Point/Counterpoint:
The Profession Should Encourage/Not Encourage
the Establishment of New Dental Schools

David A. Nash
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~~*Introduction*~~

I do not support the establishment of additional dental schools in the United States. I will defend this position by first challenging the need for more dentists to improve access to oral health care for American society; and secondly, by arguing that dental education does not have sufficient numbers of qualified faculty members to staff new dental schools such that the profession would be able to maintain its position of being a scholarly, scientific discipline; education for which must occur in a university setting.

In making these arguments against the establishment of new dental schools I will also address the three major issues confronting health care in America: **access to care, cost of care, and quality of care.**

~~*Access to Oral Health Care*~~

The assumption foundational to the new dental schools that have been established and those under consideration is that more dentists are required to ensure the public has access to oral health care. This is a fallacious assumption. There is no evidence of a direct relationship between the number of dentists and the adequacy of access to care. There was inadequate access to oral health care

when the dentist/population ratio peaked in 1982, as a result of the federal government offering dental schools incentives in the 1970s to increase class size. There was inadequate access to oral health care when the profession experienced a significant "busyness problem" in the mid-80s to mid-90s, as a result of a recession, and the previous expansion of class sizes.

Access to oral health care is a complex problem. As our national debate on health care reform has demonstrated, the problem of access to care is not amenable to simplistic solutions, such as just increasing the number of dentists in the workforce. The definition of access to care is at a minimum bipartite: professionals to provide care and resources to pay for care. It is easy to be misled by statistics citing a reduction in the dentist/population ratio as a result of the expanding population. What is not shown is that 100 million Americans, one-third of the population, now lives at 200% or below of the federal poverty level. As the Surgeon General's report on oral health in 2000 indicated, the oral disease burden is borne most by individuals living in lower socio-economic groups. There is currently minimal public financial support for dental care for adults, and what does exist is rapidly being eliminated due to federal and state financial exigencies. The need for care is not the same as the demand for care from dentists.

It has been suggested that already existing new dental schools, as well as those being established or being considered, would each, on average, add 75 dentists/year to the workforce. This would mean approximately1,500 new dentists/year when all 20 recently opened, proposed or considered, new schools are fully operational. However, this number does not include the significant increases in class sizes that have already taken place in existing dental schools. By 2014 the number of dentists graduating annually from currently existing schools will have grown to 4,983 from 4,171 in 2001. Sixty percent of this increase is due, not to the four recently established

schools graduating students, but rather to existing schools increasing their class sizes by 483 places, essentially creating six new dental schools within existing ones based on average enrollments; a trend likely to continue. In addition, international students enrolled in advanced standing programs have increased by 55%, from 379 in 2000-2001 to 590 in 2008-09.

The average student indebtedness of the Class of 2009 was $164,000; $195,000 at private and state-related schools. The new schools that have been established, and those planning to matriculate students within the next two years, have average tuitions of over $50,000/year. Budgeted living expenses for financial aid purposes are between $20-36,000/year, with $25,000 being typical. It is likely that graduates of new dental schools will complete their educational programs with $250-300,000 indebtedness; indebtedness that is primarily supported by federally tax-subsidized student loans. Most of these dentists will, by necessity, establish practices in relatively affluent areas in order to care for patients who have financial resources to pay for their care; ironically, individuals with a lower burden of oral disease. It will not be an option for them to practice in rural and inner city areas where people are most in need of oral health care; nor to care for individuals with public dental insurance--to whatever extent such insurance may exist.

It is argued by some that these indebted graduates will be able to practice in Health Professional Shortage Areas (HPSAs), and thus gain some degree of loan forgiveness. However, loan forgiveness programs are paid for with federal and state tax dollars. Clearly, we are living in an era when even maintaining current levels of tax-support for dental programs will be difficult to achieve. The burden of general student educational debt nationally totals $880 billion; more than the combined personal credit card debt of all Americans. The national media are

suggesting student loans will be the next mortgage crisis. There are ominous signs on the horizon for dental students who are incurring such a magnitude of debt.

Recent changes in the professional dental workforce in The Netherlands offer a thoughtful approach for addressing access and quality issues in the United States. The Dutch have actually reduced the number of dentists they are training by 20%. At the same time they are increasing the number of dental hygienists trained by 43%. More importantly, they are expanding the training and the scope of practice of these dental hygienists to include those procedures traditionally provided by the internationally acclaimed dental therapist, the progenitor of which is the New Zealand school dental nurse/~~therapist~~.

