COMMENTARY

Comments on the Proposed Pediatric Oral Health Therapist

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Introduction

A recent article in the Journal of Public Health Dentistry, *Developing and Deploying a New Member of the Dental Team: A Pediatric Oral Health Therapist* (2005 65:48-55), written by David A. Nash, DMD, MS,EdD, proposed the development of a lower level practitioner as a dentist-substitute for the provision of caries treatment for children as means of addressing "the significant disparities in oral health that exist among children in the United States" (1).

The primary rationale for this proposal is that there is an insufficient and under-trained dentist workforce in the Unites States that has resulted in the reported oral health disparities, particularly in children. The successful use of this type of auxiliary in other countries, especially New Zealand, is cited as evidence that this proposal can, and has, significantly improved the oral health of children where it has been implemented.

The American Dental Association (ADA) has long favored the appropriate expanded use of dental auxiliaries to enhance the efficiency and increase the productivity of dentists. Appropriate expansion of duties involves the retention of diagnostic responsibilities by the dentist, adequate supervision by a dentist of auxiliaries and the prohibition against performing irreversible surgical procedures by non-dentists. This position by the ADA is not a Luddite-like response, but is driven by concerns for patient welfare and safety.

Dunning (2) quotes J.W. Friedman from the New Zealand Division of Dental Health as saying, "We are first-rate technicians, not second-rate dentists." In dentistry, one thinks of technicians as providing support services for dentists, generally upon order of the dentist, rather than working independently doing irreversible surgical procedures on living tissue. Decision-making ability and the performance of irreversible surgical procedures seem to be a logical delineation between things technicians do and the things dentists should do.

This independent action by a dental auxiliary does not enhance the development of an effective dental team, in fact, the opposite may occur. Again, Dunning (2) quotes an unnamed officer of the New Zealand Dental Association and former staff member of the Division of Dental Health as saying, "...if you want to sabotage your program (a dental nurse-like program), insist that a dentist screen every case." This is a rather strange comment and one that doesn't reinforce the leadership role of dentists in providing oral health care!

Adequacy of the Dental Workforce

The New Zealand "dental nurse" program, begun in 1921, was a response to concerns about the effect of poor oral health on the ability of the nation to defend itself following the bad experience that nation had during World War I. The dental workforce at that time was deemed inadequate to raise the level of oral health of the population to an acceptable level. The British Government is quoted by Roder (3) as saying, "When there is a manpower shortage in a professional field, it is a well-established practice to assign simple duties to auxiliaries, thereby reducing the burden on the fully-trained professional." This argument was persuasive in the case of the New Zealand dental nurses initiative and has been the major factor in the initiation of similar programs in other nations.

Several bits of data are cited in the proposal in an attempt to establish that a dental workforce shortage exists currently in the United States, and will become more severe in the future, to justify the use of non-fully trained auxiliaries as substitutes for dentists in providing care to children. Contrary to what was stated, (4) we do not, "...face a real decline in the actual number of dentists practicing in the United States..." There is a greater number of dentists practicing each year and the number is projected to increase in the future. Figure 1 illustrates the growth in the number of practicing dentists and projections for future growth, using two scenarios—with no new dental schools opening and with additional dental schools.

The dentist/population ratio is projected to decline slightly. Some consider this to be a market adjustment to the over-production of dentists experienced during the capitation subsidization of dental schools by the federal government in the 1970's. There is no expectation that the ratio will decline to levels seen in the 1960's.

The use of federally designated Dental Health Personnel Shortage Areas (DHPSA) is an inadequate indicator of the adequacy of the dental workforce in an area. That designation is better described as an indication of areas that are dentally underserved. The reasons for being underserved can be multiple and varied, with the lack of an adequate workforce as only one possible reason, not universally experienced and often completely etiologically irrelevant. The primary *raison d'etre* for DHPSA designations is to assist in the effective deployment of National Health Service Corps resources.

