

Building the Minority Faculty Development Pipeline

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Abstract: The shortage of faculty in dental education is well documented, but the data also show a shortage of minorities in postgraduate programs, which develop future faculty. In the last ten years, ADEA's effort to address minority issues in dental education has made some progress. In addition, examples of pipelines for minority faculty development that have shown some success include: a partnership between Harlem Hospital and Columbia University School of Dentistry and Oral Surgery in which the school dedicates one position in its postgraduate training programs to an individual participating in the Harlem Hospital General Practice Residency program; a partnership between the National Dental Association Foundation and Colgate-Palmolive Company, which provides scholarships for advanced dental education study; and the Bronx Lebanon Hospital Center Department of Dentistry, which enrolls underrepresented minorities in its General Practice Residency Program, a new Pediatric Dentistry Residency Program, and a unique program providing hands-on experience in HIV/AIDS health care policy and AIDS development management. Critical elements in the relative success of these programs are environment, selection criteria, mentoring, networking, and finance. The true measure of the outcomes is still to be seen.

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The current shortage of faculty in dental education is well documented. An article in the June 2001 *Journal of Dental Education* states: "Reasons assumed for . . . the perceived shortage of faculty include high levels of student graduating debt, substantial and growing incomes from private practice, and an educational culture that does not foster interest in an academic career. Two trends are evident. First, the total number of full- and part-time faculty and the average number of faculty per school have been declining since the 1990s. Second, the number of vacant budgeted positions is approaching 400."¹ What can be done about this problem? Haden et al. in the September 2000 *Journal of Dental Education* suggest the possibility of using Advanced Education for General Dentistry (AEGD) and General Practice Residency (GPR) programs as future educator tracks.²

But how many of the positions in those programs are being held by minority students? The American Dental Education Association's (ADEA) 2000-01 Survey of Advanced Dental Education demonstrates an increase in minority student participation in postgraduate education programs, with dental schools enrolling 959 minority students in 2000-01 and nondental school programs enrolling

605. ADEA's survey of the 2000 graduating class reports that while "Blacks/African Americans (39.7 percent) with plans to immediately pursue advanced education was again above the national average, . . . no Black/African American seniors reported immediate plans for academia."³

The trend of minority enrollment in advanced dental education for 2001-02 is demonstrated in Table 1. The trends within the subsets of General Practice Residency and Advanced General Dentistry are presented in Table 2. Table 3 shows the minority composition of postgraduate dental residents programmatic for 2001-02.

The evidence shows that 53 percent of blacks and 33 percent of Hispanics enrolled in postgraduate residency programs during 2001-02 were in either General Practice Residencies or AEGD programs. Although the data in Table 1 reveal that the

Table 1. 2001-02 minority enrollment in advanced dental education programs

Total Enrollment	5,296	100%
Black Enrollment	279	5.3%
Hispanic Enrollment	364	6.9%
American Indian Enrollment	11	0.2%

Table 2. 2001-02 minority enrollment in General Practice Residency and Advanced Education in General Dentistry programs

	Total	Black	% Black	Hispanic	% Hispanic	American Indian	% American Indian
General Practice Residents	1,092	105	9.6	72	6.6	6	0.01
AEGD Residents	715	44	6.2	50	7.0	1	0.0014

Table 3. Minority composition of postgraduate residents, 2001-02

	% Black	% Hispanic	% American Indian
Pediatric Dentistry	5.25	7.9	0.0010
OMFS	3.8	4.0	0.0002
Orthodontics	3.2	4.2	0.0000
GPR	9.6	6.6	0.0011
AEGD	6.2	7.0	0.0002

Source: ADA 2001/2002 Survey of Advanced Dental Education

percentage of blacks enrolled in residency programs parallels the percentage in predoctoral dental school enrollment, it would appear that a disproportionate number of blacks are in nonspecialty residency programs.

