Association Report

Tobacco Control and Prevention Effort in Dental Education

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For decades, public health advocates have been sending a clear message: tobacco use in any form is harmful. The adverse health effects of tobacco use have been thoroughly documented, including the fact that tobacco-related mortality may be the most preventable cause of death in America today. Experts say that one person dies from oral cancer every hour, and that’s only one affected area. Nevertheless, more people start and others continue to use tobacco every day, harming themselves and those around them.

A complex web of motivations and addictions drives each individual who refuses to heed the warnings, but the question for the health professions is this: What concrete steps can we take to help smokers and other tobacco users quit and to discourage nonusers from ever starting?

Members of the dental profession have been pondering this question for a long time, for they are responsible for the oral health of their patients and, every day, they see dramatic evidence of the damage tobacco does. They know that

- more than 90 percent of cancers affecting the mouth, tongue, lips, throat, larynx, and pharynx are attributed to tobacco use;
- the use of tobacco products is the greatest preventable contributor to oral and pharyngeal cancers and the suffering and death these cancers cause;
- the odds of beating oral cancer increase dramatically with early detection: more than 81 percent diagnosed early have a five-year survival rate, while only 21 percent diagnosed with advanced oral cancer are alive five years later; and
- aside from cancer, tobacco use raises the likelihood of periodontal disease, can cause halitosis, reduced ability to taste, staining of the teeth, gingival pigmentation, and oral mucosal lesions, and increases the risk of fetal abnormalities among women who smoke during pregnancy.

Unlike dental professionals, the general public knows very little about the risks of oral cancer, and most early signs are difficult for a layperson to detect. However, more than 50 percent of smokers see a dentist each year.

These elements make it clear that dentists and dental educators have significant opportunities to bring about positive change in this vital area of public health.

As a result, the American Dental Education Association (ADEA), with funding support from the American Legacy Foundation, launched a Tobacco Control Project in June 2001. This initiative is meant to assist dental academic institutions as they train dental students in tobacco prevention and cessation and provide smoking cessation counseling to patients in their clinics.

In support of that goal, this report presents information from a survey the Association conducted in August 2001 about tobacco prevention and cessation in the fifty-four dental academic institutions in the United States. It provides an overview of what those institutions have accomplished to help reduce tobacco use among the American public and examines what else they can achieve if existing barriers are removed.
Dental Educators’ Accomplishments in Tobacco Intervention

Tobacco control intervention takes two forms: preventing individuals from starting to smoke or use other tobacco products, and helping current users to stop.

The ADEA survey demonstrates that dental educators believe they have a role in both prevention—which involves patient education—and cessation—which involves counseling. Fulfilling these roles means, primarily, making sure that when students at those schools graduate and go on to professional practice, they do so with the knowledge and confidence they need to educate and counsel their patients.

The commitment of schools to this aspect of educating their students is an impressive accomplishment. Currently, forty-five of the fifty-four schools surveyed report that they include instruction in tobacco prevention in their curricula, and forty-four include instruction in tobacco cessation. Furthermore, forty-one of the schools say that they provide materials to their students on tobacco control, use, prevention, and cessation.

The scope of this effort is not quite as widespread as other more basic tobacco-related aspects of the dental curriculum. Detection of tobacco-related pathology like oral cancer is included in the curriculum of all but one school, for example, and treatment of tobacco-related pathology in all but three.

Still, the scope of prevention and cessation instruction is notable—spanning the scope of the educational experience. Schools reported in the survey that they provide tobacco prevention and cessation information in many parts of the curriculum, ranging from oral medicine, to oral pathology, to prevention, to diagnosis and treatment planning.

The dental schools’ commitment to prevention and cessation is also evident in their practices toward patients who attend their clinics. Fifty-two of the fifty-four schools say they include tobacco use evaluation in their patient history and examination process. Fifty-one schools say they make referrals for patients with tobacco-related pathology. These are also significant accomplishments.

Clearly, the schools are devoting a great deal of effort to informing their students and patients about tobacco-cessation medications. Forty-one schools say they provide information on both the nicotine patch and nicotine gum; twenty-seven do so on the nicotine inhaler; twenty-five on nicotine nasal spray; twenty-seven on Bupropion SR; ten on Clonidine; and seven on Nortiptyline.

In yet another significant accomplishment, the survey reveals that many schools of dental medicine have entered into cooperative programs in several venues that promote tobacco control. Twenty-six schools say they have participated in programs that are focused on oral cancer, and twenty-five have participated in community-based programs. Twenty report participating in multidisciplinary programs, while eleven have done so as part of a consortium.

Finally, schools report that they are using a wide variety of means to evaluate their tobacco program/course offerings. Some use the usual curriculum review process, including evaluations by students, faculty, course directors, and in some cases by a curriculum committee. Some also survey patients in their clinics, and at least one has conducted a survey of its postgraduates. The students who have taken the courses are evaluated in a variety of ways to make sure they are benefiting from the instruction; these methods of evaluation range from written examinations, group papers, and presentations to clinical assessments and online quizzes.

Barriers to Expanded Efforts

For all of the schools’ accomplishments in preparing students to intervene in their patients’ tobacco use and to implement tobacco programs in their clinics, the need and the opportunity to do more are apparent. The ADEA survey also helped to identify the barriers schools face to expanding their efforts and provide clues about what is needed to remove those barriers.

