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Ethics Summit II & Responding to Technology

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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.

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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 potentials 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.

Correspondence relating to the *Journal* should be addressed to the Editor:
American College of Dentists
839 Quince Orchard Blvd., Suite J
Gaithersburg, MD 20878-1614

The business office of the *Journal of the American College of Dentists* can be reached by:
Phone: (301) 977-3223
Fax: (301) 977-3330

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FROM THE EDITOR

Bankruptcy In the Truth Telling Business

I have forgotten the source, but I have considered it to be good ad vice: Don't accept your dog's behavior as conclusive evidence regarding your worth as a human being. I was reminded of this recently in a bitter fashion at a Chamber of Commerce mixer. Roughly one hundred business owners had gathered to socialize and share contacts at a winery overlooking the Sonoma Valley. As I joined the group, my wife motioned me towards a couple she was chatting with. Their new business is to create electronic address books for individuals who supply business cards, lists of attendees at meetings, and names and phone numbers scribbled on the backs of envelopes. The woman had a sheaf of such odds and ends bound with a paper clip and the man had a neat computer printout to illustrate the way their system works. For a fee, you could mail in a business card and a few days later receive an update to your address book over the Internet. (The true nature of the business in this example has been disguised.)

My wife and I amiably talked with the couple for five or ten minutes until all the positive things we could think to say had been exhausted. Alone together later in the evening, we agreed that it was one of the least promising ideas we had ever heard and spent five to ten minutes exploring its defects. Like everyone else at the mixer, we had smilingly agreed that all those present were wonderful and only hinted at some problems among those who were absent. We had played the role of the dogs because of the truth telling business is bankrupt.

On one level, I have this story all wrong. The purpose of a Chamber of Commerce mixer is not to hear the truth about one's business. And even making sales on the spot would be considered a little *gauche*. The real purpose of such meetings is advertising. The issue is service awareness and building mutual relationships. Product improvement is one part of marketing and advertising is another; and advertising is not a very effective way to improve a product. If my wife and I had told the truth about the electronic business card, all we would have shown is our ignorance of the true purpose of the event.

On another level, truth telling in business really is bankrupt. The problem is greatest in small businesses and the professions such as dentistry where the individual and the business are almost the same thing. How can we maintain positive relationships with people and at the same time tell them the truth? The problem is also large among those with whom we have a strong relationship and those in positions of high authority. The problem of separating feedback from relationship maintenance has become so tender that most businesses expect to pay for truth in the form of public opinion surveys or hired consultants.

The problem of separating feedback from relationship maintenance has become so tender that most businesses expect to pay for truth in the form of public opionion surveys or hired consultants.

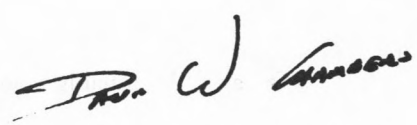
Telling the truth in a context where that is unexpected is a breach of etiquette. But there is an ethical side to this matter as well. Failing to tell the truth when you are in a position that requires you to do so or when someone's interests are being damaged is wrong. Failure to report child abuse or gross negligence or a colleague's misuse of funds or abuse of power in an organization are all examples that cannot be excused by saying "I didn't want to damage our friendship." The other ethical abuse is to tell the truth about a business but not to tell the right person. Gossip is wrong because it damages another for your own benefit and the concerned parties have no way to defend themselves. If my wife and I have shared our opinions of the true business merits of the electronic business card scheme with others, we would be guilty of ethical abuse.

Telling the truth in a context where that is unexpected is a breach of etiquette.

But what happens if you are determined to make a deposit in the truth bank and it is neither part of your job to do so nor can you see that anyone is being abused in the face of your silence? Telling the truth when you don't have to is called giving advice.

Even in a world starved for useful feedback, advice giving is a perilous enterprise. I have been burned often enough in doing it to have formed some impressions about what works and what doesn't. Do you mind if I share some of them with you? Giving advice is reserved for friends and for colleagues. Having a superior position or superior knowledge are not reason enough to justify advice giving. They are just reasons for preventing the advisee from complaining. It is good to ask permission: "Do you mind if I share with you how your ideas are coming across?" Now might not be the time when the advisee is open to feedback or these may not be the best of circumstances. Separate the person from the behavior. "The treatment surprised me" is better than "you surprised me." Advice should be tentative. You may know more than your advisee, but you don't know everything. Make your words tender; from time to time you will have to eat some of them. You should offer reasons along with your advice. Imperatives ("Do this . . .") create defensiveness. If a reason can be given–particularly a reason the advisee has already said is important–the conversation can be about principles rather than behaviors. Remember that giving advice is a privilege and the want of truth is no justification for abusing it.

As I struggle to complete these last few sentences, I am distracted by Blue and Beamer, our two Border Collies. Their enthusiastic affection reminds me how the very success of a species depends on avoiding the unnecessary comment, regardless of its objective truth. The same seems to be true for dogs.



David W. Chambers, EdM, MBA, PhD, FACD
Editor

Ethics Summit II: Creating a Sustaining Structure for an Ethics Alliance of Oral Health Organizations

Bruce Peltier, PhD, MBA; Thomas K. Hasegawa, DDS, MA, FACD; David T. Ozar, PhD; Donald E. Patthoff, DDS, FACD; and David W. Chambers, EdM, MBA, PhD, FACD

Are there issues in oral health that can be effectively addressed from an ethical point of view? Are there matters that are better handled on ethical grounds than through litigation, politics, market forces, or regulation? Sixty-two organizations in oral health care met in Nashville, Tennessee, on January 27 and 28, 2000 and overwhelmingly endorsed the efficacy of ethics. The meeting was titled "Ethics Summit II" and was the second in a series.

The Summit was called to see whether organizations representing the widest range of those involved in oral health care could create a permanent alliance to promote ethics. This has never been attempted, to our knowledge, in any other profession. Leaders from a remarkably diverse group of national organizations attended, including representatives from organized dentistry, brokers of dental care, state boards, practitioner organizations and academies, dental schools, manufacturers, suppliers, publishers, hygienists, assistants, government agencies (veterans, military, and public health services), and other dental related groups. The objectives of the two-day meetings included:

- Identify the common interests of member organizations
- Decide if such an alliance would be worth joining and funding
- Craft a provisional mission statement
- Identify a process by which a permanent alliance might be created
- Explore the features of a common code of ethical principles or core values
- Identify means of sustaining financing for an alliance
- Discuss means of managing the business of an alliance

These and other issues (such as compiling a list of the greatest ethical problems facing oral health care today) were discussed in plenary and breakout discussion groups. Progress on the objectives was recorded in a working draft, ultimately approved unanimously (save one anonymous vote) by those present.

Background: Building on Ethics Summit I

The first ethics summit for oral health care took place in St. Louis on April 24 and 25, 1998. The proceedings of that meeting are summarized in the autumn 1998 issue of the *Journal of*

The authors were all facilitators at Ethics Summits I and II. Dr. Peltier is associate professor at the University of the Pacific School of Dentistry and course director of ethics education and current president of PEDNET. Dr. Hasegawa is a professor at Baylor College of Dentistry, a member of the Texas A & M University System Health Science Center, and is associate dean for clinical services. Dr. Ozar is Professor of Philosophy, Director of the Center for Ethics at Loyola University of Chicago, and executive director of PEDNET. Dr. Patthoff is a general dentist in Martinsburg, West Virginia and a past president of PEDNET. Dr. Chambers is associate dean for academic affairs at the University of the Pacific School of Dentistry and served as the moderator of Ethics Summit II.

the American College of Dentists. The College functioned in the role of convener for both summits, and invitations were extended to all organizations involved in any way with oral health care. The focus of the first summit was to probe for common ground among the diverse organizations.