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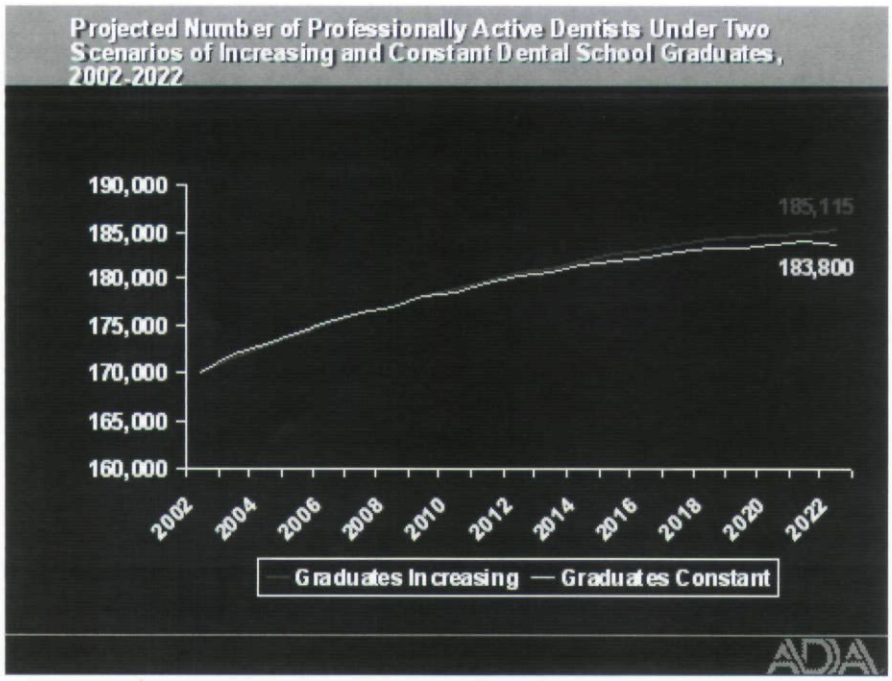
FIGURE 1



Source: American Dental Association, Health Policy Resources Center, 2003

The Michigan Healthy Kids (5) program illustrates this anomaly. Thirty-four counties in Michigan, all of which had a DHPSA designation, were part of a pilot program aimed at improving the use of dental care by underserved Medicaid child recipients. A private dental benefits organization, Delta of Michigan, administered the pilot project in a manner identical to that for their private plans. Medicaid beneficiaries received the same identification card as private plan beneficiaries and were not identified as Medicaid patients. Dental reimbursement was increased to the same level as that in Delta's private plans.

Very quickly, the utilization of dental services by the Medicaid recipients in the pilot equaled that of privately insured patients. No new dentists moved into the area during the pilot project. Clearly, the DHPSA designation was irrelevant to the cause of the lack of dental care availability in those counties; other factors were responsible. DHPSA designation cannot be relied upon by itself to provide an assessment of the dental workforce in an area or collectively in the nation.

The results in the Michigan Healthy Kids project and similar projects in other states also debunks the view by some that, "Dentists generally do not *want* (emphasis added) to treat publicly insured children when they are covered by Medicaid or the State Children's Insurance Program (S-CHIP)" (4). In reality, most dentists *cannot* participate in underfunded public assistance programs where their reimbursement is less than the costs to provide services, particularly if they are to serve a significant number of patients in those categories. The economics of this should not be a difficult concept to understand.

Data concerning the relative numbers of pediatricians and pediatric dentists to serve the nation's children, related to the workforce discussion is misleading (4). The nature of medical care and dental care in the United States, particularly who provides that care, is vastly different. Approximately 80% of dental care in the United States, including care to children, is provided by general practitioners, while only about 20% of medical care is provided by general practitioners. To assume that there are an insufficient number of pediatric dentists in the United States because there are fewer of them than there are pediatricians to serve the medical needs of the same number of children unjustifiably overlooks the vast majority of dental care provided by general practitioners.

We believe that the point has not been made nor adequate evidence mounted to justify the conclusion that, for most areas of the nation, there is an inadequate number of dentists to provide oral health care for our people.

Distribution of the Dental Workforce

Beyond an inadequate number of dentists to service the oral health needs of the public, a maldistribution of the existing dental workforce is cited as a barrier to access to dental care (4). The distribution of resources in our health care system, including our dental workforce, is based on the demand for care. That is, practitioners are primarily located where there is adequate demand for their services by individuals who can pay for those services. This produces a self-supporting system that operates without direct subsidization by government. This system does not always place resources in all areas where there are needs, however, in rural areas an dsome inner cities, for example. The efficient allocation of resources in a demand-based system can result in a maldistribution of resources according to needs, much as a distribution of resources in a needs-based system can result in a maldistribution of resources according to the demand for services.

