



Dental Public Health Activities & Practices

Practice Number: 33017
Submitted By: University of Medicine and Dentistry of New Jersey (UMDNJ), New Jersey Dental School, Department of Pediatric Dentistry, Special Care Treatment Center
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SECTION I: PRACTICE OVERVIEW		
Name of the Dental Public Health Activity:		
UMDNJ General Practice Residency with Second Year Concentration in Special Care Dentistry		
Public Health Functions:		
Assurance – Building State and Community Capacity for Interventions Assurance – Access to Care and Health System Interventions		
Healthy People 2010 Objectives:		
21-10 Increase utilization of oral health system 21-11 Increase utilization of dental services for those in long-term facilities 6-10 Increase the proportion of health and wellness and treatment programs and facilities that provide full access for people with disabilities.		
State:	Federal Region:	Key Words for Searches:
New Jersey	Northeast Region II	Workforce development, general practice residency, special care dentistry, access to care
Abstract:		
<p>The General Practice Residency (GPR) program at University of Medicine and Dentistry of New Jersey (UMDNJ) has a second year concentration that provides training in special care dentistry (SCD). This extra year is necessary to provide a dentist with specialized skills that are required to serve patients with a wide spectrum of special needs, both in the hospital and in outpatient settings. The traditional one-year GPR program at UMDNJ provides an off-service SCD rotation for 2-4 weeks. Most traditional one-year GPR programs at other institutions provide similar experiences. However, this is not a sufficient amount of training to assure dentist proficiency in the care of persons with special needs. The cost of sponsoring a GPR/SCD resident at UMDNJ is approximately \$42K. The program at UMDNJ began in July 2005 and has graduated one GPR/SCD resident to date. The practice is new but offers a different vehicle for training "special care" dentists. If Special Care Dentistry is to become a more widely recognized and respected area of practice and if it seeks to obtain specialty status within the dental profession, it will need to provide a sufficient number of high quality training opportunities for practitioners. This GPR/SCD model could serve as blueprint for such training.</p>		
Contact Persons for Inquiries:		
Evan Spivack, DDS, Director; Special Care Treatment Center, Department of Pediatric Dentistry, UMDNJ New Jersey Dental School, 110 Bergen Street, Newark, NJ 07103, Phone: 973-972-0098, Fax: 973-972-0097, Email: spivacev@umdnj.edu		

SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The traditional one-year General Practice Residency (GPR) program at University of Medicine and Dentistry of New Jersey (UMDNJ) has operated since the 1980's; there are currently 5 residents. The second year General Practice Residency/Special Care Dentistry (GPR/SCD) concentration was initiated recently in July 2005 with one resident. In 2006, the GPR/SCD position could not be filled for lack of a qualified candidate. At the current time (March 2007), institutional funding is uncertain for the GPR/SCD position that would start July 2007.

Of the nearly 200 GPR programs in the U.S., few are 2-year programs. The UMDNJ GPR/SCD program is available to dentists either from UMDNJ or from other institutions as long as they meet the entry requirement of having completed at least one year of post-doctoral training in either a GPR, Advanced Education in General Dentistry (AEGD) or dental specialty program. Information about the program and eligibility requirements can be obtained at: <http://dentalschool.umdj.edu/students/prospective/postdoctoral/ada/gpr2.htm>.

Although the GPR/SCD program is new, its lineage can be traced back to SCD fellowships that have been offered for many years. These one-year fellowships are non-GPR, non-specialty, post graduate clinical programs.

Justification of the Practice:

Many schools of dentistry do not provide undergraduate clinical experience in treating patients with special needs, and the ones that do, provide very few hours of training. At the post graduate level, GPR and AEGD programs provide special needs training such as experience in the operating room. However, these experiences are limited. For example, the 1st year training of the GPR program at UMDNJ contains only a 2-4 week off-service rotation in the Special Care Dentistry Program. Residency programs in pediatric dentistry provide training in the care of children with special needs that include behavior management and sedation techniques. However, these residencies do not typically provide training in the care of older patients with special needs. The literature reports that GPR graduates provide a wider range of more complex services than non-GPR graduates.

