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Mission

The *Journal of the American College of Dentists* shall identify and place before the Fellows, the profession, and other parties of interest those issues that affect dentistry and oral health. All readers should be challenged by the *Journal* to remain informed, inquire actively, and participate in the formulation of public policy and personal leadership to advance the purposes and objectives of the College. The *Journal* is not a political vehicle and does not intentionally promote specific views at the expense of others. The views and opinions expressed herein do not necessarily represent those of the American College of Dentists or its Fellows.

Objectives of the American College of Dentists

The American College of Dentists, in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number, declares and adopts the following principles and ideals as ways and means for the attainment of these goals.

A. To urge the extension and improvement of measures for the control and prevention of oral disorders;

B. To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all, and to urge broad preparation for such a career at all educational levels;

C. To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;

D. To encourage, stimulate, and promote research;

E. To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

F. To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

G. To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;

H. To make visible to professional persons the extent of their responsibilities to the community as well as to the field of health service and to urge the acceptance of them;

I. To encourage individuals to further these objectives, and to recognize meritorious achievements and the potential for contributions to dental science, art, education, literature, human relations, or other areas which contribute to human welfare–by conferring Fellowship in the College on those persons properly selected for such honor.

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Cover photograph: Symbols of Professional Excellence.

From the Editor

Great Readers

Good readers are those whose lives are changed in meaningful ways when they get up out of the chair and put down the book, report, or newspaper or navigate away from the Internet screen.

Thirteen years ago, the ACD convocation speaker was publisher Knight Kiplinger (see his remarks in the winter 1997 issue). As the platform party assembled off stage, he remarked that he had enjoyed my *JACD* essay on the "clean desk." He noted that I had referenced Barbara Hemphill's book *Taming the Office Tiger,* a Kiplinger publication. We almost missed our entrance cue talking about finding good writers, picking topics, and deciding what to say when turning down an inadequate manuscript. Finally, I just had to make the obvious remark, "I am wonderfully surprised that you would come across my paper." Here is the priceless free gift he gave me: "All editors are great readers."

I have heard of great writers, and I know quite a few folks who aspire to be at least adequate. But a great reader? That implies that reading is a skill, that mastery requires years of time and effort, and even that some people are not actually very good at it. Initially I held the common view that good readers turn pages more quickly than the rest of us or can answer more questions correctly about the material. Really, good readers are those whose lives are changed in meaningful ways when they get up out of the chair and put down the book, report, or newspaper or navigate away from the Internet screen.

If you want to be a great communicator, there are two essential skills: taking information in and getting it out. The first may be more important. Art Dugoni, past president of the ADA and most other dental organizations, is a great reader. Just one testimony to his awesome readerness came years ago from an ADA staffer. She said, "Dr. Dugoni is a dream to work with. He actually reads the reports before the meetings."

Is that a characteristic shared by all persons of responsibility in organized dentistry? That is what I set out to determine at the 2009 Hawaii meeting of the American Association of Dental Editors. As a speaker, I presented a series of 16 PowerPoint shots of the headlines or titles and first few paragraphs of articles and ads appearing in the previous year in the *Journal of the American Dental Association* and *The ADA News*. The editors in the audience rated each in terms of their personal interest in the topic generally and their recollection of having seen or read the piece. The audience noted the last four digits of their social security numbers on the papers and passed them in. Then "Devious Dave" went through the same 16 PowerPoints and asked the audience to take a multiple-choice test on each using a sheet distributed for that purpose. The questions were straightforward, such as "Was Dr. Löe

honored for his work in research, humanitarian efforts, or politics?" The average score was just 40.5%, not especially impressive since there were only three alternatives, so chance would be 33%. Being interested in the material was a good predictor of high scores; thinking one had read the item was not. And I can save industry a lot of money. Average score for the two advertisements was 31%, and that on questions such as "what is the name of the product?"

I am not trying to cast aspersions on my colleagues. Good aspersions are in short supply, what with the present situation in Washington, and I need to keep all I have. After all, what I discovered by means of that little experiment in Honolulu was that I am probably not as effective a writer as I fancy I might be.

I have a habit of commenting on good writing when I encounter it. Good readers can promote better writing that way. A few times each month, when I read a journal article or book that helps me, I look up the author on the Internet and send off an e-mail. That includes notes to obscure academics and best-selling authors.

I usually get a reply, and often it is very warm. I continue to correspond with some of these experts and even collaborate with one now. Effective messages need only say that I found the materials useful and give several concrete examples of what worked. If I add anything about what I have been doing in that area or offer suggestions about other points of view or missed resources, the chances of a reply fade. Once I asked for a copy of a paper that had been read at a philosophy meeting, saying that I was interested in the topic based on the published abstract. The reply, apparently stimulated by my return address on the e-mail, was "I will send it when I get it in a more perfect state, although I am curious why a dentist would be interested in ethics."

I recently sent a note to some researchers in the field of management concerning their paper, "Conference paper sharing among academicians." They reported that expressed willingness to share prepublication papers is a result of authors calculating the benefit to their reputations and their identification with the norm of information-sharing among academics. One researcher conducted the survey about intent to share; another (from a different institution) actually requested papers from those who said they were willing to share. Only 61% of those who said they supported sharing actually did so. The authors of the research paper and I have had a nice correspondence.

Occasionally, a colleague will say to me in the nicest way, "I read that thing you wrote recently." I always smile and gratefully acknowledge the comment. In reality, I have no idea what "thing" is being referred to, where it was published, or why it was of value. Sometimes I get the feeling that the colleague is really bragging about having been doing a bit of current reading. They should brag! The only way to improve the writing in dentistry is to improve the reading.

Communication is difficult; a worthy goal is to become a great reader.

American College of Dentists

An Overview

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Abstract

The American College of Dentists (ACD) is the oldest national-level honorary organization for dentists. Its members have exemplified excellence through outstanding leadership and exceptional contributions to dentistry and society. The ACD is nonprofit and apolitical, and has long been regarded as the "conscience of dentistry." The ACD has a record of involvement in a wide range of activities related to its mission and has played a vital role in positively shaping the profession and oral health care.

The American College of Dentists was the first honorary professional organization for dentists of a national scale. The purpose of this paper is to provide a descriptive overview of the American College of Dentists, including its early history, Fellowship, publications, projects, and future. The mission of the College is to advance excellence, ethics, professionalism, and leadership in dentistry. The mission guides its activities.

Early History

To properly understand the American College of Dentists, it is important to understand the context of its founding. The early twentieth century was a period of great change in the health professions and dentistry. The *Flexner Report* had been recently published and was having a profound effect on medical education, raising questions about lack of scientific foundations for practice and excessive commercialism. Dental education appeared vulnerable to similar challenges. Proprietary dental education was also quite common and was tarnishing the profession. Advanced education and training were extremely limited. Dental research was rare, and the little work that was being done had few avenues for being effectively communicated. Commercial control of dental journalism was rampant. In short, dentistry had very serious problems.

In response to these problems, the American College of Dentists was founded at the Copley Plaza Hotel in Boston on August 20, 1920, by the then leaders of the profession to elevate the standards of dentistry, to encourage graduate study, and to grant Fellowship to those who have done meritorious work. The early focus was on improving dental education, journalism, and research, and on curbing commercial influences. Practice-related issues received more emphasis over time. Those desiring more information on the early history and activities of the College are referred to two publications in particular (Brandhorst, 1970; Chambers, 2006).

The concept of an organization without political ties that could shape dentistry was first envisioned by four leaders of the profession: John V. Conzett, H. Edmund Friesell, and Otto U. King, who were the top three officers of the American Dental Association (ADA)—then called the National Dental Association—and Arthur D. Black, son of G. V. Black and the president of the National Association of Dental Faculties, a precursor of the American Dental Education Association (ADEA). It is significant that these leaders of organized dentistry found it necessary to form another organization—the College—to address their concerns.

The four organizers and ten other leaders of the dental profession met in

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Boston to found the American College of Dentists. While unable to attend in person, nine other distinguished leaders from around the country also joined the founding ranks in absentia, 23 in total. This was literally a "Who's Who" of dentistry for the time. Their actions resulted in the formation of the oldest and most influential organization of its type.

The College has played a vital role in positively shaping the profession. After its founding, the College immediately immersed itself in the most critical and complicated professional issues, beginning with direct involvement with the Carnegie Foundation to reshape dental education. It was the first organization to promote what we today call "continuing education." It also was instrumental in organizing and incorporating the American Association of Dental Editors. In the 1930s, the *Journal of Dental Research* was foundering and on the verge of collapse. The journal was literally saved through College intervention. The funds raised by the College to save the journal formed the basis of what was to become the William J. Gies Foundation for the Advancement of Dentistry. As detailed below, the College is currently involved in a wide range of activities, both nationally and locally, to help accomplish its mission.

A name closely associated with the history of the College is Dr. William J. Gies. Besides his other dental interests, Dr. Gies was very active in the College and served in a number of capacities, including as the first editor of the *Journal of the American College of Dentists* in 1934. He was also the author of the famous report on the status of dental education in 1926. Dr. Gies has the distinction of being the only non-dentist admitted to regular Fellowship.

On March 14, 2011, The American College of Dentists was recognized by the ADEA Gies Foundation with its prestigious Gies Award for Achievement –Public or Private Partner.

The American College of Dentists Foundation was formed in 1972 and essentially serves as the fundraising arm of the College, providing financial support for many of the College's projects.

Fellowship

The College was founded as an apolitical, independent organization with membership by invitation only. Fellowship developed as a means to recognize outstanding dentists who could serve as role models to a struggling profession– a process of promoting excellence by recognizing excellence. Fellowship was not created so a small group of elite dentists could pass awards around to each other. The College has maintained a deep interest in ethics and professionalism and has long been regarded as the "conscience of dentistry." Even at the dawn of the organization, there was an emphasis on the ethical conduct of its members, as evidenced by the early qualifications required for Fellowship: "The candidate...must be of good moral character, and have a reputation for ethical conduct and professional standing

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that is unquestioned. Personality, integrity, education, unselfishness, and high professional ideals as well as freedom from mercenary tendencies shall be considered."

Candidates for the College are selected for Fellowship based on demonstrated leadership in some aspect of dentistry or community service, e.g., organized dentistry, research, education, journalism, etc. Leadership has been a common thread in the character and composition of the College since its inception. There are about 7,400 Fellows and about 4,000 of these are in an active status. Only about 3.5% of dentists in the United States and Canada are Fellows of the College. A new Affiliate Member category has recently been added to accommodate members of the American Society for Dental Ethics Section who are not Fellows, regular or honorary.

The selective and confidential nomination process makes the College unique among dental organizations. In order to have a system free from political influence, the College incorporates three layers of confidentiality into the process: (a) nominees should not know that they have been nominated for Fellowship; (b) members of the Credentials Committee do not know the identity of candidates' nominators or seconders; and (c) members of the Board of Regents do not know the identity of those serving on the Credentials Committee. Nominees are approved for Fellowship based on their own merits, not on any special connections or "who you know" criterion. The nomination process has been described in detail (Anonymous, 2008).

The College holds an Annual Meeting and Convocation that confers Fellowship on approximately 300 dentists each year. The meeting includes leadership workshops, ethics courses, and a variety of outstanding speakers. Convocation speakers have included the secretary of health and human services, the surgeon general, the assistant secretary of defense, senators, congressmen, industry leaders, and others.

Organizationally, the College is under the governance of a Board of Regents. The College is divided into eight Regencies covering the United States and Canada, with a small international component. There are 51 local components called Sections within the Regencies. Sections generally correspond to states, but not always. Sections conduct numerous local projects and activities in support of the College's mission, including White Coat Ceremonies, dental school awards, ethical dilemma programs, sponsored lectures at state dental meetings, and more.

Publications

The College has a record of important publications and it continues to have publications related to its mission.

Journal of the American College of Dentists

The *Journal of the American College of Dentists* was started in 1934 under the editorship of Dr. William J. Gies. It is designed to identify and place before the Fellows, the profession, and other parties of interest those issues that affect dentistry and oral health. *Issues in Dental Ethics* is essentially a publication within the *Journal of the American College of Dentists*. It is the only major forum for the publication of scholarly articles in dental ethics. It is coordinated by the American Society for Dental Ethics Section and has its own associate editor and editorial review board.

ACD News

The College publishes a tri-annual color newsletter, *ACD News*, which contains news of Fellows, Sections, College events, projects, foundation news, and more. Issues are published in April, August, and December.

Ethics Handbook for Dentists

The *Ethics Handbook for Dentists* was first published by the American College of Dentists in 2000. It is made available on a complimentary basis to educational institutions and other qualifying dental organizations. The College annually distributes about 5,000 *Ethics Handbooks for Dentists* (and Ethics Wallet Cards) to all first-year dental students in the U.S. and Canada on a complimentary basis. Nearly 60,000 handbooks and cards have been distributed to date.

Ethics Wallet Cards

Ethics Wallet Cards include "The ACD Test for Ethical Decisions" and the College's core values. They are made available to dental students, dentists, and organizations on a complimentary basis. The cards are normally offered to dental schools with the *Ethics Handbook for Dentists*.

Miscellaneous

Aside from its primary publications, the College also publishes White Papers, reports, and brochures involving a variety of subjects. These include, as examples, the position paper on the ethics of quackery and fraud in dentistry (Board of Regents, 2003), the White Paper on dental managed care in the context of ethics (Board of Regents, 1996), and an awards brochure, an information brochure, a foundation brochure, a gallery (gifts) brochure, and other more intermittent works.

Projects

The College continues to build on its history of important activities through its ongoing involvement with a number

of meaningful local and national projects related to its mission. Some of its current projects are described below.

Online Presence

The College has an impressive online presence covering four Web sites, www.acd.org, www.dentalethics.org, www.dentalleadership.org, and www.dentalhistory.org. ADA CERP-recognized continuing education credit is available for courses taken on the dental ethics and dental leadership sites. The courses involve a very simple registration process and there are no fees—the courses are provided on a complimentary basis.

ACD Web Site

The College has a comprehensive Web site at www.acd.org that includes a wide variety of information about the College and its activities. There is also a members' section, which includes a membership directory, and the capability to pay dues online and to make donations to the Foundation.

Courses Online Dental Ethics

The College has developed Courses Online Dental Ethics (CODE), a series of online courses in dental ethics and professionalism available at www.dentalethics.org. There are currently 25 courses with over 25 hours of continuing education credit available. The first course is based on the *Ethics Handbook for Dentists.* More than 18,000 courses in dental ethics have been taken by dental students, dentists, and hygienists from around the world.

Ethical Dilemmas

A series of 52 ethical dilemmas was published in the *Texas Dental Journal* between 1993 and 2005. The lead author of these dilemmas was the late Dr. Thomas K. Hasegawa. The dilemmas have been digitally compiled in PDF format by the American College of Dentists with permission from the *Texas Dental Journal* and are available online at www.dentalethics.org or on CD from the Executive Office.

Dental Leadership

This is a comprehensive online leadership resource for dentists, now available at www.dentalleadership.org. The resource includes education, assessment, and library modules. There are 27 courses and several self-assessment leadership tools.

Dental History

Dental History, a Multimedia Dental History Resource, is a Windows®-based program and is available for download at no cost from www.dentalhistory.org. The resource uses external video files that can be viewed with an Internet connection. It was initially designed for dental students and formerly available only on CD. It has been slightly modified for online distribution and has been well received in underdeveloped areas.

Other Projects

Professional Ethics Initiative

The Professional Ethics Initiative (PEI) is a major ethics initiative composed of four programs—individuals, practices, organizations, and resources (the Ethics Resource Clearinghouse). It is a cooperative initiative among the ACD, ADA, ADEA, and the American Society for Dental Ethics (ASDE, now the ASDE Section) and has a goal of improving the ethical climate of dentistry and enhancing its ethical base. PEI has an aspirational focus and character that strive to motivate, encourage, and inspire rather than regulate and penalize. Excellent progress is being made.

Introduction to Dental Ethics (course)

Part of the individual program PEI involves training more dentists in ethics

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and professionalism. A seven-hour entry-level course has been conducted in 2009 and 2010 as part of the College's Annual Meeting and Convocation in Honolulu and Orlando, respectively. A follow-up course that concentrates on facilitation techniques and more advanced content will be presented in the fall of 2011 in Las Vegas.

Ethics Scholarships for Dentists

Beginning in 2011, the Dr. Cecelia L. Dows Scholarship Fund of the American College of Dentists Foundation will be funding two $10,000 scholarships to dentists who are pursuing a graduate degree (masters or doctorate) in ethics. The scholarships are one-time grants and not repetitive. Selection of scholarship recipients is competitive. At least one scholarship is planned annually, but the scholarship amount may vary. The scholarships are also part of the individual program of PEI.

Practice Ethics Assessment and Development

The Practice Ethics Assessment and Development (PEAD) program is part of the practices element of PEI. A pilot version of PEAD has been developed by the College in cooperation with several other dental organizations. PEAD is a set of self-assessment instruments, diagnostic feedback, and suggested resources that dentists can use to improve the ethical climate of theirs practices. PEAD is intended to be voluntary and customized to individual practices. It is based on evidence showing that organizations that have a more positive ethical climate are also more congenial and productive, as well as doing the right thing. The various exercises in the PEAD packet are to be used by the dentist and, in a number of cases, by the office team and even patients. Self-evaluation and comparison against norms are used to direct practices toward the areas most in need of improvement. At no time are outside evaluators involved in this process. The PEAD program has been approved for development by the ADA House of Delegates. The program was reviewed by a panel of four experts and pilot-tested by a group of practices in the fall of 2010. It is currently in the final stages of refinement before an anticipated release later this year.

Ethics Resource Clearinghouse

The Ethics Resource Clearinghouse constitutes the resources program of PEI. The clearinghouse is envisioned as a major collection of ethics-related resources that dental schools and dental organizations could use (or contribute to). This program is designed to collect ethics resources and make these available to other schools or dental organizations that have a need. For example, if one school has developed an outstanding resource, the clearinghouse would provide a vehicle to share it with others. Resources could include video-taped lectures, curriculum guides, workbooks, ethics dilemmas, course materials, tests, self-assessment activities, and books. To date, cooperation to obtain resources has not been overwhelming, but this will continue to be pursued. New resources will be developed, as necessary, to supplement existing offerings, and the current focus is on developing the central ethics resource for the clearinghouse, which is described immediately below.

Interactive Dental Ethics Application

The newest project of the College is the Interactive Dental Ethics Application, also known as IDEA®. IDEA® will be the central ethics resource of the Ethics Resource Clearinghouse mentioned above. IDEA® was developed in response to the need for a comprehensive digital dental ethics resource that had both interactive and multimedia capability.

It was designed from the beginning for Portable Document Format (PDF) to increase compatibility and portability. The PDF format offers several advantages for this application: (a) portability; (b) compatibility with computers; (c) formatting maintained on printing; (d) interactivity through scripting; and (e) the reader software is a free download (or is provided on newer computers). An Internet connection is required to play the videos. From the beginning, the goal has been to provide IDEA® on a complimentary basis for dental students, practicing dentists, dental hygienists, educators, and others with an interest in dental ethics. IDEA® is not designed like a book to be used from front to back. Rather, it is more like a digital ethics cafeteria. The working prototype is finished and release is anticipated in the summer of 2011. IDEA® will be distributed as a download from the ACD Web site, www.dentalethics.org, and possibly on compact disc. There are currently eight sections, Overview, Fundamentals, Single Concept, Large Concept, Cases, Development, CE Courses, and Resources. Self-assessment activities, quizzes, and videos are included in some sections.