A needs-based allocation system is not self-supporting, since those with great need may not have the resources to access care. Society must directly subsidize a needs-based distribution system by the allocation of resources to the needy that the system would not normally direct there. The rub comes when society is unwilling to provide that subsidization.

Since the initiation of the dental nurse concept in New Zealand, it took approximately 30 years for its adoption in some underdeveloped countries and about 40 years for its limited adoption in countries that had dental services that were advanced and

organized (3). Today, almost 85 years later, there is only one training program for oral health therapists in the western hemisphere (4). This surely is convincing evidence that this concept has, by and large, been rejected by nearly all other countries. Evaluation of the use of the auxiliaries is difficult in some instances because the terms "dental nurse" and "dental therapist" do not have universally agreed upon definitions. The duties assigned to these named auxiliaries would have them classified as a "dental assistant" in some countries.

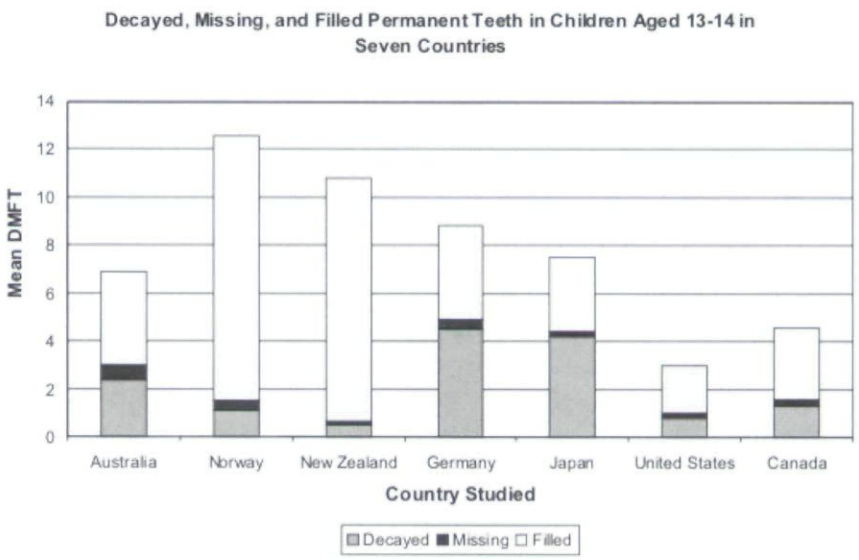
The Effectiveness of the Dental Care System

When judging the effectiveness of an oral health system, one should look at the dental health status of the nation's people, "...that is, measurement of health gain—not just health outputs, such as the number of fillings, or extractions, or providers-to-population ratios, but also measurements of improvements on oral health status" (6).

Figure 2 illustrates data from a study of selected areas in seven countries, including the United States and New Zealand reported after the New Zealand school-based program had been operating for over 50 years. The exposure to dental disease in New Zealand, measured by the DMF , was almost four times that experienced in the United States, even though the amount of unrestored decay was about one-third greater in the United States (7). One has to conclude that the dental health status of Americans surveyed here is better than that of New Zealanders. It is also interesting to note that the two countries with the highest exposure to dental disease had school-based dental programs.

In 2003, 53% of New Zealand's five-year-olds were *caries free*, with a mean eft score of 1.8, while 42% of children 12-13 years of age were *caries free*, with a mean MFT of 1.6.(4). Although they were free of caries at examination time, they had experienced caries and had teeth filled in the past. In 1987, 50% of American school children of all ages had *never had* a carious lesion or a restoration (1).

FIGURE 2



Source: WHO First International Collaborative Study, 1973-75. In: Dentistry, Dental Practice and the Community, Eklund SA and Bart BA. WB Saunders, Philadelphia, 1999, pp 213.

If the explanation of the difference in exposure to dental disease is a greater prevalence of dental disease in New Zealand, the public there may be better served by directing significant resources to the prevention of dental disease rather than just treating it. Experience suggests that a society cannot "treat its way out" of a high prevalence of dental disease; prevention is the long- term answer.

Trends in Dental Practice in the United States

Long- term studies of the services provided in dental practices and claims filed for reimbursement in specific dental benefits plans clearly indicate that there is an easily recognizable change in the mix of services dentists provide. There is a steady and significant reduction in the number of caries related tooth restorations provided, particularly amalgam restorations (7, 8). That reduction is evident in Figure 3.