It is also important to note that the Dutch have made a substantive change in their dental curriculum, expanding the traditional five year curriculum to six years—to improve the quality of care their graduates are able to provide. Their rationale is the belief that Dutch dentists were not being trained well-enough in clinical medicine to address the oral health needs of a population that is aging, with increasing numbers of patients biologically and pharmacologically compromised. This thinking echoes the Institute of Medicine report in 1995 in which the same criticism was made of American dental education. The IOM argued for curriculum improvements in teaching dental students the basic biomedical sciences and clinical medicine, including adding clinical medicine clerkships to the curriculum. American dental education has generally ignored the IOM recommendations. In examining the current and proposed curricula of recently established and anticipated new dental schools, there is no evidence that this educational deficiency is being addressed by these institutions either.

I have been a vocal advocate for adding dental therapists to the dental team in the United States, as well as expanding the training of dental hygienists to include therapists' traditional restorative skills, which have been almost exclusively in providing care for children. It has been established, in both the United States and internationally, that therapists/hygienists can provide quality primary care for children. The success we are experiencing in Alaska with dental therapists demonstrates the effect these individuals can have on improving access to care. A recent ADA report indicates that the four most common procedures in caring for children are: periodic examinations, prophylaxis, topical fluorides, and sealants. We do not need individuals educated for 8-11 years in our universities to directly provide such care; in fact, most dentists typically refuse to do so for those most in need. Data indicate only 10% of dentists provide any significant level of care for individuals with public insurance. Eighty percent of dental caries in children is found in 20-25% of the population, generally children who are eligible for public insurance through Medicaid and the Children's Health Insurance Program. In sharp contrast to the circumstance with adults, the Kaiser Family Foundation reports that the majority of America's children, 40 million of 78.6 million children, are eligible for such public funding. Primary oral health care for our children can be provided by therapists/hygienists under the general supervision of a dentist--ideally in school-based programs. What business would succeed if the most highly educated and skilled individuals in the organization were assigned tasks that could be fulfilled by someone with significantly less training. Delegation is an imperative for any cost-effective and efficiently organized system, particularly health care.

It is not possible to justify establishing new dental schools on the basis of improving access to oral health care. There are clearly less expensive and potentially more effective ways to accomplish this goal. Furthermore, a major

potential downside is that a large number of dentists will be educated who cannot be economically supported by society, and the "busyness" problem we have only all too recently faced will once again haunt the profession. The worst case scenario is that individuals will be attracted to study dentistry and accumulate large debts, only to discover their practices are not financially viable, forcing them into bankruptcy. Interestingly, a recent New York Times article suggested that our colleagues in legal education are overselling the economic opportunities for attorneys with such a worst case scenario. Could it be that we are doing the same? The demand for dental care is elastic, declining in times of economic downturns and increasing when the economy rebounds. In economic recessions, young adults are encouraged to stay in school to improve their future earning potential. The current environment has resulted in a 2.8 to 1 applicant to position ratio in dental education. In our free market economy, that is a fertile statistic for entrepreneurs to enter the marketplace of dental education.

Establishing new dental schools is neither the answer to improving access to care, nor to improving the quality of care provided by dentists. It is an expensive and potentially devastating strategy with no evidence it will address the core challenges we face as a profession.

~~Numbers and~~ Scholarship of ~~Faculty~~

Now to my second argument against establishing new dental schools. Dental education does not have sufficient numbers of qualified faculty members to serve an expansion of dental schools. William Gies argued for dental education in 1926 what Abraham Flexner had argued for medical education sixteen years earlier—that education for these science-based professions must take place in the university

where scientific knowledge is enshrined. The words we use carry conceptual importance. The word "university" derives from the Latin meaning a "community of scholars." Scholars are continuous students, seeking to learn and know; the etymological meaning of the word scholar is "having the leisure to study." Universities are or should be populated by scholars. It is for this reason that both Flexner and Gies placed the study of general medicine and dental medicine, respectively, in the university—a place where students could engage with learned professors; professors who spend their time studying evidence supporting knowledge, and advancing the frontiers of knowledge through their curious, creative explorations.

Implementing the Gies Report resulted in dentistry becoming a respected, science-based profession. Today, it is imperative that Gies' understanding and recommendations not be neglected. Dental schools must be populated with professors who are scholars; individuals for whom the title of professor, in all of its ranks, is justified based on documented scholarship.

Unfortunately, evidence indicates there is a significant deficit of such professors in dental education today. ADEA data document there are consistently between 350-400 open faculty positions in our dental schools; a 300% increase since 1992 in vacant positions at any one time. A separate and valid concern has also been expressed regarding the lack of creative scholarship existing among faculty members in our current schools. These issues raise the critical question of from where will the professorate emerge that will enable a multitude of new dental schools to develop and maintain the scholarship required for dentistry to remain the learned and respected profession it is. In 2008, 34% of graduating medical students indicated their career intention to be academic medicine; whereas, less than 1.0% of graduating dental students demonstrate an interest in academic

dentistry. Extrapolating from these data suggests that we might anticipate approximately 40-50 of our graduates annually will pursue post-graduate education and enter academic dentistry; clearly a number woefully inadequate to meet current needs, much less those generated by establishing new schools. Additionally, the debt load of graduates, as well as low faculty salaries, will reduce this number. Frankly, it is not the dentist to population ratio that should be distressing our profession; rather it is the ratio of the number of members of the professorate to the number of students enrolled in our curricula—this is the real crisis we face.