The GPR/SCD program developed at UMDNJ is meant to improve upon the SCD fellowship model, by "grafting" the curriculum of a SCD fellowship onto the more common, and accredited, GPR training framework. The GPR/SCD program is based on the need for a post-graduate dental training program that is designed to prepare dentists to serve a variety of child and adult patients with special needs in their dental practices.

The GPR/SCD program offers advantages over the SCD fellowship program. Unlike the SCD fellowship, the GPR/SCD concentration being part of the GPR program is subject to accreditation by the Commission on Dental Accreditation of the American Dental Association. This accreditation may attract potential applicants. Unlike the SCD fellowship, the GPR/SCD program qualifies for Graduate Medical Education (GME) reimbursement from the Federal Government, which supports program sustainability. GPR/SCD residents also benefit educationally being an integral part of an established GPR residency.

Inputs, Activities, Outputs and Outcomes of the Practice:

Inputs

Several inputs are required to operate a GPR/SCD program. The sponsoring institution must provide a resident stipend. At UMDNJ, the stipend is set at the PGY2 level which is approximately \$42K. There must also be sufficient faculty with the clinical skills to supervise the resident. At UMDNJ, these individuals work at the Special Care Treatment Center that is part of the Department of Pediatric Dentistry; the School of Dentistry pays their wages. The portion of their wages that is attributed to their participation in the GPR/SCD program has not been determined but is relatively small. Currently, the faculty at the Center consists of 1 full time dentist and 3

part-timers; all are general practitioners. There must also be an adequate supply of patients with a wide range of special needs, so the resident will obtain a rich training experience. The Special Care Treatment Center serves as a treatment resource for patients throughout the state of New Jersey and individuals with special needs living in the community are referred to the Center. There is a waiting list of approximately 6 months and there is an ample number of patients for the residents to treat.

Program inputs are also needed to meet accreditation requirements set by the Commission on Dental Accreditation of the American Dental Association. According to the Accreditation Standards for Advanced Education Programs in General Practice Residency, a GPR/SCD concentration that is added as a second year to an existing GPR is considered a "major addition" to the existing GPR program and not a new program that would require a separate accreditation application. This considerably reduces the effort that would be required to gain accreditation status if the GPR/SCD were considered a "new" program.

Activities

Didactic instruction: The GPR/SCD resident participates in the same core didactic curriculum that is provided for the first year GPR residents, but is excused from topics already covered in their own first year GPR training. This core curriculum is supplemented with other didactic courses of interest to the resident provided elsewhere on the UMDNJ campus, such as at the medical school and hospital. Didactic experiences include lectures, grand rounds, literature reviews, and independent research.

Outpatient dental care: The GPR/SCD resident provides a full range of clinical services that are required by patients in a typical practice. Additionally, the resident provides more specialized services required by patients with special needs. The GPR/SCD resident provides care to many patients who are medically compromised; nearly all these are classified as American Society of Anesthesiologists (ASA) level 2 or 3 patients. (The ASA established this classification system to denote patient physical status: an ASA 2 designation refers to patients with mild systemic disease with no functional limitations and an ASA 3 designation refers to patients with moderate systemic disease with functional limitations.) GPR/SCD residents serve patients who have mental retardation or other developmental disabilities such as cerebral palsy and autism. Of this group of patients, approximately 75% are classified as having a disability in the moderate-severe range.

Operating room experience: The GPR/SCD resident gains experience providing care in the operating room (OR) under the supervision of attending staff. The resident will have 75-100 OR cases; this is far greater than the number of OR cases typically provided by a first year GPR resident.

Rotations to other hospital services: The GPR/SCD resident is assigned rotations to several hospital services, such as neurology, internal medicine, genetics and anesthesiology. These 2 days per week rotations are scheduled later in the year after the resident has achieved a basic level of proficiency in providing dental care.

Outputs

The primary output of the program is a dentist who is competent to serve patients with a wide range of special needs, both in an outpatient setting and in the hospital. The new program has graduated one GPR/SCD resident to date.

Another output of the program is treatment services provided to patients who have special needs. Approximately 750 different patients can be treated by a GPR/SCD resident annually; this translates to approximately 1,000 patient visits in the outpatient clinic and approximately 75-100 OR cases.