Five goals were addressed in St. Louis: (a) what is known of existing issues and codes? (b) What is the role of codes? (c) What should be done when values conflict? (d) How should we respond to unethical behavior? and (e) what does it mean for an organization to be ethical? Prior to the summit, organizations were asked to identify the issues facing their organizations and the oral health professions as a whole and to furnish a copy of any codes they might have. Concerns facing oral health care organizations were: financing and reimbursement (34%), treatment standards (29%), advertising and misrepresentation (8%), organizational conflicts (4%), legal matters (3%), and problems in research and dentist vs dentist problems (2% each). Of the seventeen organizational codes collected prior to the first ethics summit, ten had been shared with others than the members of the organization. In two cases, an ethicist had been consulted during the creation of the code, but none of the organizations had involved beneficiaries of the code (patients, for example) in the code writing process.

Ethics Summit I concluded that discussions among organizations in oral health care ran more smoothly when a common focus (e.g., the good of the patient or others in need of oral health care) could be maintained. We also found that discussion is valuable even when no resolution was possible, that organizations can function as ethical agents, and that the view from the high road is best. A theme emerged in the discussion groups that eventually became a driving force: oral health can be improved if an alliance could be created to sustain emphasis on ethics. Participants left St.

Table 1. Ethical Issues Facing Oral Health Care Organizations (in alphabetical order).

- Access to care for patients, especially the indigent and working poor, individuals in rural settings, and those with special needs
- Accommodating diversity while preserving common purpose and standards
- Appropriate scope of practice of allied health workers
- Balancing conflicting professional allegiances within individal professionals
- Conflicts of economic interest with professional practice–claims of product efficacy, disclosure of conflicts of interest, profiting from sale of products or advice for which one has no formal training
- Cost-worthiness of knowledge and technology transfer
- Defining evidence-based dentistry
- Differentiating need, want (seeking elective care), and demand and working through the ethical issues of conflicts these create in the market
- Diversity in the profession–dental school admissions, participation in organized dentistry, access to decision-making roles
- Finding methods that promote ethical behavior
- Finding the balance in professional autonomy–which constraints are appropriate? Who participates in such decisions?
- Freedom of movement of professionals following licensure
- General awareness of the value of ethical standards and ethical reasoning among oral health professionals
- Improving awareness, communication, and cooperation among oral health care organizations and government and other regulatory groups; developing new ways to work together
- Inadequacy of national standards for assessment of outcomes of care
- Is there any group that speaks effectively for patients' or others' rights?
- Issues surrounding reimbursement–effects on treatment choices, effects on access to care, effects on providers
- Lack of formal instruction in ethics (during formal education and later)
- Lack of understanding and awareness of other individuals' or other organizations' ethical positions

(continued on page 6)

Table 1. Ethical Issues Facing Oral Health Care Organizations (in alphabetical order) (continued)

- Limited definitions of oral health which focus narrowly on treatments and incompletely address matters of reimbursement, comprehensive care, referral for other needs, and access
- Low level of oral heath awareness and value in society at large
- Managing insurance fraud
- Managing the multiple roles of those who have input into decisions about care: dentists, patients, third parties, government, and lawyers
- Need for broad education in ethics
- Need to encourage volunteerism among professionals
- Policy matters, including allocation of scarce resources
- Providing treatments which are either illegal or for which the dentist or other provider has not been trained
- Resolution of issues of credentialing, recognition of non-ADA-accredited specialists, representation of skills
- Responding to the unethical behavior of other professionals.
- Standards and structures
- Standards of care–local vs national interpretations, impact on access and reimbursement, appropriate degree of flexibility for individual differences among practitioners, responsiveness to new discoveries
- The ethics of advertising–dubious products, advertising to patients and the public, media coverage, incentives, and other direct marketing approaches
- Transfer of new technology and scientific information–balancing timely introduction of advances with need for testing and sorting valid from invalid claims
- Understanding informed consent, diminished capacity, and restraint of patients
- Understanding the oral health impact and the ethical implications of various models of delivery and reimbursement
- Use of human subjects in licensure examinations
- Various concerns in the area of research, including proper and complete studies prior to marketing products, common standards for clinical research, appropriate distribution of research funds, usefulness and accessibility of research data, scientific education of dentists, ethical matters in testing
- Various matters in professionalism, including trust vs competition, honesty, announcement of competence, referrals, and levels of care

Louis with a firm commitment to convene a second ethics summit that would explore such an alliance.

Common Purposes

Table 1 is a listing of the issues participants in Ethics Summit II felt were most pressing. This list is extensive, but it does not fully convey the intensity of personal concern expressed by participants. It was immediately apparent that there are more issues than resources and that most of the issues extend across the boundaries of organizations. An approach that concentrates resources and fosters cooperation across organizations is required.

An alliance was proposed and it was named the "Ethics Alliance of Oral Health Organizations." Participants weighed alternatives and drafted the following provisional mission statement: The mission of the Ethics Alliance of Oral Health Organizations is to promote ethical conduct throughout all aspects of the oral health care system.

From the large list of issues in oral health, five common, overarching themes were identified. In order of priority, these were:

- Promote ethical conduct
- Enhance communication
- Identify issues and seek options for solution
- Improve quality of life through oral health
- Improve access to quality care

A Sustaining Structure and Approach

An assumption emerged from the first summit that the strength, flexibility, and inclusiveness of an ethical approach to issues in oral health could be maximized through a voluntary confederation of organizations. No single organization has the resources or mandate to do it all; individuals working alone lack the necessary impact. In both the first and second ethics summits all organizations that have some role in oral health were invited to send one or more representatives. Individuals were asked, however, to

Table 2. Methods for Accomplishing the Alliance mission (alphabetized).

- Assemble and publicize best practices
- Convene national conferences on a periodic basis
- Create a Website
- Create task forces
- Develop position papers
- Develop standards, codes, and guidelines that integrate those of member organizations
- Encourage publication of appropriate material in the journals and newsletters of member organizations
- Encourage actions to promote the mission of the Alliance among its own members and other organizations
- Engage in and encourage leadership training and mentoring in ethics
- Identify and prioritize issues
- Maintain a speaker's bureau
- Prepare and publicize the availability of effective educational material and effective programs
- Promote positive media coverage
- Provide incentives to promote
  - Research
  - Publication
  - Education
- Provide forums for dialogue and discussion
- Provide mediation services and training
- Serve as a common point of contact or input from consumers, government, and others
- Serve as a focus for collecting and disseminating information and resources

speak from a personal perspective. This requirement shifted the discussion from a political to an ethical one and freed participants to speak their minds without having to represent what they believed would be the "official" position of the organization. It was assumed that each participant, because he or she was selected by their organization, would be grounded in the core values of their organization. A team of four facilitators (Joseph Draude from the Navy Dental Corps; Bruce Graham, dean at the University of Detroit-Mercy; Gerry Winslow, a professor of ethics at Loma Linda University; and D. Scott Navarro of Delta Dental Plans of New Jersey) and four ethics experts (the authors of this paper) assisted the participants. David Chambers served as overall facilitator for the conference.

The participants in Ethics Summit II worked hard to develop a structure for an Ethics Alliance of Oral Health Organizations that would balance concerns for effective mission accomplishment, for focusing diverse resources and interests, for ensuring autonomy of participating organizations, for maintaining flexibility, and for providing resources to sustain the Alliance on an on-going basis.

Advisory Committee

It was agreed that a minimal, representative organizational structure would be optimal. It was decided that an advisory committee best suits this purpose. The advisory committee will be composed of ten to fifteen individuals serving staggered terms and selected from representative groups. Examples of the groups to be represented include patients and consumers, professional organizations, manufacturers, government organizations, payer organizations, allied dental health, suppliers, foundations, educational organizations, federal dental services, regulatory groups, and research organizations. Invitations to participate would be extended to the various groups, not to particular individuals. Because it is anticipated that the number of organizations wishing to participate will exceed the number of positions on the advisory committee, rotations will be established and interested participants will be asked to help with specific projects. PEDNET has agreed to continue to provide ethics content expertise.

