Survey of Special Patient Care Programs at U.S. and Canadian Dental Schools


Abstract: This article describes the results of a survey of U.S. and Canadian dental schools regarding the delivery of dental care to special needs patients. The purposes of the fifteen-item survey were to identify the percentage of dental schools that operate special patient care (SPC) clinics, gain information as to how care is being provided in those clinics, and identify how this patient population is managed in institutions without designated SPC clinics. Forty percent of the respondent institutions had designated SPC clinics. Institutions without SPC clinics tend to mainstream these patients into their predoctoral clinics or refer them to residency programs such as GPR or pediatric programs within their university.

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Individuals with developmental disabilities (DD) often encounter difficulty in accessing dental care. Historically, many of these individuals lived in institutions that either had on-site dental facilities or contracted to provide dental care to the residents. Since the 1960s, there has been a trend for individuals with DD to be moved out of institutions and into the community. Unfortunately, few practitioners in the community are prepared to treat these persons.1 Several factors compound the effect of deinstitutionalization on the delivery of dental care. One important factor is the increasing lifespan of individuals with DD.1 These individuals are aging out of the pediatric dental care that has traditionally managed them.2 As a result, they are unable to find practitioners who feel adequately trained to treat them. In addition, government funding of dental care often ends as these patients reach adulthood.

During an interview with AGD Impact,3 Dr. Steven Perlman reported that 90 percent of this population is treatable by general dentists; however, many of these dentists feel inadequately trained to deal with patients with special needs.4 A recent study found that 75 percent of dental students report receiving little to no preparation in providing care to these patients.5 In addition, dental schools may not have faculty adequately trained to make improvements to their didactic and clinical curricula and lack the funds to hire them.6 Casamassimo et al. reported that participation in a general residency program (general practice residency, GPR, or advanced education in general dentistry, AEGD) did little to improve a practitioner’s willingness to treat children with severe disabilities including mental retardation, cerebral palsy, and those considered medically compromised.7 A study of general dentists by the American Academy of Pediatric Dentistry found that only 10 percent treated children with special needs often or very often. The greatest barrier to care as perceived by these dentists was patient behavior.7

Financial constraints are another barrier to care for individuals with special needs. Nearly 75 percent of patients with disabilities rely on government funding for their dental care.4 Many dentists do not accept Medicaid. In twenty-four states, Medicaid provides no dental coverage or only emergency dental coverage for adults.1,8 Even patients and their families who can pay privately for care have problems accessing a provider. Organizations have developed databases of dentists willing to treat patients with DD. In one database, twenty-six states had no dentists listed. Of the states that did have listings, most had fewer than five.1

Consistent with Dr. Perlman’s earlier statement, the oral disease faced by patients with developmental disabilities is similar to that seen in the nondisabled population. The procedures used to treat these patients are most often basic procedures easily performed by general dentists. Patients with DD often have poor oral hygiene, but rates of disease may be the same or less than that of the nondisabled population. A study...
from the University of Washington comparing patients with and without disability found similar rates of periodontal disease within the groups and lower rates of caries and restorative need in the disabled patients. There is uncertainty as to whether this represents a difference in susceptibility to dental caries or if fewer restorations were treatment planned for the disabled patients. Another study reporting on the disease incidence and treatment provided to patients with disabilities shows that the majority of the disease involves gingivitis and caries. The disease in these studies was managed primarily by dental prophylaxes, operative procedures, and simple extractions.

Faced with an increasing demand for special patient care, Southern Illinois University School of Dental Medicine (SIU-SDM) embarked on a project to improve our special patient care educational program. Our approach to managing care had been to mainstream patients whenever possible. Severe management problems were referred for hospital-based care. On analysis, we realized that a larger third category existed. This group is comprised of patients too difficult to mainstream but not requiring hospitalization and who could best be treated in a separate clinical area using adjunctive therapies, such as sedation, to make care possible.

