Dental education in the US

M. A. Pogrel[1]

OPINION

IN BRIEF

- Highlights changes that have occurred in dental education in the United States over the past 30 years.
- Explains that paradox in the US of an ever increasing number of dentists actually providing less treatment at higher costs.
- Shows that mid-level providers (dental auxiliaries) may be the cost effective and practical answer to providing dentistry for the masses.

Dental education in the United States has changed considerably over the last 30 years and it could be argued that not all the changes are positive. The number of dental schools has increased and the number of graduates has increased, but the level of dental care in the country as a whole has not increased. The majority of US dental schools are now private and profit making and even the state schools need to generate income. The curriculum has also changed at the expense of the basic sciences.

When I first moved to California in 1983, there were 55 accredited dental schools (accredited by the Commission on Dental Accreditation – a Department of Education approved body administered by the American Dental Association) in the US. The vast majority of them were associated with conventional universities and medical schools. Many states had their own state dental school (which often offered almost free education), and in those states where there was no dental school, the state had a contract with an adjacent state to admit a certain number of their students each year for dental training. In this way each state could keep up its supply of dentists. In the late 1980s and early 1990s, however, there was a feeling that we might be training too many dentists and the demand for dental school places was not particularly high; there was a lot of pressure on academic institutions over space and academic requirements. For these reasons, five dental schools closed, reducing the number of schools to 50. However, in the past 15 years, 15 new dental schools have opened, meaning that there are now 65 accredited dental schools in the US and Puerto Rico. The big difference is that the schools that closed were based on conventional academic institutions with conventional medical schools, whereas the new schools that have opened are all private and often based on schools of osteopathic medicine, schools of podiatric medicine, schools of chiropractic medicine and other less conventional medical programmes.

A SUSTAINABLE MODEL?

Conventionally, dental school training is 4 years in length (to follow a 4 year baccalaureate programme) with the first 2 years devoted predominantly to basic sciences and the last 2 years to clinical sciences. This has become somewhat mixed up over the last 30 years, and in fact, we still have one school, the University of the Pacific, which trains dental students in 3 years, but this is 36 months of continuous training, which is equivalent to the 48 months of other schools. What has changed considerably is the number of hours devoted to the basic sciences. Initially, at our dental school this was around 1,400 hours of basic science training, but some of the new, less conventional schools actually have little more than 500 hours of basic sciences tuition. Additionally, much of the training in the new schools is what would have been considered unconventional, but is now being considered innovative. Most of the basic sciences can be carried out through online teaching, which negates the need for anatomy dissecting rooms and laboratory facilities. The restorative technique training can be carried out under contract to local commercial dental laboratories, which cuts down on the need for a conventional dental school with dental labs and phantom head rooms. Local laboratories benefit from the relatively cheap labour and their staff obtain dental faculty appointments, and it is mutually beneficial. The final clinical portion of the dental school can be carried out in community clinics and through entities such as the Indian Health Service, etc, so that when you think about it there is almost no need for a conventional dental school or dental hospital as we know it. The fees being charged for dental school education today vary from a low of around $20,000 per year at some state universities to a high of $90,000 a year at the most expensive private schools. Typical figures are around $50,000 per year, which means $200,000 purely for the dental education not counting various fees, purchase of dental instruments, accommodation, and meals etc. Additionally, many dental students will have run up considerable debt since they have already been to college for 4 years to get a bachelor's degree. People who are much cleverer than I am have done the mathematics to figure out that this is not a sustainable model and we are getting near to a breaking point where you can never repay the debt, particularly if you want to get married, have a family, buy a house, and even buy into a practice. I am told that this has already happened with veterinary science and also with a couple of medical specialties, including psychiatry and paediatrics, where you can never actually get to a breakeven point since your debt can be so high and your earnings so modest. The theory is that ultimately this will discourage people from applying for these specialties and they will have to reorganise in some way.

NUMBER OF GRADUATES

At the moment that does not appear to be happening with dentistry. There was a time when it was felt that if the number of dental graduates increased and the number of dentists increased, they would be in competition with each other and their fees would decrease in line with competition. It

[1]Professor, Department of Oral and Maxillofacial Surgery, University of California San Francisco, Box 0440, Room C522, 521 Parnassus Avenue, San Francisco, CA 94,143-0440, United States of America
*Correspondence to: M. A. Pogrel
Email: tony.pogrel@ucsf.edu