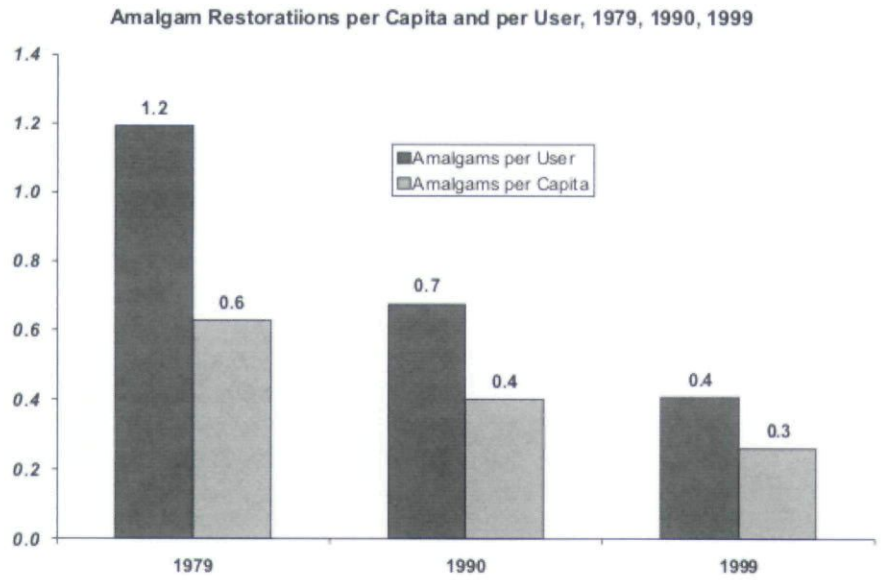
It is anticipated that this trend will continue. According to the World Health Organization, "Although caries in all its forms will continue to be seen for some time, the filling of cavities will cease to be the mainstay of general (dental) practice" (9). Nash predicts that, "Restorative services for children will continue to decline..." (10). It does not seem logical to develop and train a new category of auxiliary devoted to providing treatment for a disease that is significantly waning in prevalence and is predicted to continue on that path. That would be wasteful for the system and certainly unfair to those individuals persuaded to enter that career path. It makes more sense to be sure that auxiliaries are adequately trained, supervised and appropriately located to provide preventive care, health education and nutrition counseling.

The prevalence of dental disease is decreasing across the population, especially in children. And, the disparity between the amount of untreated dental caries in the general population and the poor is decreasing significantly.

Children living at or below the poverty level enjoyed a reduction in the number of untreated carious permanent teeth 2 ½ times greater than that of children above 300% of the poverty level. The disparity between these groups has decreased from 1.36 teeth to 0.35 teeth.

The approach taken to treatment of caries has changed in recent years.

FIGURE 3



Source: American Dental Association, Survey Center.

A medical model for care involving early diagnosis, arresting the disease process and healing of non-cavitated lesions through re-mineralization is replacing the traditional surgical removal of diseased tissue and its replacement with restorative materials in some cases. This change in philosophy requires decisions to be made by dentists to initiate this approach to treatment and in the ongoing monitoring of the progress towards healing. These responsibilities are inappropriate to relegate to lesser trained individuals.

Social Justice

Nash concludes his article (4) with an interesting discussion of the social justice aspects of the development and deployment of pediatric oral health therapists. He quotes Kopelman and Palumbo, who conclude that, "children should receive *priority* consideration in receiving health care;" John Rawls, whose model of social justice requires that, "... social and economic arrangements be made such as to *maximally benefit the worst off*"; and Norman Daniels, who "... argues that a just society should provide basic health care to all, but redistribute health care more favorably to children."

The ADA agrees with those concepts and finds them elucidated in several of its policies relating to the design of dental assistance programs, i.e., when resources are scarce, the first priority for care should be children. They are also the basis for some of the objections the ADA has to this proposed new dental auxiliary.

Society encompasses more than dentists. It is unjust for society as a whole to pass off the responsibility to dentistry for its failure to adequately allocate resources to the oral health care of children, particularly when they have the greatest needs.