Ethics Summits

The College has directly sponsored four Ethics Summits since 1998, the last two involved "Truth Claims in Dentistry" (2004) and the "Ethics Summit on Commercialism" (2006). The latter and most recent Summit was co-sponsored with the American Dental Association. The College was also involved with the access to care conference in the summer of 2005 and also helped sponsor the June 2007 symposium on integrity and ethics in dental education coordinated by the ADA.

Founders of the American College of Dentists

Henry L. Banzhaf	Milwaukee, Wisconsin
J.F. Biddle	Pittsburgh, Pennsylvania
Arthur D. Black	Chicago, Illinois
John P. Buckley	Los Angeles, California
Harvey J. Burkhart	Rochester, New York
John V. Conzett	Dubuque, Iowa
H.D. Cross	Boston, Massachusetts
Julio Endelman	Los Angeles, California
H. Edmund Friesell	Pittsburgh, Pennsylvania
William A. Giffen	Detroit, Michigan
Clarence J. Grieves	Baltimore, Maryland
Thomas B. Hartzell	Minneapolis, Minnesota
Thomas P. Hinman	Atlanta, Georgia
Milus M. House	Indianapolis, Indiana
V.H. Jackson	New York, New York
C.N. Johnson	Chicago, Illinois
E.A. Johnson	Boston, Massachusetts
C. Edmund Kells	New Orleans, Louisiana
Otto U. King	Chicago, Illinois
Albert L. Midgley	Providence, Rhode Island
Frederick B. Noyes	Chicago, Illinois
Roscoe H. Volland	Iowa City, Iowa
C.E. Woodbury	Council Bluffs, Iowa

Section Projects

Regional College components, known as Sections, support a number of local projects, including White Coat Ceremonies at dental schools. Section projects also include dental school awards, ethical dilemma programs, sponsored lectures at state dental meetings, and more. Sections also support Student Professionalism and Ethics Club (SPEC) chapters, now at over 20 dental schools.

Miscellaneous

American Society for Dental Ethics Section

On January 1, 2011, the American Society for Dental Ethics (ASDE) became the 51st Section of the College. Dental ethics is a comparatively small field, and a coordinated voice would be an advantage for two different organizations having complementary missions. ASDE was established in 2004 to succeed PEDNET (Professional Ethics in Dentistry Network, founded in 1987).

Dental Symposium at the Intensive Bioethics Course, Kennedy Institute of Ethics

The College, in collaboration with the Joseph P. and Rose F. Kennedy Institute of Ethics and the ASDE, developed the first dental ethics satellite symposium to better integrate professional ethics in dentistry with bioethics. It was held in June 2010 in conjunction with the Institute's highly renowned weeklong Intensive Bioethics Course. The Kennedy Institute of Ethics is one of the world's premier institutes for research in bioethics. The special addition of a dental ethics symposium was a return to the Institute's longstanding interest in dentistry and was a direct outcome of the College's work with the Professional Ethics Initiative.

Awards

The College has a comprehensive lineup of national awards, including the William J. Gies Award, Ethics and Professionalism Award, Outstanding Service Award, Honorary Fellowship, and the Award of Merit. Sections administer the Outstanding Student Leader Award, the ACD's national-level award for dental students based on leadership and scholarship. The College also sponsors the ACD-AADE Prize for Dental Journalism awarded annually to an outstanding contribution to dental journalism that best promote the mission of the College.

Future

What does the future hold for the American College of Dentists? There are many very important issues facing dentistry that will ultimately define the profession. These issues include commercialism, access to care, and mid-level providers, among others. The College has never been an organization to sit on the sidelines and watch the parade go by. As it has from the beginning, the College will be engaged in the dialogue concerning these issues. The American College of Dentists will continue the work that advances the elements of its mission.

- **Excellence**–The College stands for the best in dentistry and will continue to champion initiatives involving quality, continuous improvement, high standards, and ideals. It will oppose forces that degrade the cornerstone of professionalism, that a patient should unambiguously be the foremost concern of the dentist, not financial compensation or prestige.
- **Ethics and professionalism**–Virtually all major issues confronting dentistry have a significant ethics and professionalism component and the College will continue to live up to its reputation as the "Conscience of Dentistry" through its programs, publications, and activities.
- **Leadership**–The College is composed of leaders and has a leadership role. It will continue to develop and utilize leaders to meet the important challenges ahead.

As it has for so many years, the College is working hard to continue to make a difference in dentistry. ■

References

Anonymous. (2008). Fellowship process insights. *ACD News, 37* (3), 16-19.

Board of Regents of the American College of Dentists (2003). The ethics of quackery and fraud in dentistry: A position paper. *Journal of the American College of Dentists, 70* (3), 6-8.

Board of Regents of the American College of Dentists (1996). White Paper: Dental Managed Care in the Context of Ethics. *Journal of the American College of Dentists, 63* (4), 19-21.

Brandhorst, O. W. (1970). *The American College of Dentists history: The first fifty years.* St. Louis: The College.

Chambers, D. W. (2006). History of the American College of Dentists. *Journal of the American College of Dentists, 73* (1).

Selected Publications of the American College of Dentists

Gies, W. J. (1926). *Dental Education in the United States and Canada: A Report to the Carnegie Foundation for the Advancement of Teaching.* Bulletin No. 19, New York, NY: The Foundation. (This was not an official publication of the American College of Dentists, but Dr. Gies did acknowledge the College's assistance in the report.)

Johnson, E. A., O'Rourke, J. T., Partridge, B. S., Spalding, E. B., & Palmer, B .B. (1932). *The status of dental journalism in the United States: Report on the Commission on Journalism of the American College of Dentists 1928–1931.* New York, NY: The College.

Beck, D. F., & Jessup, M. F. (1943). *Costs of dental care for adults under specific clinical conditions.* Lancaster, PA: The College.

Gurley, J. E. (ed.) (1947). Dental education: Objective and purpose. Presenting schools of Canada and the United States. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 14* (1-4) March, June, September, December.

American College of Dentists (1958). An Evaluation of the ILWU-PMA Dental Care Programs and some socioeconomic factors related to dental practice. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 25* (September), 145-240.

Commission on the Survey of Dentistry in the United States (1960). The recommendations of the Survey of Dentistry. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 25* (December), 222-268.

Gurley, J. E. (1960). *The evolution of dental education including a chronological history of the Dental Educational Council of America, the Dental Faculties Association of American Universities, reorganized Dental Educational Council of America; report of the historian.* St. Louis, MO: The College.

Gurley, J. E. (1961). *The evolution of professional ethics in dentistry.* St. Louis, MO: The College.

American College of Dentists (1961). A dental health plan for the American people: A panel discussion presented at the 1961 convocation of the American College of Dentists, Philadelphia, PA, October 15, 1961. Reprinted from the *Journal of the American College of Dentists, 28* (December), 243-296.

More, D. M. (1961). The dental student. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 28* (March), 5-94.

More, D. M. (1962). The dental student approaching graduation—1962. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 29* (September), 113-208.

Committee on Social Characteristics, American College of Dentists (1965). Proceedings of a workshop on enhancing the image of dentistry. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 32* (July), 130-170.

American College of Dentists (1968). Caries prevention and control: A panel discussion presented at the meeting of the American College of Dentists, Washington, DC, October 28, 1967. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 35* (January), 15-91.

McBride, T. F., & Brandhorst, O. W. (1969). Workshop on dental manpower: A summary. St. Louis, MO: The College. Reprinted from the *Journal of the American College of Dentists, 35* (April) 98-237, 35 (July) 243-256; *36* (January) 28-33, *36* (April) 76-90.

American College of Dentists (1973). *Self-assessment and continuing education in dentistry: A program for the practicing dentist.* Bethesda, MD: The College.

Ross, M. (1981). *George Corbly Paffenbarger, D.D.S.: His life and career in dental materials.* Bethesda, MD: The College.

Dummett, C. O., Dummett, L. D. (1986). *The Hillenbrand era: Organized dentistry's glanzperiode.* Bethesda, MD: The College.

International College of Dentists—USA Section

A Brief History, 1934–2011

Richard G. Shaffer, DDS and
Richard J. Galeone, DDS, FACD

Abstract

Inspiration for the International College of Dentists can be traced to a Tokyo dinner in 1920, with the College being founded in 1927 and the USA Section following in 1934. The College has always held a focus on international relations and service. The USA Section has also developed a firm commitment to leadership. The origins of the College are traced in this article, and the organizational structure and a sampling of its many programs are also presented.

It happened over dinner...

That's true. The 1920 dinner was a farewell gathering in Tokyo, Japan, for Dr. Louis Ottofy. Dr. Ottofy was getting ready to return to his native United States to resume the practice of dentistry after 23 years in the Orient, Japan, and the Philippines. During the remarks, one of the speakers, Dr. Tsurukichi Okumura, made the point that it was unfortunate there was no definite means for dentists living in distant places to ascertain what was occurring in the dental profession. A suggestion was made that there should be an international organization through which individuals could meet with fellow practitioners from even the remotest points. The nearest thing to an international organization at the time was the Federation Dentaire International (FDI), a wonderful organization that worked with dentists from countries with a national dental society.

Upon Dr. Ottofy's return to America, he began to formulate this new organization. The initiative resurfaced again at the Sixth International Dental Congress in 1926. The officers of FDI were consulted, and they assured Dr. Ottofy that they did not consider his proposed organization to be in conflict with the Federation. Dr. Ottofy then revealed plans for an organization to be composed of leading dentists from all over the world. When researching an appropriate name he looked up the word "college." He found the first definition to be, "a collection, body, or society of persons engaged in common pursuits of having common duties and interests." That was exactly what he was looking for...The International College of Dentists had a name. He made the draft of the rules and organizational structure. The ICD was created on December 31, 1927.

Originally the membership was to be limited to 300. Every country in the world was to be represented by at least one dentist. The constitution was indeed brief. The four original objectives are still supported and valued today:

- To foster cordial relations among dentists in all parts of the world
- For cooperation among dentists in the interest of progress in the science and art of dentistry, especially with dentists who are located in less frequented parts of the world
- To aid in education of all peoples concerning the importance of dentistry as a health measure
- To assemble and publish data pertaining to dentistry in all parts of the world

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The USA Section

The objectives and the territory covered by the College was so different and so unique among dental organizations that it could not in any sense be construed as opposing any other laudable dental effort or organization. As interest in the ICD grew, so did the organization. The original worldwide quota of 300 grew to 500. In 1930 during an American Dental Association meeting in Denver, Colorado, the proposition was made to increase the usefulness of the College and allow the increase of membership by organizing into Sections. The Sections were to adopt rules and regulations and to establish entrance requirements, dues, and admission fees in order to afford the opportunity for Fellows on a larger scale to comment on the solution of problems of vital interest to dentistry. At this point nearly one-half of the dentists in the world were practicing in the United States. It was proposed that the Fellows in the United States organize the American Section of the International College of Dentists. The concept of the first Section of the International College of Dentists was formed on July 22, 1930.

During the February 1934 Chicago Midwinter Meeting, a group assembled to launch a permanent USA Section. The USA Section was chartered in Washington, DC, on February 26, 1934. The first officers were: President—Oren A. Oliver, Vice President—Boyd S. Gardner, Secretary, Registrar—Justin D. Towner, and Treasurer—Edward C. Mills. These officers conducted their first meeting in conjunction with the American Dental Association in Saint Paul, Minnesota, in August of 1934. As an aside, the association with the ADA has been very strong over the years. In 1953, the formal vote was taken to have our Annual USA Section Meeting in conjunction with the ADA wherever they meet.

During the 1934 Minnesota meeting, the draft constitution and bylaws were presented and all the members of the International College of Dentists residing in the United States at that time were invited to become members of the USA Section. The Section was divided into13 Districts, and Regents were selected for each. Currently, there are 17 Districts and Regents. The Districts are logistically distributed consistent with the ADA Trustee Districts.

During the Chicago meeting of 1938, the following resolution was adopted: "The aim and purpose of the International College of Dentists is to recognize conspicuous and meritorious service to the profession of dentistry. All worthy and qualified recipients of Fellowship in the ICD shall be considered, regardless of previous affiliations with other honorary organizations."

Back in 1938 this was called a resolution; in today's terms it is called a mission statement. Today our mission statement reads: "The International College of Dentists is a leading honorary organization dedicated to the recognition of outstanding professional achievement,

The International College of Dentists is a leading honorary organization dedicated to the recognition of outstanding professional achievement, meritorious service, and the continued progress of the profession of dentistry for the benefit of all humankind.

meritorious service, and the continued progress of the profession of dentistry for the benefit of all humankind."

The design for the College key, drawn by Dr. Towner, was adopted in 1939.

While the USA Section was being organized, Dr. Ottofy was gradually building up the College at large. In 1929, 250 Fellows were awarded Fellowship; these were scattered throughout 162 countries, states, and provinces. During World War II, the College at large was seriously held back. The USA Section handled most of the affairs during the war until 1947. Attention was drawn to the critical needs of the members of the dental profession in those countries recently involved in the war. Hope was expressed that ways and means would be found for the USA Section to make a tangible contribution to the reconstruction of dentistry in those countries, which the USA Section did.

As the College grew, the Canadian section became the second Autonomous Section of the College in 1948. Other Sections began to organize; today the there are 14 Autonomous Sections to the College. China and Myanmar are the latest, approved for Section status in 2009.

In 1956, at the request of the USA Section, a recommendation was made to accept an official ICD Cap and Gown. The gown is fine grade black poplin with velveteen trim. It has three front panels—lilac, the traditional hue of the dental profession; gold and dark green, the official College colors. Regulation black velvet bars are on the sleeves, with a three-inch gold band below the bars.

Women were first considered for Fellowship in the Section in 1959. According to our Section Office records, the first USA woman was inducted into Fellowship in 1970.

The USA Section Foundation was formed on January 22, 1986. The Foundation was chartered as a 501(c)(3) nonprofit corporation. This opened an important avenue for ICD Fellows to make tax deductible gifts, donations, bequests, and other such contributions to scientific and charitable causes selected and supported by the USA Section. Contributions to the Foundation qualify as tax deductible to the maximum limits allowable by existing legislation governing charitable giving.

A fuller account of the history of the College can be found in R.G. Shaffer's *International College of Dentists USA Section History 1920-1996* (1997).

Activities of the USA Section of ICD

The International College of Dentists, USA Section has a long and proud history of dedication and service to the field of dentistry. As our 2011 President, Dr. Jack Clinton says "Be a better leader—Make a bigger difference."

Today the USA Section is active and invigorated. The mission statement quoted earlier along with our vision is:

> **Mission Statement**—The International College of Dentists is a leading honorary dental organization dedicated to the recognition of outstanding professional achievement, meritorious service, and the continued progress of the profession of dentistry for the benefit of all humankind
>
> **Vision Statement**—Being the leading honorary dental organization providing service worldwide

Structure of the International College of Dentists

The organization of the International College of Dentists is divided geographically into Sections, Regions, and Districts. Each Fellow of the College shall either be a member of an Autonomous Section or of the International Section. Any area not in an Autonomous Section is administered by the Executive Committee or the International Council of the College.

There are 14 Autonomous Sections: I USA, II Canada; III Mexico; IV South America; V Europe; VI India, Sri Lanka; VII Japan; VIII Australia, New Zealand, Fiji, IX Philippines; X Middle East; XI Korea, XII Chinese Taipei; XIII China; and XIV Myanmar. Autonomous Sections may further subdivide into Districts. Section I, the USA Section, has 17 Districts. Section XX is the International Section and is divided into 18 Regions. The International Section is composed of countries that do not have enough Fellows to become a Section of their own, and so are grouped geographically.

There are approximately 10,700 current Fellows spread throughout 101 Countries. The USA Section currently has 6,319 members: 4,035 active, 244 retired, 1,988 life, and 52 honorary.

Humanitarian Projects

Kenya (PCEA Kikuyu Hospital Dental Clinic)

The International College of Dentists, USA and Fellows from North Dakota, joined a mission partnership in the development, construction, and equipping of a dental clinic at the PCEA Kikuyu Hospital in Kenya. The ICD, USA was one of the principal partners and provided financial support to build and equip the sterilization room and one treatment room. There are 700 dentists for 40,000,000 Kenyans and a 1-260,000 dentist-to-population ratio for the rural population. The project was initiated in June 2000, and the clinic was turned over to the hospital in September 2009 and is now owned and operated by Kenyans. Due in no small part to the dedicated commitment of the ICD USA,

this fully staffed and fully equipped eight treatment room facility provides immediate, preventive, and comprehensive dental services for Kenyan people and beyond. The clinic also offers volunteer opportunities. Dental schools from the USA and UK have sent students for educational and mission experiences at the clinic's outreach projects at orphanages, schools. and remote villages.

Tanzania

To get dental care to two refugee camps with over 175,000 people, we have joined with the ADA and Health Volunteers Overseas to form and staff two clinics. We have installed two full operatories and provide free service to those with serious dental needs, in addition to providing a treatment clinic in each of the camps.

Southeast Asia

We have supported programs in Southeast Asia for nine years. This project provides a three-year course in public health dentistry and awards a Masters Degree to local students. We have had three classes in Vietnam and have expanded to Laos and Cambodia.

Leadership Initiatives

Annual Dental Journalism Awards, recognizing achievements of dental publications, are presented during the annual ADA meeting.

Support is provided to the American Association of Dental Editors for their meeting needs.

The Annual Outstanding Student Leadership Award are presented to a senior student in each dental school in the USA, recognizing professional growth, development, and leadership.

The Audiovisual History Program is a growing library of recorded interviews of world leaders of our profession that preserves the thoughts and wisdom of these visionaries.

Support is provided to dental schools conducting White Coat ceremonies.

Great Expectations is a professional mentoring program that calls on peer influence to help guide students toward professional and ethical conduct.

International Dental Student Exchange Program

This project was initiated in 1990 to improve and increase international relations at the student level by providing a professional and cultural exchange between dental schools in the USA and other countries. Participating dental schools are the University of Alabama at Birmingham, Case Western Reserve University, Medical College of Georgia, University of Maryland–Baltimore, University of Minnesota, University of Oklahoma, University of Medicine and Dentistry–New Jersey, and University of NC, Chapel Hill. Students have traveled to Meikai and Asahi in Japan; Arhus, Denmark; Nice, France; Dublin, Ireland; and Moldova, just to highlight a few of the exchanges.

Peace Corps Dental Exams

Many USA Section Fellows are providing a complete dental examination, including a periodontal exam, and a full mouth series of radiographs (or a panorex with bitewings) if called upon. The Peace Corps appreciates our program for several reasons. Applicants to the Peace Corps receive quality, thorough evaluations from ICD Fellows. Due to budget limitations, dental exam reimbursement is only $60; for those applicants without dental insurance, the savings afforded by visiting an ICD dentist is significant. Additionally, the Peace Corps saves money when an applicant visits an ICD dentist, which in turn helps them place more volunteers. ■

The International College of Dentists, USA Section has a long and proud of history of dedication and service to the field of dentistry.

The Academy of Dentistry International

Robert L. Ramus, DDS

Abstract

The Academy of Dentistry International was founded to promote the art and science of dentistry, especially through research and continuing education. Its mission is international in the sense of promoting exchange and service. The organizational structure of ADI is discussed as well as its membership. A defining characteristic of the Academy is an array of programs around the world supported by the Academy of Dentistry International Foundation.

The Academy of Dentistry International (ADI) was founded in 1974 by its first president, Dr. Albert Wasserman of San Mateo, California, following which it became incorporated as a legal entity within that state. As a past president of both the American College of Dentists and of the Academy of General Dentistry, Dr. Wasserman recognized the need to extend the ideals of these two organizations, particularly that of continuing education, to dentists internationally. From this, the mission of the Academy grew, to encompass the ideals which are written within its bylaws and which embrace such issues as:

- Advancement of the science and art of dentistry
- Stimulation and encouragement of research
- Promotion of continuing education
- Stimulation, encouragement and promotion of service projects
- Promotion of the international exchange of information and culture
- Promotion of ethical relations between dentists
- Recognition of conspicuous service to dentistry

In addition to these ideals, the Academy confers Fellowships upon worthy individuals from within the dental world at large, who have contributed to the advancement of the profession in one or more ways through clinical practice, research, education, public service, journalism, and service to the profession.