A third output is productivity that generates patient care revenue to help sustain the program financially. It is estimated that a GPR/SCD resident can produce approximately \$33K in revenue annually from both outpatient and OR services. This revenue is based on a patient population with 95% having Medicaid coverage and a Medicaid reimbursement rate that is approximately 25% of the community UCR (usual, customary and reasonable) fee.

Outcomes

The desired outcome of the GPR/SCD program is that people with special needs, who currently experience difficulty obtaining dental care, will find dental care to be more accessible due to an increase dental workforce trained to meet their needs. Time is needed to assess this outcome.

Budget Estimates and Formulas of the Practice:

Costs: The major costs of the program are the resident stipend (\$42K), faculty wages, and costs associated with providing clinical care, such as facility, equipment and supplies. Other than the resident stipend, the other costs have not been computed because it is difficult to isolate the cost of the GPR/SCD program from the cost of operating the larger GPR program. Significant cost-savings for the GRP/SCD program are achieved with integrating the program to the GRP program.

Revenues: There are 2 sources of revenue to support the GPR/SCD program: 1) revenue to the hospital through Graduate Medical Education (GME) reimbursement from the Federal Government; and 2) patient care revenue from clinical services provided by the GPR/SCD resident (approximately \$33K annually).

Lessons Learned and/or Plans for Improvement:

Lessons learned:

1. The lack of well-paid employment opportunities for GPR/SCD graduates is a barrier to attracting a qualified pool of applicants.
2. The integration of postgraduate SCD training with a university-sponsored GPR program offers certain educational opportunities that may not be available in free-standing SCD fellowship programs.
3. The financial sustainability of the GPR/SCD program is subject to budget constraints at the dental school, university, and state level.

Plans for improvement:

1. There are plans to identify more diverse sources of funding from outside the university that can sustain the program in the face of state budget reductions.
2. There are plans to develop links to employment opportunities for program graduates. Dentists can enter the program with the expectation of fully using their SCD skills and being remunerated appropriately.

Available Information Resources:

Information about the UMDNJ GPR program at can be obtained at <http://dentalschool.umdj.edu/students/prospective/postdoctoral/ada/gpr.htm>

Information about the UMDNJ GPR/SCD concentration can be obtained at <http://dentalschool.umdj.edu/students/prospective/postdoctoral/ada/gpr2.htm>

Information about the Special Care Treatment Center can be obtained at <http://dentalschool.umdj.edu/depts/pedodontics/specialty.htm>

Information on Accreditation Standards for Advanced Education Programs in General Practice Residency at <http://www.ada.org/prof/ed/accred/standards/gpr.pdf> ("Accreditation of One and Two-Year GPR Programs" on page 4)

Information on the number of U.S. GPR programs and residents can be found in Dental Education at a Glance—2004, published by the American Dental Education Association at http://www.adea.org/DEPR/2004_Dental_Ed_At_A_Glance.pdf

Journal articles that address the education of dentists in the care of persons with special needs:

- JA Weintraub and GN Connolly. Effect of general practice residency training on providing care for the developmentally disabled. J Dent Educ. 1985 49: 321-323.
- Ettinger RL, Chalmers J, Frenkel H. Dentistry for Persons with Special Needs: How Should it

- be Recognized? J Dent Educ. 2004 Aug; 68(8):803-6.
- LA Norton, NA Wickwire, RH Biggerstaff, and WR Proffit. Curriculum guidelines for training general practice residents to treat the person with a handicap. J Dent Educ. 1990 54: 293-296.
- Brody HA, Glassman P. Dental services for persons with developmental disabilities: a curriculum for general practice residents. Spec Care Dentist. 1985 Jan-Feb;5(1):18-9
- Joe JC. Emergency treatment of the severely developmentally disabled patient in Hawaii through a general practice residency. Hawaii Dent J. 2004 Sep-Oct;35(5):16-9
- Loan P. Dao, Samuel Zwetchkenbaum, and Marita Rohr Inglehart. General Dentists and Special Needs Patients: Does Dental Education Matter? J Dent Educ. 2005 69: 1107-1115
- Thierer T, Meyerowitz C. Education of dentists in the treatment of patients with special needs. J Calif Dent Assoc. 2005 Sep;33(9):723-9
- PS Casamassimo, NS Seale, and K Ruehs. General dentists' perceptions of educational and treatment issues affecting access to care for children with special health care needs. J Dent Educ. 2004 68: 23-28.
- P Mendola, RM O'Shea, C Gogan, TJ Thines, and NL Corah. Training general practice residents in patient behavioral management. J Dent Educ. 1989 53: 727-730.

