

Where Is Leadership Training Being Taught in U.S. Dental Schools?

Russell S. Taichman, D.M.D., D.M.Sc.; Joseph W. Parkinson, D.D.S., F.A.G.D.

Abstract: Since leadership is vital in all professions and organizations, the purpose of this study was to determine where in dental schools leadership for predoctoral students is taught and to what degree it is emphasized in order to establish a baseline from which to generate recommendations for best practices. Academic deans of U.S. dental schools were surveyed to determine where in the curriculum leadership is taught and emphasized. The response rate was 39 percent returned completed surveys. These responses were representative of all geographic regions of the country, with equitable distribution between private and public institutions. The results showed that leadership training is delivered in many different parts of the curriculum and at various levels. Generally, the respondents indicated that leadership education is delivered in the setting of practice management, community outreach, or public health. In some cases, specific training programs are dedicated to leadership development. Thus, several models for leadership development were identified, showing design flexibility in addressing regional and national needs. In the future, it would be of value to assess the effectiveness of the various models and whether single or multiple pathways for leadership training are most beneficial.

Dr. Taichman is Professor, Department of Periodontics and Oral Medicine, Scholars Program in Dental Leadership, University of Michigan School of Dentistry; and Dr. Parkinson is Assistant Dean for Predoctoral Clinical Operations, Division of Oral Health Practice, University of Kentucky College of Dentistry. Direct correspondence and requests for reprints to Dr. Russell S. Taichman, Department of Periodontics and Oral Medicine, School of Dentistry, University of Michigan, 1011 North University Ave., Ann Arbor, MI 48109-1078; 734-764-9952 phone; rtaich@umich.edu.

Keywords: curriculum, dental school curriculum, dental students, professionalism, leadership training

Submitted for publication 6/24/11; accepted 10/3/11

Each year, when graduates of U.S. and Canadian dental schools venture forth into the “real world,” they are expected to not only care for their patients’ oral health care needs but to lead a group of health care providers. This includes setting strategic directions for the practice and communicating a shared vision of what the practice should or could be.^{1,2} Each of these activities requires leadership. In a 2009 Gallup poll, dentists were ranked sixth out of twenty-two occupations as the most trusted and honest professionals.³ With the high level of trust society places in the dental profession comes the frequent expectation that dental professionals will give back to their communities—by taking leadership positions in professional organizations or in the community at large. Moreover, dentists are frequently called upon to advocate for the oral health care needs of patients.^{4,5} This need to lead teams and to participate in community and professional organizations suggests that leadership development should be part of a dental education.

Leadership can be broadly defined as the ability to move individuals toward a goal or vision.^{6,7} Likewise, leadership in dentistry can be defined as the ability to move communities towards greater oral and systemic health. Leadership in dentistry encompasses many venues, including but not limited to research

and scholarship, education, public health, organized dentistry, and industry.⁸ It also encompasses areas related to practice management. The development of leadership skills in one or more of these areas entails many aspects that often build upon the experiences and knowledge students already have. In addition, communication skills, self-reflection, critical thinking and problem-solving skills, ethical behavior, and professionalism are all areas in which health care professionals must be able to function at a high level.⁹

Health care and science-related industries have begun to identify these qualities and to develop specific training methods that complement natural leadership traits.¹⁰⁻¹⁴ There are clear benefits to having good leadership in a variety of situations.¹⁵⁻²¹ In dentistry, the cultivation of leadership skills has always been important but takes on greater significance during times of major change.²² Effective leadership is essential for running an effective and clinical practice, serving as a change agent in the community, and participating in the decision making processes that will shape our profession in the future.¹⁶⁻²¹

In most dental schools, the chief academic officer, usually the dean for academic affairs or academic dean, has responsibility for the dental curriculum that is implemented by the faculty. These academic deans are at a pivotal point in the educational process: they

are charged with maintaining a cutting edge curriculum that meets the basic educational standards required of all dental practitioners. Yet most dental students and current practitioners do not believe that their dental curricula are cutting edge.^{2,19,22-24} If the development of leadership skills among dental students represents an important investment that the profession needs to make, then understanding where in the curriculum leadership training currently takes place and what is emphasized represents a first step toward addressing a growing need.^{25,26} As a step toward meeting this goal, in August 2010 we invited all academic deans at U.S. dental schools to participate in an eight-question survey regarding leadership training for predoctoral students at their institutions. The results of this survey are presented here.