Structure for International Activity

The activities of the Academy are directed by its Central Office (headed by the executive director), the president and officers of the Executive Committee, and by its governing body of the Academy, the International Board of Regents. The Regents, who with the members of the Executive Committee constitute the Board, are elected by Fellows resident within a number of defined geographic areas of the world (identified as Sections), which currently number 18 persons. In general, most of the Sections of the Academy represent more than one country. To ameliorate the language, cultural, and fiscal variations that arise from this, some of the Sections contain subgroups which are known as Chapters. It is through discussion within the Sections and Chapters that Fellows of the Academy may advance comment to their representatives and thus to the International Board. In effect, by this democratic process the International Board of Regents is able to address issues of global significance, while local matters which are of direct interest to Fellows fall within the province of the Sections and Chapters. All service performed by the Officers of the Academy is voluntary and without financial reward.

As the ADI evolved, it became obvious that the formalization of the funding and

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administration of volunteer programs, being only a part of the remit of the Academy, would be best served by the formation of a separate entity, and accordingly the ADI Foundation was formed. It operates in parallel with the ADI, but its responsibility is solely to review requests for funding and to provide grants for projects that meet its requirements, according to those funds which are available at that time. It is administered by an elected Board of Directors drawn from members of the Board of Regents and from senior members of the dental industry, with all administrative support being provided by the Central Office of the Academy. As with the ADI Board of Regents, all work carried out by its members is provided pro bono.

ADI does not have a restricted membership list, although the very process of peer review, which may lead to acceptance of prospective Fellows, tends to confine its numbers. At the time of this publication, the total number of Fellows of the Academy is approaching 3,000, and this figure has been fairly constant in recent time. However, following the opening of geographic borders throughout Europe at the end of the last century and despite the barriers of language and culture, there has been a surge of interest in the ADI by dentists who are resident within the three ADI Regions of Europe (Northern, Southern, and Eastern Sections), and accordingly the membership of the Academy is increasing.

Expressed in terms of percentage, the present number of Fellows resident in the USA compared with the rest of the world is 40% to 60%, which seems to validate the founder and inaugural President Albert Wasserman's vision of reaching out to the dentists of the world. The global extension of the Academy and of its work provides a broad spread of interest for its Fellows, as well as the commensurate coverage of the salient points contained within its mission, as developed by its founders.

Service Programs Supported by the ADI Foundation

According to the ideals listed previously, the Academy has been able to participate formally in all of the principles enunciated therein, excepting for that of research. As an entity which lacks funding, as well as the "bricks and mortar" establishment which may provide the key to the successful pursuit of research, for the present ADI is only able to follow this path in a peripheral sense. Nevertheless, with the encouragement of ADI, many of its Fellows have provided aid in developing pathways for individuals to further the pursuit of research.

Continuing education programs are provided at Convocations of Fellows, which are held throughout the world under the auspices of the appropriate Regional authorities as well as through the Central Office. In addition, at such Convocations, specific Awards of the Academy may be conferred upon persons of distinction, as well as to honor others

From its modest beginnings in 1974 the Academy has grown in both numbers and substance, from a small nucleus of dedicated members of the dental profession.

of significance through the conferral of Fellowship.

Since its inception, much of the drive of the Academy has focused upon the work of volunteers to provide service for disadvantaged groups throughout the world, and, because of obvious need, much of this has centered upon those who reside in nonindustrialized countries. A recent example of such work is that which has resulted from the support given by the Academy to the entity "Tooth Aid," created by Fellow, Dr. Paul Kotala (Australia). Dr. Kotala and a team of volunteers make a minimum of three visits to Laos each year to provide diagnostic, clinical, and preventive dental services for the people who are resident in remote areas of the country. On Dr. Kotala's early visits to Nambak Province and in addition to his field trips into remote rural regions, he saw a need for the establishment of a permanent dental facility adjacent to the Nambak Hospital. With the financial assistance of the Academy and much ingenuity on Dr. Kotala's behalf, a permanent dental clinic has now been constructed and fitted out with equipment to provide treatment which is beyond that which may be performed in the field and this clinic bears the name of the Academy. Further, through the ongoing support of ADI Past President, Dr Terry Tanaka (USA) and a group of his colleagues who wish to remain anonymous, a Laotian dentist has been funded to manage the clinic on a permanent basis, as well as to provide ongoing treatment for those in need, between the visits of Dr. Kotala and his team.

By contrast and as a paradox, it has been found that there are many disadvantaged groups who are resident within almost all countries in the world where advanced or developed economies prevail. These are people who may have "fallen through the cracks" of the social systems which prevail in their communities. For a number of years an ongoing project of the Union Gospel Mission in Seattle has been supported by the ADI Foundation, whereby dentures are provided for disadvantaged persons who are edentulous. The facial and functional transformation which is achieved for these people not only opens opportunities for them to reenter mainstream society but also helps them to regain the self-esteem which is necessary for them to obtain gainful employment.

Other projects which have received support from the ADI Foundation in recent times have been the Thousand Smiles Foundation in Mexico (cleft lips and palates), the support provided for library facilities in dental schools in Cambodia, Mongolia, and Vietnam, and in more recent times, following the disastrous earthquake in Haiti, the provision of financial assistance to the Haitian Dental Institute.

International Leaders in the Profession

Through its recognition of eminent dental persons throughout the world, the Academy is fortunate to count within its ranks many from the profession and related disciplines, such as the health sciences and the dental industry. It numbers among its members many who have been at the forefront of their national dental associations, leaders in dental teaching and research, and prominent clinicians who are regarded by their peers as having achieved locally and internationally at the highest levels. It is indeed an embarrassment to name only a few of these persons, particularly those who have undertaken leadership roles throughout the lifetime of the Academy, while omitting so many who are equally worthy of mention.

Despite this and for the sake of completeness, it may be appropriate to mention a few among many who, by their example, have made major contributions to the ongoing work of the Academy in recent times. These are:

- Dr. Terry Tanaka (USA), ADI Past President, for his philanthropy, CE programs, and the development and funding of the Tanaka Award
- Dr. Burton C. Conrod (Canada), Immediate Past President of the FDI World Dental Federation, for his contribution to the dental profession at a global level
- Dr. Reg Hession (Australia), ADI Past President, Member of the FDI List of Honor, Past Chairman of the Australian Dental Research Foundation, and sole donor for its Biennial Traveling Scholarship
- Dr. Gerhard Seeberger (Italy), President of the European Regional Organization of the FDI, for his presentations of CE programs and the development of the ADI within Southern Europe
- Dr. Philippe Rusca (Switzerland), Vice-President of the European Regional Organization of the FDI, for his contribution to the development of the ADI within Northern Europe
- Mr. Friederich Herbst (Germany), Honorary Fellow, Executive Director of the International Dental Manufacturers, for his outstanding leadership in driving the prospective establishment of an ADI German Chapter.

In summary, from its modest beginnings in 1974 the Academy has grown in both numbers and substance, from a small nucleus of dedicated members of the dental profession. Through its evolution, it has embraced the principles enunciated by its forefathers and in doing so, it has attempted to develop and spread globally the sound principles which drive the many fine societies of honor which exist within the USA. ■

Omicron Kappa Upsilon

A Historical and Current Perspective

Jon B Suzuki, DDS, PhD, MBA, FACD

Abstract

Founded by G. V. Black at Northwestern Dental School in 1914, Omicron Kappa Upsilon is the "Phi Beta Kappa" of dentistry, honoring students, faculty members, and honorary members for academic excellence and professional character. In addition, the honor society has a history of granting recognition of schools and individuals who have distinguished themselves and show promise for advancing dental education.

Omicron Kappa Upsilon (OKU) is the national honor society in dentistry, symbolizing the outstanding scholarship and character of graduating senior dental students, as determined by dental school faculty. The organization is generally referred to as the "Phi Beta Kappa" of dentistry, with membership restricted to dentists recognized in attaining a high grade point average upon graduation from dental school. More recently, OKU has broadened its sphere of influence beyond scholarship and includes such initiatives as service, mentorship, outreach, and research.

Primary alumni membership in OKU is first determined using a two-step process: first class rank is considered (top 20% of the dental school graduating class upon GPA), the faculty vote from this pool based on other qualities including character, service, research, etc (top 12% of the dental school graduating class). Therefore, in a class of 100 dental students, only 12 students are inducted into the local dental school OKU chapter as alumni members upon graduation.

Other categories of OKU membership are faculty and honorary membership. These categories also follow specific criteria for induction, such as excellence in teaching, research, and service to the component dental school (please see www.oku.org for further details).

OKU has its origin with the senior graduating dental class of 1914 at Northwestern University in Chicago. Dr. Green Vardiman Black, known as "GV Black," dean of the Northwestern University Dental School, initiated the first OKU chapter ("Alpha" chapter). Black then invited the deans of 51 other schools to organize and form a national network composed of local honorary dental societies, unified with a gold OKU insignia (on April 8, 1915), a certificate of incorporation (state of Illinois on March 15, 1916), and constitution and bylaws (1921).

Several dental schools quickly followed and became charter members. These include, in order: the University of Pittsburgh (Beta chapter); Washington University, St. Louis (Gamma chapter); North Pacific Dental College, Seattle (Delta chapter); Creighton University, Omaha, Nebraska (Epsilon chapter); University of Southern California (Zeta chapter); The Ohio State University (Theta chapter), Vanderbilt University, Nashville, Tennessee (Iota chapter), University of Pennsylvania (Eta chapter), and Medical College of Georgia, Augusta

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Acknowledgments: Recognition is extended to Ms. Jan John, Corresponding Secretary for the Supreme Chapter, and Ms. Gayle Schooley, Administrative Specialist to Dr. Suzuki.

Table 1: OKU Chapters

Chapter	Active	School	Inception	Secretary
Alpha	No	Northwestern University	1914	
Beta	Yes	University of Pittsburgh	1916	Dr. Michael A. Dobos
Gamma	No	Washington University at St. Louis	1916	
Delta	Yes	University of Oregon	1916	Dr. Larry Doyle
Epsilon	Yes	Creighton University	1916	Dr. Gary H. Westerman
Zeta	Yes	University of Southern California	1916	Dr. John Sanders
Eta	Yes	University of Pennsylvania	1916	Dr. Arthur I. Steinberg
Theta	Yes	Ohio State University	1916	Dr. John Walters
Iota	No	Vanderbilt University	1916	
Kappa	Yes	Virginia Commonwealth University	1921	Dr. Carol Brooks
Lambda	No	Emory University	1923	
Mu	Yes	University of Iowa	1923	Dr. Heather Heddens
Nu	Yes	University of Louisville	1924	Dr. Gary A. Crim
Xi	Yes	Marquette University	1924	Dr. Thomas Smithy
Omicron	Yes	Baylor College of Dentistry	1925	Dr. Brent Hutson
Pi	No	Loyola University (Chicago)	1925	
Rho	Yes	University of Missouri at Kansas City	1928	Dr. John Rapley
Sigma	Yes	University of Illinois	1928	Dr. James Ricker
Tau	No	Loyola University (New Orleans)	1928	
Upsilon	Yes	Case Western Reserve University	1929	Dr. Madge Potts-Williams
Phi	Yes	University of Maryland	1929	Dr. Elaine Romberg
Chi	Yes	University of Michigan	1929	Dr. Philip Richards
Psi	Yes	University of Tennessee	1929	Dr. Mark Scarbecz
Omega	Yes	New York University	1929	Dr. Michael B. Ferguson
Alpha Alpha	Yes	University of Nebraska	1929	Dr. Paul Hansen
Beta Beta	Yes	University of Minnesota	1929	Dr. Carol Meyer
Gamma Gamma	Yes	Harvard University	1930	Dr. I. Leon Dogon
Delta Delta	Yes	University of the Pacific	1933	Dr. Robert Sarka
Epsilon Epsilon	Yes	Columbia University	1934	Dr. Jason J. Psillakis
Zeta Zeta	No	Georgetown University	1934	
Eta Eta	No	Saint Louis University	1934	
Theta Theta	Yes	Indiana University	1934	Dr. Lisa Willis
Kappa Kappa	Yes	Temple University	1936	Dr. Louis Tarnoff
Lambda Lambda	Yes	State University of N.Y. at Buffalo	1937	Dr. Gerard Wieczkowski Jr.
Mu Mu	Yes	University of Texas Houston	1940	Dr. Lisa Thomas
Nu Nu	Yes	University of Detroit Mercy	1941	Dr. James Winkler
Xi Xi	Yes	Tufts University	1944	Dr. Arthur Weiner
Omicron Omicron	Yes	Meharry Medical College	1945	Dr. William Scales
Pi Pi	Yes	Howard University	1948	Dr. Cecile E. Skinner
Rho Rho	Yes	University of California-San Francisco	1948	Dr. Molly Newlon
Sigma Sigma	Yes	University of Washington	1950	Dr. Douglas Verhoef
Tau Tau	Yes	University of Toronto, Canada	1950	Dr. Julia Rukavani
Upsilon Upsilon	Yes	University of North Carolina	1953	Dr. Allen Samuelson
Phi Phi	Yes	University of Alabama	1954	Dr. Merrie H. Ramp
Chi Chi	Yes	Loma Linda University	1956	Dr. Gregory Mitchell
Psi Psi	No	Fairleigh Dickinson University	1957	
Omega Omega	Yes	UMDNJ-New Jersey Dental School	1957	Dr. James Delahanty
Alpha Beta	Yes	West Virginia University	1961	Dr. Robert Wanker
Beta Gamma	Yes	University of Puerto Rico	1961	Dr. Darrel Hillman
Gamma Delta	No	University of Manitoba, Canada	1961	
Delta Epsilon	Yes	University of Kentucky	1966	Dr. Robert Kovarik
Epsilon Zeta	Yes	UCLA	1967	Dr. Carol A. Bibb
Zeta Eta	Yes	University of South Carolina	1970	Dr. Walter Renne
Eta Theta	No	University of British Colombia	1970	
Theta Kappa	Yes	Louisiana State University	1971	Dr. J. Lee Hochstedler
Kappa Lambda	Yes	Georgia Health Sciences University	1972	Dr. Kevin Frazier
Lambda Mu	Yes	Boston University	1972	Dr. Catherine S. Sarkis
Mu Nu	Yes	University of Texas, San Antonio	1973	Dr. Michaell Huber
Nu Xi	Yes	Southern Illinois University	1973	Dr. Debra Dixon
Xi Omicron	Yes	University of Florida	1974	Dr. Ronald E. Watson
Omicron Pi	Yes	University of Oklahoma	1975	Dr. J. Mark Felton
Pi Rho	Yes	University of Colorado	1976	Dr. John D. McDowell
Rho Sigma	Yes	University of Mississippi	1977	Dr. William T. Buchanan
Sigma Tau	Yes	Stony Brook University	1977	Dr. Denise Trochesset
Tau Upsilon	No	Oral Roberts University	1979	
Upsilon Phi	No	University of Western Ontario, Canada	1984	
Phi Chi	Yes	University of Connecticut	1997	Dr. Steven M. Lepowsky
Chi Psi	Yes	Nova Southeastern University	2000	Dr. Harvey Quinton
Psi Omega	Yes	University of Nevada Las Vegas	2003	Dr. Marcia M Ditmyer
Beta Alpha	Yes	Arizona School of Dentistry & Oral Health	2007	Dr. Mike Lazarski
Beta Delta	Yes	Midwestern University	2010	Dr. Christine Halket

(Kappa chapter). Due to the closure of Northwestern University Dental School in Chicago several years ago, the University of Pittsburgh, Beta chapter, is now the oldest OKU chapter in existence. All current OKU component chapters in good standing are listed in Table 1.

The mission of OKU is reflected in the origin of its name, OKU, indicating "Conservation of Teeth and Health." Omicron represents "odious," or teeth, Kappa represents the first letter of Kai, the Greek word for "and," and Upsilon represents "health," since Upsilon is the closest Greek letter to sound like the letter "h" in English. Sigma (Greek letter for "S") represents "conservation" and is the predominant Greek letter on the OKU logo (see top right).

Further historical information was published as "historical review of OKU" by Erling Theon (1958) and, although no longer in print, it is available on the OKU.org Web site (see tab on "history" www.OKU.org).

In 2005, a major electronic archival and database project was approved by the OKU Supreme Chapter board of directors (officers) and funded in three-year increments from the general ledger account. This project, referred to as the "OKU-information technology initiative" or "OKU-IT," has two aims:

To develop a dynamic and historic database website of all OKU component chapters and supreme chapter members, officers, annual meeting minutes, applications for certificates, keys, necrology, and contact information (addresses, phone numbers, e-mail addresses and officers) of current chapters. Working with a web master, the current (since 2000) Supreme Chapter Editor, Dr. James Delahanty, University of Medicine and Dentistry of New Jersey, Newark, has been supervising this arm of the OKU-IT initiative. Annual updates and revisions are completed by June 30 of each academic year.

To electronically scan and archive each paper document, photograph, and memorabilium of the Supreme Chapter library and files (since OKU's inaugural meeting in 1914). This project is ongoing and requires characterization of the tens of thousands of OKU documents. This arm of the OKU-IT initiative is supervised by the current (since 1990) Supreme Chapter Executive Secretary/Treasurer, Dr. Jon B. Suzuki, Temple University, Philadelphia.

Although OKU has as its origins to honor dental students for excellence in scholarship and character, several programs have enhanced its development in maturation as a national program. In the 1980s, the "American Fund for Dental Health (AFDH)-Charles Craig Education Fellowship" was financially sponsored by OKU. This award provided tuition and living expenses for two years for graduate students of specialty training with the obligation to enter academic dentistry full-time for a minimum of five years. These recipients have continued their academic careers and have emerged to become deans, associate deans, and leaders within the profession. Although the AFDH-Charles Craig Education Fellowship Award was recently discontinued, other OKU awards emerged upon nomination, development, and approval by the board of directors (officers) of the Supreme Chapter, the governing authority of the national network of chapters. Established in 1997, and awarded annually since 1998, the Dr. Stephen H. Leeper Teaching Excellence Award has been dedicated to individuals who have demonstrated innovative teaching styles and have exhibited consistent excellence in dental education. A list of award recipients can be found in Table 2.

OKU has broadened its sphere of influence beyond scholarship and includes such initiatives as service, mentorship, outreach, and research.

[OKU] will continue to produce leaders who motivate dental students to achieve academic and clinical excellence.

In 1999 two new awards were approved by the Supreme Chapter. The Omicron Kappa Upsilon-Charles Craig Teaching Award was created to recognize dental educators who have been teaching fewer than five years and have demonstrated innovative teaching techniques in the art and science of dentistry. Faculty at the undergraduate, graduate, and residency training levels are eligible and creativity, motivation, and innovation are emphasized. Recipients with their university affiliation are listed in Table 3.

The Omicron Kappa Upsilon "Chapter Award" recognizes an OKU component chapter that has created exemplary programs promoting excellence at the local level. The award honors a dental school chapter that has created innovative programs fostering professional development in the spirit of OKU. Component chapters receiving this prestigious award are listed in Table 4. Details on academic service, scholarship, and research innovations supported by local component chapters may be found on www.OKU.org and includes projects such as sponsorships of "white coat" ceremonies, tuition scholarships, Haiti relief programs, and dental care to disadvantaged patients in the Dominican Republic.

