

Education of Dentists in the Treatment of Patients With Special Needs

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Abstract

The dental education system has been suggested as the vital link in providing a workforce capable of improving oral health for people with special needs.^{1,2} Dental education institutions not only train dental professionals for their role in providing oral health services for people with special needs, they also provide a significant amount of services to this population in their clinical environments. However, there is no consensus about whether to concentrate the educational efforts on the pre- or postdoctoral level, or both. Furthermore, it is not clear if educational initiatives in the care of patients with special needs will translate into a larger oral health workforce willing to treat these patients. However, for the purposes of this paper, it will be assumed that more education and training in special care dentistry will lead to better-educated dentists and the desired result of better access to care for special needs patients.

The authors will define special needs patients as those who have a chronic physical, developmental, behavioral, or emotional condition, and who also require health and related services of a type or amount beyond that the general population requires. This paper will describe accreditation issues and discuss the advantages and disadvantages of special care education in pre- and postdoctoral training and beyond.

Initially, the focus of treatment for what we now refer to as special needs patients, was on pediatric patients. Many special needs patients did not live into adulthood. It was also common to view the adult special needs patient as not progressing developmentally past a certain age. Kamen traces the beginning of the movement for advancement of the developmentally disabled child to the mid-1940s, shortly after World War II.³ In 1948, the Dental Guidance Council for Cerebral Palsy of New York City was formed. In 1950, a graduate fellowship program and dental clinic patients with cerebral palsy was started. The first hospital-based postgraduate training program in mental retardation was initiated in 1956 by Flower Fifth Avenue Hospital in New York City. Cataldi stated that this increasing interest “was not due so much to a greater awareness of parents of the importance of dental care for their children, but because improved



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methods of medical treatment were prolonging the lives of many such children to the point where dental care became a necessity rather than an isolated problem which dentists could ignore."⁴ In the mid-1950s, conferences, sponsored by the American Association of Dental Schools (now known as American Dental Education Association), were convened to determine how dental schools could best handle this issue. Kamen stated, however, that "It is sad to report that in the '50s and '60s, less than a dozen dental schools offered postdoctoral training of any significance in the provision of dental care for special patients.³ The picture of neglect on the undergraduate level, as well as in continuing education in this period, is one which tarnishes the record of our teaching institutions."

In the 1970s, there was a renewed effort to address the education of dentists in the treatment of special needs patients. The Rehabilitation Act of 1973 made it illegal for health care providers to withhold services to otherwise qualified persons on the basis of handicap. The Robert Wood Johnson Foundation in 1974 granted \$4.7 million dollars to 11 dental schools for undergraduate training programs in dental care for the handicapped. In 1978, the U.S. Department of Health Education and Welfare conducted an evaluation of funded programs for training (primarily undergraduate) dentists to treat children with handicaps.⁵ They found that these programs "were judged to be providing better exposure to the handicapped for their students than the comparison programs." They went on to suggest that "Both short-range and long-range national estimates of manpower requirements to treat handicapped children should be developed." The report recommended "these estimates should consider attitudinal factors (e.g., willingness to treat) and technical capability derived from training ..." In 1979, a conference was convened on Dental Care for the

Handicapped.⁶ Specific recommendations for curriculum development were made. The conference report concluded that a barrier to treatment of this patient population are "practitioners, who, as dental students, did not have training and/or experience in caring for the handicapped and who, therefore, are not emotionally or professionally prepared to do so." Stimulated by these events, curriculum guidelines were established in the mid-1980s to provide instruction for treating special needs patients.⁷