Methods

A current list of academic deans at U.S. dental schools was obtained from the American Dental Education Association in August 2010. Where necessary, additional information was acquired directly from the schools. Approval for the study was sought from the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board (IRB) and the IRB at the University of Missouri-Kansas City. In both cases, the review boards determined that as the survey did not ask for personal opinions and pertained exclusively to the content and delivery of existing academic programs, the study was deemed exempt from the need for additional IRB oversight.

An eight-item survey was designed that was piloted with dental faculty members at the University of Michigan. Closed-ended questions (with yes or responses) were used, but follow-up open-ended feedback was also solicited. The final survey is available from the corresponding author.

A personal introductory message and the survey were e-mailed to academic deans at the then-fifty-four U.S. dental schools. To obtain additional responses, at one-week intervals and continuing for eight weeks, those who had not responded on behalf of their institutions were sent follow-up notices. Of the fifty-four surveys sent, twenty-two were returned, but only twenty-one were complete and usable since one respondent answered only the first question (“Is the term ‘leadership’ part of your mission/vision statement for your institution?”). The response rate was thus 39 percent returned completed

surveys. These responses were representative of all geographic regions of the country, with equitable distribution between private and public institutions. In preparation for analyses, data were entered into an Excel spreadsheet. All entries were rechecked for data-entry errors. Data were then imported from Excel into SAS (SAS Institute, Cary, NC), a statistical software package, for the analyses. The responses were summarized descriptively for each question and expressed as percent frequency.

Results

The first question on the survey asked if the term “leadership” is part of the mission/vision statement of the respondent’s institution. Thirteen of the respondents (62 percent) answered “yes.” To the second question, “Is leadership training part of the current curriculum at your institution?,” fifteen respondents (71 percent) answered “yes.” In response to the follow-up question (“If not, can you please specify as to why?”), four responses were provided. One said that leadership training is presented but is focused on faculty members and a limited number of students. Two similar responses suggested that leadership training is provided outside of the curriculum and in a number of other courses. The fourth response was that leadership education is not part of the mission statement for that respondent’s institution.

The third question asked, “If leadership training is part of your curriculum, what is the primary focus?” The two options for response were “Our focus is on leading a dental team” and “Our focus is on other aspects of leadership.” On this question only nineteen of the twenty-one responding academic deans provided a response. Twelve of them (63 percent) reported that the primary focus of leadership training is on developing leaders for leading the dental team. In the follow-up question (“If other, please specify”), four respondents indicated community leadership, one said practice management, and the other three mentioned leading the profession, organized dentistry, and multiple foci. The fourth question on the survey asked, “If leadership training is part of your curriculum, in what courses or academic setting is the training provided?” Of the sixteen respondents to this question, eight reported that leadership training is provided in practice management courses. Three respondents indicated that leadership training is provided in behavioral sciences, community den-

tistry settings, ethics and professionalism courses, or clinical settings. Two respondents reported specific seminars tailored to leadership training.

The next question asked, “On what areas of dentistry does your leadership training program focus?” The respondents were directed to select “none,” “some,” “moderate,” or “strong” emphasis in these categories: academic dentistry, public health, practice management, organized dentistry, health care delivery, legal aspects of the profession, and business. Almost all of the twenty respondents to this question said their institution provides some emphasis in all the categories, with the majority reporting a “moderate” to “strong” emphasis (Figure 1). Two respondents reported that their programs provide little or no exposure to practice management, legal aspects of the profession, or academic dentistry from the standpoint of leadership development.

For the sixth question, we asked, “How many hours in the curriculum are specifically devoted to leadership training?” per academic year. Response options were 0–2 hours, 3–9 hours, 10–49 hours, and 50 or more hours. The majority of the respondents said their programs offered two or fewer hours on

leadership training in the first year (Figure 2). By the third year, the majority of respondents reported 10–49 curricular hours focused on leadership development. One respondent reported a leadership training program consisting of 50 or more hours of academic time.

