The Future of Allied Dental Education: Creating a Professional TEAM

David A. Nash, D.M.D., Ed.D.

Dr. Nash is dean, College of Dentistry, University of Kentucky, 800 Rose Street, Lexington, KY 40536-0084. Send correspondence and reprint requests to Dr. Nash.

I want to examine the implications for the profession of dentistry of the "existing future" of allied dental education—and I want to launch my examination from a conceptual framework. The resolution we seek of practical and operational problems depends (sometimes entirely) on the conceptual framework we use to define the problem. Allied dental education, and its curriculum, is, and must be, a fusion of theory and practice. While theory may seem remote and abstract at times, it nevertheless guides our reasoning, and eventually our action. Even the most practical among us must resort ultimately to some conceptual construct—unless you believe you can proceed on intuition, or on visceral preferences. The conceptual framework I will use is a sociological one, but one with which we are all familiar—though not all are necessarily well versed in its assumptions or characteristics. It is the notion of profession—and a related, though not identical idea of the professional. From this conceptual framework, I will move to the practical and I will advocate for the renewal of a strategy once introduced in our profession and subsequently abandoned, that I believe essential as we anticipate the future: the strategy of a team.

The work of Abraham Flexner in the health professions in the early part of this century, and the subsequent work of the distinguished American sociologist Talcott Parsons, has helped us trace historically the development of the concept of profession, the rise of the so-called learned professions, and the evolution of these professions in twentieth century America. Time does not permit a detailed explication of the idea of profession, but a summary of the work in the area will suffice. Professions are social bodies that possess technical expertise grounded in a sophisticated knowledge base—a knowledge base that can be taught and learned in settings of advanced education; a technical expertise that is useful and valuable to society. Professions are bodies that are willing to offer their knowledge and abilities to society for the betterment of society. Professions, Flexner said, exist to achieve societally defined goals rather than to promote the self-interest of their members. By tradition the learned professions have included: the ministry, law, and medicine, including dentistry as a specialty.

Dentistry is a profession today because it meets the sociological criteria of a profession. Dentistry as a profession holds a complex knowledge base that when applied with technical expertise permits society to gain the benefits of oral health. In a further sense to profess is to avow or promise. The profession of dentistry commits itself to seeking the good of society with regard to oral health. But now we must draw a careful distinction—the distinction between a profession as a body and professionals. We use the term professional today in two senses. In one sense, a professional is one who is a member of a profession—again historically one of the three I've identified. But in a larger sense a professional is anyone who is not an amateur. Of course, on this definition of profession, one who works in a profession is a professional in both senses of the word. But we also apply the term to such diverse groups as airline pilots (none of us would want to return home on an airline with an amateur pilot), plumbers, engineers, athletes, and
a whole assortment of individuals in our society who are extremely skilled in what they do, and are remunerated for their skills.

Dentistry is a profession, and all of us who work in the profession together to achieve the good of oral health for society are professional members of the one profession. With increasing frequency, I hear people speak of the profession of orthodontics, the profession of dental hygiene, the profession of oral and maxillofacial surgery, and the dental laboratory profession. Such professions do not exist, at least not in the classical understanding of profession as articulated by sociology. We are all members of one profession, the profession of dentistry. This is an imperative understanding if we are to link education and practice, preparation with profession.

Today, the profession of dentistry is composed of many members: dentists (general dentists, pediatric dentists, periodontists, prosthodontists, oral pathologists, orthodontists, public health dentists, oral and maxillofacial surgeons, and endodontists), dental hygienists, dental laboratory technicians, and dental assistants, all working together as professionals (not amateurs, but people skilled in what they do—working together as a team in order that society may gain the benefits of oral health.

The concept of team, of teams, and of teamwork is one of the most powerful ideas operational in our society today. Throughout organizational settings our executives are proclaiming that teams and team work are essential to developing high performance organizations. Our leadership training programs are promulgating the message: “If you want to be a leader—learn how to lead a team.” In government our leaders, including our current president, are forming teams to identify problems and plan for their resolution. Why the emergence of this team emphasis? Because we are coming to acknowledge that the world cut there is complex. There is too much to know, the skills required to thrive are too diverse, the environment in which we live is too turbulent, so we must “team up,” work together, affirm that together we can accomplish so much more than we can individually, and further affirm that the sum is greater than its parts; that there is a synergy of effort that comes from working in a team. That is why the American Management Association promulgates the theme, “TEAMS spell success!” A current best-selling book in the leadership/management field sums it up in its title, The Wisdom of Teams. Teams make sense, and the dental team makes sense.

In the early 1970s, long before teams were in vogue in quite the same way they are today, we had federally-funded T.E.A.M. grants in dentistry. T.E.A.M. was an acronym for “Training and Expanded Auxiliary Management.” Building on the model of teaching student dentists to effectively utilize assistants in the D.A.U. Program; the T.E.A.M. Program added the dimension of dentists learning to provide leadership for hygienists, dental assistants, expanded function dental assistants, and laboratory technicians as members of the dental team. A variety of studies showed that this team approach to dentistry paid significant rewards in productivity. Though we may say that the team concept continues to exist in the profession, the core element of the T.E.A.M. programs of the 1970s has largely been lost. This was due primarily to political forces at work, a discussion of which is also beyond the scope of today’s discussion.

