldman *et al.,* 2005). As a result, one should not be surprised that, "… only 10 percent of general dentists reported that they treat children with cerebral palsy, mental retardation, or medically compromising conditions often or very often." (Casamassimo *et*

al., 2004).

First and second follow-up contacts were carried out by e-mail in an effort to increase the response rates. Student surveys were mailed to the deans of medical schools with directions to distribute hard copies or directing students to a web-based on-line survey site.

Results

Response: A total of 2,219 surveys were distributed, 795 were returned; a response rate of 36%. A greater proportion of deans of dental schools and directors of dental residency programs responded to the survey, than their medical counterparts (55% *vs*. 22%). A number of educators elected not to complete the survey, indicating that they did so because nothing specific was being done at their institution regarding the preparation of students for care of patients with disabilities.

Educators: Half or more of the deans of the medical and dental schools reported that a curriculum focused on the care patients with disabilities was not a high priority in their school. Approximately 1-in-5 medical school student respondents indicated that they have had a minimum amount of clinical training that focused on the care of individuals with disabilities. Nevertheless, 61% of responding deans of medical schools and 47% of the deans of dental schools reported that their graduates were competent to treat patients with disabilities (Figure 1).

Almost all (90%) of the directors of dental residencies, compared to 65% of the directors of medical residencies reported that their students should have more than five hours of clinical training in the care of patients disabilities. Only 1-in-10 primary care (Family Practice and Internal Medicine) residency programs were reported to be providing clinic training in the care of the patients with disabilities.

The majority of medical and dental residency responding program directors indicated that they provided limited didactic and clinical training in the care of patients with disabilities. Three-quarters of medical residency programs, compared to slightly more than half of the dental residency programs, provide three hours or less of didactic instruction and no clinical training in the care of this patient population (Figure 2).

Students: While two-thirds of medical students reported receiving some didactic instruction in the care of patients with disabilities, 81% reported receiving no clinical training. More than half (56%) felt inadequately prepared to treat these patients. Similarly, approximately two-thirds (68%) of dental students (prior to the introduction of the recently instituted accreditation standards) receiving five hours or less of didactic instruction; half reported receiving no clinical training, and three-quarters felt inadequately prepared to provided needed services (Figure 3).

While more than sixty percent of the deans of medical schools and directors of medical residencies reported that their graduates were competent in the treatment of individuals with disabilities, more than half (56%) of graduating students disagreed with this assessment. Nevertheless, three-quarters of medical students and 83% of dental students expressed an interest in caring for this population.

Advocacy organizations: Ninety percent (90%) of advocacy and disease-specific organizations are not producing a generalized effort that emphasizes the overall care of individuals with disabilities.

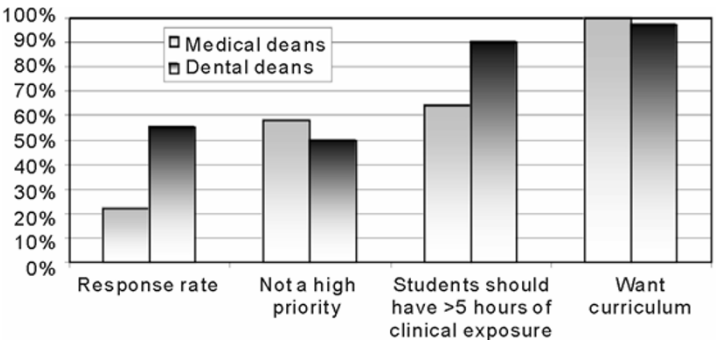

Figure 1 Priorities of the deans of medical and dental schools regarding teaching of the care of individuals with disabilities

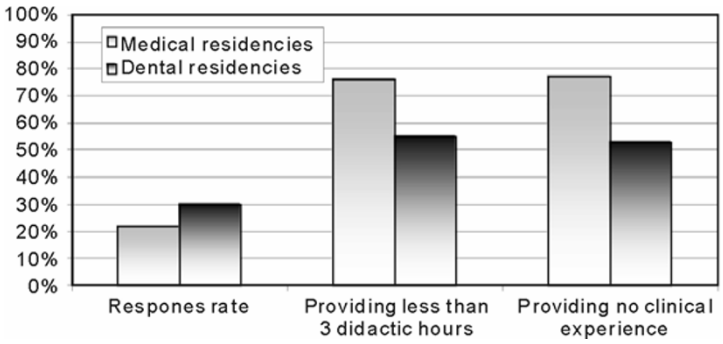

Figure 2 Hours devoted to didactic and clinical experience in medical dental and dental residencies in the care of individuals with disabilities

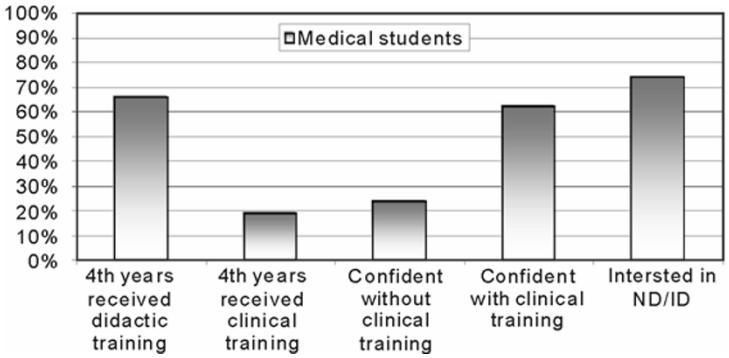

Figure 3 Training received by medical students and confidence and interest in providing care to individuals with disabilities

Conclusion

Limited educational opportunities are offered in schools of medicine and residency programs to prepare students for the care of individuals with disabilities. In most instances, no clinical experiences are provided. Although similar findings were reported for dental programs, the recent institution of an accreditation standard which requires instruction in the care of patients with special needs should bring about necessary changes.

Responses to the survey clearly indicate educator interest in the employment of a program that is being developed by The Academy and Special Olympics to introduce health profession students to the care of individuals with disabilities (American Academy of Developmental Medicine and Dentistry, 2008). A similar favorable response was elicited from medical students as they expressed their willingness to provide services for this population.

Given the significant differences between the views of medical/dental school administrators and students regarding prepare of soon to be practitioners to provide services for individuals with disabilities, future efforts will be needed to determine whether statements of interest result in actual programmatic developments.

The American Academy of Developmental Medicine and Dentistry has introduced a model for building partnerships between professional schools and community-based developmental medicine and dentistry clinics, in an effort to establish developmental medicine and dentistry fellowship programs and clinical rotation opportunities. A second phase of the Curriculum Assessment of Needs (CAN) project will focus on the development of medical and dental curricula modules that focus on the care of individuals with disabilities, and a national strategy to disseminate these curricula to medical and dental schools. The steps taken by the Commission on Dental Accreditation to ensure educational opportunities to prepare the next generations of dentists for the care of patients with special needs may well serve as a model for a comparable process for medical schools.

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