Past Focus on the Issue at the School and National Levels

Historically, the task of educating African-American dental students was carried out almost exclusively by the dental schools of Howard University and Meharry Medical College. Similarly, the primary sites for advanced dental education for ethnic minorities tended to be Howard and Meharry and in urban inner-city hospitals. The critical year in the shifting of these tasks was 1984, when for the first time Howard and Meharry graduated less than 50 percent of the black/African Americans completing dental school that year.

The concept of a pipeline has been much discussed and often debated within ADEA, as it was under the Association's former name, the American Association of Dental Schools (AADS). In 1988-89, the AADS Executive Committee added the advancement of women and minorities in dental education and administration as one of its eight priority areas. That year, the Council of Faculties expressed reservations about making women and minorities a prior-

ity area, although the Council of Deans voiced its support for the addition. In the early 1990s, the recommendations of AADS committees in conjunction with staff priorities led to the establishment of an office for women and minorities under the direction of Dr. Jeanne Sinkford. Since then, ADEA's efforts to address minority issues in dental education—now conducted under the auspices of the Center for Equity and Diversity—have made substantial progress.

Examples of Pipelines for Minority Faculty Development

Harlem Hospital: Columbia University School of Dentistry and Oral Surgery

During the late 1980s, the Department of Dentistry at Harlem Hospital Center General Practice Residency program underwent an accreditation survey. One of the recommendations of the review was the need to increase the presence of dental specialists on faculty. The director of the Department of Dentistry, Dr. James MacIntosh, approached the program's affiliate, Columbia University School of Dental and Oral Surgery (CUSDOS), for assistance in addressing this situation. The dean of CUSDOS, Dr. Allan Formicola, took the leadership role in evolving a possible solution to this problem.

Deliberations between these two individuals resulted in the creation of a unique arrangement, named the Harlem Hospital Minority Specialty program. Originally designed to be a ten-year project, the program involved the annual commitment by CUSDOS to dedicate one position in its postgraduate training programs to an individual participating in the Harlem Hospital General Practice Residency program.

Critical components of the program included free tuition at CUSDOS and a stipend for each year of the training. Perhaps the most significant component of the selection process was the commitment of the program directors at CUSDOS to accept the recommendation of the Harlem Hospital dental faculty as the critical factor in the consideration of applicants for admission. Although all participants qualified academically for enrollment, the academic criteria were not utilized to disqualify applicants when compared to the overall applicant pool.

Of the seventeen individuals who have now completed this unique program, 90 percent have entered into faculty positions on either a full-time or part-time basis. The Harlem Hospital Minority Specialty program has provided faculty for both Harlem Hospital and CUSDOS. The individuals have completed programs in periodontics, endodontics, prosthodontics, orthodontics, pediatric dentistry, and public health. It is notable that oral and maxillofacial surgery is not on this list; however, the Harlem Hospital Department of Dentistry has an accredited program in that specialty.

National Dental Association Foundation

A second pipeline program, which also had its genesis in 1988, is an outgrowth of a relationship between the National Dental Association Foundation and Colgate-Palmolive Co. The triggering point in this relationship was the discussion between the two entities regarding a Colgate-Palmolive product called Darkie Toothpaste. Those discussions not only led to a name change of the toothpaste to Darlie, but also to the evolution of a series of mutual programs to benefit minorities. One of those programs became the Postdoctoral Scholarship Program.

The purpose of the program was to enhance the opportunity for minority dentists to attain positions of influence within organized dentistry and dental education. The goal was to provide educational opportunities for minority dentists in areas of public health, law, research, and education. The program provides three \$10,000 scholarships per year for advanced dental education study.

Approximately thirty-five black/African-American dentists have been selected for this program since its inception. Many of these scholarship recipients have pursued postdoctoral degrees ranging from a Masters of Public Health degree in Health Policy and Management at Harvard University to a Doctor of Education degree at West Virginia Uni-

versity. Several individuals have used the opportunity to prepare themselves for career changes by entering into specialty training. Those individuals have completed training in most areas of specialty. Other institutions attended include NIH, Howard University, Meharry Medical College, University of Michigan, University of Chicago, Case Western Reserve University, University of North Carolina, and the University of Medicine and Dentistry of New Jersey.