The power of the team concept is the power of specialized functioning. The health services research literature confirms that which is common sense—the more often I perform a task, the faster I can perform it, and the higher the quality of my performance. Today we must acknowledge that each professional member of the dental team has a unique role to play, and that person can play that role better than any other member of the team. Don’t try to convince me that the dentist is the most effective member of the team in root curattage. I’ll have my teeth cleaned by a hygienist, thank you! And, don’t try to tell me the hygienist is a master at oral diagnosis, I’ll take my dentist any day. If I’m going to have a rubber dam placed or instruments sterilized, give me a dental assistant. Don’t you dare suggest that you are going to allow my dentist to stack the porcelain on my new central incisor crown! Our laboratory technicians are unexcelled artisans in that. We all have a unique role to play, and playing it well contributes to our profession meeting its commitment to society to ensure its oral health.

Our profession and its environment are rapidly changing, as is all of society. As leaders in our profession we must forge new understandings of the future, a new vision if you will, of how, as a profession, we can together better meet the needs of the society we serve. Changes among oral health professionals include:

- The absolute numbers of dentists will peak at 144,000 in the year 2000 and then begin a substantial decrease. Note that we are currently enrolling the Class of 1997.
- The dentist-to-population ratio peaked in 1985 at 56.5 per 100,000 and is now dropping precipitously, arriving at 45.7 in the year 2020, the smallest ratio since the beginning of World War I in 1915.
- There are significant changes and shifts among allied dental personnel as well. In 1980, there were close to 11,000 individuals enrolled in our country’s dental hygiene programs. Today there are ap-
approximately 10,000; though the numbers have been increasing after they reached a nadir in 1988.

- The losses of programs and students in dental assisting have reached crisis proportions, just when the environment includes the human immunodeficiency virus, new technologies, and new biomaterials that require more knowledgeable, better-trained assistants on the team. In 1980, there were 8,200 assistants enrolled in 298 accredited programs. Today there are 6,600 assistants enrolled in 232 programs.

- Human resource problems in dental laboratory technology are even more acute. In 1980-81, there were 2,823 people enrolled in our accredited programs in laboratory technology. Today there are 1,408, a 47 percent decline.

While need for oral health professionals is increasing, the profile of that need is changing:

- We will add 65 million new citizens to our profession's societal responsibility by the year 2020. And more significantly, approximately 100 million of the U.S.'s population of 310 million will be in the underclass. How do we care for them?

- The number of our senior citizens is growing rapidly, from 11.5 percent of the population in 1985 to 14 percent in the year 2000 to almost 18 percent in 2020. These seniors citizens, in contrast to previous generations will have teeth, lots of teeth!

- By the year 2000 we will have 52 million more people with an average of five fewer missing teeth than members of the population just 30 years earlier. There will be 4.4 billion teeth in the year 2000 and more than 5 billion teeth by 2050. Our epidemiologists estimate that there will be a need for 270 million hours of restorative dentistry in the year 2000; and 56 million hours of unmet need for periodontal disease therapy.

- In 1962, 17 percent of our population was edentulous. In the year 2000, 8 percent will be, and of the population under age 65, only 4 percent. However, we will have a constant sub-population of 9 million people requiring complete dentures throughout the next 30 years, and fewer and fewer dentists desirous of treating this problem in the population, particularly in the population sub-class most affected. As the relative percentages in the population of this problem decrease, there will be increased pressure on our dental curricula to reduce the amount of time devoted to teaching complete dentures. What role will laboratory technicians play in the future in the problem of the completely edentulous?

I could go on and on, but the issue is this—how is our profession going to prepare for this future, how are we going to meet our professional obligations to society to care for such a society's oral health given such changes. We will have fewer professionals and a greater variety of oral health problems.

My answer is the creation of high performance teams of dental professionals. By high performance, I mean teams that are cost-effective, efficient, and highly productive. Such teams will have the full array of professionals who are in the profession today, with new professionals potentially emerging. We must not allow the political mistakes of two decades ago to be repeated. Environmental change and societal needs and expectations will necessitate that we expand functions and responsibilities. Dental hygienists must take on new and challenging roles in the treatment of periodontal disease and as oral health educators, both in and out of the traditional dental office, and without relying on the presence and direct supervision of a dentist. Dental assistants must be dentist-extenders, carrying out expanded functions in rehabilitative dentistry, which research has already demonstrated they can do proficiently. Dental laboratory technicians must play an increasingly important role in provision of complete denture services for our patients, as well as employ their artistry to improve the team's ability to meet the increasing challenges of aesthetic dentistry. The transformation of our professional culture in dentistry to accommodate these changes will not come easily—but it must come, and it must begin in the educational settings for which we are responsible. Today's culture is not a team culture. We have educated, and are continuing to educate, the dentist-member of the team in such a manner that essentially precludes him or her developing the attitudes necessary to build a team and to inspire such a team with a team spirit. Dentists must be educated in the context of the team, not in isolation from other members of the team. They must be taught that team leaders:

- Are flexible—not rigid
- Are affirming—not demeaning
- Are empowering—not delegators
- Are coaches—not dictators
- Are egalitarian—not authoritarian
- Are collegial—not parenteralistic
We must educate team leaders to acknowledge the unique role of each team member and to affirm the importance of mutuality and reciprocity in all the complexities of team relationships. Team leaders must learn to share the benefits of the team effort with members of the team. Shared responsibility necessitates shared benefit, or responsible and cooperative team behavior will no longer exist.

I challenge you today to help advance this vision of the profession of dentistry as a team. Only through transforming our educational settings, our curricula, and the attitudes of our faculty and students, can we hope to create a team of the future and for the future—a team of professionals committed to helping society achieve the good of oral health that it needs, wants, and deserves.