The sixth question in the survey asked, “How are leadership competencies evaluated to address CODA Standard 2-18: ‘Graduates must understand the basic principles and philosophies of practice management, and have the skills to function successfully as the leader of the oral health care team?’”²⁷ Eleven respondents (52 percent of the total respondents) indicated that examinations and/or practicals were the methods by which their curriculum addressed this CODA standard (Figure 3). Four respondents (19 percent) responded that their institutions used peer feedback. The remaining 29 percent (six respondents) indicated that other methods were used for their evaluations. These other methods were exams and rotation ratings; a practice plan as part of community-based training; development/evaluation of a project; portfolio; examinations, feedback, and faculty evaluations in clinical settings; exams and feedback; and a combination of methods.

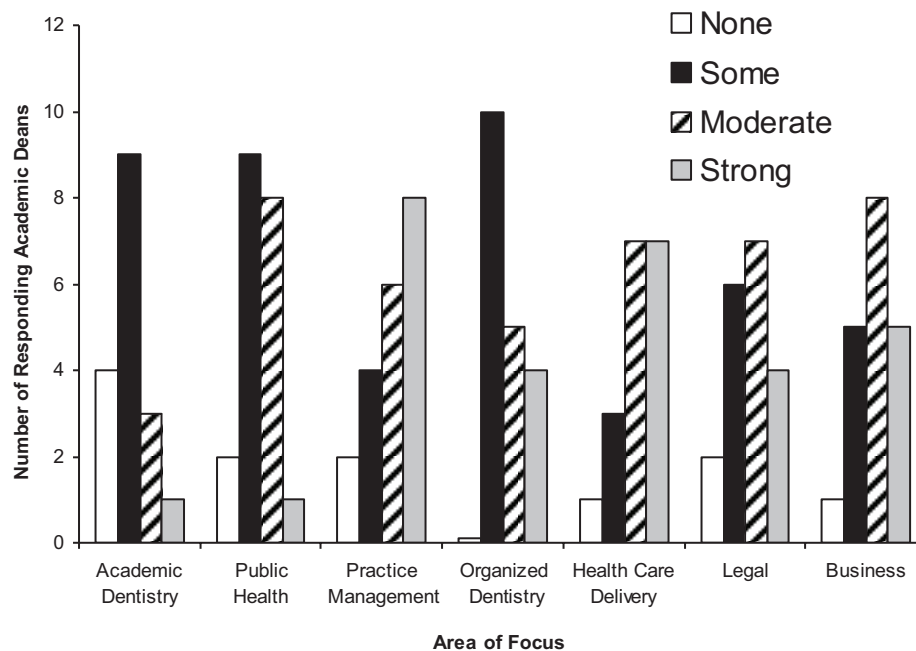


Figure 1. Responses to survey question “On what areas of dentistry does your leadership training program focus?”

The final question asked, “Have students indicated a desire for additional courses in leadership beyond what are currently offered?” The majority (82 percent) of the respondents answered “no,” and

only two answered “yes” (Figure 4). The remaining respondents reported that students ask for leadership training in a different format such as workshops and that few students understand the value of leadership