At the 2005 annual meeting of Omicron Kappa Upsilon, the supreme chapter established the "New Educator Research Grant" with the provision that awarding of the first grant be deferred until the necessary funds (capital) are raised to finance the award. Pursuant to this motion, the board of directors has continued the task of soliciting the financial support to begin funding this new award.

The goals of the OKU new educator research grant are two-fold: first, to enable junior faculty to develop research skills with an established mentor; and, second, to provide junior faculty with the opportunity to initiate a research project that can develop into a larger, extramurally funded study. It is expected that the recipient will present the results of his or her research at the annual business meeting of the Supreme Chapter of Omicron Kappa Upsilon during the American Dental Education Association or the International-American Association for Dental Research annual meetings following completion of the funded project.

In the past decade, OKU has partnered with its "sister" chapter, the Dental Hygiene Honor Society, Sigma Phi Alpha. Each alternate year, the two honorary organizations have organized and financially sponsored an "OKU-Sigma Phi Alpha" joint symposium at the American Dental Education Association (ADEA) annual meeting. Recent topics have included "diversity," "ethics," "mentorship," and "imaging in dentistry and medicine." National officers from OKU and Sigma Phi Alpha work together beginning one year prior to this symposium event.

In conclusion, OKU remains a premier and highly selective honorary dental organization which recognizes scholarship and character. However, the sphere of influence of OKU has recently extended beyond academics and now includes service and related activities. Characteristics such as leadership in academic dentistry, organized dentistry, and clinical practice frequently have their origins in OKU membership. The organization will continue to produce leaders who motivate dental students to achieve academic and clinical excellence. ■

Table 2: The Omicron Kappa Upsilon—Stephen H. Leeper Award for Teaching Excellence

Year	*Instructor*	*Chapter*	*Dental School*
1998	Dr. Paul Desjardins	Omega Omega	University of Medicine & Dentistry of New Jersey
1999	Dr. Frank Dowd	Epsilon	Creighton University
2000	Dr. Herbert Schillingburg Jr.	Omicron Pi	University of Oklahoma
2001	Dr. Stuart C. White Epsilon	Zeta	University of California-Los Angeles
2002	Dr. Karen Crews	Rho Sigma	University of Mississippi
2003	Dr. Thomas D. Marshall	Mu Nu	University of Texas at San Antonio
2004	Dr. Kenneth I. Knowles	Epsilon	Creighton University
2005	Dr. Martin F. Land	Nu Xi	Southern Illinois University
2006	Dr. Michael Glick	Omega Omega	University of Medicine & Dentistry of New Jersey
2007	Dr. Donald E. Willmann	Mu Nu	University of Texas Health Science at San Antonio
2008	Dr. Stanton Harn	Alpha Alpha	University of Nebraska College of Dentistry
2009	Dr. Aldridge D. Wilder Jr.	Upsilon Upsilon	University of North Carolina
2010	Dr. Allan J. Kucine	Sigma Tau	State University of New York at Stony Brook
2011	Dr. James Summitt	Mu Nu	University of Texas at San Antonio

Table 3: Recipients of the Omicron Kappa Upsilon—Charles Craig Teaching Award

Year	*Graduate Student*	*Dental School*
2000	Dr. Thomas Salinas	Louisiana State University School of Dentistry
2001	Dr. Carol Murdock	Creighton University School of Dentistry
2002	Dr. Michael Ignelzi Jr.	University of Michigan School of Dentistry
2003	Dr. R. Scott Shaddy	Creighton University School of Dentistry
2004	Dr. Karl Keiser	University of Texas, San Antonio
2005	Dr. John W. Shaner	Creighton University School of Dentistry
2006	Dr. E. Richardo Schwedhelm	University of Washington School of Dentistry
2007	Dr. Benita Sobieraj	University of Buffalo, SUNY
2008	Dr. Lucinda J. Lyon	University of the Pacific
2009	Dr. Nicole S. Kimmes	Creighton University School of Dentistry
2010	Dr. Rocio Quinonez	University of North Carolina at Chapel Hill
2011	Dr. Paul Luepke	Marquette University

Table 4: Omicron Kappa Upsilon Chapter Award Recipients

Year	*Chapter*	*Dental School*
2001	Omega Omega	University of Medicine & Dentistry of New Jersey
2003	Delta Delta	University of the Pacific
2004	Xi	Marquette University
2005	Omega	New York University
2006	Xi Xi	Tuft University
2007	Mu Mu	University of Texas Dental Branch at Houston
2008	Beta	University of Pittsburgh
2009	Pi Pi	Howard University
2010	Theta Theta	Indiana University
2011	Kappa Kappa	Temple University

Dental Students Choosing Licensure Path Give More Consideration to Career Flexibility Rather than Ethical Dilemmas

Heather J. Conrad, DMD, MS and
Eric A. Mills, DMD

Abstract

Although a patient-based clinical licensure examination (CLE) has been used in the United States for many decades to evaluate an individual's competency to practice dentistry, there continue to be validity, reliability, and ethical issues of concern to the profession. As a result of a 2009 decision by the Minnesota Board of Dentistry, dental students from the University of Minnesota School of Dentistry, beginning with the Class of 2010, are eligible for initial licensure in Minnesota by passing the nonpatient-based National Dental Examining Board of Canada Examination. Surveys were distributed to 101 senior dental students to assess what factors students used to decide whether or not to register for a patient-based CLE. The response rate to the survey was 84.2% (85/101). The opportunity to apply for a license in multiple states after passing a patient-based CLE was the primary factor in influencing the students to register for a patient-based CLE. Regarding the use of live patients in a CLE, students were most concerned with having to operatively restore teeth that could be treated more conservatively and for other reasons outside of their control, such as the patient failing to show up, patient not being accepted by the examiners, and procedural issues during the examination.

The traditional clinical licensure examination (CLE) for dentistry in the United States involves the use of live patients to evaluate clinical abilities and has been used since the early part of the twentieth century (Buchanan, 1991; Chambers et al, 2004; Formicola et al, 2002). Although such a high-stakes performance assessment continues to raise validity, reliability, and ethical questions, passing a state or regional CLE is still considered by some dental schools to be an effective measure of the curriculum and by many state boards to be a way of fulfilling a mandate to protect the public (Buchanan, 1991; Chambers et al, 2004; Stewart et al, 2004; Stewart et al, 2005).

In 2000, the American Dental Association (ADA) and the American Dental Education Association (ADEA) adopted policies calling for the elimination of patients from CLEs by the year 2005 and supporting the development of a national CLE (ADEA, 2004; Formicola et al, 2002; Gerrow et al, 2006; Meskin, 2001). Due to the feasibility of the concept, unrealistic timetable, and traditional beliefs, the CLE process has remained largely unchanged (Gerrow et al, 2006).

The format of the CLE is typically devoid of written questions since evaluation of basic sciences and case-based judgment are covered by the National Board Dental Examination (NBDE) Parts I and II developed by the Joint Commission on National Dental Examinations of the ADA (Ranney et al, 2004). What the CLE does evaluate is an individual's ability to perform a sample of dental treatments on a patient (Dugoni, 1992; Pattalochi, 2002). A number of criticisms have been made regarding the ability of CLEs to evaluate performance on patients. First, the scope of the CLE tends to be rather limited, involving a specific set of restorative and periodontal procedures, albeit on different patients with differing levels of disease (Feil et al, 1999). Second, the typical carious lesions accepted by examiners for assessing an individual's clinical abilities are considered by some to be treatable by more conservative means (Formicola et al, 2002; Mount, 2005; National Institutes of Health Consensus Development Conference, 2001; Thompson & Kaim, 2005). Moreover, although the Commission on Dental Accreditation standards state that the delivery of comprehensive care should not be compromised for student advancement and graduation, comprehensive care is not the focus of CLEs (Hasegawa, 2002). Furthermore, considering that patients are used and a limited sample of the candidate's skills is demonstrated, factors such as calibration, standardization, validity, and reliability are difficult to achieve (Berry,

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1995; Buchanan, 1991; Collins, 1985; Dugoni, 1992; Meskin, 1994; 1996; Pattalochi, 2002).

A positive relationship between a student's performance in dental school and on a CLE would support the validity of CLEs (Ranney et al, 2003); however, such correlations have not been demonstrated. Several studies have shown inconsistencies between the performances and have concluded that factors other than the student's clinical abilities influence the results (Dugoni, 1992; Formicola et al, 1998; Gerrow et al, 2006; Meskin, 1994; Ranney et al, 2003; Ranney et al, 2004). Reasons cited for the lack of validity of CLEs have included ineffective calibration of examiners, the use of patients which results in each candidate taking a different examination, and a one-shot, limited sample of the candidate's knowledge and skills under pressure and time constraints (Buchanan, 1991; Chambers et al, 2004; Feil at al, 1999). Concerns about the reliability of CLEs have also been reported, based on studies that document significant fluctuations in pass rates from year to year among candidates taking the same state or regional CLE (Meskin, 1994; Ranney et al, 2004).

Those in favor of the use of patients in CLEs believe that effective evaluation of a candidate's clinical skills requires an opportunity for examiners to observe the candidate's diagnosis and treatment planning skills, patient interaction and management, and technical abilities in a real situation (Buchanan, 1991; Pattalochi, 2002). They argue that even though accreditation processes measure the quality of an educational program, state licensing authorities are still required to provide the final independent evaluation of the graduates of that educational program (Pattalochi, 2002).

The enormous pressure to pass CLEs has put candidates in situations where the best interest of the candidate may be placed ahead of the best interest of the patient (Feil et al, 1999; Formicola et al, 2002). Feil and colleagues (1999) surveyed 1000 general dentists across the United States and reported that 59.1% of the respondents knew of at least one instance of an ethical lapse during a patient-based CLE. Reported ethical issues of candidates included exposure of unnecessary radiographs, coercion of patients into inappropriate treatment choices, creation of intentional lesions for the purposes of the examinations, premature treatment, overly aggressive treatment, lack of follow-up care, and attempts to steal other candidate's patients (Feil et al, 1999). The low number of reported complaints by patients participating in CLEs has been attributed to the fact that most of these patients have a prior relationship with the dental school hosting the CLE and have confidence that they can rely on the dental school for care following the examination (Buchanan, 1991).

Whereas some policies are in place that recommend the elimination of patients from CLEs, other ideas have been proposed to eliminate the CLE altogether and to replace it with other methods of

For those registered to take a patient-based CLE, the ethical issue that most concerned them about taking the examination was having to operatively restore teeth that could be treated more conservatively.

candidate evaluation such as reliance on competency-based educational formats, use of standardized simulation testing, requirement of a year of postdoctoral training, development of a third component to the NBDE, and creation of dental portfolios by graduates (Boyd et al, 1996; Buchanan, 1991; Chambers, 2004; Chambers et al, 2004; Feil et al, 1999; Formicola et al, 2002; Gerrow et al, 2006; Meskin, 1996). Due to the complexity in standardizing treatment difficulty on patients, there has been an increased use of typodonts in CLEs. Although this use does standardize the "patient," there is argument that it does not represent a real test of competence (Feil et al, 1999). The advantage of requiring a year of postdoctoral training for new graduates is that it allows for assessment of competence using a variety of methods over a period of time (Formicola et al, 2002).

An additional method of candidate evaluation comes from a study of licensure in Canada. The National Dental Examining Board (NDEB) of Canada acts on behalf of the provincial licensing authorities by examining graduates of all accredited dental schools in Canada and issuing certificates to those candidates who have met the national standard (Boyd et al, 1996; Gerrow et al, 1997; Gerrow et al, 1998; Gerrow et al, 1998; Gerrow et al, 2003). Since 1995, the current format of the examination developed by the NDEB of Canada consists of a combination of a written examination with 300 multiple-choice questions and an objective structured clinical examination (OSCE) with 50 stations. The written examination covers a wide range of topics and is designed to test basic-science knowledge and applied clinical-science knowledge and judgment in the areas of diagnosis, treatment planning, prognosis, treatment methods, and clinical decision-making. The OSCE covers an equally wide range of topics and is designed to test clinical judgment yet in a case-based forma (Gerrow et al, 2003). The validity and reliability of the NDEB examination was assessed by evaluating 2,317 students from 1995 to 2000, and positive correlations exist between the candidates' examination scores and their final grades in dental school (Gerrow et al, 2003).

In collaboration with the University of Minnesota School of Dentistry, the Minnesota Board of Dentistry voted unanimously in the summer of 2009 to accept the results of the NDEB of Canada Examination by dental students from the University of Minnesota School of Dentistry, beginning with the Class of 2010, for initial licensure to practice dentistry in Minnesota. Minnesota is the first state in the United States to recognize a non-patient-based examination as a means of evaluating dentists for initial licensure at the end of their predoctoral education.

Senior dental students of the University of Minnesota School of Dentistry graduating class of 2010 were given the choice of taking a patient-based or a nonpatient-based CLE. The purpose of this survey was to assess what factors senior dental students used to decide whether or not to register for a patient-based CLE.

Materials and Methods

Information gleaned from previous investigations associated with patient-based CLEs in dentistry (Buchanan, 1991; Feil et al, 1999; Formicola et al, 2002; Hasegawa, 2002) and from a focus group session with six senior dental students at the University of Minnesota was used to develop a survey instrument. The survey was sent to senior dental students after registration for, but before completion of all components of a licensure examination. The inclusion criteria were that the student must be registered for a licensure examination and enrolled in their final year of dental school at the University of Minnesota School of Dentistry; all other students were excluded.

One hundred and one students were sent the survey instrument and were instructed to read the consent form, complete the survey if willing, and return the survey to their Comprehensive Care Clinic group leader, who then returned the surveys to the primary investigator (HJC).

Although the surveys were anonymous, basic demographic information including age and gender was collected. The students were asked to identify the state in which they planned to practice and their initial plans after graduation. Students who registered for a patient-based CLE were asked to indicate which state or regional CLE they intended to take and why they registered for that examination.

All students were additionally asked to indicate if they agreed or disagreed with ethical or other general concerns regarding patient-based CLEs. The response options were derived using a five-point Likert scale where 1 indicated the student strongly disagreed with the statement, 2 indicated they disagreed, 3 indicated they neither agreed nor disagreed, 4 indicated they agreed, and 5 indicated they strongly agreed. An opportunity was offered within the survey for the students to suggest other concerns or make comments.

Results

The total response rate to the survey was 84.2% (85/101). The response rate for those registered to take a patient-based CLE was 81.6% (62/76) and for those registered to take the non-patient-based CLE was 88.5% (23/26) (one student registered for both examinations). Of the total respondents, 75.3% were in the 25 to 29 age group and with a male-female ratio nearly 1:1 (Table 1). Two-thirds of the respondents indicated

Table 1. Demographic characteristics of participants in the study

	Students Registered for Patient-Based CLE (n=62)		Students Registered for Non-Patient-Based CLE (n=23)		All Students (n=85)	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Age (years)						
20 to 24	2	3.2	1	4.3	3	3.5
25 to 29	49	79.0	15	65.2	64	75.3
30 to 34	7	11.3	7	30.4	14	16.5
Over 35	4	6.5	–		4	4.7
Gender						
Male	31	50.0	12	52.2	43	50.6
Female	31	50.0	11	47.8	42	49.4
State of Planned Initial Practice						
Minnesota	35	56.5	21	91.3	56	65.9
North Dakota	3	4.8	–		3	3.5
South Dakota	3	4.8	–		3	3.5
Wisconsin	3	4.8	–		3	3.5
Montana	4	6.5	–		4	4.7
Undecided	5	8.1	–		5	5.9
Other	9	14.5	2	8.7	11	12.9
Plan After Graduation						
Private Practice						
Urban	11	17.7	9	39.1	20	23.5
Rural	11	17.7	4	17.4	15	17.6
Undecided	8	12.9	2	8.7	10	11.8
Military or Public Health Service	14	22.6	4	17.4	18	21.2
General Practice Residency	13	21.0	3	13.0	16	18.8
Specialty Residency	5	8.1	1	4.3	6	7.1

Table 2. Reasons students indicated for registering for a patient-based CLE

I am going to take a state or regional patient-based CLE because (select all that apply):	(n=62)	
	Responses	*Percent*
I want to keep my options open as to where I may practice.	45	72.6
I have already started and paid for a portion of a CLE.	41	66.1
I am not sure where I am going to practice.	31	50.0
I do not want to study material comparable to parts I or II of the National Board Dental Examinations again.	19	30.6
I am not planning on practicing in Minnesota.	17	27.4
I have patients who are eligible for the CLE.	10	16.1
I believe the National Dental Examining Board of Canada Examination is more difficult than a CLE.	6	9.7
I have been accepted into a residency program in a state other than Minnesota.	6	9.7
I am entering the military, and I do not want my license restricted to practicing in Minnesota.	4	6.5
I do not believe I have ethical issues that concern me.	3	4.8
I believe the current format of CLEs should be maintained.	1	1.6

they were planning on practicing in Minnesota, while the remaining ones were distributed equally between upper Midwest states and more distant locations, some of which were due to military or public service commitments or acceptances into dental residency programs.

All 62 students who planned to take a patient-based CLE registered for the Central Regional Dental Testing Service (CRDTS) examination (Table 2). Two of these same students also registered for an additional patient-based CLE, one with the Southern Regional Testing Agency and one with the Western Regional Examining Board. When asked why they chose to take a patient-based CLE, the most frequent response was that they wanted to keep their options open as to where they may practice in the future (72.6%) and half of the students also indicated that they were not sure where they were going to practice (50%). Many respondents indicated they registered for a patient-based examination because they had already paid for and passed the mannequin portion of the CRDTS examination (66.1%) during the junior year of dental school.

For those registered to take a patient-based CLE, the ethical issue that most concerned them about taking the examination was having to operatively restore teeth that could be treated more conservatively (39/62 respondents strongly agreed). Least concerning to them was asking someone to be an examination patient who was under the care of another provider (8/62 respondents strongly agreed) (Table 3, Figure 1).

For those who registered to take the non-patient-based CLE, the ethical issue that most influenced their decision was operatively restoring teeth that could be treated more conservatively (22/23 respondents strongly agreed). The ethical issue that least influenced their decision was asking someone to be an examination patient who was currently being treated by another provider (1/23 respondents strongly agreed) (Table 3, Figure 2).

The general issue related to the patient-based CLE that most concerned those planning to take this examination was the potential that a clinical examination patient would not show up on the day of the examination (52/62 respondents strongly agreed), whereas the general issue that least concerned them was the ability to secure a dental assistant experienced with CLEs (11/62 respondents strongly agreed) (Table 4, Figure 3).

The general issue that most influenced the decision of those who planned to take a non-patient-based CLE was the potential difficulty securing an acceptable clinical examination patient (19/23 respondents strongly agreed), while the general issue that least influenced their decision was the concern that the time constraints of the examination could compromise care for the patient (2/23 strongly agreed) (Table 4, Figure 4).

When provided the opportunity to suggest other concerns or make comments, 5 students registered for a patient-based CLE and 3 students registered for a non-patient-based CLE added written comments that are listed in Table 5.

Discussion

The results from the survey indicate that students considered a variety of factors in ultimately leading them to decide whether or not to register for a patient-based CLE. The opportunity to apply for a license in multiple states after passing a patient-based CLE was the primary factor in influencing the students to register for a patient-based CLE. This may be reflective of the current generation of dental students' innate wanderlust that passing a regional CLE provides. To register for the non-patient-based CLE, a student would have to be certain they were going to practice dentistry in the state of Minnesota. The decision to register needed to be made by mid-January of their senior year. At that time, many of the students were as yet unsure about where they were going to practice and, as such, wanted to keep their options open for practicing in other states.