Anticipated tasks for the Advisory Committee include: managing communication within the Alliance and between the Alliance and others, ensuring continuous financing, convening conferences at intervals of roughly eighteen to twenty-four months, and delegating activities to various working groups. A list of some of the methods the Ethics Alliance of Oral Health Organizations might use is presented in Table 2.

Common Code

Participants in Ethics Summit II endorsed the value of investigating existing ethics codes and statements of core values and on working toward a common or umbrella code or set of values

that participants could subscribe to and use. There was no agreement; however, on whether this might be a code of conduct, a code of ethical principles, or a set of core values for the Alliance itself. This matter will be referred to the Advisory Committee.

Sustaining Financing

Another task for the Advisory Committee is the matter of long-range financing. Ethics Summits I and II were convened by the American College of Dentists which secured the necessary financial support. It is necessary to develop a fund that permits regular, rather than ad hoc planning and activity. Another issue of importance is to balance the need for broad participation from organizations with unequal membership and funding bases.

The most viable sources of funding suggested for the Alliance included organizational membership fees (on a sliding scale), registration fees for events such as national conferences, grants, corporate and organization sponsorships, and various sources of non-dues revenue such as publications and sale of web content.

Implementation: First Steps

Those who gathered in Nashville were firm in their belief that an Ethics Alliance of Oral Health Organizations has the potential to promote ethical conduct throughout all aspects of the oral health care system. The American College of Dentists has played a leading role in the process to this point because of its own mission to promote excellence, ethics, and professionalism in dentistry. They are also recognized for their non-political position and because of congruence with their mission were asked to convene the first two ethics summits. Participants in Ethics Summit II acknowledged this leadership and asked the College to now take the role of convening the Advisory Committee. This step, along with the transfer of authority to the Advisory Committee will be completed in the next few months.

Sponsors of Ethics Summit II were acknowledged and thanked for their faith in this project. Their names appear in the sidebar. It was also noted that participating organizations had each contributed by sending a representative and that many participants had personally borne some of the expense.

Sponsors of Ethics Summit II Included:

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Sustaining Alliances for Integrity

Patricia H. Werhane, PhD

Abstract

Research in business ethics has shown that value-grounded organizations outperform their counterparts in business terms and that industries can successfully regulate themselves. The market in health care, systems theory, and stakeholder analysis are used to generate a set of five potential core values to sustain an Ethics Alliance of Oral Health Organizations.

My field is business ethics and organization ethics, and until recently, business ethics, and medical and dental ethics were quite separate, and for good reason. Business people do not know much about medicine and dentistry, and some of your professional colleagues in the latter fields are rather naïve about business. However, with the advent of managed care, dentistry and medicine are no longer, if they ever were, ideal professions protected from the vicissitudes of markets and organizational complexities. Thus there is a growing field called organization ethics, developed to take into account the organizational and market dimensions of oral health care and medicine. In this paper I shall take what I know from business and organization ethics to help frame the audacious project of the Ethics Alliance of Oral Health Organizations that the American College of Dentists and affiliated professional, clinical, manufacturing, and government agencies have been thinking about for some time. No other group, to my knowledge, has tried such a complex alliance of disparate individuals, professions, educators, manufacturers, providers, insurers, and other organizations, and such a project will require rethinking the perspectives of each of the stakeholders involved in the proposed alliance. Some of the work that has already been done in business ethics and organization ethics might be helpful in this formulation.

Two Studies

I shall begin by describing two studies that would not be surprising if they were studies of oral healthcare organizations but are rather revealing because they were undertaken about for-profit corporations. The first is an examination of corporate best practices in non-healthcare settings by James Collins and Jerry Porras in their 1994 book, *Built to Last: Successful Habits of Visionary Companies*. Their goal was to identify the characteristics of "visionary companies" (as identified by polling CEOs of 700 major corporations), and to examine how these companies differed from other "comparison companies." Collins and Porras define a visionary company as the premier organization in its industry, as being widely admired by its peers, and as having a long track record of making a significant impact on the world around it. The visionary companies identified by Collins and Porras are 3M, American Express, Boeing, Citicorp, Ford, General Electric, Hewlett-Packard, IBM, Johnson and Johnson, Marriott, Merck, Motorola, Nordstrom, Phillip Morris, Procter & Gamble, Sony, Wal-Mart, and Walt Disney.

Each of the visionary companies chosen by Collins and Porras faced setbacks, and each has made mistakes. Each has changed its direction and even the products and services it pro-

Dr. Werhane is Ruffin Professor of Business Ethics at the Graduate School of Business Administration, University of Virginia and editor of *Business Ethics Quarterly*. She can be contacted at phw2m@virginia.edu. This paper was given as the key note address at Ethics Summit II in Nashville, Tennessee, January 28-29, 2000.

vides. Nevertheless, each has displayed a resiliency, an ability to bounce back from adversity. The long-term financial performance of each has been remarkable. A dollar invested in a visionary company stock fund on January 1, 1926, with dividends reinvested, and making appropriate adjustments for when the companies became available on the stock market, would have grown by December 31, 1990 to $6,356. That dollar invested in a general market fund would have grown to $415. The comparison companies chosen by Collins and Porras are by no means sluggards. They represent some of the most respected organizations in the world. They are Ames, Burroughs, Bristol-Myers, Chase, Colgate, Columbia, General Motors, Howard Johnson, Kenwood, McDonnell Douglas, Norton, Pfizer, R.J. Reynolds, Texas Instruments, Wells Fargo, Westinghouse, and Zenith. But that dollar invested in a comparison stock fund composed of these companies would have returned $955—more than twice the general market but less then one sixth of the return provided by the visionary companies.

What was different about visionary companies and comparison companies? Each operates in the same market and each has relatively the same opportunities. Still, Collins and Porras, state:

> *Contrary to business school doctrine, "maximizing share-holder wealth" or "profit maximization" has not been the dominant driving force or primary objective through the history of the visionary companies. Visionary companies pursue a cluster of objectives, of which making money is only one-and not necessarily the primary one. Yes, they seek profits, but they are equally guided by a core ideology–core values and a sense of purpose beyond just making money. Yet, paradoxically, the visionary companies make more money than the more purely profit-driven comparison companies.*

These patterns of difference dispel the myth that the most successful companies are those whose primary goal is profit maximization or increasing shareholder wealth. What is distinctive in the visionary or successful companies, according to Collins and Porras' findings, is that a visionary company is driven by an ideology that "it lives, breathes, and expresses in all it does…. A visionary company almost religiously preserves its core ideology—changing it seldom, if ever."

A values-orientation appears to add distinctive and desirable outcomes that cannot be achieved by a perceived focus on behavioral compliance.

A second source of data is an even more recent set of studies by Linda Treviño and Gary Weaver. Treviño and Weaver examined the comparative role of ethics versus compliance programs in a number of large U.S. corporations. They found that "a focus on [compliance codes] with monitoring and discipline ... is more likely to engender a contractual employee attitude where shared values are irrelevant to performance" (Trevino & Weaver, 1999). On the other hand, in companies that were driven by core values-based ideology compliance to regulations and legal restrictions, even in foreign settings, was higher than in companies that were preoccupied with roles of compliance and engaged in monitoring managerial behavior. A values-orientation appears to add distinctive and desirable outcomes that cannot be achieved by a perceived focus on behavioral compliance. Indeed, "a values-orientation appears important to fully realizing the potential benefits of compliance activities such as reporting misconduct."

