As lifelong dental educators, we have strived in each of our specialty fields to improve the education process and ultimately to improve the profession and our patients’ lives. Clinical innovations have dominated, starting with the high-speed handpiece technology that dramatically changed the speed of tooth preparation. More recent clinical improvements have required us to expand the curriculum to introduce new dental materials, restorative and orthodontic techniques, minimally invasive dentistry, and almost continuous improvements in implantology, endodontic treatment, and periodontology. As a result, the quality of dental care has advanced significantly over the past forty years.

However, this issue of the Journal of Dental Education reminds us that a significant factor contributing greatly to oral health is each patient’s home health habits and behaviors. Diet and nutrition decisions play a critical role in determining the risk of dental disease. Similarly, the over- or misuse of tobacco, alcohol, and food results in oral health decline stemming from one’s own risky behaviors and uncontrolled diet and nutrition patterns. Several articles in this month’s issue draw our attention to the need to improve our understanding of the science base of behavior change and describe new technologies for teaching dental students to deal more effectively with their patients’ alcohol, diet, and tobacco misuse.

DeBate et al., for example, tested an interactive, web-based training program versus existing flat-text for improving dental students’ knowledge, motivation, and self-efficacy for addressing signs of disordered eating behaviors in their patients. Improved diets could result in better oral health for many patients, and interactive web-based training programs appear to be better than flat-text e-learning programs. Similarly, Taylor et al. evaluated an experiential exercise in a nutrition class to determine if it improved students’ own diets, their understanding of theoretical concepts, and their attitudes toward educating their patients about diet-related behavior. The authors conclude that experiential learning is likely to affect students’ own behavior positively and to result in increased understanding of behavior change theories and intentions to use them in dental practice. In their article, Miller at al. describe how they developed and evaluated a five-module online program to teach dental students about oral health and the systemic effects of alcohol consumption. Results indicate that the online program resulted in significant pre-post changes in knowledge, attitudes, and behavior.

Three articles address tobacco cessation training. Making use of new technologies, Rush et al. propose a method for integrating tobacco dependence counseling into the electronic records of patients in dental school clinics. In their study, Anders et al. sought to determine if there were differences in dental students’ attitudes by gender, class year, or personal and/or family use of tobacco. A better understanding of these attitudes would improve efforts to engage dental students in smoking cessation programs. In a reminder that this issue is relevant to dental education around the world, Agaku et al. assessed differences among health professions students in eight low- and middle-income countries regarding tobacco cessation training about patients’ tobacco use (ask) and assisting patients to quit by providing education materials (assist). Closer attention to tobacco cessation would improve dentists’ ability to control periodontal disease in patients who smoke, among other benefits.

Finally, Chi et al. compare outcomes associated with video and paper cases used in an introductory public health dentistry course. Cognitive and affective learning outcomes were significantly higher in the video group. Regardless of the style of practice, type of practice setting, or specialty chosen, a basic understanding of public health and school health programs would help all practicing dentists to serve their communities better.
These articles provide JDE readers with evidence that interactive, experiential, and web-based teaching methods can be effective in improving cognitive, affective, and behavioral learning outcomes. If these findings from research on the process of education were applied in dental practice, it would increase dentists’ ability to help patients to better control risky behaviors related to alcohol and tobacco abuse and poor diets. Not all patients will respond, but being the dentists who helped even a few patients to become better able to control their food or other addictions would be satisfying. In doing so, dentists would be responding to the emerging social and behavioral health threats of our patients.

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