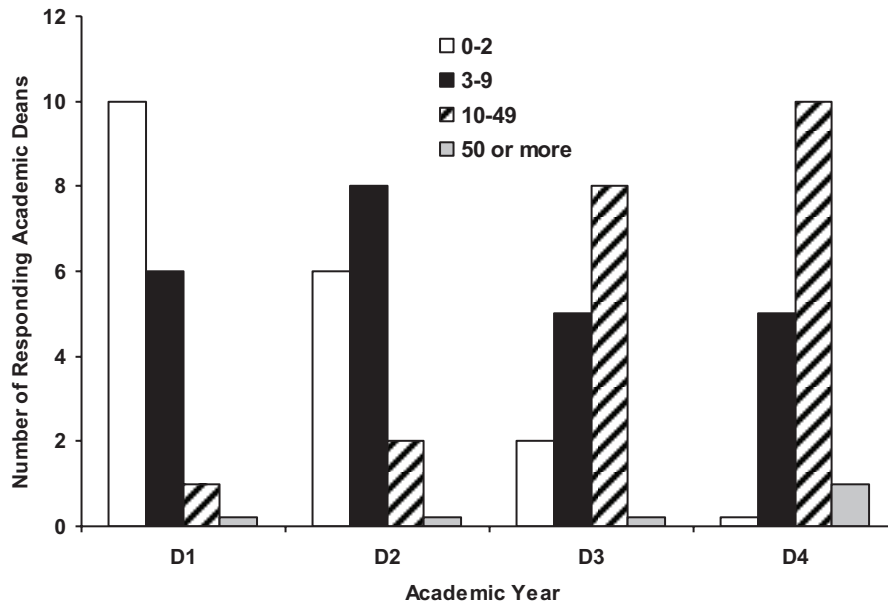


Figure 2. Responses to survey question “How many hours in the curriculum are specifically devoted to leadership training?”

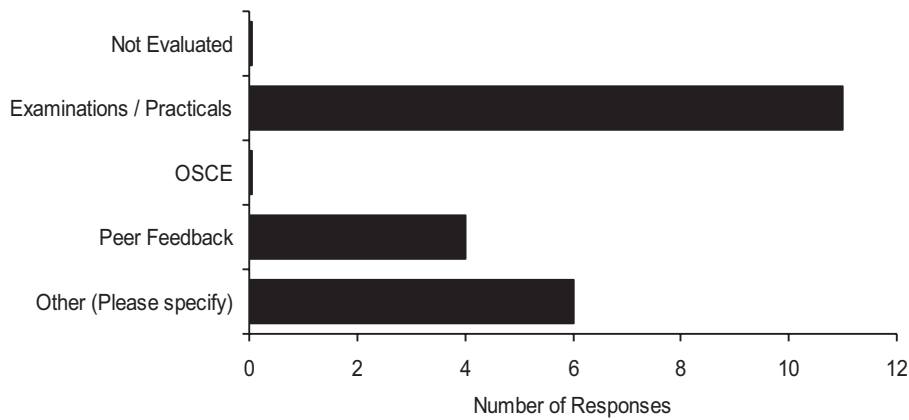


Figure 3. Responses to survey question “How are leadership competencies evaluated to address CODA Standard 2-18?”

training at this stage of their education, adding that those who do understand its value tend to desire more while those who do not tend to want less.

Discussion

Oral health care is undergoing rapid changes in such areas as what defines oral health, who will deliver care, and what will be the scope of practice for future graduates of dental schools. Relationships among practitioners, their patients, other health care providers, and stakeholders are all undergoing revision and at a pace that few dental educators have experienced in the past.^{17,28-33} Changes are being driven by interactions between dentistry and market forces, new definitions of health and well-being, and attention to the oral-systemic health relationship. Additional drivers include the rapid pace of technological innovations, research, and discovery. Dynamic leadership in dentistry is needed to guide these transformations. Dental education at its best prepares students to be care providers, lifelong learners, and members of a profession charged with leading the nation's oral health care. Learning and implementing leadership skills involve a complex set of competencies that are neither easily taught nor easily evaluated. While leadership training has become more prevalent in other sectors of the

U.S. economy, few dental schools have specifically implemented training programs focused on student leadership development.^{26,34-37}

The purpose of our study was to determine what types of programs U.S. dental schools have developed to train dental students to become leaders in their profession. In our survey of academic deans at these schools, nearly 30 percent of the respondents reported that their curriculum does not provide specific leadership training for predoctoral dental students. Asked why this was the case, several said leadership training was reserved for students and faculty members in leadership positions or because leadership is not part of their stated mission or is provided in a number of courses but not explicitly defined as such.