The conclusions to be drawn of these studies are obvious. Core values and ethics programs make a difference, at least in for-profit sectors of the economy. They make a difference in long-term survival, sustainability, compliance, and profitability! So the work of forming an oral healthcare alliance grounded in ethics and core values and the formation of codes of ethics that aligns professionals, professional associations, insurers, manufacturers, and government is not a waste; indeed it is central. And such work should not affect the "bottom line" for those in the for-profit sector of the oral health industry. Indeed, if these studies are valid, developing an alliance based on core values should contribute to long-term success.

Industry Alliances

While alliances such as the Ethics Alliance of Oral Health Organizations are unique, simpler versions of them have been tried successfully in industry. I shall describe two successful alliances of business industries, alliances created for the express purpose of improving the ethical climate of companies in these industries.

The first is a program called "Responsible Care" created by a group of chemical companies about eleven years ago in response to increasing regulations and the public perception that chemical companies were less than perfectly ethical. The Responsible Care program has developed six sets of codes of ethics to cover key elements in the chemical industry including, most lately, environmental performance with the goal of zero harm to the environment. Membership requires that at least one code has been instituted and measured in the company being considered for membership. Over 90% of all U. S. industrial

chemical companies have adopted these codes as well as a number of companies in forty-one other countries. DuPont and other leading chemical manufacturers are now ahead of government regulations and helping to rewrite environmental codes that have important influence worldwide, and these companies are even learning that safety and environmental sustainable practices can be to their competitive advantage. (Details of this program can be found at www.responsiblecare.com.)

Eighteen companies in the Defense Industry formed a second alliance in 1986 in response to increasing irregularities in defense industry compliance. This Defense Industry Initiative, as it is called, has developed a set of principles or guidelines for behavior. As a result, violations of government compliance standards have decreased markedly in the last five years. And these companies, like those in the chemical industry, are still very profitable. (Further information is available at www.dii.org.)

Although industry alliances are less complex that the oral health alliance, they are instructive to demonstrate that voluntary alliances among very competitive companies can be created that are publicly accountable, develop stakeholder respect, and actually improve the behavior of their members while complying with or even going beyond government regulations. Alliances based on a common code of ethics are possible among disparate and competing organizations. They can improve the organizations in question, both their long-term sustainability and even profitability. They are effective as compliance mechanisms, and they can contribute to public or private partnerships.

Organization Ethics and Alliance

What else is helpful from business ethics and organization ethics in thinking through the Ethics Alliance of Oral Health Organizations? I shall focus on three ideas, none of which will be surprising: what I shall call a systems approach to creating, sustaining, evaluating, and decision-making in an alliance such as you propose; stakeholder theory as a way to think systemically; and the prioritization of core values central to the Ethics Alliance of Oral Health Organizations.

Alliances based on a common code of ethics are possible among disparate and competing organizations.

The Market in Oral Health Care

Preliminary to this analysis, however, we should set out a series of provisos that make explicit the proposition that oral health should not be conflated with ordinary market enterprises, so that it is clear that the proposed oral healthcare alliance is not a typical industry alliance. These are the reasons.

1. Mission: Few corporations define their mission solely in terms of profitability. What we learned from Collins and Porras is that the best organizations integrate other missions with the aim of profitability, and that the best (longest surviving, most responsible, and most profitable business organizations are those that do not focus profitability as their primary missions. Still, whatever the mission, a goal of any for-profit business firm is the economic flourishing of its shareholders, or of its primary stakeholders. In oral health there is no such tight relationship between the rationale of the existence oral health care and economic survival. The difference has to do with the primary mission of oral health, which is always the provision of oral health services to individuals and populations. This constitutive goal stands in an uneasy relation to economic ends. What is strange is not that an individual, a professional or an organization in oral health, is concerned with efficiency, profitability or at least, sustainability. But the trouble begins when any of these individuals and organizations realigns their mission or creates an organizational, professional, or alliance culture in which efficiency, productivity, and profitability become the first priorities.
2. Patient Priority: In any situation, how one prioritizes value-creating activities determines the nature of stakeholder relationships. Patients, the consumers of the oral healthcare services, have a privileged status. It is true that in many excellent companies profitability is only one of a number of goals such as integrity, customer satisfaction, employee well being, respect for community, etc. Nevertheless, no for-profit entity can stay in business very long if it loses money. So while customers or consumers are a set of important stakeholders, they are not the only primary stakeholders. This is not the case in oral health.
3. The Vulnerability of Patients: The consumer/patient is often in pain and vulnerable. So, unlike ordinary consumers, patients are not always able to exercise their choices coherently.
4. Central Role of Professionals in Oral Health: Dental healthcare professionals play key roles in the delivery of oral health services. It is the dental professional, not the manager, who is responsible for delivering care. One cannot gloss

over, trade off, or subordinate professional commitments to patient oral health. Typically professionals in the oral health community belong to, and are accredited by, independent professional associations. Many if not all professionals consider themselves primarily bound by the ethical prescriptions of their profession, pre-eminent among which are their duties to their patients. The necessity of professionals and the crucial importance of professional integrity in providing oral health care complicate stakeholder relationships, particularly if the professional is also an employee of a managed care organization.

5. Separation of Customer/Payer and Consumer/Patient: Today many recipients of oral healthcare services are not the payers. The correlation between consumers and payers is very different in this context than in the usual business, and there is an unresolved ambiguity in the stakeholder role of "customer." Various forms of insurance, employer sponsored health plans, or government agencies purchase oral health coverage for the individuals and patient groups who are the actual and potential patients. This three-way relationship complicates accountability between the parties affected in oral healthcare delivery, and unlike the typical consumer, the patient may have no choice to go elsewhere or to change providers.
6. Community and Public Health: Community access and public health are always part of the accountability equation for oral health professionals, both because it is an element of professional service endemic to these professional codes and because of societal expectations that these needs should be served.
7. Oral Healthcare Markets: There are a number of factors that complicate oral healthcare markets. There is an information asymmetry between managers and professionals, and between professionals and consumers or patients. Coupled with patient vulnerability, one's oral healthcare customers are never "fully informed" customers. If "buyer beware" was ever an appropriate slogan, it does not apply in this context. There is also an information asymmetry between patients and provider and managed care organizations. Competitive oral healthcare organizations do not have access to customer (i.e., patient) information in ways in which they have access to market information in other business enterprises. So ordinary competitive relationships are not possible in the oral healthcare market. Additionally, there is a supply/demand asymmetry. Ordinarily dental professionals and MCOs cannot respond to all market demands, in particular, to the demands of the uninsured. Along with that is a pricing asymmetry. Some patients or patient-groups cannot pay for what they consume while others pay for more than they consume. (This section is a revised version of similar arguments in Spencer and Werhane, in press.)

These factors, and there are others, give ample evidence that the distinguishing features of oral health preclude identifying oral health and oral health alliances with business alliances. Business ethics provides examples and some tools creating oral healthcare alliances, but this does not merit merely conflating oral health with ordinary market activities.

Systems and Systems Thinking:

In creating a values-driven and sustainable oral health alliance, one cannot merely take the perspective of one set of participants, for example, dental professionals. Rather, one has to take into account multiple perspectives and the points of view of a disparate number of stakeholders. I want to suggest that a systems approach to systems thinking helps in envisioning how this could be possible. Indeed, "a truly systemic approach (to creating an oral health care alliance) considers how this set of individuals, institutions, and processes operates in a system involving a complex network of interrelationships, an array of individual and institutional actors, with conflicting interests and goals, and a number of feedback loops" (Wolf, 1999).