Some of the new schools have developed a practice of retaining faculty members from existing dental schools as "consultants" to periodically teach in their curricula. If I may be so blunt, this is just not fair. To use the language of ethics, which is appropriate, these schools are "free riders" in the system. They are gaining the benefits without incurring the costs. These "consultants" have developed their teaching materials at their home university, which has provided the time, the facility, and the financial resources to do so. The home institution pays the basic salary of the faculty member and all of the fringe benefits, such as health insurance and retirement--fringes that typically are equal to one-third of an individual's salary. This "consultant" strategy is no way to build a credible system of dental education. It is a practice that cannot be endorsed and should not be sustained. It does not comport with the ethical principle of justice. It is just not fair. It is not right.

Furthermore, some new dental schools depend on practitioners and practices in the larger community to provide their students with a significant dimension of their experience in clinical dentistry. This practice must be challenged. Such practitioners are generally not qualified university faculty members, scholars in the sense of the university professorate that Flexner and Gies believed necessary to

educate and train for professional life. Such a paradigm of dental education is an initial step in a return to the preceptorship era of training that both Flexner and Gies vigorously denounced. Frequently this practice is justified by the claim that placing students in practices and clinics in underserved areas for a portion of their clinical training will result in increased numbers practicing in these areas. There is simply no evidence in the literature of dentistry to support this claim.

Conclusion

I conclude by again citing the Institute of Medicine report. Sixteen years ago the IOM stated that dental education had reached a "crossroads." The major theme of the study was that dentistry had become increasingly isolated from medicine and the larger university community. The Report argued that closer integration with both was an imperative. Encouraging the establishment of new dental schools, many of which are in settings that challenge the traditional characteristics and designation of a university, is a move toward further isolation of dentistry—geographically, organizationally, educationally, and intellectually from the mainstream of the academic health care community.

We have now reached a bifurcation point. We must make a decision regarding the nature of our profession moving forward. Is our profession to be understood as essentially training sophisticated technicians to provide mechanical interventions for oral disease, or educating individuals to become physicians of the ~~oral cavity~~ stomatognathic system.
The Gies Report concluded that dental education must ensure that dentistry is considered the equivalent of any other specialty discipline of medicine; that dentists should be—and I use the term employed by Gies himself--
"oral physicians."

~~The Gies Committee concluded that dental education must ensure that dentistry is understood to be a discipline of medicine, and considered to be equivalent to any other specialty of medicine — that dentists are ~~are to be physicians of the oral cavity~~ and have the same — oral physicians.~~

I implore our profession to discourage the establishment of new dental schools.

Rather —

- We must encourage our existing schools to make the transformative changes to our curricula that will enable us to finally achieve the not-yet-realized vision of William Gies and his colleagues of dentists as physicians of the oral cavity.

- We must encourage expanding the dental team with therapists / hygienists to address the pressing issue of access to care* and in so doing reduce the cost of care.

- We must both increase the number and strengthen the scholarship of the professoriate in our existing ~~schools~~ university-based dental schools.

~~The time has arrived for academic dentistry to provide the thoughtful, creative leadership necessary to improve access to care?~~

I implore our profession to discourage the establishment of new dental schools, and rather to encourage expanding the dental team with therapists/hygienists to address the pressing issue of access to care, and in so doing reduce the cost of care. ~~Additionally~~, We must both increase the numbers and strengthen the scholarship of the professorate of our existing university-based dental schools, in order to improve the quality of care able to be provided by our graduates.

The time has arrived for academic dentistry to provide the thoughtful, creative, transformative leadership necessary to improve **access to care** and enhance the **quality of care**, while at the same time reducing the **cost of care**. Establishing new dental schools is clearly not the way to accomplish these goals!

Preface

In a hallway conversation at last year's ADEA meeting, my good friend and colleague Don DePaola and I discovered that we did not share the same perspective on the establishment of additional dental schools. This Symposium is the result of our conversation. Don and I have opposing perspectives; however, we share a commitment to [illegible] frank and engaging debate among colleagues on the issues confronting dental education. While many [illegible] disagree w/ the authors, we both are committed to the same vision of improving our profession's ability to better serve society through improving dental education — and also to remaining good friends.

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