This pipeline has produced a significant critical mass of individuals now engaged in dental education and organized dentistry. One of these individuals, Dr. Gregory Stoute, currently serves as the president of the National Dental Association. Another individual, Dr. Shelia Price, has a prestigious Executive Leadership in Academic Medicine for Women (ELAM) fellowship. Dr. Price is also the primary investigator for the West Virginia University proposal recently funded through the Robert Wood Johnson Foundation Dental Pipeline Grant.

Bronx Lebanon Hospital Center

A third pipeline program is the Bronx Lebanon Hospital Center (BLHC) Department of Dentistry. Over the last twelve years, the General Practice Residency program at BLHC has increased positions from three to thirty-one per year. The GPR program has enrolled 154 first-year residents and thirty-nine second-year residents since 1990, of which a majority are underrepresented minorities. A new Pediatric Dentistry Residency program enrolled its first cohort of two residents in 2000-01. In 2002-03, that program enrolled three first-year residents.

The BLHC Department of Dentistry, in conjunction with the AIDS Institute of the New York State Department of Health, developed a dental component of the institute's Nicholas Rango AIDS Scholar Program. This unique two-year program is designed for providers seeking hands-on experience in HIV/AIDS health care policy and AIDS development management. The program is uniquely devoted to the development of highly qualified, broadly trained clinicians who have the commitment and skills needed for leadership in the rapidly changing field of HIV.

Included in the mission of the BLHC Department of Dentistry residency program is the commitment to providing role models for the patient population served by the institution. That population is predominantly black/African American and Hispanic. The ethnic composition of the 193 residents reflects the effort to fulfill the mission. The data show

Table 4. 2001-02 minority enrollment in General Practice Residency programs

	Total	Black	Black %	Hispanic	Hispanic %	American Indian	American Indian %
National General Practice Residents	1,092	105	9.6	72	6.6	6	0.01
BLHC General Practice Residents	31	15	48	8	25.8	0	0

that of the 193, 105 were African American, 15 were Hispanic, 41 were Asian American, and 32 were Caucasian.

Twenty-seven of those who completed the program have entered specialty training. Pediatric Dentistry and Oral and Maxillofacial Surgery have been the two areas of greatest involvement. In addition, 28 percent of those who completed the program have entered into faculty positions. Twenty former residents are actively involved as faculty in hospital-based advanced dental education. Eight former residents teach or have taught in dental schools including Columbia University, the University of Tennessee, Howard University, the Medical College of Georgia, the University of South Carolina, the University of Maryland, and the University of Texas at Houston.

Tables 4 and 5 present a perspective on the representative cohorts of the BLHC dental residency program. The ethnic groups included in these data are considered to be underrepresented by the Health Resources and Services Administration (HRSA). Specific data related to subpopulations of Asian-Americans are not included because there are no comparable data in the ADA Survey Reports that are utilized for the national data. It should be noted that the 2001-02 BLHC GPR cohort contained two subpopulation Asian Americans: one Vietnamese and one Bengali. The 2002-03 cohort has the same two subpopulations represented by one resident each.

The relative success of this program in attracting underrepresented minorities for residency training serves as an important component of the development of a minority faculty pipeline.

Discussion

Critical elements to the relative success of these programs in evolving a minority faculty pipeline are:

- Environment
- Selection criteria
- Mentoring
- Networking
- Finance

Table 5. BLHC residency enrollment, 2002-03

Residency	Total	Black	Hispanic
1 st Year GPR	25	12	7
2 nd Year GPR	6	3	1
1 st Year Pediatric Dental	3	2	0
2 nd Year Pediatric Dental	2	1	0
Total	36	18	8

The environmental influence includes the mission of the program, the commitment of the institution to the program, the presence of minority faculty members, and the patient population served. The South Bronx community in which the BLHC program operates has been exquisitely and poignantly described by Jonathan Kozol in his book *Amazing Grace*. Residents have frequently commented about the impact of this environment in eliminating stress from the learning activity of their residency.