A system is "a set of interdependent elements interacting to achieve a common aim [your core values]....The elements plus their interactions constitute the system [the alliance]" (Berwick & Nolan, 1998). A system or alliance is "a complex of interacting components together with the relationships among them that permit the identification of a boundary-maintaining entity or process" (Laszlo & Krippner, 1998).

For our purposes systems thinking presupposes that most of our thinking, experiencing, practices, and institutions are interrelated and interconnected. Almost everything we can experience is in a network of interrelationships such that each element of a particular set of interrelationships affects the other components of that set and the system itself, and almost no phenomenon can be studied in isolation from all relationships with at least some other phenomenon. Systems thinking, then, involves two kinds of analysis. In a systems approach, "concentration is on the analysis and design of the whole, as distinct from ... the components or parts..." (Ramos, 1969). Systems thinking requires conceiving of the system as a whole with interdependent elements, subsystems, and networks of relationships and patterns of interaction. Studying a particular component of a system or a particular relationship is valuable only if one recognizes that that study is an abstraction from a more systemic consideration. For example, if one focuses on professional oral hygienists, one can do that only if we remember they are part of the whole system of oral health.

At the same time, systems thinking involves multiple-perspective analyses of any subject matter (Mitroff & Linstone, 1993). Because "the fundamental notion of interconnectedness or nonseparability, forms the basis of what has come to be known as the Systems Approach,...every problem humans face is complicated [and] must be perceived as such" (Mitroff & Linstone, 1993). So each system or subsystem, because it is complex and entails a multitude of various individual, empirical, social, and political relationships, needs to be analyzed from multiple perspectives.

In a recent book, Ian Mitroff and Harold Linstone argue that any phenomenon, subsystem, or alliance needs to be analyzed from what they call a Multiple Perspective method. Such a method postulates that any individual, professional, association, organization, system, or alliance or any problems arising for or within that alliance should be dealt with from at least three perspectives, each of which involves different world views where each challenges the others in dynamic exchanges of questions and ideas. Mitroff and Linstone suggest that one needs to look at problems from a technical, or fact-finding point of view, from a organizational or social relationships perspective, and from an individual perspective, ranking problems, perspectives, and alternate solutions, and evaluating the problem and its possible resolution from these multiple perspectives (Mitroff & Linstone, 1993).

If "buyer beware" was ever an appropriate slogan, it does not apply in this context.

A multiple perspectives approach also takes into account the fact that each of us individually, or as groups, organizations, or alliances creates and frames the world through a series of mental models, each of which, by itself, is incomplete. While it is probably never possible to take account all the networks of relationships involved in a particular alliance, a multiple perspectives approach forces us to think more broadly and to look at particular alliances or problems from different points of view (Mitroff & Linstone, 1993). It is also invaluable in trying to understand other points of view, even if, eventually one agrees to disagree. A Multiple Perspectives approach is essential if, for example, for-profit healthcare systems are to understand what is at stake for the uninsured or what is at risk if professional staff is reduced.

The Ethics Alliance of Oral Health Organizations is more complicated. It would include professional perspectives (professionals and their associations), clinical perspectives (patients, oral health care), public health, economic perspectives (manufacturers, pro-fessional payment mechanisms), insurers (private and government, MCOs), providers (MCOs), governmental perspectives (board examiners, regulators, public health administrators). In creating an Ethics Alliance of Oral Health Organizations using a Multiple Perspectives approach we might formulate at least two sets of grids. The first grid is a descriptive or "technical" approach and includes the following. First one needs to describe the system in question from a sociological point of view, including in the description as networks of interrelationships between individuals, groups, organizations, and associations. Second, one needs to outline the boundaries and boundary-creating activities so that it is clear what is not included in the alliance. Next, one should clarify the number, nature, and scope of subsystems in the alliance. As I shall argue in more detail, a stakeholder approach is useful in this context. By enumerating the various stakeholders involved in or affected by the alliance, their interrelationships and accountabilities, one can get clearer on the networks of interrelationships entailed in this complex alliance. (See Werhane, in press.) This final step overlaps with the second set of grids.

This second set of grids takes a more normative perspective. One tries to determine what core values and purposes the alliance has, or in this case, what it should have, since these values and goals will affect its structure and interrelationships. Then one should evaluate the goals and mission of the system in question in three respects. One needs to test those goals, value statements, or mission for their moral content. Are they viable and valuable, or would such goals actually create a balance of harms over benefits, affect human rights or dignity, or create injustices or imbalances, say, in health care delivery? Secondly, one should rank order the values, recognizing where there is and is not consensus. Third, one tests the goals or mission against their viability within the alliance in question. Are these the goals this system should have, and is that system capable of carrying out these aims (Luben, 1988)? While the normative details of that grid are certainly subject to more debate, this approach pushes us into the direction of broad-based systems thinking and into more creative and imaginative ways to analyze and evaluate oral health alliances such as the one being envisioned.

Stakeholder Theory

One way to operationalize a systems approach using descriptive and normative grids is to appeal to stakeholder theory. Despite the myth (dispelled by Collins and Porras) that the for-profit sector is driven by Milton Friedman's famous edict that "there is

one and only one social responsibility of business–to use its resources and engage in activities designed to increase its profits ..." (Friedman, 1970), management theory and business ethics, in particular, has by and large adapted what is now called a stakeholder approach. Widely defined, stakeholders are "Groups or individuals who benefit from or are harmed by, and whose rights are violated or respected by, corporate [or alliance] actions" (Freeman, 1999). The core thesis of stakeholder theory is the normative claim that the interests of all the parties involved in any transaction ought to be considered in determining how to act ethically. In order to make this determination; it is necessary first to identify each of the parties (individual and collective) with whom the organization or alliance interacts and what each party has at stake. In a modern business corporation the primary or most important stakeholders commonly include employees, management, owners, and customers, and usually, suppliers and the community. In the oral health context this is much more complicated.

Part of a systems approach appeals to a descriptive grid, and in the first instance, stakeholder theory is primarily descriptive, outlining stakeholder relationships as alliance role relationships. Prioritizing stakeholders helps further to sort out and clarify the alliance priorities so that not every person, group, or other organization affecting or affected by the alliance in question is equally important as a stakeholder. Otherwise the theory is vacuous.

One way to prioritize stakeholder claims is to examine the Alliance's purpose and mission, ranking stakeholders in terms of who has legitimate or appropriate claims and who is essential to that mission and to the survival and flourishing of the Alliance. This is part of the normative systems grid.

Let us assume for our purposes that all stakeholders in question are individuals or groups (including institutions) made up of individuals. Thus stakeholder interests have intrinsic value. According to R. Edward Freeman, the "father" of stakeholder theory, in every stakeholder relationship, the "stakes [that is, what is expected and due to each party] of each are reciprocal, [although not identical], since each can affect the other in terms of harms and benefits as well as rights and duties" (Freeman 1999).

Obligations between stakeholders and stakeholder accountability notions are derived on two bases. First and obviously, stakeholder relationships are relationships between persons or groups of persons. So the firm and each of its stakeholders are reciprocally morally accountable to each other just because they are people. One is obligated to treat individuals with respect, play fairly, avoid gratuitous harm, etc. What is distinctive about stakeholder relationships, however, is that these relationships entail additional obligations because of the unique and specific role-defined relationships between the proposed alliance and its stakeholders, which include professionals (Phillips, 1998).

For example, a dental professional has obligations to patients, to the community, and to a professional association because he or she is a professional. If he or she is working for a provider organization or a MCO the professional has obligations as an employee as well. And if the professional association and/or employer are part of the proposed alliance, there are further obligations to the Alliance.

Another key normative question in stakeholder theory is: Which, if any, of these stakeholders should be given priority when the interests of several stakeholders conflict? This question cannot be answered simply from a description of the various categories of the Alliance stakeholders and their interests. The priority of the interests of some of some stakeholders over others is often made clear by a mission and core ideology.