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did not take long to realise that this is not actually how it happens in dentistry. What appears to happen is that the dentists set themselves a certain income level that they need to achieve and then they adjust their fees so that they can achieve that kind of income level, even with fewer patients. It took some time for the dental insurance companies to realise what was happening, so that now they have set limits on the fees they will allow. Even so, many dentists are finding ways of bypassing this. However, there are more and more people who are thinking this situation cannot continue for much longer. There is no doubt the number of dentists coming out of dental schools in the US is increasing at a steady rate. In fact, the dental schools are expanding the number of places since obviously the more people they graduate the more income they generate for the school, and there are economies of scale, meaning that if you double the size of the dental school you do not double your overheads. Therefore, many schools, including our own, are graduating more students per year than they used to. Moreover, most dental schools have found an additional source of income in training foreign dentists for 2 years to give them a US dental degree so they can sit the general dental licensing exams. Most schools take these so-called 'International students' for 2 years of training at around $70,000 per year, and this is a useful additional source of income for the schools, but it does place even more dentists in the marketplace. Where these foreign students get the money from to pay these kind of fees is beyond me!

Coupled with this is the contradictory problem that the percentage of the population going to the dentist regularly for treatment is actually decreasing. At the present time, only about one in three of the population attends a dentist in any 1 year, and only one in six go on a regular basis. When asked the reason for this, the most commonly produced reason is that of cost. Dentistry is just too expensive for the general population to be able to afford to go on a regular basis for routine treatment. This is a complete paradox in that we have more dentists than ever and we are training more dentists than ever, but patients are getting less treatment, and therefore fees are increasing to maintain the dentist's income, so it becomes a vicious circle. Also these new graduates cannot afford to practice in the poor parts of town or other underserved areas, since they have to earn enough to repay their debts. They still congregate in the affluent urban areas.

STATE SOLUTIONS

Many states are trying to wrestle with these problems, but it is very difficult in a free enterprise society to impose what might seem obvious rules and regulations. What does seem to be happening slowly is the advent of dental auxiliaries who can reduce the cost of dental treatment, are more likely to settle in underserved areas and may even have more empathy with the patients. To date, only the states of Minnesota and Alaska will licence dental auxiliaries, but legislation is going into place in many more states including possibly California. It is felt that one general dentist can supervise half a dozen dental auxiliaries to considerably reduce the cost of dental treatment and bring it within the reach of the general population. However, this will mean that we will have a vast oversupply of the dentists who will have difficulty finding jobs. The same thing has already happened in medicine where physician's assistants, nurse practitioners and nurse anaesthesiologists carry out many of the duties formerly performed by doctors. Also, doctors are finding much more difficulty going into private practice and more often than not they will now act as a salaried physician working for a medical group. In certain specialties, such as cardiology, it is now virtually impossible to be a private practice cardiologist. You have to be employed by a hospital or a medical group. This is getting to the extent now that many hospitals and medical groups are banding together to employ doctors and they are realising that maybe they should go a step further and train the doctors in the first place. Now we are getting the idea of developing medical schools owned by the hospitals and medical groups, offering a medical degree at a very low cost, providing the doctor will agree to work for that medical group for a number of years after graduation. In fact, one group will be offering free medical education and you only have to work for the group for 3 years following graduation. They are confident that after 3 years you will want to stay with the group and will not move and that they will get all the doctors they need without having to go out on the open market and bid for them.

Similar changes may be afoot in dentistry. Although, as far as I know, no-one has suggested opening a dental school owned by a corporate dental entity. We did for a time have a private accredited orthodontic speciality training programme, who would train you for free providing you agreed to work for their orthodontic group for a number of years. More and more dentists are now opting to become salaried dentists rather than opening in private practice. They are going to work for large groups that own many dental practices and are often able to offer specialist services as well as general dental services. This corporate dentistry model pays well, offers good benefit packages including pensions, and for many allows a better quality of life, since they deal with all the administrative issues and you can just practice dentistry, but you do have to practice it according to the group rules. Initially these positions certainly did appeal more to the female graduates than the male graduates, but now they are appealing to everyone. One does need to realise that well over half our dental students are now female, and in fact this applies across the scope of the healing arts. In veterinary school, over 85% of the students are female, in medical school it has now passed 50%, and pharmacy school it is around 60%, while in nursing school it is still over 80%. In dentistry it is now around 50% nationwide and 67% are female in our University. This may well mean some big changes in work patterns in the future. Certainly when we had our graduation ceremony for the dental students last week, I was surprised at how many of the female students went up to receive their degrees carrying a baby in arms or holding hands with a toddler. Interestingly none of the male graduates did it. As one of my older colleagues sitting next to me on the stage said; '*This would never have happened when I was at dental school.*' May you live in interesting times.