The study described in this article was a preliminary process in the SIU-SDM plan to reorganize our special patient care curriculum. Our goal was to provide better educational opportunities for our students, increase clinical contact to better meet the needs of our patients, and consequently increase the willingness of our graduates to treat this patient population in their practices. An early step in the process and the purpose of this study was to determine through a survey instrument how other U.S. and Canadian dental schools manage patients with special needs.

Methods

A fifteen-item questionnaire was designed and mailed to the deans of the sixty-six dental schools in the United States and Canada during the 2003-04 academic year (see Figure 1). A cover letter was included requesting that the dean forward the questionnaire to the appropriate person if necessary. The respondents were asked to give their name, their institution’s name, and their position at that institution. The questionnaire was designed to elicit information regarding how dental schools manage patients with special needs. If the respondent indicated that his or her school had an SPC clinic, he or she was asked what types of patients were seen in that location, who provided the treatment and what procedures, and if sedation or general anesthesia were available. Respondents with SPC clinics were also asked how much time dental students and/or residents spent in the clinic.

Following the initial mailing, thirty-five questionnaires were returned. A second request including a self-addressed, postage-paid envelope was mailed. The combined results of the first and second requests yielded a 64 percent response rate (forty-two schools).

The data are presented as the percentage of dental schools responding to the survey with special needs clinics, unless otherwise stated.

Results

At the time the survey was returned, seventeen (40 percent) of the dental schools that replied to the survey indicated they had designated SPC clinics. Most of the schools without SPC clinics attempted to mainstream the majority of patients into their predoctoral clinics and referred the more severe cases to hospital-based clinics and residency programs, especially GPR and pediatric residencies within their university, a model very similar to our own.

The schools with SPC clinics reported that they manage a wide variety of needs among their patients. All clinics provide care to patients with DD, and all but one (94 percent) treat medically compromised patients (see Figure 2).

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Most institutions involved both pre- and postdoctoral students in the care of these patients. All but one institution (94 percent) utilized predoctoral students. Ninety-four percent of reporting institutions had graduate programs, many of which are involved in the treatment of special care patients. The programs most commonly reported as treating special care patients are general dental and pediatric dental residency programs. Dental school faculty members also frequently provided care to this patient population (see Figure 3).
Special Care Questionnaire

Please take a few minutes to answer this short two-page questionnaire. We are defining a special care clinic as a distinct clinic where patients with special needs are seen at your school. Please use the reverse side or additional paper if necessary. By completing this survey you are agreeing to participate in our study regarding special care clinic design. Data collected in this survey will be used in aggregate form only. No institution will be identified at any point in the report.

1. Name ____________________________ 2. Position ____________________________

3. Institution ____________________________

4. Do you have a special care clinic at your institution? ____ Yes ____ No

5. If not, how does your school manage children and adults with the following disabilities? (developmentally disabled, mentally challenged, medically compromised, blind/deaf, elderly)

6. If you do have a special care clinic, what patients are managed there? Check all that apply.
   ____ developmentally disabled  ____ mentally challenged  ____ elderly
   ____ medically compromised  ____ blind  ____ deaf
   ____ autistic children  ____ stroke patients
   ____ other (please list) ___________________________________________

7. How do you decide which patients are seen in the special care clinic and which are seen in the regular clinic population?

8. Do you have graduate programs? ____ Yes ____ No

9. If so, which programs are involved in treatment of special care patients?

10. Are your special care clinic patients seen by (check all that apply)?
    ____ predoctoral students  ____ faculty  ____ AEGD residents
    ____ GPR residents  ____ pedodontic residents  ____ other (explain below)

11. How much time do the students/residents spend in the special care clinic per year?
    ____ less than 1 day  ____ 1-2 days  ____ 3-5 days  ____ 2-4 weeks  ____ >1 month

12. Does your special care facility have the capability of using sedation or general anesthesia?
    ____ Yes ____ No

13. If yes, who administers it?

14. If not, what steps are taken to ensure that unmanageable patients receive treatment?

15. What procedures are performed by your special care clinic? (check all that apply)
    ____ oral surgery  ____ operative restorations  ____ crown and bridge
    ____ orthodontics  ____ periodontal surgery  ____ preventive care
    ____ endodontics  ____ removable prosthodontics

Thank you for your cooperation.