Of those respondents who reported including leadership training in their curriculum, 55 percent said it is focused on leading a dental team. This response is quite reasonable, for when leadership is absent in dental teams, the outcome is often poor productivity, low employee satisfaction, and less than satisfactory treatment outcomes.^{38,39} Indeed, dentists should be leaders in their practice settings and in their local communities, as required in CODA Standard 2-18.²⁷ Half of the respondents to our survey indicated that their institutions address this standard in practice management courses, a logical site for this aspect of leadership. It was interesting, however, that

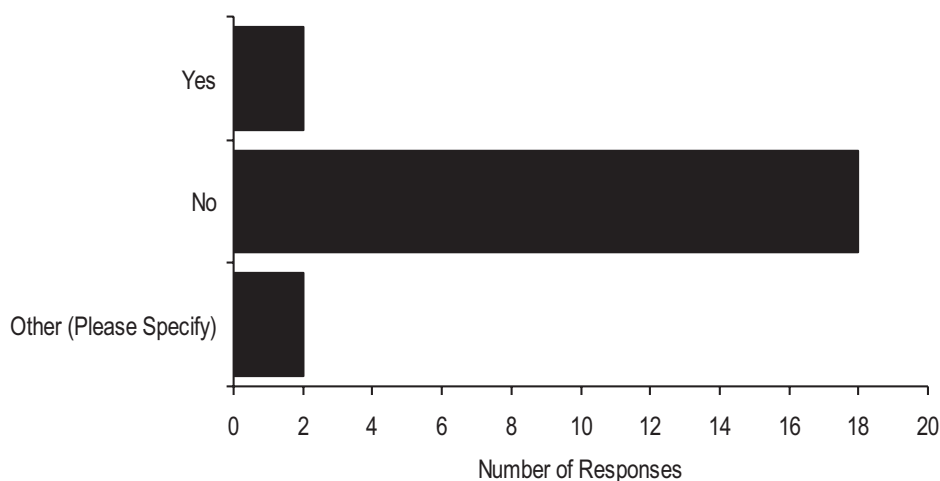


Figure 4. Responses to survey question "Have students indicated a desire for additional courses in leadership beyond what are currently offered?"

many respondents indicated that leadership development is not important to dental students. Recently, Victoroff et al. found that the majority of dental students in their study were interested in leadership development.^{25,26} However, it is well known that students are also very focused on completing their requirements. While students may not understand or appreciate the immediate importance of leadership skills, many reflect upon graduation that leadership is a crucial aspect of their professional responsibilities in the workforce.^{35,36} How dental students can learn about leadership prior to continuing education opportunities they have as practitioners is unclear, but as professionals it is one of the crucial aspects of their jobs.^{19,40}

Where leadership training in the curriculum is positioned is of great importance. When the academic deans were asked, "If leadership training is part of your curriculum, in what courses or academic settings is the training provided?" the responses were varied, indicating that many aspects of leadership training were embedded into existing curricular areas such as dental public health, practice management, behavioral sciences, oral health sciences, community-based coursework, ethics and jurisprudence and professionalism, problem-based learning cases, and dental clinics where students serve as teaching assistants. Some respondents reported that their institutions have established either elective courses or dean-supported sessions focused on leadership. Thus, there are many training models from which to choose although their effectiveness has not been fully and systematically evaluated and therefore warrants further study.

There are several limitations to our investigation. The first is that it failed to obtain answers from all the institutions contacted. Eight weekly e-mail reminders were sent to those academic deans who did not respond. Although low response rates are not unusual in health care provider surveys,⁴¹ our response rate was lower than we expected and hoped. Therefore, caution should be applied when generalizing our results as the biases of those who responded may have skewed the results.

A second limitation of our study was that, purposely, we did not define "leadership training." Since the term means different things to different people, we hoped the respondents would define it broadly as reflected in their curricula. It was therefore not surprising that at least one respondent complained that "this survey is ill-defined as you allow an open interpretation for what you mean by leadership.