If the minority faculty pipeline is to be effective, change must occur within the commitment of existing faculty members. The control exerted by the faculty can act to prevent appointments of individuals to faculty positions. More importantly, those collective individuals control issues of mentoring, promotions, and tenure. If the departmental and institutional environment is one reflected by the vote of the Council of Faculties in 1988-89, the substantial progress of the Center for Equity and Diversity will be measured in the same limited parameters that are currently utilized.

The selection criteria for the program take into account noncognitive and cognitive factors. Activities related to leadership and the ability to overcome obstacles can be as important if not more important than pure numbers reflecting a grade point average (GPA) or a national board score. The BLHC program seeks candidates in an upward learning curve. The noncognitive components of the qualities of the candidate are not always appreciated if one does not "look inside the numbers." Consideration is also given to the environment in which the grades are obtained. What was the impact of being isolated in a learning environment that might not understand the effect of that impact on the individual's ability to perform?

Mentoring is perhaps the most significant factor in guiding a resident into the teaching profession. Residents are still in a phase of development in which they can benefit from the positive interaction with his or her mentors. BLHC's evolving affiliation with the New York University School of Dentistry will also provide the program's residents with a laboratory in which to engage, assess, and develop fundamental components of their education.

In the context of the BLHC program, networking plays a role in developing underrepresented minority applicants who are accepted to residency programs. Networking also has a role in the process by which residents are accepted into specialty training and faculty positions. The importance of this networking in no way implies that the candidates are not appropriately credentialed for the positions they receive (which is also the case in the program involving Harlem Hospital and Columbia University). To the contrary, the fact that the network functions properly leads to well-qualified candidates being presented for consideration. Networking is a subtle but critical issue in the application/admission process that can serve as an obstacle for minority applicants to advanced dental education programs.

Historically, academic programs have set cut-off GPAs and national board scores as easy and readily available criteria of exclusion/inclusion of candidates in the application process. These numbers would, at first glance, readily lend themselves to considerations of comparative qualifications. What the use of the numbers cannot take into account are the conditions under which a relative GPA was obtained. For instance, in an institution without a critical mass or history of minority students, minority students often confront adverse situations and circumstances that impact academic performance negatively in a way that many nonminorities cannot understand. Additionally, the subjective nature of grading technique courses and procedures performed on patients is not always an equal process for each student.

The issue of the use of national board scores raises an additional concern. Some colleges and universities are moving away from SATs as critical components in the admissions process, but few professional schools and/or advanced dental education programs are prepared to eliminate the use of standardized tests as key components in the admissions process.

The exception to this tendency occurs when there is financial motivation to find minority applicants who have the qualifications for admission. For

instance, when one correlates the ratio of black/African-American applicants to enrollees, it is evident that in years when the overall applicant pool is low the ratio is higher. "Marginal applicants" are deemed qualified for admission during those times. Similarly, when there are incentives provided by the federal and/or state government, institutions find a way to qualify for these incentive revenues in spite of their criteria.

Conclusion

This paper has focused on the development of a minority faculty pipeline in dental education, including the presentation of information related to the shortage of faculty within dental education and the possibility of utilizing GPR and AEGD programs to develop potential faculty, specifically for underrepresented minorities. Three separate approaches to solving this problem have been presented, all three of them oriented toward postgraduate dentists and initiated between 1988 and 1991. Each program has unique qualities and driving factors, but the commonality has been their impact on the faculty pipeline.

The true measure of the outcomes is still to be seen. Hopefully, the future will show the ability of the people in these programs to attain tenure and professional influence and thus have an impact throughout dental education.

Although ADEA has assumed leadership in the effort to address the issues of minorities in dental education, no real success will be achieved unless the individual component institutions step to the front. It is the commitment at the grassroots level that will bring about significant change. The three programs described in this article have demonstrated pathways to success.

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