Figure 1. Survey instrument regarding how dental schools manage patients with special needs.
Figure 2. Types of patients treated at special patient care clinics

Figure 3. Dental treatment providers in special patient care clinics
Almost half (47 percent) of institutions with SPC clinics report that the students and/or residents spent greater than one month per year in delivery of care in this clinic. Seventy-one percent of institutions with SPC clinics had the capability of using sedation or general anesthesia. It was reported that sedation is administered by a wide variety of practitioners with responses including students, residents, faculty, anesthesia residents, and anesthesiologists.

Most dental procedures were provided in these clinics. All clinics provided oral surgery and operative procedures. The majority provided periodontal surgery (76 percent), endodontics (88 percent), crown and bridge (88 percent), removable prosthodontics (88 percent), and preventive care (94 percent). Twelve percent of clinics offered orthodontic procedures to this patient group (see Figure 4).

Discussion

Few published reports discuss the dental school curriculum regarding special needs dentistry. A survey of U.S. dental schools conducted in the late 1990s found that eighteen of the forty-eight responding schools (38 percent) had dedicated special care clinics. Of those schools that did not have special care clinics, fifteen incorporated treatment of special needs patients into other clinical disciplines, eight provided for this training in an off-site clinic, and seven offered no clinical training at all in special needs dentistry. Despite the fact that most schools offered clinical experience with special needs patients, 73 percent of the responding schools reported only 0-5 percent of the students’ clinical time was devoted to managing special care patients. Twenty-nine percent of respondents did not feel their students were prepared to treat patients with special needs. That study did not discuss details of the operation of the special needs clinics such as patient selection and procedures performed.

Two other articles described programs by the University of Medicine and Dentistry of New Jersey (UMDNJ)-New Jersey Dental School and the University of the Pacific (UOP) School of Dentistry that involved dental school faculty to manage special needs patients. Both of these programs coordinated dental school resources with those existing within the

![Figure 4. Procedures performed in special patient care clinics](image-url)
community. The New Jersey program involved the development of a school-based dental care delivery program within a special services school district for the developmentally disabled. Patients from two schools were transported to a third school where a dental center was established and dental management occurred. The UMDNJ-New Jersey Dental School provided a dentist from the faculty, along with a dental assistant, equipment, and supplies. 12 A community-based program in California utilized faculty members from the UOP School of Dentistry to assess the needs, interview caregivers, and provide training in a variety of community settings. In each community, a screening, triage, and referral system was established. Glassman et al. reported program success to the extent that “the major problem of lack of access to dental care in these rural communities no longer exists.” 10 Neither the New Jersey or the California program incorporated the treatment of patients into the dental school educational programs.

In 2006, Mabry and Mosca reported on a collaborative effort of the Louisiana State University Health Sciences Center (LSUHSC) School of Dentistry with the United Cerebral Palsy of Greater New Orleans to implement a program of interprofessional clinical encounters at school-based health settings. This project paired thirty-five dental hygiene students with school nurses to assess the oral health status of 255 inner-city children with developmental disabilities. The project was reported to have a positive influence on the attitudes of the students who participated. The majority indicated the experience would increase their likelihood of participating in future oral health care programs. 13 The authors acknowledged a weakness of the project was the low percentage of children with urgent needs who actually received treatment. Forty-four (17 percent) of the children screened were determined to have urgent needs, and while the school nurses provided this information to the parents, only four followed through with dental care.