Core Mission and Values Priorities

Using the normative systems grid, let us now speculate on the core mission and ideology of the Alliance and how values might be prioritized given the mission of oral health and the primary stakeholders linked to that mission. Here I shall draw from several articles that have appeared in the *Journal of the American College of Dentists* and elsewhere concerning the mission goals and ideology of the oral health professions and the oral health industry.

To begin, the primary stakeholders for an oral healthcare alliance are patients, professionals, the community and public health, insurers, manufacturers, and providers. David Ozar, a leading oral health care ethicist, has argued that the goals of the oral professions include (1) relieving and preventing intense pain; (2) relieving and preventing less intense pain and discomfort; (3) preserving and restoring patients' oral function, on which both nutrition and speech depend; (4) preserving and restoring patients' appearance; (5) preserving and restoring patients' autonomy (Ozar 1995). These goals can be translated into part of the mission of the alliance, since they are goals of every person, professional, insurer, manufacturer, and organization in the alliance. To put it more bluntly, this is an alliance of oral health professionals, associations, and organizations. So by definition, the core mission of all these participants, their first priority, must be oral health and one of the primary stakeholders must be patients. Thus the first priority and value, the mission proposed alliance is:

Priority One: Oral health including preventing and relieving pain, maintaining or restoring oral health and appearance. The American College of Dentists links this to Ozar's fifth goal (patient autonomy) by stating that the aim is: "Providing competent oral health service with compas-

sion and respect for human dignity" (American College of Dentists Core Values: www.facd.org). The American Dentist Association adds that the goal is to "promote patient's welfare" (ADA Principles of Ethics: www.ada.org).

However, even if all participants in the Alliance can all agree on this as the first and primary mission, questions remain. The central issue revolves on the question, which patients? Are these to be limited to those who are insured; signed up for managed care, who can pay? Or do those involved in oral health have obligations to those who are uninsured, who cannot pay, who are poor but not on Medicaid? Should the Alliance go so far as to advocate universal coverage?

Priority Two. Respect patients' autonomy and rights to self-determination and confidentiality. Like Priority One, Priority Two is worthwhile and will be agreed upon. However, how do you deal with privacy issues for insured patients when their records are examined by numerous employees and professionals? How do you deal with children and those whose religious beliefs conflict with what most of you would agree is responsible care? How does one deal with financial limitations that preclude self-determination and full autonomy?

Priority Three: Upholding professional standards: the value of professional expertise and professional excellence. If the primary mission of the Alliance is oral health, then a second set of core stakeholders crucial to the deliver of oral health care is oral health professionals. Professional expertise is obviously crucial to delivering oral health care, and professional excellence is central to the delivery of such care.

Still, what are the limits to that obligation? How does one deliver oral health care when there are spending limits on the insured? What are the complications when professionals are also employees? And what are the limits of professional obligations to public health and to serving the poor?

Priority Four: Improving the oral health of the public and the community and universal patient acceptance (universal coverage). This, too, is an obvious priority of every oral health professional. But is it merely the obligation of these professionals, and are there any limits to those obligations? What is the obligation of the community, of government, and of public health policies in this regard? And how does one factor in financial and time constraints?

The priority of the interests of some of some stake holders over others is often made clear by a mission and core ideology.

Priority Five: Survival and well being of oral health organizations, insurers, MCOs, professions and professional association, suppliers, manufacturers, or dental offices (for independent practitioners), and even of the Alliance itself. Note I have placed this as the fifth priority, and the organization as an important stakeholder, but not as important as patients, professionals, and public health. Still, unless our health institutions are sustainable, all of oral health care is threatened. So even as a fifth priority, survival and well being, it cannot be dismissed, and we are left with the question, when does organizational survival pre-empt the other priorities? Or does it? (See Ozar, et al, in press for a similar prioritization for health care organizations.)

A few details emerge from this list. While most members of the Ethics Alliance of Oral Health Organizations might agree on the primary stakeholders and the value priorities I have listed, some of you will disagree on my ranking of priorities. Is survival and well being merely the fifth priority? How can oral health care be provided without well-functioning providers, insurers, pharmacies, public health clinics, etc.? What is the role of the Alliance in tackling the problem of universal coverage? What are the limits to professional obligations? How does one factor in financial constraints in providing oral health coverage? How do professional standards take priority with payer or employer capitation schemes? Can we ever provide universal coverage? Thus while the Alliance may come to some consensus on core values it may agree to disagree on prioritization.

But Alliance members and participants should not be discouraged. Disagreements can be important, so that Alliance participants can gain perspective on the various mindsets of the organizations and professionals involved in developing this endeavor. This analysis and the disagreements that might ensue should help members of the Alliance grasp both the interconnectedness and the differences among members. The integrity of the Alliance depends on consensus and disagreement. Alliance participants should be able to celebrate agreement on core values and evaluate differences. With integrity and trust one can then develop a core code that will elaborate on both and include in it evaluative mechanisms to judge and even change the network dynamics and even the goals of the Alliance.

Conclusion

The project to develop an Ethics Alliance of Oral Health Organizations is a complex and creative undertaking. The focus on shared values, not compliance, should be the cornerstone for

dialogue and for its success. My bias, developed from the Collins and Porras studies, would suggest that one should not focus on issues of profitability but rather on the distinguishing features of oral health delivery. A systems approach coupled with stakeholder analysis helps to sort out and prioritize shared values, given the unique and shared mission of the Alliance to promote oral health.

This initiative is unique and most worthwhile. Although this is a voluntary Alliance of oral health organizations, it has particular value for the new century. While it appears that oral health is in a non-threatening climate, in fact there are many wolves "at the door" that threaten to change radically oral health delivery, and indeed, our voluntary free system of health care and patient choice and professional independence. A breakdown of whatever is worthwhile in our present morass called the U.S. health system and the possibility of a single-payer system are only two of the "wolves." The formation of the Alliance presents a new model for oral health and health delivery. The Alliance will set the bar high for other endeavors in health care, it should serve as an exemplar or model as we try to fix the broken system of health care delivery, and it will make an outstanding contribution to the fields of oral health and medicine.

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Discursive Ethics, Conflicts of Interest, and the Elephant in the Reception Area

Bruce Peltier, PhD, MBA

Leaders from a wide range of organizations in health came together last January in Nashville to engage in a exercise in discursive ethics and to line-dance. The general task was to interact together about ethics; to participate in a verbal interchange of ideas in a reasoned and orderly way, using rules that were agreed upon in advance. The general idea was that good things can happen when all parties with an interest sit down together face-to-face and that regular contact is preferable to isolation. The specific goal was to explore the feasibility of a permanent Alliance to promote ethics. The group had members who had met before in 1998 in St. Louis and had decided that discussions about ethics were valuable and that some mechanism for continuing dialogue would be good for American oral health care.

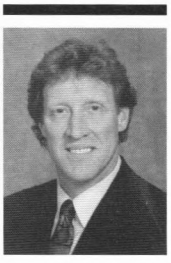
Ethics Summit I concluded that discussions among organizations in oral health care ran more smoothly when a common focus (e.g., the good of the patient) could be maintained. We also found that discussion is valuable even when no resolution was possible and that organizations can effectively function as ethical agents. A theme emerged in the discussion groups that eventually became a driving force: Oral health can be improved if an Alliance could be created to sustain emphasis on ethics. Participants left the first summit in St. Louis with a firm commitment to convene a second ethics summit that would explore such an Alliance.