Upon completion of a rigorous dental school curriculum, students desire to achieve lifetime practice privileges in the profession. Traditionally, in order to be conferred this privilege, students have been asked to face ethical issues in patient-based CLEs. Interestingly, the ethical issue that most concerned the students in this survey was the operative treatment of teeth that could be treated more conservatively (Formicola et al, 2002; National Institutes of Health Consensus Development Conference, 2001). Evidence-based protocols have caused a paradigm shift to occur from the reliance on gross mechanical instrumentation of caries to nonsurgical intervention with an expectation for remineralization (Mount, 2005; Thompson & Kaim, 2005). The restorative procedures required of candidates in patient-based CLEs may not be in line with contemporary evidenced-based dentistry.

The dental students in this survey also had ethical concerns about asking patients to delay their treatment needs, rendering treatment out of sequence, and not being available to the patient for follow-up care as they would be graduating. Dental students develop personal relationships with their patients and may find themselves in a predicament between their need to secure licensure and what is in the best interest of their patients. Similarly, patients develop a

Table 3. Survey statements regarding ethical concerns of patient-based CLEs

To the following extent, these ethical concerns related to a patient-based CLE affected my decision whether or not to register for a patient-based CLE:

Concern that asking a person to be my clinical board patient would cause diagnosed treatment needs to be delayed until the date of the examination Concern that asking a person to be my clinical board patient would cause treatment to be rendered out of sequence

Concern asking a person to be my clinical board patient while he/she is currently being treated by another provider

Concern about compensating my patient financially for participation in the examination

Concern that treatment provided to my patient may need to be redone after the examination

Concern that I might not be available to my patient for follow-up care

Concern over operatively restoring teeth that other dentists may view as teeth which could be treated more conservatively (e.g., with fluoride application, plaque control, and diet modification)

Figure 1. Frequency distribution on ethical concerns of patient-based CLEs for students registered for a patient-based CLE

Figure 2. Frequency distribution on ethical concerns of patient-based CLEs for students registered for a non-patient-based CLE

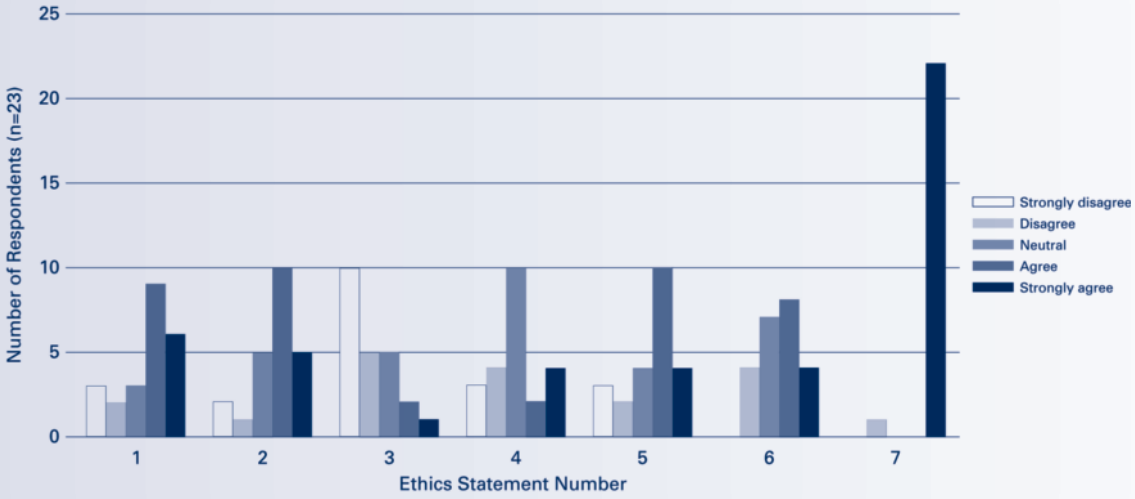


Table 4. Survey statements regarding general concerns of patient-based CLEs

To the following extent, these general concerns related to a patient-based CLE affected my decision whether or not to register for a patient-based CLE:
Concern about passing the CLE
Concern about the need for a CLE when the accredited clinical curriculum is already competency-based
Concern about securing acceptable clinical board patients
Concern about the clinical board patient failing to show up on the day of the examination
Concern about equipment or other technical failure
Concern about following correct procedures during the examination
Concern about securing a dental assistant experienced with CLEs
Concern about patient-management issues that may complicate the examination Concern that the time constraints of the examination could compromise care for patients
Concern that the criteria used to evaluate my clinical judgment and performance are different from those used in dental school

Figure 3. Frequency distribution on general concerns of patient-based CLEs for students registered for a patient-based CLE

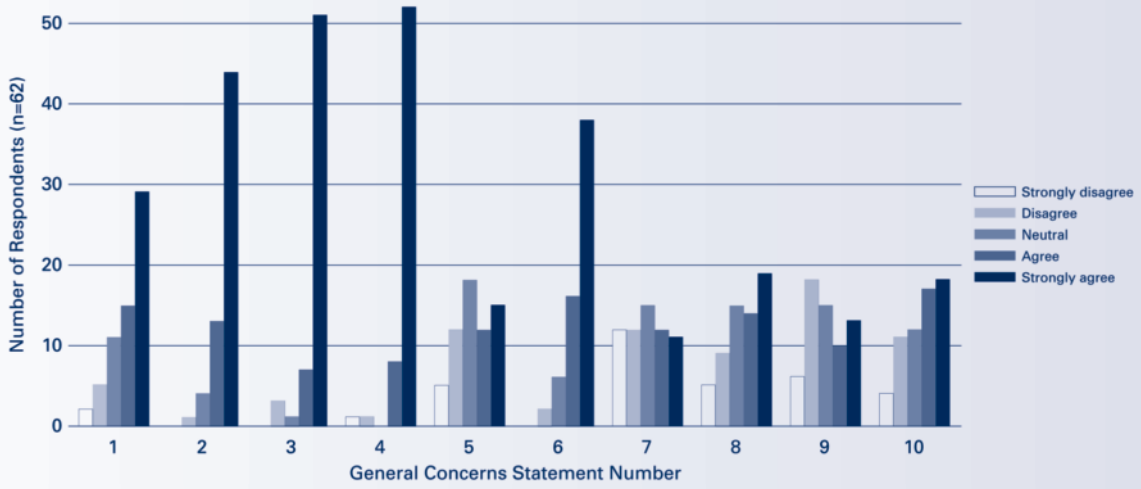
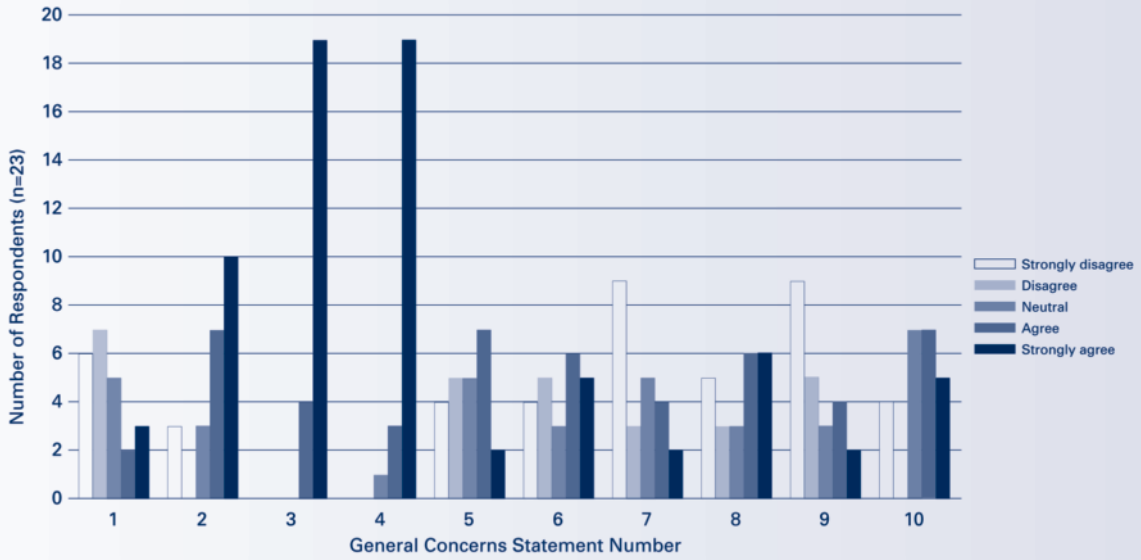


Figure 4. Frequency distribution on general concerns of patient-based CLEs for students registered for a non-patient-based CLE



bond with dental students and may sacrifice what is in their best interest in order to help their dental students.

Several students had concerns about passing a patient-based CLE, not because they thought their clinical abilities were inadequate, but rather due to issues outside of their control, such as securing a board-quality patient, having a patient fail to show up on the day of the examination, or failing to follow correct procedures during the examination. With the conversion to a competency-based curriculum, the need for patient-based CLEs has been questioned (Boyd & Gerrow, 1996; Gerrow, Boyd et al, 1998; Gerrow, Chambers et al, 1998; Meskin, 2001).

University of Minnesota students who took the non-patient-based CLE represented a broad diversity academically within the class and fared as well as students from Canadian schools. Since this was the first group of students to take the exam and they were self-selected, they may possess qualities that affected their performance unrelated to their academic abilities, such as aggressiveness or a sense of responsibility to effect change.

Conclusions

Within the limitations of this study it was found that although students considered a variety of factors in deciding whether or not to register for a patient-based CLE, ultimately, it was the opportunity to apply for a license in multiple states after passing a patient-based CLE that most influenced the students to register for a patient-based CLE. Students were most concerned with having to operatively restore teeth that could be treated more conservatively and due to issues outside of their control, such as securing a board-quality patient, having a patient fail to show up on the day of the examination, or failing to follow correct procedures during the examination. ■

Table 5. Open-ended statements written by students regarding ethical and general concerns of patient-based CLEs

Students registered for a patient-based CLE:

Conflict of interest for CRDTS, financially speaking they make money if we fail.

Patient selection is key for this exam!

Very concerned with the protocol and the confusion between different written instruction in the book and instruction in the orientation video. The protocol is too strict and confusing. The procedures don't concern me, but the paperwork and protocol does.

[I am not concerned about being available to my patient for follow-up care] because I chose a patient where this wasn't a concern. I think the clinical exam is not needed as we do it as a competency at an accredited dental school.

(Regarding operatively restoring teeth) This issue is very concerning considering I encountered it numerous times this year. I am concerned about patients being accepted by board examiners with differences in opinions.

Students registered for a non-patient-based CLE:

You have no control of passing, more in control of patient showing up and qualifying.

I did not want all the mess of finding patients and all the uncontrollable filters.

I am concerned that a license is given to a person based solely on one day's worth of 'ideal' dentistry, when in fact there are never 'ideal' situations.

References

ADEA (2004). Policy statements. *Journal of Dental Education, 68*, 729-741.

Berry, T. G. (1995). The board examination: A true test or only a rite of passage? *Operative Dentistry, 20,* 85.

Boyd, M. A., & Gerrow, J. D. (1996). Certification of competence: A national standard for dentistry in Canada. *Journal of the Canadian Dental Association, 62*, 928-930.

Boyd, M. A., Gerrow, J. D., Chambers, D. W., & Henderson, B. J. (1996). Competencies for dental licensure in Canada. *Journal of Dental Education, 60,* 842-846.

Buchanan, R. N. (1991). Problems related to the use of human subjects in clinical evaluation/responsibility for follow-up care. *Journal of Dental Education, 55,* 797-801.

Chambers, D. W. (2004). Portfolios for determining initial licensure competency. *Journal of the American Dental Association, 135,* 173-184.

The restorative procedures required of candidates in patient-based CLEs may not be in line with contemporary evidenced-based dentistry.

Chambers, D. W., Dugoni, A. A., & Paisley, I. (2004). The case against one-shot testing for initial dental licensure. *Journal of the California Dental Association, 32,* 243-6, 248-252.

Collins, W. (1985). Conflicting interests of state boards and the public welfare. *Journal of Dental Education, 49,* 743-745.

Dugoni, A. A. (1992). Licensure—entry-level examinations: Strategies for the future. *Journal of Dental Education, 56,* 251-253.

Feil, P., Meeske, J., & Fortman, J. (1999). Knowledge of ethical lapses and other experiences on clinical licensure examinations. *Journal of Dental Education, 63,* 453-458.

Formicola, A. J., Lichtenthal, R., Schmidt, H. J., & Myers, R. (1998). Elevating clinical licensing examinations to professional testing standards. *The New York State Dental Journal, 64,* 38-44.

Formicola, A. J., Shub, J. L., & Murphy, F. J. (2002). Banning live patients as test subjects on licensing examinations. *Journal of Dental Education, 66,* 605-609; discussion 610-611.

Gerrow, J. D., Boyd, M. A., Donaldson, D., Watson, P. A., & Henderson, B. (1998). Modifications to the national dental examining board of Canada's certification process. *Journal of the Canadian Dental Association, 64,* 98-100, 102-3.

Gerrow, J. D., Boyd, M. A., Duquette, P., & Bentley, K. C. (1997). Results of the national dental examining board of Canada written examination and implications for certification. *Journal of Dental Education, 61,* 921-927.

Gerrow, J. D., Chambers, D. W., Henderson, B. J., & Boyd, M. A. (1998). Competencies for a beginning dental practitioner in Canada. *Journal of the Canadian Dental Association, 64,* 94-97.

Gerrow, J. D., Murphy, H. J., Boyd, M. A., & Scott, D. A. (2003). Concurrent validity of written and OSCE components of the Canadian dental certification examinations. *Journal of Dental Education, 67,* 896-901.

Gerrow, J. D., Murphy, H. J., Boyd, M. A., & Scott, D. A. (2006). An analysis of the contribution of a patient-based component to a clinical licensure examination. *Journal of the American Dental Association, 137,* 1434-1439.

Hasegawa, T. K., Jr. (2002). Ethical issues of performing invasive/irreversible dental treatment for purposes of licensure. *Journal of the American College of Dentists, 69,* 43-46.

Meskin, L. H. (1994). Time for a dental board checkup. *Journal of the American Dental Association, 125,* 1418, 1420.

Meskin, L. H. (1996). Dental licensure revisited. *Journal of the American Dental Association, 127,* 292, 294.

Meskin, L. H. (2001). "Freshly washed little cherubs." *Journal of the American Dental Association, 132,* 1078, 1080, 1082.

Mount, G. J. (2005). Defining, classifying, and placing incipient caries lesions in perspective. *Dental Clinics of North America, 49,* 701-723.

National Institutes of Health Consensus Development Conference (2001). Diagnosis and management of dental caries throughout life. *Journal of Dental Education, 65,* 1162-1168.

Pattalochi, R. E. (2002). Patients on clinical board examinations: An examiner's perspective. *Journal of Dental Education, 66,* 600-604; discussion 610-611.

Ranney, R. R., Gunsolley, J. C., & Miller, L. S. (2004). Comparisons of national board part II and NERB's written examination for outcomes and redundancy. *Journal of Dental Education, 68,* 29-34.

Ranney, R. R., Gunsolley, J. C., Miller, L. S., & Wood, M. (2004). The relationship between performance in a dental school and performance on a clinical examination for licensure: A nine-year study. *Journal of the American Dental Association, 135,* 1146-1153.

Ranney, R. R., Wood, M., & Gunsolley, J. C. (2003). Works in progress: A comparison of dental school experiences between passing and failing NERB candidates, 2001. *Journal of Dental Education, 67,* 311-316.

Stewart, C. M., Bates, R. E., Jr., & Smith, G. E. (2004). Does performance on school-administered mock boards predict performance on a dental licensure exam? *Journal of Dental Education, 68,* 426-432.

Stewart, C. M., Bates, R. E., Jr., & Smith, G. E. (2005). Relationship between performance in dental school and performance on a dental licensure examination: An eight-year study. *Journal of Dental Education, 69,* 864-869.

Thompson, V. P., & Kaim, J. M. (2005). Nonsurgical treatment of incipient and hidden caries. *Dental Clinics of North America, 49,* 905-921.

Issues in Dental Ethics

American Society for Dental Ethics

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A Case of Collegial Communication and a Patient Who Does Not Pay

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Alvin Rosenblum, DDS, FACD,
Muriel J. Bebeau, PhD, FACD, and
Anne Koerber, DDS, PhD

Abstract

Four individuals who teach ethics in dental schools comment on a case in which negative financial information is revealed by one dentist when transferring records of a potential patient to another dentist. All commentators find varying degrees of ethical problem with disclosing such information. Professional codes discourage this practice. All commentators stress the importance of the potential new dentist developing a relationship based on professional standards, with the greatest emphasis placed on the patient's health needs. Several of the commentators discuss positive ways of conducting a patient interview, including specific useful language.

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Case: Dr. Peltier

This article includes the analysis and opinions of three respected ethicists, one a dentist with 50 years of private practice experience, a second who has published groundbreaking research on the moral and identity development of dentists and other health care professionals, and a third who is a dentist and a psychologist. All three have taught extensively at dental schools.

They respond to a rather simple and commonplace scenario in dental practice, one that frequently comes up in dental school case discussions as well. Here is the case:

> *A dentist (DDS1) in a small town receives a request in the mail from a local colleague (DDS2). The request is for the records of a patient that DDS1 has treated. The situation is complicated by the fact that this patient has an outstanding amount on his account with DDS1 of $2,100–the last treatment being about a year ago. DDS1 has sent several letters requesting payment and has even called the patient to try to collect on the outstanding bill to no avail. Despite these complications, DDS1 sends the records to DDS2 and includes information about the patient's failure to pay.*

So, what are the right and wrong things to do? What behavior would be good, bad, better, or best for DDS1 and

DDS2, not only in relation to the patient, but also with each other? Our experts were asked to respond to the case from an ethical rather than a strictly legal point of view. The questions of interest include these:

1. What should DDS1 do?
   - What are her responsibilities? What should she avoid doing?
   - Should she have sent the financial records or not? Should she have sent the entire chart or only the actual clinical treatment notes and records?
   - Is it acceptable for her to have "warned" (verbally or in writing) DDS2 about this patient? An example would be the inclusion of a brief note about this patient's payment behavior along with the chart.
   - Is it acceptable for her to have withheld the patient records until she receives payment for the services she provided long ago?
2. What should DDS2 do? What are his responsibilities?
   - Should he speak with this patient about the allegedly unpaid bill?
   - Should he try to ignore any financial information that he gets from DDS1?
   - Should he treat or decline to treat this patient based on financial information from DDS1?
   - If DDS1 were to have sent financial information or a note to "warn" DDS2, should DDS2 speak with DDS1 about the appropriateness of this action?
   - Should he take extra precautions with this patient to ensure that he receives payment for his services in a timely manner?

Here is what our analysts recommend.

Response: Dr. Rosenblum

I have dealt with this general issue on different occasions during my almost five decades in private practice. Previous treating dentists have told me that a patient I was to see was unreliable with regard to finances. I have also had patients who did not meet their financial obligation to me, and I have had to decide whether to share that information when speaking to a subsequent treating dentist. Because I consider financial information confidential, I take the position that I do not have the right to share or receive such information unless specifically requested to do so by the patient. Also, I do not consider such information when it has been provided, and I do not provide it for others.

Once care is agreed upon by the patient and by the dentist, the provision of that care is a professional responsibility. Facts and issues related to fees and their payment should be kept separate from facts and issues related to patient care. I hold that the dentist and the patient have two distinct domains of responsibility, one to provide and receive care and the other regarding finances. I believe those two domains are mutually exclusive.

For treatment records to be shared with a subsequent treating dentist, it is required that the patient request such sharing. In most jurisdictions that requires a written request. In the case as it is presented, a written request was made, though by the dentist and not by the patient. We do not know any of the circumstances of the patient's involvement in the request, but it seems certain that the patient did not intend that the financial records be shared. For numerous reasons, the records regarding financial arrangements and payment record should be kept separate and remain confidential.