Waldman et al. reported that West Virginia University School of Dentistry implemented a program in 1979 that continued through the mid-1990s. 14 They also indicated that, at the time of their article, substantial training programs in the dental management of patients with DD existed at the University of Washington, University of Louisville, Ohio State University, University of Florida, and UMDNJ. The State University of New York (SUNY)-Stony Brook School of Dental Medicine developed a program more than twenty years ago in response to the move to deinstitutionalize many individuals with DD. Its training program begins with a series of case-based and standard format lectures in the Year II predoctoral curriculum and progresses to clinical cases of increasing complexity. In Year IV, students participate in a comprehensive care clinic for adult patients with special needs. The authors report that 68 percent of their graduates are providing or supervising care for patients with special needs following graduation.

In July 2004, the American Dental Association’s Commission on Dental Accreditation (CODA) adopted a statement (Standard 2-26) requiring U.S. dental students to prove competency in assessing the treatment needs of patients with special needs. The stated intent of the competency was to ensure that students are provided with “a wide scope of patient experiences that include patients whose medical, physical, psychological, or social situations may make it necessary to modify normal dental routines in order to provide dental treatment.” Each student is required to have equal opportunity to manage these patients. 15 It is thought that the CODA statement will motivate dental schools to place greater emphasis on student experience with special needs patients. With increased experience in dental school, graduating dentists may feel more confident managing these patients in private dental offices. A 2004 study by Wolff et al. showed that the more experience students had with people with mental retardation and the greater their awareness of the capabilities of these patients, the more positive their attitudes toward these patients and the better their appreciation of the patient’s dental needs. 3 If increased dental school experience does translate into increased management of this patient population in private practice, it will likely help minimize the difficulty these patients experience in attempting to access dental care. This will relieve the burden on specialty clinics and schools in providing treatment.

Prior to the release of the CODA statement, there was interest at the SIU-SDM in improving the way special needs patients were managed, both in the services offered to the patients and the experience for the students. As the curricular project began, renovation of our facilities and changes to our graduate programs’ curricula were also under way. A recent expansion of our main dental clinic was established and dental management of patients with special needs. The authors report that 68 percent of their graduates are providing or supervising care for patients with special needs following graduation.
in a five-operatory clinic dedicated to the delivery of care to special needs patients. On the curricular side, a didactic and clinical conscious sedation course has been added to the advanced education in general dentistry and periodontal residency programs. These improvements, as well as the planned expansion of our oral surgery clinic, will facilitate treating special needs patients without the necessity of taking them to the operating room.

Our study found that 98 percent of schools with special needs clinics involved dental students in patient care. Students spent one month or more in the special care clinics in nearly half of these schools. The clinics provided a wide variety of care to these patients to include endodontics and prosthodontic procedures in addition to the more routine preventive, operative, and minor oral surgical procedures.

Ultimately, the variety of practitioners able to provide care in our special needs clinic will determine the scope of our special patient care program. As we hire new faculty, we are mindful of the need to provide care in the special needs clinic and will look for faculty who are willing to learn about special needs patient care and participate in the operation of the clinic. Our special patient care clinic will have one operatory accessible for a gurney, and a second will have a wheelchair lift. We intend to involve predoctoral and graduate students and faculty in the delivery of care to special needs patients.

Future studies should be designed to determine whether student exposure to special needs patients has increased and whether student attitudes are changing as a result of the new CODA statement. In addition, there needs to be clear reporting by dental schools as to how they are accomplishing Standard 2-26.

Conclusions

This study and our experience have led us to the following conclusions:

1) The number of dental schools with SPC clinics has not significantly increased in the last decade. Forty percent of the respondent institutions in our survey had designated SPC clinics (compared to 38 percent in a report published in 1999).11

2) Ninety-four percent of those schools with SPC clinics utilize predoctoral students in providing dental care to the special needs population. Institutions without SPC clinics tend to mainstream these patients or refer to residency programs such as GPR or pediatric programs.

3) Student education is essential but alone will not solve the access to care problem. Education needs to extend to parents and others responsible for the care of the special needs population. Dentists in private practice must also be adequately compensated for the treatment provided to patients with special needs.

REFERENCES