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In May 2000, Oral Health in America: A Report of the Surgeon General was released.⁸ The authors stated that "This surgeon general's report has much to say about the inequities and disparities that affect those least able to muster the resources to achieve optimal oral health." "Individuals with disabilities and those with complex health problems may face additional barriers to care." In 2001, the American Dental Association released the Future of Dentistry report which stated, "The dental education curriculum should become more relevant to the practice of modern dentistry. Areas which should receive greater emphasis include: special needs populations ..." and "Stipend support and positions for postgraduate residency training must be made available to increase the numbers of dentists capable and willing to provide care to low-income

and special needs populations." The report went on to state that "Individuals with physical, sensory and developmental disabilities that limit mobility or are accompanied by exceptional treatment needs, face special challenges in receiving regular dental care, as they do with many aspects of everyday life. The skills and experience required to treat some of these individuals is sometimes beyond the capabilities of the average dentist. Educational programs to train providers with the specialized necessary skills will be important." The ADA also adopted Resolution 66H, Oral Health Access for Persons with Special Needs, at its 2002 annual meeting in New Orleans. The resolution encouraged dental and allied dental programs to educate students about the oral health needs and issues of people with special needs. In May 2001, a conference on Promoting Oral Health of Children with Neurodevelopmental Disabilities and Other Special Needs was held.⁹ The subsequent report recommended that dental schools "Provide general dental students with direct experience with children, including children with special health care needs ..."

The discussion illustrated there has been a long and concerted effort to address the education of dentists to treat special needs patients at the undergraduate and postgraduate level. However, it wasn't until the late 1970s where the activity had reached the level that the Commission on Dental Accreditation, sanctioned by the Department of Education and accredits all dental education programs, reflected the interest in special needs patients by incorporating new requirements into pre- and post doctoral training program standards.

Accreditation Issues

The Commission on Dental Accreditation originally adopted language for predoctoral dental education and dental hygiene clinical instruction for special needs patients in 1979, follow-

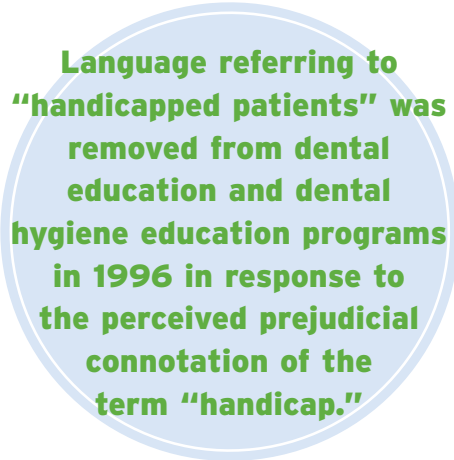
ing the National Conference on Dental Care for Handicapped Americans. It encouraged dental and dental hygiene programs to provide didactic and clinical instruction in managing “handicapped” patients. This language referring to “handicapped patients” was removed from dental education and dental hygiene education programs in 1996 in response to the perceived prejudicial connotation of the term “handicap.” No substitute language replaced this editorial change. In 2001, there was a formal request to reintroduce language in the accreditation standards related to special care patients.

New accreditation language for both dental education and dental hygiene programs were adopted by Commission on Dental Accreditation in 2004. Standard 2-26 for dental education programs (predoctoral and dental hygiene) now states, “Graduates must be competent in assessing the treatment needs of patients with special needs.” Dental Hygiene Standard 2-14 states, “Dental hygiene science content must include oral health education and preventive counseling, health promotion, patient management, clinical dental hygiene, provision of services for and management of patients with special needs, community dental/oral health, medical and dental emergencies including basic life support, legal and ethical aspects of dental hygiene practice, infection and hazard control management, and the provision of oral health care services to patients with bloodborne infectious diseases.” Additionally, Dental Hygiene Standard 2-18 states, “Graduates must be competent in assessing the treatment needs of patients with special needs.”

It is apparent the current accreditation standards do not require that dental and dental hygiene students actually be competent to treat special needs patients, only that they are competent in their assessing their treatment needs. Whether or not this competency is

sufficient to prepare dental students to treat special needs patients in their offices is doubtful.

In 2005, the American Dental Education Association, in an effort to ensure that dental education programs provide treatment experiences for people with special needs during their programs adopted this resolution, “Resolved, that ADEA, consistent with its existing policy, urge the American Dental Association Commission on Dental Accreditation to adopt accredi-



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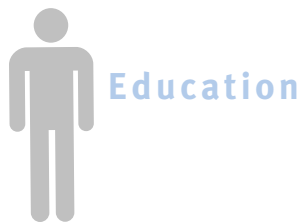
tation standards that ensure that education programs include both didactic instruction and clinical experiences involving treatment of people with special needs as defined by the commission, and appropriate for the type of educational program in which the student is enrolled.”