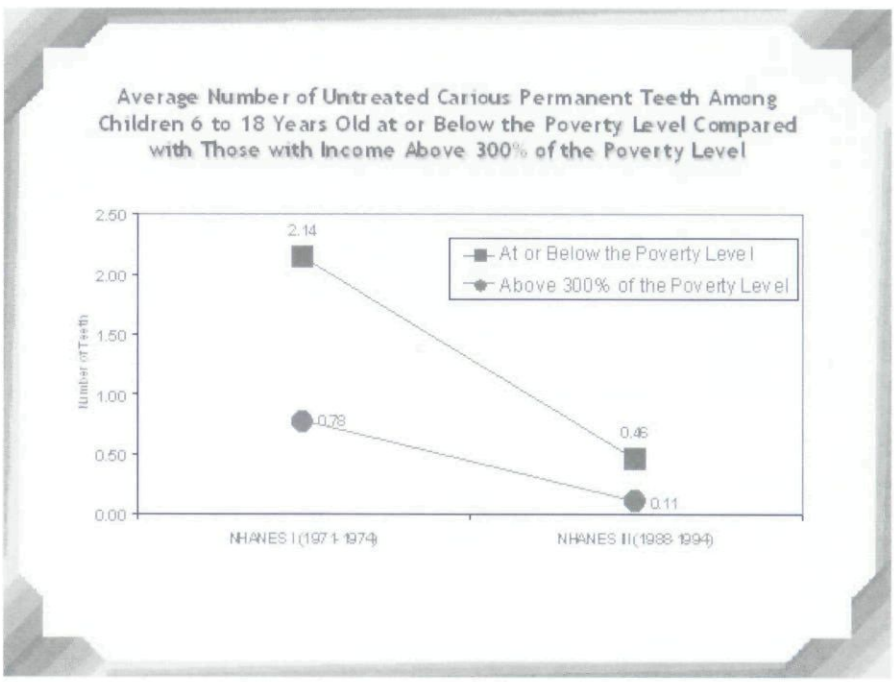
It is difficult to reconcile the concept of priority consideration for children, redistribution of health care more favorably to children and benefiting the worst off in our society with the relegation of the dental care for children to an auxiliary with less education, skills, experience and training than that required for those who treat adults.

It is a basic tenet of life that parents want the best for their children, and there are innumerable examples of parents sacrificing their own welfare to provide their children with the best they can.

Conclusions

There is no generalized shortage of dental workforce in the United States. There is adequate capacity in most areas to accommodate increased demand for services should that occur. The oral health disparities cited are due to a number of factors, more

FIGURE 4



Source: NHANES I and NHANES III

related to inadequate subsidization programs than lack of providers, although workforce issues are relevant in some areas. It is important to understand the real causes of these disparities to take effective action to remedy them. An inaccurate diagnosis rarely leads to an effective remedy.

A two-tiered oral health care system, where a group of people receive care from a lesser- trained provider, is anathema to the concept of equality for all our citizens. The idea that "something is better than nothing" for some people insidiously erodes the goal of the best health care possible for all and institutionalizes the acceptance by society of second level care for some.

The solution to problems of access to oral health care and the health disparities that result from lack of adequate access is not a mystery. What is needed is public commitment to implement the solution. We need to bring the underserved into the mainstream of oral health care, not to relegate them to a lower-level side stream.

References

1. Nash DA. Developing a pediatric oral health therapist to help address oral health disparities among children. J Dent Edu 2004; 68 (1):8-20.
2. Dunning JM. Deployment and control of dental auxiliaries in New Zealand and Australia. J Amer Dent Assoc 1972; 85:618-26.
3. Roder DM. The employment of dental nurses. J Pub Health Dent; 1978 38:159-71.
4. Nash DA. Developing and deploying a new member of the dental team: a pediatric oral health therapist. J Pub Health Dent; 2005 65:48-55.
5. Eklund SA, Clark SJ. Healthy kids demonstration program: Assessment of the first twelve months. Ann Arbor, MI: Child Health Evaluation Unit, Division of General Pediatrics, Univ of Michigan: 2002.
6. Wright FAC. Keynote address: Principles of oral health services planning. New Zealand Dent J; 96:87-93.
7. Eklund SA, Pittman JL, Smith RC. Trends in dental care among insured Americans:1980-1995. J Amer Dent Assoc 1997; 128:171-78.
8. American Dental Association, Survey Center.The 1999 Survey of Services Rendered. American Dental Association, 2002. Chicago
9. World Health Organization. Oral health for the 21st century. Apr 1994.
10. Nash DA. The oral physician...Creating a new oral health professional for a new century. Dent Edu; 1995; 59:587-97.