Journal articles that provide evidence that GPR programs can positively affect the way dentists practice:

- LJ Gatlin, SL Handelman, C Meyerowitz, E Solomon, B Iranpour, and R Weaver. Practice characteristics of graduates of postdoctoral general dentistry programs. J Dent Educ. 1993 57: 798-803.
- AJ Bolden, JJ Warren, and JS Hand. The influence of advanced general dentistry training on practice patterns of Iowa dental graduates. J Dent Educ. 1992 56: 689-692
- P Glassman, S Redding, S Filler, and DW Chambers. Program directors' opinions on the competency of postdoctoral general dentistry program graduates. J Dent Educ. 1996 60: 747-754.

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

Since the new UMDNJ GPR/SCD program began in 2005, time is needed to demonstrate its impact in improving the competence of the dental workforce to serve people with special needs. Only one resident has graduated from the program as of March 2007. The graduate is serving people with special needs in his private practice. As the GPR/SCD program graduates more dentists, a formal evaluation will be done to assess the program's effectiveness.

The program provides substantial services to special needs patients. It is estimated that during one year of training, a typical GPR/SCD resident will provide approximately 1,000 outpatient visits and 75-100 operating room visits.

Efficiency

How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

The program is designed to be an efficient model from both a cost and resource perspective. The model is cost efficient because program costs are offset by program revenue deriving from patient care and GME reimbursement. The model is also resource-efficient because it is integrated into existing programs that already have staff, facilities and administrative structures in place. Educationally, the GPR/SCD program is part of the existing GPR program and patient care is provided within the existing Special Care Treatment Center.

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

The new GPR/SCD program has not yet demonstrated sustainability. However, because the program is designed to be cost efficient, it has the potential to be financially sustainable. On the other hand, the program is part of a state-supported university health science center and changes in state funding can affect the program.

The greatest threat to program sustainability is not finances but the perception among potential applicants that there is a lack of financially and professionally rewarding employment opportunities after completing the program.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

The GPR/SCD program requires integration between the NJ School of Dentistry (operates the Special Care Treatment Center where patients are served), the University Hospital (sponsors the GPR residency), and the School of Medicine (provides educational opportunities for the resident). The program also fosters collaboration between the GPR/SCD program and the general and pediatric dentists throughout the state who make patient referrals to the Special Care Treatment Center.

Objectives/Rationale

How has the practice addressed HP 2010 objectives, met the call to action by the Surgeon General's Report on Oral Health, and/or built basic infrastructure and capacity for state/territorial oral health programs?

The UMDNJ GPR/SCD program addresses the HP 2010 objectives and the Surgeon General's Call to Action to Promote Oral Health by aiming to increase the capacity of the dental workforce to serve disadvantaged populations. By increasing the competencies and capacity of dentists to serve people with special needs, more patients will gain access to dental services and oral health disparities for people with disabilities will be reduced.

Extent of Use Among States

Describe the extent of the practice or aspects of the practice used in other states?

Nearly every state has a traditional one-year GPR program. According to the ADA Survey of Advanced Dental Education, 2002-03, there are 204 GPRs (27 school sponsored and 177 hospital sponsored); these programs enroll 1,042 GPR residents (148 residents in school sponsored programs and 894 residents in hospital sponsored programs). However, 2-year GPR programs are much less common (the exact number is not known). Of the 2-year GPR programs, it is believed that the UMDNJ program is the only one that provides a concentration devoted exclusively to SCD.

SCD fellowships are one-year post-graduate clinical programs that provide training similar to the GPR/SCD concentration. These fellowships are not GPRs. The number of these programs is not known but is thought to be less than 10.