In contrast to the predoctoral and dental hygiene standards, the Commission on Dental Accreditation requirements for general practice residency and advanced education in general dentistry programs require that all programs “Plan and provide multidisciplinary oral health care for a wide variety of patients including patients with special needs.” Additionally, general practice residency and advanced education in general dentistry Standard 2.3 states, “Residents completing the

program must receive training and experience in providing comprehensive multidisciplinary oral health care at a level of skill and complexity beyond that accomplished in predoctoral training for a variety of patients, including patients with special needs.”

Pediatric dentistry is described by the Commission on Dental Accreditation as an age-defined specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs. There are many standards in pediatric dentistry that relate to special needs patients. For example, Standard 4-1 states, “The goal of an advanced education program in pediatric dentistry is to prepare a specialist who is proficient in providing both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.” Standard 4-3.2, the clinical science core, mandates training which includes, “The epidemiology of oral diseases encountered in pediatric patients, including those pediatric patients with special health care needs, the oral diseases encountered in pediatric patients, including those pediatric patients with special health care needs and formulation of treatment plans for patients with special health care needs.” The same standard goes on to require, “Fundamentals of pediatric medicine, including those related to pediatric patients with special health care needs, etc.” There are many other standards that address requirements for facilities, didactic requirements, and additional clinical experiences related to special needs patients. These standards mandate that treatment of special needs patients is an integral part of the training to be a pediatric dentist.

Clearly, there are different expectations in the accreditation standards for



predoctoral and postdoctoral education. This raises the question as to where the best place is to focus educational resources, on the predoctoral or postdoctoral level? Lest we think this is a new discussion, Castaldi, in a 1957 paper in the *Journal of Dental Education* stated that "Although the administrators of a few institutions believe that a course of study in dental care for the handicapped should be taught in the undergraduate years, there are those who believe that it is best taught at the postgraduate or graduate level."⁴ There has been a recurrent assertion that the dental school curriculum is already too crowded and adding additional training will need to come at the expense of other topic areas. Many dental school administrators have argued that implementing these training requirements will tax the financial resources of dental schools who are already struggling to maintain financial solvency. However, because only a portion of dental graduates continue onto postdoctoral training programs, many dentists must rely on the training they received in dental school when treating special needs patients.

Predocctoral Education

There are many good arguments to address the education of dentists for the special needs population on the undergraduate level. The most compelling is that it would ensure that all dentists have the training needed to treat special needs patients. There is also evidence in the literature that giving dental students training in special needs patients increased their confidence and comfort level in treating this population. Kinne and Stiefel found that "students' perceived confidence in treating handicapped persons increased significantly as the result of specific instruction in disability management."¹⁰ Casamassimo found that "Practitioners who reported that they received educational experience in children with special health care

needs in dental school that were both hands-on and lecture were significantly more likely to report that they often or very often treated these patients."¹¹ Conversely, the authors noted that dentists who did not receive this training in dental school were significantly more likely to report that they never treated special needs patients.

Arguing against implementing the special needs curriculum at this level is the history of marginally successful programs, despite significant grants

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and attention from the Robert Wood Johnson Foundation and the federal government. In 1993, the Academy of Dentistry for Persons with Disabilities surveyed all U.S. and Canadian dental schools about the amount of curriculum time devoted to the care of special needs patients.¹² They found there was an average of 12.9 hours of didactic and 17.5 hours of clinical training in a four-year course of study. In 1999, a follow-up study showed a decrease in these numbers.¹ Recent data suggest that only 25 percent of general practitioners have had educational experiences with special needs patients (self-reported).¹¹

It is not surprising the administrations or leaders of dental schools have not embraced incorporating this training into their curriculum. They have also been reluctant to embrace accreditation

standards that would require them to train students to competence in treating special needs patients. Logistic difficulties providing students with adequate experience has been cited as the basis for this. It is unlikely that the resistance to changing the accreditation standards to mandate predoctoral training in the treatment of special needs patients, rather than assessment, will change in the near future.