However, the financial information having been received, and human nature being what it is, DDS2 will likely be influenced by the information in some way. With this in mind, what are the options that he might consider?

If DDS2 reads the information with concern, he might reject the patient completely. Or he might make especially stringent financial arrangements beyond what he would normally impose. He might confront the patient, in which case he would inject himself into the relationship of the patient and DDS1. If he were to do that, he might exacerbate an already contentious relationship, perhaps even to the point of involving lawyers. The patient might take extreme exception to his personal information being shared. There is even the possibility that the sending of the information by DDS1 was inadvertent or that the financial information in the patient's record might even be incorrect or unjustified.

Professionalism demands trustworthiness through actions that are in the best interest of those in our care. If DDS2 agrees to treat this patient he should, to the best of his ability, choose to ignore the financial information provided. He should deal with this patient as he would with any other, with reasonable caution and attention to good business practices. For example, if he is wary, he can institute a credit check and make realistic financial arrangement consistent with office policy.

It is in our patients' best interests that we never discuss nonclinical information about any of them. It would be appropriate for DDS2 to call that tenet to the attention of DDS1. A friendly recommendation that clinical and nonclinical information should be maintained separately would be in order.

Response: Dr. Bebeau

If I were DDS1, I would not have shared the financial information when I forwarded the records. Why? Because, fundamentally, I believe it is a breach of patient confidentiality. In my judgment, a patient has a right to expect that, in addition to keeping our relationship confidential, I will not make any disparaging remarks about his oral health status, his inability to modify oral health habits, or any other personal shortcoming or flaw—including what appears to be an inability to discuss either his unhappiness with the care received or the possibility that he has fallen on hard times and is unable to meet financial commitments.

From the perspective of DDS1, because this patient has rebuffed my efforts to engage in conversation about the care that may have led him to withhold payment, my first thought would be to wonder in what way I had failed him. Perhaps I talked him into care he really did not want—even if it was care that he needed and was in his best interest. Certainly there are persons who habitually take advantage of others, but my job is not to retaliate against such individuals. Rather, I need to institute policies in my practice that minimize that potential. And, if I failed to recognize a personality flaw in the patient and extended credit when it may have been unwise to do so, then perhaps I need to learn from that experience. I may need to reflect on my strategies for eliciting factors that interfere with a patient's ability to exercise his or her personal autonomy.

Whereas I think DDS1 could ask for a small fee to duplicate the records for transfer, in the case of a patient who has not paid, I would not do so. Failure to pay likely reflects some dissatisfaction with the care that was rendered. Perhaps it is simply buyer's remorse; whatever the reason, the fact that the patient rebuffed efforts to discuss his reasons for not paying suggests some deep discomfort with confrontation. Some might label this as a rather passive-aggressive personality. Yet, few of us feel comfortable challenging an authority. We recognize that we have no knowledge base upon which to do so, and so feel uncomfortable with what may seem to us like a confrontation that we cannot possibly win from our disadvantaged position. Whether there is an actual problem with the care rendered, pushing the issue is likely to cause the patient to feel he must defend himself. When pressed to defend ourselves, most of us are good at working out elaborate and internally persuasive argument to justify our actions.

If DDS1 chooses to communicate something to DDS2, as she forwards the record she might say: "I'm not sure ___ was satisfied with the care he received, as I notice he is changing dentists. If, in the course of your interaction with ___, you discover a source of dissatisfaction that I could remedy, and that he would permit you to communicate to me, I would be pleased to have that information."

The ball is now in DDS2's court. Will he accept the new patient? How does DDS2 go about the interaction? Does he simply assume that anyone who makes an appointment and has records transferred will become a patient? Or, does he treat an initial visit as an opportunity for both dentist and potential patient to explore what it might mean to enter a care-giving partnership.

Does he reveal that negative information was forwarded to him? Again, I think not. The fact that DDS1 violated the patient's confidentiality does not mean that DDS2 should reveal the dentist's indiscretion to the patient. Of course, if I were DDS2, having been warned might be helpful to me. On the

I hold that the dentist and the patient have two distinct domains of responsibility, one to provide and receive care and the other regarding finances. I believe those two domains are mutually exclusive.

A patient has a right to expect that, in addition to keeping our relationship confidential, I will not make any disparaging remarks about his oral health status, his inability to modify oral health habits, or any other personal shortcoming or flaw.

other hand, it may subtly bias me as I interact with the patient—a bias that the patient may detect that will interfere with the trust I hope to establish. Further, if I reveal what I have been told, I merely reinforce what many patients tend to believe—"that dentists are all in cahoots with each other." Many assume a kind of "gang morality" where professionals engage in activities to protect each other. Some patients even assume that a referral to a specialist is simply a dentist passing a patient on for another to take advantage of, perhaps even for a kickback. My job is to reinforce the integrity of the profession and the integrity of my colleagues.

So, how should DDS2 proceed? In my judgment, DDS2 should proceed as he would with any new patient. In fact, some practice management consultants suggest that the office staff introduce the person as someone who is considering becoming a patient in this office. If the goal of the practice is to promote individual responsibility for oral health—and I hope it is—the dentist will want to systematically identify factors that interfere with patient compliance. Dentists spend a great deal of time diagnosing oral diseases and contemplating treatment alternatives to promote the patient's oral health. Much of that time can be wasted effort if dentists fail to identify and address factors that interfere with patients' compliance with treatment. I have written elsewhere—based upon many conversations with professionals—about two categories of characteristics that interfere with compliance (Bebeau, 1996).

Category I includes characteristics of patients that the dentist must accommodate, such as their medical and dental health status, their native intellectual ability which influences their ability to learn, their psychological status as a decision maker, and their available financial resources, including how accustomed the person is to spending money on oral health.

Category II includes things about patients that dentists could influence if they have the skill to do so, including their understanding of the causes and prevention of disease; their knowledge or perception of general health and oral health status; their healthcare habits, expectations, beliefs, and values; and finally, the extent to which they see the dental profession as a trustworthy advocate of society's oral health interests and the extent to which they see their particular dentist as someone who is committed to giving priority to their oral health interest rather than his or her own needs and interests. Many of these characteristics interact with each other and form significant barriers to patient acceptance of treatment.

Therefore, armed with a kind of template of issues to explore, how should DDS2 proceed in his interview with the patient? Obviously, a first question is whether the patient has any immediate issues that require attention. If the patient in this case has a concern about the quality of care that was provided, he will likely voice that concern at this point. This is the place for "active listening": "So, you are wondering whether the care you received met the standards you should be able to expect?" Or, "You are wondering whether you actually needed that work?" The goal of active listening is to clarify what the patient wants to know without offering any judgment. Be sure to ask whether the patient wants you to provide a clinical judgment about that. Don't say: "Well, I wasn't there so I can't judge." Of course there may be things that you cannot judge based on the clinical assessment and review of the records, but frame this as a problem the patient can help with: "If there are questions I have that I can't answer by looking at your record and

examining your mouth, would it be okay with you if I spoke with DDS1?" At this point, the patient may express some reservation about such contact, and may be reluctant to tell you why. If this happens, you must point out that the patient has a right to a second opinion. It may also be an opportunity to express any positive impressions you may have about DDS1, and if you are unable to do that, to express the general oath dentists take to put patients' interests first. You can also express your own eagerness to know if a patient is unhappy with something and your appreciation when other dentists have helped you understand a patient's dissatisfaction—dissatisfaction the patient may not be able to articulate.

If the patient does not voice a specific complaint, a first question might be to explore the patient's goals. Recognizing that many patients have not thought in terms of long-range goals, the dentist may wish to present a list, asking what is most important: Avoiding the dentist? Avoiding dental expenses? Getting out of pain? Being able to chew? Having teeth look good? Improving function? Keeping teeth for the rest of your life? (It may help to have an actual list that can be added to.) Often a bit of humor is called for as one reflects on these goals. "Avoiding the dentist" and "avoiding expensive dentistry" can be thought of as really good goals. "Did you know that it is possible?"

Once goals have been identified, help the patient prioritize those goals. This is really important because you want to come back to the patient's goals as you discuss treatment alternatives and costs of treatment. Then, before looking in the mouth, ask a series of questions: "What is your understanding of the causes of dental disease?" What diseases are you aware of? Would you call the doctor at the first sign of a cold? Why not? What about a tooth ache?" "How would you judge the status of your oral health? Tell me about the oral habits you have been able to establish for yourself. What is your understanding of the relationship between seeing the dentist regularly and achieving your goals? Between cleaning your teeth and achieving your goals?" What the dentist is trying to do at this point is to expand the diagnostic assessment to systematically identify factors that interfere with patient compliance. By eliciting understanding, beliefs, and values, and addressing misconceptions in the process, the dentist begins to empower the patient to take responsibility for his oral health. By getting the patient to articulate goals and to prioritize them, by exploring any misperceptions or beliefs about the cause and prevention of disease, by uncovering any mistrust—including the belief that the dentist is simply there to separate the patient from his or her money so as to support the dentist's lifestyle, the dentist is in a position to clarify the dentist's role. I recommend being explicit about this: "My job is to be sure you have all the information you need so you can make, what is for you, a good decision." And, when the patient asks: "But doc, what would you do?" resist the urge to give your opinion. Say instead: "What I would do has to do with my goals and values. This decision is about you. You said that... (restate the patient's goals) was most important for you."

Since money was an issue for this patient, be sure to talk about money. But I would frame it as examining what resources are available to accomplish the patient's goals. And, do not let the patient's prepayment plan dictate the treatment. Say: "Let's examine the resources you have to meet your goals." Focus on the most important resource first: the person's health care habits. Discuss the extent to which the frequency of dental visits or cleaning is helping the patient to achieve goals. Mention how the patient's current habits are facilitating goals, and indicate any habit modifications that could advance the patient's goals, if the patient decides to modify them. Next, help the patient evaluate his or her employee compensation. Most patients will have little trouble recognizing that benefit packages are not necessarily designed with their interests in mind. Helping the patient understand the motivation behind the benefit plan counters the tendency to see the benefit industry, rather than the dentist, as the protector of the patient's interest. Finally, help patients see how investment of personal resources will help them meet goals and conserve personal resources in the long run. Point out that many people with good oral health do not find that it is cost-effective to invest in a dental benefit plan because dental disease does not have the characteristics of an insurable risk.

If, at the end of the interaction, the patient has not revealed any prior dissatisfaction, has decided to become a patient in DDS2's practice, and the matter of the unpaid bill has not been raised, I do not think DDS2 should say: "I see from the records that were forwarded that you have an outstanding balance with DDS1." But I do think DDS2 could say: "Patients change dentists for a variety of reasons. What are important issues for you?"

I remember a case my daughter, a practicing dentist, told me about a few months ago. She received a new patient who had been a patient of someone she knew and respected. Records were transferred and she did an initial exam, which reinforced for her that the patient had received competent care. She said: "Care to tell me why you are switching dentists?" The patient related that he

was really annoyed by a sudden change in policy in the office. One day he came for his appointment and learned that he had to pay for services up front. He said: "I have always paid my bill on time and this really irritated me. I just decided I would go somewhere else." My daughter commented that his previous dentist was really a good dentist and began to explain why the office may have changed policies based on the recent economics. She also mentioned that it may be hard for front desk staff to remember who should and should not be asked to pay before service is rendered. The dentist may have simply decided it was best to treat everyone alike. "Well," he said, "that may be true, but I have to say that I have learned more in the last half hour about the status of my oral health, and what I need to do to maintain it, than in all the years I went to that office. So, if you don't mind, I'd like to stay with you." To this my daughter said: "Would it be all right with you if I told your previous dentist why you left? I think she would appreciate knowing."

This case highlights some of the challenges in maintaining relationships with colleagues while giving priority to the needs and interest of the patient. The challenge in dealing with the work of a previously treating professional is to truthfully provide a second opinion on the work and then to assist the patient in addressing a problem. It may be tempting to give the patient information and leave it to him or her to interact with the previous dentist. Resist this urge. The patient will not be able to deliver the objective assessment as well as you can. Further, you owe your colleague your professional judgment. Also, support your colleague. If the work is within the standard of care, be sure to tell the patient that. "You may not have been satisfied with the care you received or the way you were treated, but you should know that the care you received met the standards you should be able to expect from the profession."

The Code of Professional Conduct of the American Dental Association and the *Ethics Handbook for Dentists of the American College of Dentists* both agree that patient information should be shared for the good of the patient.

Response: Dr. Koerber

A review of the ethical codes pertaining to dentists reveals some ambiguity in whether DDS1 breached the rules of ethical conduct. There is universal agreement in the codes that patient information should be shared with other providers treating the patient in order to provide good patient care. The ambiguity pertains to whether patient consent is needed to share patient records with another treating dentist and what information should be shared beyond the treatment record.

The *Code of Professional Conduct of the American Dental Association* (*ADA Code*) and the *Ethics Handbook for Dentists* of the American College of Dentists (*ACD Handbook*) both agree that patient information should be shared for the good of the patient. Neither requires patient consent for such sharing. Neither directly discusses sharing information about patient payment behavior, but both imply that the information to be shared is for the patient's benefit (not for the protection of either dentist). The *ADA Code of Professional Conduct,* 1.B. of the Patient Records Section, states, "Dentists are obliged to safeguard the confidentiality of patient records.... Upon request of a patient or another dental practitioner, dentists shall provide any information in accordance with applicable law that will be beneficial for the future treatment of that patient." "Beneficial for the future treatment of the patient" indicates that the code's objective is to benefit the patient, not to facilitate the collection of payment by the second dentist. The *ACD Handbook* states, "The accepted standard is that every fact revealed to

the dentist by a patient is, in principle, subject to the requirement of confidentiality, so that nothing may be revealed to anyone else without the patient's permission.... This standard has several accepted exceptions. It is assumed that other health professionals may be told the facts they need to know about a patient to provide effective care." Similarly to the *ADA Code*, the *ACD Handbook* both upholds the principle of confidentiality, but appears to remove it when another treating dentist is concerned. However, they both imply that sharing of the information is for the benefit of the patient, not for the benefit of protecting the other dentist from a patient who may not pay her bill.

In contrast, medical codes and regulations view confidentiality more stringently. The American Medical Association affirms in Section 10.01 (4) of the *Code of Medical Ethics* that, "The patient has the right to confidentiality. The physician should not reveal confidential communications or information without the consent of the patient, unless provided for by law or by the need to protect the welfare of the individual or the public interest." The Health Insurance Portability and Accountability Act of 1996 (HIPPA) upholds the importance of patient confidentiality even to other providers, although it does not require explicit consent for such sharing. HIPPA calls for institutions (which include dentists' private practices) to (a) inform patients of how protected health information is shared with others (if specific patient consent is not obtained), (b) inform patients that they may request restrictions on the provider's policies regarding sharing of information (that is, they may specifically refuse to allow sharing of certain information with certain providers), and (c) that disclosure of information should include only the minimum necessary for accomplishment of the task. Furthermore, HIPPA specifically notes that payment information is included in "protected health information" (Wun & Dym, 2008). Both HIPPA and medical ethics therefore are more concerned than the dental ethics codes with confidentiality for the patient regarding sharing information with another provider. This greater concern is reflected in allowing a patient to restrict a provider's access to medical information, and in specifically limiting the information provided to only that which is needed for the treatment.

Since the dental codes are not as specific as the medical codes, I conclude that DDS1 may not be breaking an ethical rule of dentistry when she gratuitously shared payment information with DDS2. She may even be in compliance with HIPPA if her office HIPPA policy states that she routinely discloses all patient information (including patient payment behavior) to other treating dentists. However, she certainly is in violation of at least the spirit of HIPPA, by providing unnecessary payment information to the second dentist.

Putting aside rules for the moment, how shall we judge whether DDS1 ought to have provided the payment information to DDS2? Although we may not choose to evict her from the American Dental Association, we might still ask, "What should a conscientious, professional dentist do in this situation?" This kind of question is often better addressed by applying the ethical principles of dental practice. Although one could address this problem by considering dentist obligations or societal expectations, I will apply David Ozar's Central Values of Dentistry (Ozar & Sokol, 2002, Chapter 5). I choose the central values because in teaching ethics, I find they often focus the conversation most usefully on the most important considerations necessary to uphold professionalism.

Ozar's central values, ranked in order of importance, are (a) general health, (b) oral health, (c) patient autonomy, (d) esthetics, (e) dentist's preferred patterns of practice, and (f) conservation of resources. The central values are based on obligations widely discussed in the medical literature, obligations to do no harm, to put the patient's health needs ahead of the provider's need for a sale, to allow the patient control over his or her own body and medical information, and obligations to maintain workable dentist-patient relationships in order to facilitate the patient obtaining good care. Central values provide guidance to a dentist's actions when approaching a patient.

Considering the disclosure to a second dentist of payment information in light of the central values, we see that this action does not affect the patient's general or oral health, but certainly affects the patient's autonomy. One might even argue that it could ultimately be detrimental to the patient's oral health if it hurts the patient's trust in dentists to the extent that it interferes with seeking dental treatment. For these reasons, I conclude that the conscientious and professional dentist should not disclose information to another dentist about patient payment behavior unless the patient specifically consents.

Next, let us consider what the second dentist ought to do when receiving this information from the first dentist. The most important question to be determined is whether a dentist should use payment information when deciding whether to accept the patient into the practice or in deciding how to behave toward the patient. The issue of choosing patients based on information that should not have been shared is not specifically dealt with in dental ethics documents. It would not violate the

letter of the *ADA Code* for DDS2 to refuse to accept the patient into a practice, assuming the dentist has not yet begun treatment, because Section 4.A. dealing with patient selection specifically says dentists may exercise discretion in patient choice except for certain reasons, and past payment behavior is not one of those reasons. The *ACD Handbook* states that dentists are not obligated to treat everyone, but are obligated to avoid discriminatory actions. In contrast to the *ADA Code* which lists reasons the dentist may not discriminate, the *ACD Handbook* lists reasons why a dentist may refrain from providing treatment; payment behavior and ability to pay are not among the listed reasons. In summary, it is expected that dentists charge for services, but ethics documents are silent on the subject of how dentists ought to handle patients with histories of nonpayment for dental services, except to say the patient cannot be abandoned.

Although DDS2 may not be violating rules to refuse to accept the patient, he would not be acting ideally either. The interactive model, described by Ozar and Sokol in Chapter 4 of their book as most fully promoting patient autonomy within the parameters of acceptable treatment, directs that health professionals ought to do what is reasonable to form a good relationship with the patient, understand their patients' concerns, help their patients make informed choices by educating them, and negotiate a mutually acceptable treatment plan. Applying the model to this case, we conclude that the ideal provider would initiate a discussion with the patient about what the patient wants from dentistry, what his or her past experiences and expectations are, and what he can reasonably expect from dental care. The decision whether to accept the patient into the practice would be based on whether the dentist and patient shared an understanding of what treatment would be provided, what the cost would be and the parameters of payment.

The next question is, would that discussion include revealing to the patient DDS1's disclosure of payment information? Both the *ADA Code* and the *ACD Handbook* include veracity as a value in dealing with patients. The *ADA Code* also states, "Patients should be informed of their present oral health status without disparaging comment about prior services," while the *ACD Handbook* does not directly address how dentists should talk about other dentists to patients. Both the *ACD Handbook* and Ozar & Sokol, in Chapter 3, note the obligation of the dentist to strive for the ideal dentist-patient relationship. Taken together, these sources suggest that dentists ought to be honest with patients, that dentists ought to help patients trust dentists and dentistry; and that dentists ought not to interfere with the relationship between a patient and another dentist. The purpose of this set of obligations is to facilitate the patient being able to trust dentists enough to form effective working relationships with dentists in order to make appropriate decisions and to allow themselves to receive care.