You should have [included] a specific definition in the survey and then focused the questions to appropriately address that." In fact, defining the traits and characteristics of leaders has been ongoing for centuries. Philosophers dating from the time of Plato have examined the premise that leadership is rooted in the characteristics that certain individuals possess, while others have described events leading to the emergence of leaders. Yet leaders in one situation may not necessarily be leaders in all circumstances. Moreover, consensus for a definition of what leadership constitutes in dentistry is as elusive as in other aspects of health care. Even if there was a consensus, defining a path to achieve competence would be difficult. Slavkin stated, for example, that "there is no infallible step-by-step formula for becoming an effective or transformational leader," although "leadership signifies the act of 'making a difference'" and "generally entails sustaining, improving, or changing strategic directions within small or large, simple or complex, organizations."⁸ Nevertheless, future surveys would benefit from addressing this definitional challenge to frame findings more effectively.⁴²

Our survey represented an initial attempt to quantify the divergence in activities related to leadership training for dental students. We believe that a specific focus on leadership is an essential component that is missing from many dental curricula, and our data, limited though it may be, has helped document a divergence of opinions and practices in this area of learning. We believe that a failure to foster the development of future dental leaders is a grave mistake and places our profession at risk. We also believe that the country's oral health is best promoted by professionals with the skill, knowledge, and passion to put the needs of patients first. We believe that a failure to invest in leadership development could hasten an erosion of the stature of the profession, while at the same time placing decisions and processes in the hands of those who may not place as high a value on oral health as dental professionals do. We therefore feel that it is essential for dental schools to find the time within their curricula to expand leadership training for their students.

Acknowledgments

The authors would like to thank their parent institutions for support during our participation in the American Dental Education Association (ADEA) Leadership Institute and thank Ms. Krisden Romine, Office of the Dean, University of Michigan for sur-

vey management and Mr. Burt Stanko, Membership, Database, and Publications Coordinator at ADEA, for providing a list of academic deans at U.S. dental schools. The authors would like to acknowledge the help of Dr. Cecile Feldman, Dean, University of Medicine & Dentistry New Jersey Dental School; Dr. Karl Haden, President, Academy for Academic Leadership, and his staff; and the other fellows of the ADEA Leadership Institute for their help. Sincere appreciation also goes to ADEA and Alpha Omega Foundation for supporting Russell Taichman as a Leonard Abrams Scholar during his participation in the ADEA Leadership Institute. Finally, we would like to acknowledge the support and encouragement of our families and our students, for whom this work is intended.