Postdoctoral Education

There is a paucity of literature regarding the history of postdoctoral training of dental residents to treat special needs patients. Kamen indicated these efforts started in the mid- to late- 1950s.³ What little literature exists indicates there has been a long history of both clinical and didactic training in the treatment of this population in both pediatric and general dentistry programs. These programs have also provided a significant amount of service to the special care population. In a recent article, which surveyed postdoctoral general dentistry program directors, the authors noted "it was clear that program directors recognized the unique mission of these programs in serving as a safety net for disadvantaged populations."¹³ There are a number of good arguments in favor of concentrating resources for education in special needs on the postdoctoral level: The infrastructure is already in place, at least in pediatric and postdoctoral general dentistry training programs, and these programs are uniquely suited to teach the treatment of special care patients because of the broad education in the ancillary areas this population frequently needs. For example, many special needs patients cannot be treated without sedation or general anesthesia, skills taught on the postdoctoral level. There are established accreditation requirements requiring training to competency in treating patients with special needs; and finally, there is substantial

curriculum and training in these programs for the treatment of patients with medically compromising conditions, an important facet in the care of special needs patients. To ensure more dentists receive this training would not require major changes in the programs themselves, but would require an expansion in the size and number of programs. It would also be significantly facilitated by mandating that all dental graduates complete a postdoctoral training program.

This requirement for a postdoctoral year has been discussed for many years and has many compelling arguments related to educational competency and licensure, which are beyond the scope of this paper. However, one of the more important reasons to advocate for a mandatory postdoctoral year is to increase the number of dentists qualified educationally to treat special needs patients. Some states (New York and Delaware at the time of this writing) already have legislation in place requiring a postdoctoral year for licensure. Other states may follow suit. However, it will be a long time before there is general consensus in this area and the political and logistic hurdles involved are solved. A recent article by Lefever et al. in a survey of practicing dentists, found the sample essentially split in their support for a mandatory postdoctoral year.¹⁴ A required year of postdoctoral training has been addressed extremely well in a series of papers in a special issue of the *Journal of Dental Education*.¹⁵ These papers advocate eloquently for a required postdoctoral year and discuss and suggest solutions for the many obstacles that exist to this idea. These include expansion of programs and positions to include all graduates of dental schools; identifying sources of funding for these programs; addressing student antipathy toward an additional year of education, and the effect on their debt load and dealing with the

concerns of predoctoral educators on the possible impact on the predoctoral curriculum; and the notion that graduates of dental schools are already competent to practice dentistry, to mention a few. It is noteworthy that in a recent survey of deans of dental schools, the majority favor required postdoctoral training.¹⁶ However, many deans feel the predoctoral curriculum needs to be revamped prior to that happening. That is unlikely to happen soon. It is clear that a required year of postdoctoral



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training, which would have a positive impact on the education of dentists in special patient care, has a long way to go for it to become a reality.

A further issue worth considering in postdoctoral education is the question of what age range of special needs patients postdoctoral general dentistry and pediatric dentistry programs should focus. Traditionally, pediatric dentists have treated special needs patients at a higher rate than general dentists and typically continue to treat this patient population into adulthood. However, they have not necessarily embraced this role.⁹ In a recent study, 55 percent of pediatric dentistry program directors said it should not be the role of pediatric dentists to treat adult special needs patients.¹⁷ Some educators recognize that the role of general dentists in the

treatment of adult special needs patients requires education both in postdoctoral general dentistry programs and in continuing education.

Continuing Education and Other Postgraduate Education

There have been a number of examples of continuing education courses and fellowships that have attempted to train dental providers to treat special needs patients. Special care dentistry, which according to its website is “the only national organization where oral health and other professionals meet, communicate, exchange ideas, and work together to improve oral health for people with special needs,” has recently formed the American Board of Special Care Dentistry to grant the credential of diplomate in special care dentistry.¹⁸ Candidates must have attained fellowship status in one of the special care dentistry component organization. This involves completing a defined number of continuing education credit hours and passing an exam.