In Nashville that alliance was proposed, and it was named the Ethics Alliance of Oral Health Organizations. Participants weighed alternatives and drafted the following provisional mission statement: *The mission of the Ethics Alliance of Oral Health Organizations is to promote ethical conduct throughout all aspects of the oral health care system.*

Participants at Summit II were confronted with six objectives for the meeting. They were:

1. Define the common interests of member organizations.
2. Develop a mission statement.
3. Identify an implementation process and make recommendations for a structure.
4. Explore a common code or set of core values.
5. Identify means of financing the Alliance.
6. Identify areas of potential conflict and suggest mechanisms for resolution.

It could then be determined if there is sufficient reason to proceed. I served as the ethics expert in one of the four break-out groups. Our group consisted of nineteen people, and we came up with a long list of issues important enough to be included in regular discussions by the Alliance. The list included the ethics of economics and problems of access to care and the underserved, diversity (especially in dental schools), evidence-based care, insurance fraud, use of human subjects in licensure examinations, freedom of movement of dentists post-licensure, appropriateness of reimbursement schedules, allied health workers, scope of practice, low levels of volunteerism, genetic testing, fetal tissue use and sales, and conflicts of interest.



Dr. Peltier is Associate Professor of Psychology, University of the Pacific, School of Dentistry, and current president of PEDNET.

Our group recommended the following ways to tackle those key issues: frequent and on-going face-to-face discussions, Internet interaction, wide dissemination of Alliance activities, assembling best practices, creation of task forces for sustained action, and a continuity of Alliance action. There was also serious talk of creating a code of ethics for the Alliance itself.

I would like to share my personal reflections on the process. First of all, it is somewhat remarkable that so many high-powered and smart leaders of the influential organizations in American oral health were willing to make the sacrifices necessary to attend. This says something, although it is not entirely clear what that message is. Perhaps there is a consensus in oral health that ethics are central to what we do. Perhaps individual participants are eager to enhance our collective ethical awareness and behavior. Perhaps participants saw this meeting as an opportunity to network and develop otherwise elusive relationships. And perhaps the meeting was like a family get-together you attend because you don't want everybody talking about you when you aren't present. My hunch is that leaders are aware that there is something significant to be gained by sitting at the table together with ethics as an orientation. People will be nice to each other when the meeting is about ethics, right? Maybe they will even listen!

The Alliance faces one problem that I think will be difficult to solve. We invited organizations to send members, but we asked them to *speak* as individuals. That's unrealistic, and smart participants are going to feel some conflict and reticence about doing that. Some participants, because of their personalities won't be able to resist speaking freely and personally, but others might feel an ethical obligation to fully represent the organization that paid their way. Some simply feel strongly congruent about the work and their organization's view, anyway. This matter needs more discussion prior to any attacks on content issues.

It is somewhat remarkable that so many high-powered and smart leaders of the influential organizations in America oral health were willing to make sacrifices necessary to attend.

Finally, there is an elephant in the waiting room. This metaphor comes from the psychological literature on family systems. An elephant in the living room is an issue that is so big and obvious and frightening that no one dares to speak of it, even though all family members are aware that it exists. We pretend not to see it. We all walk around it. The elephant in the Alliance's reception area is the last matter on our list of issues. What are we going to do about intrinsic conflicts that face our organizations? We never took on this challenge in our small group, and members spoke carefully, although every once in a while one member corrected the group's language when one word or another stepped on toes. I imagine most (if not all) participants knew exactly why the correction was made and what it meant, but no one commented on the obvious: most of us in our group have important, legitimate interests that compete with those of other participants.

There is nothing wrong with this. It is a relatively simple fact, and, in a way, it is the very reason we meet together and strive to form an alliance. At some point, though, we must talk about it.

I say, let's lay the conflicts out on the table. Aim for a clear, accurate, and articulate representation of each organization's point of view (without argument). Let's, for now, agree to disagree, and then go line-dancing together. When we do this regularly, in a low-threat environment, sometimes the edges melt and some common ground appears. That's one great reason for an Alliance.

There Are No Spectators in Ethics

Donald E. Patthoff, DDS, FACD

As I sit here at this terminal, I am sorting through and organizing six note pads I managed to fill during Ethics Summit II. They cover the keynote presentation, the large group or plenary sessions, my small group sessions, my one-on-one conversations with other individuals at the Summit which occurred during the breaks, at breakfast, lunch, and dinner, and the after-hour receptions and on the busses to the Wild Horse Saloon and the Grand Ol' Opry.

Some of my favorite insights are notes on the casual conversations that took place after the small group sessions and the plenaries. Its not that the conversations were better, just that they were the places and times where the "Ah ha's" took place and the creative metaphors were used. None of these, however, would have happened without the keynote, the plenary, and the small groups.

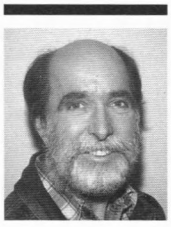
The Process Mattered

In short, everyone I spoke with thought the Summit was a fascinating experience that should be made available to every organization involved with dentistry every few years. They also added that those unfamiliar with it would likely ignore the event. They even said they thought it would be boring and could think of no way to let others know what it was about. They just knew that it would be a hard sell unless a few of the tangible products that only an alliance could put together could be offered in a clear and marketable manner. Those products would have to meet the most pressing needs and wants of all the organizations. The results I heard described and felt just being with them are hard to express, but they are very real, very freeing, unbelievably enriching, and worth more than I can say in words. Still, I want to convey the complexity, diversity, excitement, and reality of what occurred.

The biggest riches are lingering thoughts and consolations. Those came through the deep considerations that started in the Summit sessions early on the first day. Those sessions, however, bogged down to frustration and confusion as the group struggled with the big decision of should we let some one else do it or take ownership ourselves in a way that will truly be representative. The task of being made to do something was becoming much harder than the task of expressing who we were and what challenges were keeping us from going where we seemed called to go.

The College could do some of the work. They had the money, the desire, the contacts and the visionaries to take the lead. Unfortunately they only represented dentists, and a selected small percentage of dentists who showed interest in ethics or at least were members of an organization whose mission was boldly stated as being about ethics and the conscience of the profession. Some of the early struggle, however, was a result of half the attendees not being their group's representative at Summit I and not fully appreciating or experiencing the reality of what was being sought. Ethics Summit I concluded with the idea that an Alliance should be formed to address the issues that no one organization could solve on its own but that all, together, could solve if given the space and time to talk freely and openly together in an atmosphere of trust devoid of the politics that could always come later and be better because the stances would be more focused.

It seemed appropriate to re-structure the planned framework. Insert the fun stuff that was so exciting at the first Summit. The issues that were



Dr. Patthoff is past president of PEDNET and remains active in the organization. He maintains a private practice of dentistry in Martinsburg, West Virginia.

on everyone's mind, and that were being held back by who knows what, were hiding their desires. Addressing them could be done in a way that was so reasonable and yet so faithful to the truths they were seeking, was something new. That this could be done so freely and with so many different kinds of reasoning and faiths was the core of the excitement.

A break was needed and the evening at the Wild Horse Saloon which appealed to some and not to the taste of others was the perfect summary of Day I. On Saturday, the session turned around. Issues were explored, attendees experienced the value of a possible alliance and concluded by a 97% vote that the alliance should be established and agreed on a process for how it would proceed and how it would be funded. It ended with a trip to the Grand Ol' Opry. The Opry has been housed at Opry Land since 1974, but that facility was being renovated, so participants got a rare treat and were able to experience The Grand Ol' Opry in the Old Rymer Theater—the mother Church of Country music.

Attendees experienced the value of a possible alliance and concluded by a 97% vote that the alliance should be established

The process did matter. Ethics is a bit like line dancing—you don't get very far just thinking about it, and watching other people do it might be instructive but it isn't the real thing. The ethics summits also put me in mind of the authentic Grand Ol' Opry at the Rymer. You really had to be there!