Regarding schools’ willingness to provide patient counseling on tobacco use and cessation in clinics, several factors were named as important. Thirty-six of the schools said time constraints were a significant factor in providing this service, but thirty-three said lack of training was also important and twenty-three identified lack of reimbursement as a factor. Patient sensitivities were mentioned as a factor by only fourteen schools. In the option for “Other” reasons provided in the survey, schools mentioned several factors as having an impact on the willingness to provide counseling. These included “Student/faculty perceived ability to be successful,” “Patient
understanding that dentists can provide cessation and counseling,” “Faculty resources,” “Curriculum constraints,” “Patient resources,” “Student priorities,” and “Lack of faculty reinforcement.”

Regarding the preparation of students, schools said that the primary factor affecting tobacco training in their course offerings was “Alloting course time.” This factor was identified by forty-two of the fifty-four schools. Another eleven schools selected “Lack of materials” as a factor. Only four named “Student disinterest.” This last item is particularly important as it demonstrates clearly that students want to receive tobacco training.

Two additional areas appear to be barriers to schools’ programs. The first was revealed in the survey questions regarding faculty training. An overwhelming fifty of the fifty-four schools answered “yes” to the question “Is there a need for faculty training on cessation techniques?” Nearly as many schools—forty-nine of the fifty-four—said they had a need for faculty training on tobacco prevention techniques as well. And thirty-nine schools also said they needed faculty training on the oral health risks to patients who use tobacco products.

Considering the key role the schools’ faculty play in teaching students about tobacco cessation, prevention, and risks, the need for additional faculty preparation in these areas appears to be acute.

A second, and related, key barrier is related to funding needs. Only seventeen of the schools responded that they had ever applied for a grant to develop a substance abuse curriculum, all of which included tobacco prevention and cessation. Only eleven of the seventeen received funding.

Most dramatically, forty-nine of the fifty-four schools said they would be interested in applying for tobacco prevention and cessation funding. It is equally revealing, however, that only twenty-seven of those said they were aware of available sources of funding.

Finally, the survey reveals that schools do not appear to be doing as much as they could to help redress the racial and ethnic disparity in oral healthcare as it pertains to tobacco use. While 38 percent of whites are diagnosed early with oral cancers, when it is most treatable, for example, only 19 percent of blacks receive an early diagnosis. As a result, oral cancer is the seventh most common cancer in white males, but the fourth most common cancer among black men. In spite of these disparities and the commitment of the dental profession to providing equal access to trained professionals for people of all racial and ethnic groups, only eleven of the fifty-four dental schools reported in the survey that they include in their tobacco control curriculum material that is focused on specific ethnic/racial groups. In fact, training for working with any particular group appears to be limited: only eleven of the schools say that they include gender-specific training, and thirteen say they include training in multigenerational patients (pediatric vs. geriatric).

### Action Steps to Help Overcome the Barriers

The accomplishments of dental academic institutions regarding tobacco programs are impressive, as the survey has shown. Yet, the need for dental professionals to play a larger role in addressing tobacco-related aspects of public health is significant.

Dental faculty and students have shown a strong desire to improve their ability to do so, just as schools have demonstrated a clear interest in having their instructors trained and expanding their course offerings. To help them do so, attention must be paid to removing whatever barriers remain.

Regarding preparation of students, one of the primary barriers is time constraints in the curriculum. Trying to fit more and more content into an already crowded curriculum is a persistent challenge in every type of professional training, indeed in every aspect of education, and will not be resolved easily. But two action steps may help:

1. Provide schools with examples of how other schools have successfully addressed the problem. These examples can serve as models to follow and will provide ideas that may be applied or adapted for use in their own schools.
2. Continue to emphasize the importance of making a place in the curriculum for tobacco-related education. As dental educators are reminded of the key role of their profession in addressing this public health problem, they will appreciate that the extra effort involved is worthwhile.

Another primary barrier involves the need identified by schools for training to prepare faculty to teach students about oral health risks of tobacco as well as prevention and cessation techniques. This is the critical first link in the educational chain that starts with the faculty and moves on to students and, finally, the patients those students attend to when they
become new dentists. Two action steps are needed to assist dental schools in getting their faculty up to speed in these areas:

3. Provide schools with examples of how other schools have successfully addressed the problem. As with the curriculum barrier, examples can serve as models or at least sources of ideas.

4. Encourage cooperative means for faculty development across the profession. These might include workshops at annual professional conventions, special training conferences held at a school with experience and expertise in the topic, collaborative efforts involving several schools in a region, or web-based or other electronic training programs.

With the finances of all schools already strained, adding new training and curriculum content may well require funds that schools simply don’t have. An additional action step can help with this barrier:

5. Provide assistance to schools in identifying sources of funding and preparing grant applications for funds to support new curricular and training needs.

And finally, as schools are being encouraged to do more to help ensure equal access to dental care and tobacco control for all racial and ethnic groups and to provide care in a way that is sensitive to the needs of different genders, ages, and racial and ethnic groups, a final action step is advisable:

6. Help dental schools better prepare their students to serve their patients in all possible groups by including training focused on these areas in the curriculum. Models of successful programs can help, as can training modules.

Working together, the entire dental education community can make a difference in reducing tobacco use among the American public and ultimately in saving lives.

Acknowledgments

ADEA expresses deep appreciation to GlaxoSmithKline Corporation for its generous sponsorship of the printing and wider dissemination of this report to the dental education community. We also thank the American Legacy Foundation for a grant making the survey of all U.S. dental schools possible.