A number of institutions have developed educational programs focused on special needs patients. The University of Washington currently offers short-term and long-term clinical training programs for dentists through their Dental Education in the Care of Persons with Disabilities program. These training programs involve some distance learning for the didactic portions as well as clinical training. There also is a three-year training program in rehabilitation dentistry which prepares dentists for a research career focused on oral health of persons with disability. Trainees complete the requirements for either the master of science in dentistry degree in oral medicine or the master of public health degree, and have the option of continuing to a doctoral degree.

The University of the Pacific provides training materials to dental providers, including printed and video materials



regarding the dental care of special needs patients. They also act as a resource for obtaining further information on education and training in the treatment of patients with special needs.

The University of Rochester in New York state has recently received a grant to train community dentists to treat developmentally disabled patients in the operating room. There is a formal training program which will furnish the dentist with the skills and qualifications necessary to treat developmentally disabled patients under general anesthesia.

All of these efforts are currently directed at interested dental providers through continuing education, are voluntary, and are fairly limited. It is possible other states could make this training a mandatory requirement for licensure as some do now with infection control training, child abuse prevention training, etc. To do this would require a substantial expansion of educational offerings in this arena. Absent a requirement for licensure at best, continuing education will reach a small number of dentists, but is still a worthy undertaking.

Summary and Conclusions

Any efforts to increase the pool of providers willing and able to care for special needs patients will obviously come with a price tag and a substantial commitment of resources. Where these resources can best be applied in a cost-effective manner is a question larger than the scope of this paper. It might be argued that committing resources to creating specialized centers for the treatment of special needs patients with well-compensated providers will create a market incentive for providers to obtain additional training. Perhaps the same forces which create demand for other specialty training programs can be applied to a new specialty of special care dentistry. This effort is moving forward in the United Kingdom. Brooke recently

stated, "A recognized training pathway in special care dentistry is now essential.¹⁹ It would draw together the component parts of the discipline, thereby enhancing the quality of patient care. Such a training pathway would provide a standard approach to training, delivered through a specialty framework."

Addressing the educational issues on the basis of continuing education is an area which has not had much investigation. There are precedents for requiring additional training in certain

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areas in order to become licensed in a particular state. However, most of these require didactic, rather than clinical training, which would likely be insufficient for training dentists to treat special care patients.

It is clear that the issue of educating adequate numbers of dentists to treat special needs patients is complicated and fraught with many obstacles. There have been many efforts over the greater part of the last half-century to address the educational needs of dentists treating this population. In reviewing the literature and history of these efforts, it appears that, although it might make sense to focus on the predoctoral level to ensure all dentists have some education in special needs patients, dental schools do not embrace this approach. Additionally, in an already crowded predoctoral curriculum, adequate time

might not be available to truly develop competency. To significantly impact education for special needs patients on the postdoctoral level, many obstacles have to be overcome. However, there is a long history of successful clinical and didactic training in special patient care in these postdoctoral programs. A required year of postdoctoral training would certainly increase the number of dentists educated in treating these patients, and there are many other compelling reasons for it.

It should not be forgotten, however, that having the education does not necessarily lead to greater involvement in treating special needs patients. Casamassimo, in his recent survey, noted that "those with advanced education in GPR and AEGD programs were not more likely to care for children with special health care needs while older dentists, who tended not to have special needs patient education, were more likely to care for these patients."¹¹ Thus, it is important to challenge our assumption that the education of dentists in the treatment of special care patients will lead to an increase in availability of providers to treat this population. Clearly, there are other issues that come into play. For example, Waldman and Perlman noted that "Efforts to develop education opportunities to ensure student competency in the care of individuals with mental retardation/developmental disability, however, do not necessarily ensure a willingness to provide care ..."²⁰ "Obviously, realistic third-party reimbursement must be addressed as must-needed changes of many societal values." In the pursuit of the overall goal, to provide the special needs patient population with the oral health care they need, education at all levels is crucial. It is, however, just one part of a very complicated equation that to solve, requires a multifaceted approach.

Clearly, education, although valu-

able in itself in enhancing the sensitivity of dentists to patients with special needs, must also lead to greater involvement in the care of these patients in order for it to be most beneficial. **CDA**

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