The problem comes in deciding how honest to be with a patient about another dentist. What behavior would most facilitate a good dentist-patient relationship?

I think there are two ethical approaches DDS2 could take, with one being probably better than the other, depending on the patient's characteristics. The first and most ethical approach would be to lay out the information provided by DDS1, including the payment history, as part of the conversation about what the patient expects from treatment, what their previous experiences have been, how past mistakes could be avoided, and how best to provide the patient with the care he needs and desires. This should be done without disparaging DDS1 and without indicating that she did anything wrong. Further, DDS2 should not use the payment history to scold or otherwise be judgmental or self-protective when talking to the patient. The payment history should be treated like any other part of the history.

The second ethical approach would be to simply have the usual conversation with the patient about what he expects from treatment, what his previous experiences have been, how past mistakes could be avoided, and how best to provide him with the care he needs and desires, but ignoring the past payment history.

The advantage of the first approach is that it is honest, direct, and transparent. If handled correctly by DDS2, for most patients this would encourage a frank talk and a good resolution without DDS2 either protecting or disparaging DDS1. However, the risk is that the patient would get angry, either at DDS1 for disclosing the information or at DDS2 for implying that the patient is a poor billing risk. Ultimately, the risk is to hurt the patient's future relations with dentists.

The first option requires good communication skills and also requires a dentist who is capable of handling patients who become angry. The best way of handling angry patients is to hear the patient out and reflect back to the patient in a nondefensive manner one's understanding of why he or she is angry. When the patient understands that the dentist has heard her, then the dentist can invite the patient to suggest a solution, and begin a negotiation process. This kind of discussion is difficult and requires practice. It also requires a dedication to professionalism and to helping patients feel trust in the oral healthcare system. If DDS2 does not feel he has the communication skills to handle the conversation, or if he believes

the patient has an emotional problem to the extent that he will not be able to negotiate the conversation, then DDS2 is entitled to ignore the payment history information and proceed without discussing it.

However, in so doing he is missing an opportunity to help the patient repair relationships with dentistry and learn how to work with a dentist. In addition, he is running the risk that the same situation may repeat itself with him, and he will be forced to deal with it while pretending that he does not have the prior history. I think this puts DDS2 in an ethical bind that ultimately jeopardizes the relationship with the patient.

I am not worried about repercussions for DDS1 by disclosing the action to the patient, as long as DDS2 simply mentions the disclosure in the context of the other information obtained, without labeling it as "unethical." If DDS2 handles the situation correctly, there will be no adverse effects on the patient of DDS1's disclosure (that is, the patient will be able to negotiate treatment with DDS2 so there would be no real damages), so the patient would have little reason to act against DDS1.

A further issue is whether DDS2 should discuss DDS1's release of payment information with DDS1. There is an obligation to discuss ethical concerns with a colleague who is not behaving optimally. Admittedly this discussion would be difficult. DDS2 would want to avoid scolding or shaming DDS1, but both dentists could conceivably benefit from an open discussion of the most ethical way to handle the situation. DDS2 could approach it by sharing with DDS1 what his own policies are with regard to disclosing patient information, and state what his concerns are with disclosing payment information, and leave it to DDS1 to use the information as she sees fit. The communication danger arises when one person is taking a stance of being morally superior to another. By keeping the communication focused on facts ("My policies are..." instead of, "You shouldn't be doing that."), DDS2 may avoid the ones-upmanship so often risked in ethical discussions. Since the case description suggests that DDS1 is likely to be in violation of HIPPA, she might welcome it being brought to her attention.

Summary and Conclusions: Dr. Peltier

Three senior dental ethicists agree that disclosure of negative financial information to a dentist who is about to begin treatment of a previous patient is a bad idea.

Dr. Rosenblum is the most direct, writing that the clinical and financial aspects of dentistry represent two mutually exclusive domains. He asserts that because "financial information is confidential," DDS1 has no right to share this information without explicit patient permission. His point of view is supported by the American Dental Association's document on patient records which states that: "No financial information should be kept in the dental record. Ledger cards, insurance benefit breakdowns, insurance claims, and payment vouchers are not part of the patient's clinical record. Keep these financial records separate from the dental record" (ADA, 2010).

Given such guidance it appears that the inclusion of financial information in any packet sent to the new dentist would involve the addition of information to that patient's actual dental record. While we can fairly assume patient consent to release treatment records in this case, it is not safe to assume that this patient

The most important question to be determined is whether a dentist should use payment information when deciding whether to accept the patient into his practice or in deciding how to behave toward the patient.

There is one potentially positive way to view transmission of payment information, and that is whether this information causes a clear and effective discussion about the costs of new treatment, possible financial arrangements, or expectations for both parties in advance of treatment.

has consented to the release of the negative payment history. Who knows what a patient thinks about this matter?

One must wonder about what motivates DDS1 to send payment information. Is she seeking retribution from this patient? Does she feel a powerful sense of loyalty to DDS2 or to her colleagues in general? Is she trying to strengthen her relationship with DDS2 or polish her reputation with her colleagues? It is difficult to imagine that she is motivated by an interest in her patient's well-being when she decides to send financial records.

All three commentators—Rosenblum most directly—make the important point that nothing is known about the specific circumstances of the financial situation. Perhaps there was an error in accounting. Maybe this patient's dental plan has not upheld its end of the bargain or is dithering. It is also possible that there was unclear communication between DDS1 and her patient, and now the patient refuses to pay for something that in his view was not agreed upon.

Dr. Bebeau is also very clear. She views the sharing of financial information as "a breach of patient confidentiality." Her view is that patients have a right to expect that dentists will not share disparaging remarks about patients with each other. Also, while acknowledging the possibility of patient grifting, she views the payment delinquency as part of a larger treatment problem, a communication issue, or as an indication of undisclosed patient dissatisfaction. On a positive note, she sees the situation as an opportunity to enhance the doctor-patient relationship and to increase the patient's understanding of oral health and dental care, as well as a way to enhance professional relationships between dentists in town. She advocates active listening and thorough discussions about treatments, choices, and payment options. She also makes the point that the sharing of patient financial information in the service of doctor well-being only serves to confirm the impression of some patients that dentistry is more like a guild than a profession and that dentists look after each at patient expense.

Dr. Koerber examined several ethics codes and formal documents to come to the conclusion that communication between doctors is to be done for patient benefit, not for the convenience or well-being of dentists. She asserts that shared information should be limited to the minimum amount needed for treatment. That said, the standard of care implies that when records are sent those records ought to be complete, so it makes no sense to remove components of a patient record before sending it out. This is certainly true in legal situations.

Dr. Koerber writes that the act of sending financial or payment information is likely to be a HIPAA violation or at the least a violation of the spirit of HIPAA. She also notes that the release of financial information violates Ozar and Sokol's hierarchy of professional values, and concludes that DDS1 should not do so without explicit patient consent. She writes that "the conscientious and professional dentist should not disclose information to another dentist about patient payment behavior unless the patient specifically consents."

While the commenters are unanimous in their opinion that negative financial information should not be forwarded, they did not mention a darker possibility: In small town America the negative opinion of one dentist could effectively make it impossible for a patient with a

"bad reputation" to find dental care in that town. While unlikely to happen, such an event seems completely at odds with any reasonable definition of a profession.

The experts are less clear about other questions in this case. As a group they equivocate as to whether DDS2 should speak with DDS1 about the propriety of having sent the financial records. Dr. Rosenblum suggests a "friendly recommendation from DDS2 to DDS1" about the matter. Dr. Koerber advocates a discussion between the two dentists while acknowledging the delicacy of the situation.

They alluded to the impact that old payment information might have on the new treating dentist. It would be impossible to remove that negative information from one's mind once it registered. Who could blame a dentist for taking special care to avoid being burned by such a patient?

The commentators did not address the issue of withholding all the records until this patient cleared the bill, perhaps because such behavior seems so clearly wrong and typically illegal. Here is what the *ADA Code* says about this matter: "Upon request of a patient or another dental practitioner, dentists shall provide any information in accordance with applicable law that will be beneficial for the future treatment of that patient.... This obligation exists whether or not the patient's account is paid in full."

One hopes that this case represents an isolated incident in DDS1's practice. Frequent occurrences of this sort would call the dentist's financial practices into question. Allowing patients to incur substantial debt generally does no one any favors in the long run. Dental practices are not banks, and dentists are not in the business of loaning money to patients. Occasional problems with missed payments or even the necessity to "write off" a debt now and then are expectable, but only as exceptions to the norm. Weak financial practices and unclear financial communication open the door to ethical problems.

There is one potentially positive way to view transmission of payment information to DDS2, and that is whether this information causes DDS2 to engage in a clear and effective discussion with this patient about the costs of new treatment, possible financial arrangements, or expectations for both parties in advance of treatment. Such a discussion might actually enhance future treatment.

The management of this case requires careful communication between dentists and patients. It is important to recognize Koerber's and Bebeau's implicit recognition of how difficult it is to "do the right thing" during discussions of thorny issues. Simply knowing what to do and having good intentions is often inadequate because it is so uncomfortable to bring up difficult issues. Sometimes this happens because dentists just do not know what to say or how to do it. Koerber and especially Bebeau, give specific helpful suggestions about how to bring up difficult issues along with examples of what to say.

There is one last issue worthy of comment, and that is the use of the term "accept" when used to mean that a dentist decides to take on the treatment of a patient. This term, and its polar opposite, "reject," imply that the dentist's practice is something like an exclusive or private club and that patients must submit themselves for acceptance if they expect the profession to provide dental treatment. This is unseemly and can serve to put the public off. Why not simply use the term "decide to treat" or "agree to treat" or "decline to treat" in its place? Words matter.

The question of interests is key in this case, and the sharing of information between dentists is considered unethical when the primary motivation is to serve the interest of dentists, especially when done without the knowledge of a patient. ■

References

American Dental Association, Council on Dental Practice, Division of Legal Affairs (2010). *Dental Records.* Chicago, IL: The Association.

Bebeau, M. J. (1996). Managed care: Maintaining professional autonomy. *Connecticut State Dental Association Journal, 72,* 18-21.

Wun, E., & Dym, H. (2008). How to implement a HIPAA compliance plan into a practice. *Dental Clinics of North America, 52* (3), 669-682.

Decision Making

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Abstract

A decision is a commitment of resources under conditions of risk in expectation of the best future outcome. The smart decision is always the strategy with the best overall expected value—the best combination of facts and values. Some of the special circumstances involved in decision making are discussed, including decisions where there are multiple goals, those where more than one person is involved in making the decision, using trigger points, framing decisions correctly, commitments to lost causes, and expert decision makers. A complex example of deciding about removal of asymptomatic third molars, with and without an EBD search, is discussed.

It is late Thursday afternoon in Kansas City. Three dentists are engaged in weighing important and complex alternatives. Dr. A is at a board meeting of her component society. A community health project that the society funded six months ago is being critiqued. Dr. A notes that she should have been given more attention when she pointed out when the program was first reviewed that, even if successful, the society would be criticized because it is sponsored by a group known to be advocating for expanded functions. Now it looks like the project might be a success. There is also a possibility that the size of the budget may not be large enough to carry the project through to completion as proposed and the group will be back for more funds.

Dr. B is a graduate student in the prosthodontics program at Thursday's lit review seminar. The debate is hot and furious. There are advocates for and against an experimental procedure. The literature is inconclusive and some of it provides a field day for the methodological purists. The term "EBD" flies around the room. Dr. B managed to find a large critical review based on a meta-analysis of more than 60 studies that shows a measure of effect of almost .80 for one procedure.

Dr. C is inspired. For almost no reason in particular he walks into the Porsche dealership and purchases a British racing green Carrera. He might have preferred red, but the dealer said it could be a month or perhaps even six months to get the model and color he really wanted, so Dr. C went with green.

Only one of these dentists made a decision, and right now he is probably drawing admiring glances as he drives with the top down five miles an hour in the evening rush-hour traffic.

What is a Decision?

A decision is a commitment of resources under conditions of risk in expectation of the best future outcome. Dentists A and B were not making decisions because they committed no resources. They are just exploring the nature of a problem. The community project that Dr. A is critical of has already been funded. Dr. B is debating the academic merits of a treatment procedure, but not actually treating anyone. Only Dr. C committed resources to one alternative over another in hopes of being better in the future.

Decision making entails risk. Risk is a technical term for a degree of doubt somewhere between absolute certainty and randomness. Swerving to avoid a head-on collision is not so much a decision as an obviously appropriate response under the circumstances. Deciding how fast to drive on that road in light of suspected hazards is a decision. The opposite extreme from certainty is randomness: the condition where nothing is known that favors one alternative over the other. Picking the winning numbers in the lottery is pure chance. Flipping a coin is not decision making (although choosing to settle an issue by the flip of a coin may be). Decision making takes place in that range of

probability between certainty and complete uncertainty. That is what makes it a human act. Idiots can be trained to always pick the right course of action when there is only one alternative and when all options are equally likely.

Half the money market managers outperform the median every year. The others go to courses in the Bahamas on how to explain away chance poor performance. Managers make decisions –they commit other people's resources under conditions of risk–but success should not be measured by the outcomes. This is a common misconception regarding decision making. The standard is whether a prudent person would have made the same decision under similar circumstances. Every dentist understands the difference between bad treatments and bad outcomes. Sometimes the best that can be done, even the best that a team of experts can do, turns up with unwanted outcomes. That is what it means to commitment resources under conditions of risk. Although there are no guarantees in decision making, there are approaches that are more defensible than others.

Expected Value

The Frenchman Blaise Pascal (1623-1662) wondered about philosophy and mathematics during the period in European history known as the Age of Reason. A devout Catholic, but a critic of dogma, he combined his intellectual interests in what has come to be known as "Pascal's Wager." Whether one should lead a Christian life is certainly a decision in the full sense of the concept. So Pascal reasoned: either there is an eternity of bliss that can be won by sacrifice in the present life or there is not. The alternative way of viewing the situation involves getting as much as one can in life because there is nothing after that. Theologians to that point in history had engaged in endless and useless debates over how to establish the likelihood that there is an afterlife. Pascal's insight was to say that it did not matter what the probability of an afterlife was.

Here is how he reasoned. The expected value of a selfish worldly life is whatever can be expected hereafter plus what can be grabbed right now. Let's say we are pretty certain there is no afterlife and that we can profit at the expense of those suckers who defer to us now in hopes of a later reward (as in fact the German philosophy Friedrich Nietzsche claimed). The alternative involves multiplying the probability that there is an afterlife by the value of such an afterlife should we be right. The probability of a glorious hereafter might be rather small, but eternity is a long time to enjoy one's blessings. An infinite eternity of bliss multiplied by any small probability is still infinitely large. Pascal's Wager states that as long as there is any finitely small probability of an infinite rich afterlife it exceeds the expected value of a highly probable small and fixed payout for a material existence.

A decision is a commitment of resources under conditions of risk in expectation of the best future outcome.

Personably, Pascal's logic is unsatisfying to me because it crowds out the vital role of faith. But his analysis of decision making has become the standard in Western thought. Small chances on large rewards are worth taking; so are nearly sure bets on small outcomes. The best commitments of resources under conditions of risk involve high probabilities and high payouts. Stupid folks fuss over long odds on small prizes.

This is called expected value logic. It is very simple. Multiply the value of an outcome by the probability that it will occur. EV = Pr * V. That is just another way of saying that the value of what you are looking for is adjusted proportionally to reasonable expectations of obtaining it. This formulation meets the criteria for a decision because it addresses both future benefits (V) and risk (Pr). All that is necessary is that resources be committee to alternatives. This is accomplished by calculating the expected value of the available alternatives, including doing nothing, and committing to the one with the largest expected value.

To my mind, there is something inherently wonderful about this. The expected value formulation insists that we cannot make good decisions without paying attention to both facts and values.

Dr. A was concentrating on value outcomes associated with the community project. She compared several alternatives as if they were actually certain to occur or had already occurred. Dr. B was concentrating on probabilities. Techniques were compared only on the basis of statistically significant probability without consideration of the cost or benefit to the patient and the practitioner of following that line of treatment. Only Dr. C weighed the full expected value of his choice. He went with the high probability second choice of color rather than the greater risk of not getting the preferred color.

The next time you find your mind wondering in a meeting because the conversation is going in circles between advocates of one alternative or another, try this little experiment. Check to see whether one side is arguing the high value of this or that outcome and the other is arguing the high probability of something else. Each side is playing with half a deck and hoping the other side does not realize it.

The expected value formula with its distinction between probability of an outcome occurring and the value of the outcome should it occur sheds some light on common mistakes in decision making. People who have inaccurate views of either the probability or the value of alternatives are called *fools*. That is a technical term. They may make very rational choices between alternatives but they have distorted the way things are in the world and they must bear the penalty for their foolishness. The world is well stocked with fools. People who have the facts of the matter right, who have pretty accurate estimates of both the probabilities and the values, but are incapable of performing the logical calculations needed to fairly weight the alternatives are called *irrational*. The technical term for a person who acts contrary to his or her rational calculations is akrasia. It is not as common as foolishness, but people do say things like, "I have seen the evidence that treatment X is not effective, but I still find it a useful procedure in my practice." If you want to check for irrationality in a meeting, try paying particular attention when an expert presents the results of a survey. When the numbers strongly suggest a course of action that is uncomfortable, you can expect to hear all sorts of excuses such as "the sample size could have been larger, we can't trust those folks, or that doesn't square with my impression or the experience of my three best friends."

There is also a special kind of flaw in expected-value calculations where the probabilities and the values are confounded. Outcomes are often devalued because they are thought to be unlikely or probabilities are exaggerated, or because they are discounted because of the consequences of the outcomes. This failure to independently estimate probability and value is called the *Aesop effect* by game theorist Ken Binmore. He has in mind Aesop's fable of the fox who tried unsuccessfully to jump up to reach a cluster of grapes. The fox ended by walking away muttering that the "grapes were probably sour anyway." The bioethicist Robert Pellegrino cautions against confounding values and probabilities in the other direction. He says it is unethical to "shave the facts" so others will be prejudiced toward the outcome one favors. "It is not right to say that something is probably so just because you want it to be."

Some Issues in Decision Making

Although the basic model for decision making is surprisingly simple, there are more than enough complications to confuse us. Some of these, such as single-issue thinking, incomplete framing, and sunk costs, are poor strategies on the part of the decision maker. Multiobjectivity, multiple decision-makers, and trigger points are inherent in the nature of some types of decisions.

Multiobjectivity

Picking a restorative material for a particular patient's situation is not automatically easy, despite what evidence-based information one has at hand. But these benefits do not naturally cluster together. The restoration should be aesthetically acceptable, long-lasting, and low cost. The evidence might exist to pretty precisely indicate the probability of satisfying each of these criteria and

the value of each is known to be high. But breaking the problem into three separate decisions does not look to be a realistic alternative. This is the multi-objectivity problem in decision making. Often, we are seeking a single action designed to satisfy more than one goal, and often the actions that maximize one goal compromise another.

Multiobjectvity problems are addressed by focusing on the values, not the probabilities. Better science is not the answer in this case. What is required is finding some way of comparing apples and oranges. The values must be weighted on a common dimension. We need the equivalent of a method for comparing this fruit salad with the other.

Multiobjectivity is a central problem in economics and several methods have been developed for managing the problem. All of them involve asking potential decision makers to make a series of two-alternative choices and then assembling these choices into a pattern. Economists call these patterns utility curves, and they might result in value profiles such as the following: Mr. X would be indifferent between closing his diastema and being given $800 and he would be indifferent between having a flat-screen TV and being given $1,200. So Mr. X should be indifferent between a lottery where he has a two-thirds chance of winning a TV and having a dental procedure with a 100% probability of closing the diastema (1200 * .67 = 800 * 1.0).