REFERENCES

- Chilcutt AS. Exploring leadership and team communication within the organizational environment of a dental practice. *J Am Dent Assoc* 2009;140:1252–8.
- Nadershahi NA, Nielsen DB. Educating the practice-ready dentist. *J Calif Dent Assoc* 2005;33:801–4.
- Saad L. Gallup's annual honesty and ethics of professions poll. New York: Gallup Organization, 2009.
- Mouden LD. Dentistry's role in family violence prevention. *Texas Dent J* 2000;117:62–6.
- Masella RS. Renewing professionalism in dental education: overcoming the market environment. *J Dent Educ* 2007;71(2):205–16.
- Watson-Alvan S, Alves-Dunkerson J. The importance of a shared vision in emergency preparedness: engaging partners in a home-rule state. *Dent Clin North Am* 2007;51:785–803.
- Kerfoot KM. Leadership: social identity and guiding from within. *Nurs Econ* 2007;25:296–8.
- Slavkin H. Leadership for health care in the 21st century: a personal perspective. *J Healthcare Leadership* 2010;2:35–41.
- DePaola DP, Slavkin HC. Reforming dental health professions education: a white paper. *J Dent Educ* 2004;68(11):1139–50.
- Guo KL. Core competencies of the entrepreneurial leader in health care organizations. *Health Care Manage Rev* 2009;28:19–29.
- Kiesau CD, Heim KA, Parekh SG. Leadership and business education in orthopaedic residency training programs. *J Surg Orthop Adv* 2011;20:117–21.
- Kanas N, Ritsher J. Leadership issues with multicultural crews on the international space station: lessons learned from Shuttle/Mir. *Acta Astronaut* 2005;56:932–6.
- Gordon S. Crew resource management. *Nurs Inquiry* 2006;13:161–2.
- France DJ, Leming-Lee S, Jackson T, Feistritz NR, Higgins MS. An observational analysis of surgical team compliance with perioperative safety practices after crew resource management training. *Am J Surg* 2008;195:546–53.
- Besco RO. Human performance breakdowns are rarely accidents: they are usually very poor choices with disastrous results. *J Hazard Mater* 2004;115:155–61.
- Brundo GC, O'Brien WJ. Characteristics identified by deans as essential to success. *J Dent Educ* 1997;61(6):484–8.
- Certosimo F. Leaders or managers: who will define a new vision for dental education? *J Dent Educ* 2010;74(5):459–63.
- Christensen GJ. Fourteen characteristics of effective leaders in dentistry. *J Am Coll Dent* 2004;71:18–21.
- Hunt RJ, Bushong M. ADEA CCI vision focuses on preparing graduates for discoveries of the future. *J Dent Educ* 2010;74(8):819–23.
- Slavkin H. Leadership in research: organizing genius. *J Am Coll Dent* 2004;71:33–8.
- Valachovic RW. Audacious leadership. *J Am Coll Dent* 2004;71:50–2.
- Roth K. Dental education: a leadership challenge for dental educators and practitioners. *J Dent Educ* 2007;71(8):983–7.
- Henzi D, Davis E, Jasinevicius R, Hendricson W. North American dental students' perspectives about their clinical education. *J Dent Educ* 2006;70(4):361–77.
- Houlberg BJ. Dental residents' perceptions of practice and patient management training during postgraduate education. *J Dent Educ* 2008;72(6):643–52.
- Victoroff KZ, Schneider K, Perry C. Leadership development for dental students: what do students think? *J Dent Educ* 2008;72(9):982–8.
- Victoroff KZ, Schneider K, Perry C. Tomorrow's leaders, starting today: a pilot leadership development program for dental students. *J Dent Educ* 2009;73(3):311–8.
- American Dental Association. Accreditation standards for dental education programs. Chicago: American Dental Association, 2010.
- Certosimo F. The servant leader: a higher calling for dental professionals. *J Dent Educ* 2009;73(9):1065–8.
- Hoover TE, Fathi N, Ferrillo PJ. Leadership. *J Calif Dent Assoc* 2009;37:255–7.
- Holt VP. Dentistry as a business: in search of the moral high ground. *Prim Dent Care* 2010;17:137–42.
- Netterstrom I, Fiehn NE, Larsen T. Changing the curriculum and the role of the teacher and the students in the classroom: an analysis of the process of reforming a course in oral microbiology. *Eur J Dent Educ* 2011;15:26–30.
- Ballweg R, Berg J, DeRouen T, Fiset L, Mouradian W, Somerman MJ. Expanding dental education partnerships beyond the four walls. *J Dent Educ* 2011;75(3):300–9.
- Sinkford JC. Introduction to the Fourth ADEA International Women's Leadership Conference proceedings. *J Dent Educ* 2011;75(3 Suppl):S5–7.
- Dennis MJ. Predoctoral dental education and the future of oral and maxillofacial surgery. *J Oral Maxillofac Surg* 2011;69:248–51.
- Fruge E, Mahoney DH, Poplack DG, Horowitz ME. Leadership: "they never taught me this in medical school." *J Pediatr Hematol Oncol* 2010;32:304–8.

36. Kalendarian E, Skoulas A, Timothé P, Friedland B. Integrating leadership into a practice management curriculum for dental students. *J Dent Educ* 2010;74(5):464–71.
37. Taichman RS, Green TG, Polverini PJ. Creation of a scholars program in dental leadership (SPDL) for dental and dental hygiene students. *J Dent Educ* 2009;73(10):1139–43.
38. Holt VP, Ladwa R. Mentoring: a quality assurance tool for dentists. Part 5: the roots of the modern approach to mentoring and coaching. *Prim Dent Care* 2009;16:157–63.
39. Masella RS, Thompson TJ. Dental education and evidence-based educational best practices: bridging the great divide. *J Dent Educ* 2004;68(12):1266–71.
40. Bennis W. *On becoming a leader*. New York: Addison-Wesley, 2010.
41. Coats MJ, Straja SR, Wiser G, Heckman H, Saavedra W, Tuncay OC. Defining characteristics of financially successful orthodontists. *Am J Orthod Dentofacial Orthop* 2000;118:18–23.
42. Bolman J, Deal TE. *Reframing organizations: artistry, choice, and leadership*. San Francisco: Jossey-Bass, 2008.