Naturally, we do not go around performing such calculations on our spreadsheets and working things out to the third decimal place. But there is abundant evidence that all of us are intuitively fairly consistent in making the kinds of choices implied by multi-objective value trade-offs.

As long as the circumstances remain stable, rational individuals retain consistent ordering among their preferences. If we prefer fee-for-service patients to insurance patients and we prefer insurance patients to no patients, we would be irrational to prefer no patients to fee-for-service patients. And that is why some dentists take insurance. The only way to escape this type of logical ordering in multiobjectivity is to invent special circumstances that differ across the alternatives. Some people are experts at such creative stage-setting. "Honesty is the best policy, except when..."

Multiobjectivity is sometimes implicated in a maddening game called "avoid all loss." Here is how the game works. The patient says, "I really value the benefits you describe for the new crown. But I also do not want to spend more than $750. If you could find some way so that I did not have to take a hit on the cost, this would be an easy decision." This patient is refusing to make a realistic and required value trade-off. He or she is looking for a decision that has no down side. Lest we mistakenly believe that only others do this, listen carefully in the next meeting you attend. There is bound to be an individual, and often it is the same individual across meetings, who blocks progress toward a common solution by coming back repeatedly to the down side of a decision where overall the best alternative is clear. These folks are not decision makers; they are worry warts, often assuming a probability near 1.0 for all possible down side outcomes. Decision making is about finding the best; it is not about holding out for the perfect.

Multi-person Decision Making

When there are multiple goals involved in a decision, it is often possible to work out the best alternative by considering trade-offs. When there are more than two people involved in making the decision, the way forward is not so obvious. The economist Kenneth Arrow has actually proven that there is no method

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"It is not right to say that something is probably so just because you want it to be."

that will always work. (By contrast, with any two people trying to make a mutual decision among two strategies, it is always possible to find an optimal way forward.)

So here are some suggestions that usually help. Make certain that issues of probability and values are kept distinct. Probabilities are the kinds of things that lend themselves to averaging. After full disclosure of evidence and discussion, have those participating write down their independent estimates of the probabilities involved. Take the average. It will almost always be better than even the best guess of the best expert. Do not attempt to reach consensus (also known as coercion by the most confident), and make sure you are averaging the probabilities and not the outcomes (probabilities multiplied by values). Values are harder to manage in these settings because people do not like to admit that they are revealing their personal preferences. This takes patience, a non-judgmental environment, and gentle questions to draw out the implications and possible overlaps among what people want. Often, in the process of estimating probabilities and clarifying values, the dominant commitment of resources under conditions of risk emerges spontaneously. If not, vote on the top two alternatives. Do not let someone make a motion for yes or no on a single strategy they think is the will of the group!

Trigger Points in Decision Making

It is human nature to make faux decisions; they are safer than the real kind. A faux decision sounds something like this: "the right thing to do under the circumstances would be..." or "someone really ought to do something about..." A real decision has this form: "Because of the circumstances, we will..." or "You can count on me to do this..." Decisions involve action, not just judgment. We could save ourselves time and be a lot less annoying to others if all exercises in decision making began with a frank assessment of whether this is really our problem, whether an action must be taken now, and whether we are prepared to take any actions. Only the actions we are warranted for and willing to take should be allowed to enter the discussion. All the rest is grinding our teeth about how we feel or showing off our academic insights. (Of course, we need chances to vent and to strut and it is so hard to get these venues on the agenda.)

I like the image of the trigger point. This is not about waving a gun around or even taking aim; it is about pulling the trigger. There is a zone of emotion that leads up to the trigger point. We express concern, we weigh emerging consequences, we build coalitions, and we take positions. But until we actually commit resources, we are not in the zone of action.

Often the best decisions are those that clearly articulate a trigger point before the pressures of the situation either allow passion to provoke an overreaction or allow fear to cover the case with indecision. A pre-defined action is a good kind of decision. Oral surgeons have many such decisions covering patient heart rate, color, and breathing. Periodontists and orthodontists have such trigger points defined as pocket depths or landmark angles that automatically initiate treatment.

Of course, there are second-order decisions about whether to execute previously made decisions; there are also decisions about the extent to which we should follow through on any decision. There are even cases where merely expressing a position can amount to a commitment of resources. In some countries around the world, posting an e-mail message with an opinion about

the government may have serious consequences. Voicing certain opinions about dental policy in some groups may also be tantamount to shortening one's career in organized dentistry. Social events in conjunction with meetings are useful for snooping out which resources are safe to commit.

Partial Framing

Group decisions are hard to make and personal decisions tend to come unraveled over time because of the way they are framed. The frame is how the decision is conceived. Alternative framings of the same problem or different ways of breaking it into component parts can lead to different outcomes.

Consider the case of deciding whether to restore a tooth that appears to be carious or restoring the same tooth following caries risk assessment. These certainly are not the same decision, even if we assume that the dentist and patient share common values about the desirability of treating infected teeth. Practitioners who agree on the wisdom of caries risk assessment may still disagree on the threshold for restorations. Those who have a common threshold may disagree on whether testing is worthwhile in a particular case. There are three components to the decision in this situation, depending on whether the decision is framed as treatment, testing, or a combination of testing and treatment. When smart and well-meaning professionals disagree on a decision, the most likely reason is that there is a framing problem. They are not actually making the same decision.

Manipulating the frame is the essence of propaganda. Antifluoridationists and antiamalgamists point to the devastating consequences when things go terribly wrong, but do not consider the entire situation. That is the way malpractice lawyers make a living. Only the upside of drugs such as Vioxx and screenings such as PSA are discussed rather than the total consequences of their use or disuse. America did the same thing after 9/11. Air miles were off by 18% during the three months following the tragedy. No one died flying and that was celebrated. The increase in car traffic fatalities during this period (since driving is intrinsically more dangerous) from "playing it safe" by not flying was 5,000, with 45,000 serious injuries. All of the consequences of action and alternatives must be considered in framing a decision.

Commitment to Lost Causes

Decision making is about the future. A common mistake is to count the total cost of alternative strategies, when only the marginal cost matters. This is known as the sunk-cost problem or the problem of escalating commitment.

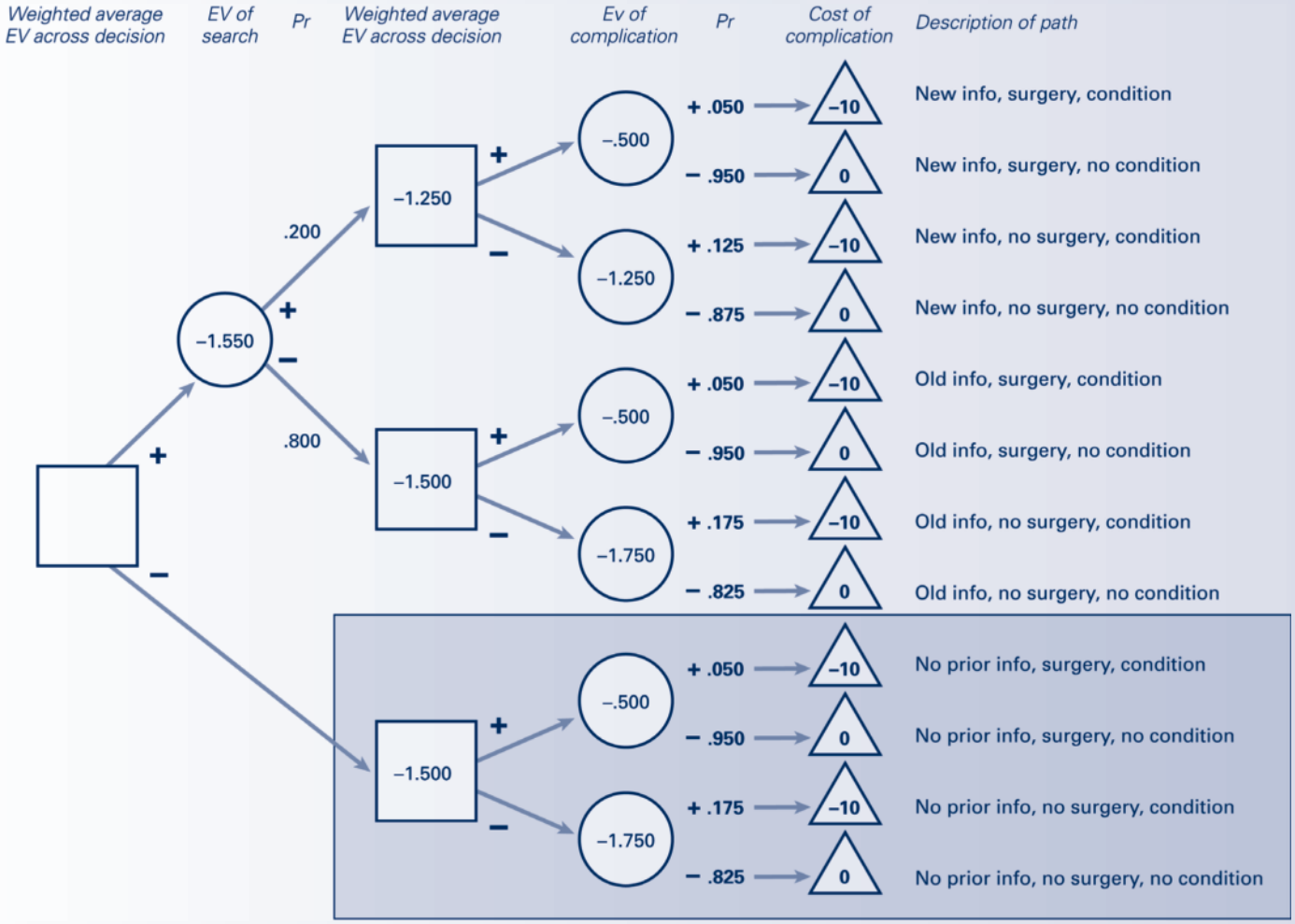
Take the case of a broken down molar. It started as a nice filling that was ruined by recurrent decay. A large restoration and a build-up were performed, perhaps a crown. The tooth continues to decline, and a decision is due. Endo and a crown are a possibility, and so are extraction and an implant. The correct decision is between the likely future cost and probability of success of the two alternatives, without consideration whatsoever for the previous work done. Some might be tempted to say that so much has already been invested in the tooth that it would be a shame to abandon it. That is wrong: the previous effort is sunk. It will make exactly the same contribution to the present decision regardless of which alternative is selected. This is a new way to think about margins (in the economic or decision-making sense). The only relevant considerations in decision making are the marginal contributions of the alternatives on the table—what do they add to what has already been decided?

Good money after bad or escalating commitment to lost causes is a regrettably common effect. Candidates who have no chance of winning, plans that looked good before circumstances changed, programs that should not have been funded in the first place but are back for that last dollar needed to push things over the top, and all manner of remedial activities should be viewed as new endeavors when each decision is made. The primary reason for escalating commitment to lost causes actually is wound up in decision making. As long as resources are still being spent on strategies that would not be chosen under present circumstances, the original decision makers do not have to admit that they made the wrong choice.

Expert Decision Makers

Decisions tend to repeat themselves, or parts of them do, and they can spin out into sequences where one part of the decision depends on what has happened before. Our experience of encountering fragments of decisions that we master and then apply in novel situations is a blessing. That is why master clinicians know that the presentation of a case may be slightly different from textbook descriptions and that patients who say that want one thing sometimes end by wanting another. Chess experts beat novices more because they have seen patterns of moves before rather than because they "think more moves in advance." Decision making is a learnable skill. But the learning is largely situation-specific. We cannot make better decisions by taking drugs or having our brain cells pump iron, but with years of experience we can improve the accuracy in estimating probabilities and deepen our understanding of what is valuable to ourselves and others. More experienced individuals make better decisions.

Decision Tree



An Example

The expected value formula has the advantage of being precise rather than fuzzy. It also provides a means for addressing complex problems. It can even reveal assumptions that make the true problem obscure. The following example, diagramed above, is complex, but instructive. This is called a decision tree.

A clinician must advise a patient who has asymptomatic third molars, but with some potential for future complications, whether to have the teeth removed prophylactically. To make the decision easier, we will set in advance the probabilities of future complications and assume that there are none in the surgery. We will even agree on a cost for the surgery and a future cost should eventual problems arise. Just to make the case a bit more interesting, we will let the practitioner decide whether to engage in a search of EBD literature to confirm or disconfirm a supposition that this type of patient has special circumstances that alter the probability of future complications. The probabilities are all given in precise decimal form. The costs are in arbitrary units, but they are intended to be proportional to each other. If the values are multiplies by $100, the example seems to make sense to most readers. (This matter of scale has no effect on the decision.) All costs are expressed as negative numbers; the goal is to pick the commitment of resources under these conditions of risk that minimizes cost.

Let's first consider the basic decision appearing in the shaded area. This is the decision whether to remove the asymptomatic molars based on what the dentist already believes about the case. These beliefs include that, under ideal circumstances, there will be no future complications and that the patient will incur no costs (loss of value). But there is a 5% chance of complications even if the molars are removed. The probability of complications without surgery is three and a half times greater (Pr = .175). The cost of the complications is ten times as great as the cost of the surgery (-1 and -10, respectively in arbitrary units).

Thus, there are four possible sequences of events: (a) no prior information (the dentist is working with

estimations of averages from experience and chance reports), surgery, but future complications anyway; (b) no prior information, surgery, and no complications; (c) no prior information, no surgery, and future complications; and (d) no prior information, no surgery, and no complications. The best outcome is the last one: if it turns out that way, there is zero cost. The worst outcome is complications despite the surgery. But we cannot pick the outcome we want; we can only select the strategy most likely to lead to the best outcome.

The circles, by convention in such tree diagrams, represent events in nature, to which probabilities must be assigned. The EV for each circle is the weighted average of the product of the probability and the cost for what nature deals out under the circumstances (-10 * .050 + 0 * .950 for the case of surgery and -10 * .175 + 0 * .825 for no surgery). Preparing for the future condition by means of surgery looks very attractive because its EV is small (less anticipated cost) than the no-surgery approach.

The squares, by convention in such tree diagrams, represent events over which we make decisions. Just as probabilities are assigned to all circles (nature), costs are assigned to all squares (decisions). In this case, the cost of the surgery is -1 unit, and this must be added to the expected outcome of the pair of alternatives on the top of the shaded area—situations when surgery is performed, but not to the two alternatives on the bottom because the patients skips the surgery. All in and all done, surgery is a slightly better decision because it has a lower expected cost. The EV of the surgery (-1) plus the EV of the future condition given the surgery (-.5), combined expected cost of -1.5, is less than the EV of no surgery (-0) plus the EV of the future condition given no surgery (-1.75). The patient can see in this complete framing of the decision that the cost is greater than just the cost of the surgery, but all costs and probabilities considered surgery is the wise decision.

Notice that in working this example, we move from right to left, combining probabilities and values as we get closer to the actual decisions that can be controlled.

Now let's make the example more realistic. All patients are not the same, perhaps there is information that would permit the dentist to customize the estimate that the patient will suffer the condition in future. For the purposes of this example, think of the dentist delaying matters a bit and conducting an EBD literature search in hopes of getting better estimates of the probabilities involved. Information searches are not naïve shots in the dark; a prudent practitioner would not go off looking just on the off chance that something useful might turn up. So we will make some assumptions to aid the decisions: the new information cuts the probability of complications without surgery from .175 to .125 (from three and a half times as likely as with surgery to two and a half times as likely), there is a two-in-ten chance that such studies will be found, and the cost of the search is -.1.

This branch of the decision tree is shown on the top of the diagram. The lower part, where the search turns up no new information, is the same as the shaded area, where no additional information was assumed, except that an extra -.1 in cost has been added because of the fruitless search. But if the information is found as hoped, as shown by the top four paths, the best strategy for the patient is no surgery, taking chances on the better odds of being free of future complications (-1.25).

To evaluate the decision regarding search or no search, the probabilities of finding hoped-for results and costs of the search must be added in. The chances of the no surgery (-1.25) outcome are .2, and the changes of the survey (-1.50) outcome are .8, and the certain cost of the search is -.1 (the weighted average). So the EV of the decision to search, under the assumptions the dentist makes in this example, is -1.50. That is the same expected cost as calculated for the no search case. But the extra cost of -.1 for the search must be added back in, making the search just a bit less attractive than going with the given information.

The decision tree for the value of a search is illustrative. Looking for information is not costless, nor is it guaranteed to produce useful results. These parameters must be estimated in advance to determine whether the search is prudent. Low-cost searches on high-likelihood and highly impactful outcomes are wise. Just looking to see what can be found is not. This example is written for a single search, and, presumably, the search cost could be skipped when treating future patients, making the search a slightly favored strategy. On the other hand, the example is useful as a template for recurring diagnostic costs such as biopsies.

Having a worked basic decision tree such as this is also a valuable general decision tool. One can substitute various plausible values in the decision tree to see to what degree the assumptions would have to change in order to justify making a different decision. Decisions that remain the same, despite large variations in some of the parameters (probabilities or costs), are said to be "robust" decisions. ■

Recommended Reading

The literature on decision making tends to be technical. There is a large literature on how individuals actually make decisions. This leadership column, and consequently the references mentioned below, are about how individuals should make decisions. Each is about three pages long and conveys both the tone and content of the original source through extensive quotations. These summaries are designed for busy readers who want the essence of these references in twenty minutes rather than five hours. Summaries are available from the ACD Executive Offices in Gaithersburg. A donation to the ACD Foundation of $15 is suggested for the set of summaries on decision making; a donation of $50 will bring summaries for all the 2011 leadership topics.

Binmore, Ken (2009)
Rational Decisions*
Princeton, NJ: Princeton University Press. ISBN 978-0-691-13074-3; 200 pages; about $30.

Straightforward language: devilishly difficult concepts. A nice introduction to the role of personal preferences, risk, probability, and decisions that are based on other decisions. Filled with examples of what appear to be easy choices that turn out to be common blunders.

Selected Leadership Essays in this journal. These are available online. *American College of Dentists → Home/General → Publications → JACD → Previous Issues:*

Chambers, D. W. The mumpsimus [leadership essay]. *Journal of the American College of Dentists, 2003, 70* (1), 31-36.

Chambers, D. W. The value of information [leadership essay]. *Journal of the American College of Dentists, 2003, 70* (3), 50-55.

Chambers, D. W. Behavioral economics [leadership essay]. *Journal of the American College of Dentists, 2009, 76* (4), 55-64.

Chambers, D. W. Risk management [leadership essay]. *Journal of the American College of Dentists, 2010, 77* (3), 35-46.

Luce, R. Duncan, & Raiffa, Howard (1957)
Games and Decisions: Introduction and Critical Survey.*
New York, NY: Dover. ISBN 0-486-65943-7; 509 pages; about $12.

"Our primary topic can be viewed as the problem of individuals reaching decisions when they are in conflict with other individuals and when there is risk involved in the outcomes of their choices". Games are situations where individuals seek to maximize their utility by initiating strategy in the face of a generally known structure with uncertainty introduced by others' strategies or by unknown states of natures. The book describes games under increasingly complex sets of assumptions: zero-sum, non-cooperative, cooperative, n-person games with possibilities for coalition, and group decision making or the impossibility of a completely satisfactory welfare distribution. Although written in the 1960s by a UC Irvine and a Harvard professor, it remains the classic reference in the field.

Keeney, Ralph L., & Raiffa, Howard (1993)
Decisions with Multiple Objectives: Preferences and Value Tradeoffs*
Cambridge, UK: Cambridge University Press. ISBN 0-521-43883-7, 570 pages; about $15.

The classic work in the theory of values as part of decision making. The theory of trade-offs to combine multiple objectives is developed in detail and is applied to cases where there is certainty (no risk) and where there is risk. Rather technical, but filled with detailed case examples.

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