What Did We Achieve

What is it that makes alliances so rich? How can they be done? How should they be done? The group gave guidance on what would work and what wouldn't, and what needs to be done. Four people were given the funny title of "subject matter experts" and asked to report the results.

Being the subject expert for the Green Group at Dental Ethics Summit II, I found myself flying home on Sunday Morning going into a snow storm with no idea of how to do what I promised and what I was told–explore the richness of the previous two days and be fair to all the discussions and diverse views from all the groups who made up the Summit by their simply being there and openly discussing the issues that most challenged them.

I felt good, though, really good, knowing that sixty organizations representing the greater dental community actually did this and then decided to do something that they or no other group had ever done before on such a grand scale—form an Alliance whose mission would be something like the promotion of ethical responsibility throughout all aspects of the oral health care community.

I am optimistic even though mechanical and method words like "conduct" could replace "responsibility" and "system" could replace "community." What we accomplished was close enough for all to understand what everyone was agreeing to do but not word smithed well enough to reflect the scholastic rigor that such activities need in order to be the guiding engine through the challenges that the short mission phrase will run up against as it negotiates all the issues and services the alliance aims to address.

The question of when does a person become a patient was at the heart of those discussions about how care will be gotten to the underserved and marginated. Did foreigners count, did the uninsured, etc.? It became more clear as the discussion progressed that the issue of defining when and how a person or a group becomes professional was producing more fruitful dialogue than the question of what persons do to become professionals or what professionals do or how they conduct themselves.

As my plane landed I realized I could never catch everything that happened or why the alliance was going to do what it was going to do. It would be impossible to record or report fully what everyone came to understand and what everyone said. But still, for those who were there, every word they said, every body language expressed was captured and changed the profession for ever. For anyone to fully understand or benefit from the energy of Ethics Summit II, they had to be there. But isn't that true of ethics generally; to understand, one must participate fully.

The Search for a Common Ethic: The Ethics Alliance of Oral Health Organizations

Thomas K. Hasegawa, Jr., DDS, MA, FACD,
and Jos V. M. Welie, MMedS, JD, PhD

The task for the Ethics Summit II participants was to "pursue the improvement of ethical conduct, dialogue, and reasoning through all sectors of the greater oral health care delivery system." The vehicle to deliver these goods was the pursuit of an Ethics Alliance of Oral Health Organizations.

This Alliance differs from most other organizations in the world of oral health care in that it is not a gathering of individuals, such as the American College of Dentists, the Professional Ethics in Dentistry Network, or the American Dental Hygienists' Association. In fact, it is not even like the American Dental Education Association, Dental Manufacturers of America, or the American Dental Trade Association—each of which unites comparative companies and institutions under a single umbrella. Rather, the Alliance is a gathering of very dissimilar organizations and institutions that cross cuts all of oral health care.

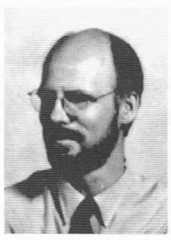
Granted, each of these organizations and institutions is involved in the area of oral health care broadly understood. But their respective functions, sizes, and structures are very diverse. Each of these organizations' ultimate objective is to improve the oral health of the population. But their respective commitments, ethos, and values are quite diverse.

This diversity is at once the Alliance's strength and its biggest weakness. Its strength is quite obvious. The Alliance provides a forum for constructive discussion, free exchange of ideas, mutual enrichment, and proactive problem solving.

Nuala Kenny in her opening address to the first Summit noted: "The interdisciplinary and interactive nature of the enterprise initiated by Ethics Summit I clearly indicates that there are serious issues relating to professional ethics, respect for the diversity of values in pluralistic society, the education and nurturance of ethical dental professionals, and the need to develop and support ethical organizations which must be addressed by all oral health professionals."

During the first Summit, and again during the second, the members at the table represented groups that had never had reason or opportunity for collective dialogue about the profession. Yet the many fiery discussions that continued to arise during the small sessions and in the corridors about issues that evidently concerned all present, were a clear sign that the Alliance is a much needed forum that does not exist anywhere else in the world of oral health care.

Indeed, no other health care discipline has succeeded in creating such an encompassing forum. But this "encompassingness" is also the Alliance's biggest vulnerability. For it becomes very difficult to determine commit-



Dr. Hasegawa is a professor at Baylor College of Dentistry, a member of the Texas A & M University System Health Science Center, and is associate dean for clinical services. Dr. Welie is Associate Professor in the Center for Health Policy and Ethics and the Department of Community and Preventative Dentistry in the School of Dentistry, Creighton University, Omaha, Nebraska.

ments and allegiances. Any individual working in an institutional environment at times will be confronted by the conflict between his or her personal integrity on the one hand and the commitment and allegiance owed to the institution. These conflicts can become quite challenging and at times confounding for all involved. However, the Alliance is not a gathering of individuals. Rather, it is a gathering of institutions. Hence, the representatives of each of those institutions now face potential conflicts between their allegiance to their respective institutions and to the Alliance at large. Is it possible to retain institutional integrity in the context of such an Alliance, while supporting the integrity of the Alliance as well? What conditions would foster such dual integrity? Would agreement and adherence to a code of ethics or set of core values for the Alliance sustain the members while maintaining their collective and individual integrity? Will it be possible for the Alliance, already taxed by so many diverse commitments, to also fulfill a commitment to the community at large?

These questions seemed to be on many people's minds in both Summits. Even though it was not an explicit item on the agenda, these concerns had a definite impact on the discussions and the decision making process. As described elsewhere, the agenda of this second Summit was much more procedural than the agenda of the first Summit. Whereas the first focused largely on content issues such as unethical behavior, codes of ethics, and value conflicts, the second Summit focused on the structure of the Alliance. For example, the discussions about procedural issues were somewhat subdued, but as soon as they shifted to substantive issues, the level of enthusiasm and commitment skyrocketed. When voting on the structure of the Alliance, few people insisted on a formalized and well-defined super-organization. Most seemed quite comfortable with a more informal Alliance, to be convened by the American College of Dentists. Maybe the most important lesson to be learned from the second Summit is that an informal Alliance is the way to go.

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Dr. Pat Verhane, in her keynote address, remarked that while alliances of this type were evident in industry, the challenges for dentistry were more than supply and demand. There is the realization that the constituencies rely on the profession and professionals for the benefit of the oral health of our patients. Each constituency contributes in some special way towards that end and it would be the ability to dialogue about these common values that would hold this project on course. Too much formality, structure, and procedure could easily suppress the creative forces that have been driving the first two Summits. The informal break-out sessions represented the true spirit of the Alliance. The dialogue among participants was lively and reflective. There were opportunities for conflict and collaboration as participants reviewed common concerns and interests of member organizations.

It was clear in order for the Alliance to be effective it would depend on the commitment of each member to respect each person, to be honest, patient, and trustworthy. This is no small matter for such a diverse membership. Members at the table may have or hold disagreements or disparate organizational interests. Even the most carefully crafted code of ethics or core values statement for the Alliance will rely on the commitment of each member to work within the accepted values.

Finally, while there is room for healthy skepticism in the pursuit of the Alliance, everything that is done now in this regard is based on hope. The hope is that the Alliance will secure and perpetuate a common ethic that will someday become a model for the improvement of all of health care.

The Infinity of Opportunity: Breaking Barriers to Technological Change in Dentistry

Michael M. Belenky, DDS, MPH, FACD
and Lance M. Rucker, DDS

Abstract

This essay characterizes the nature of the technologically current dental office and identifies challenges to be overcome in accelerating the introduction of technology. These challenges include dentists' preference for serial introduction of incremental change, lack of a network for communicating information on technology, the dental market of small and independent offices that make it difficult for manufacturers to finance innovative products, and the need to integrate technological change in dental education.

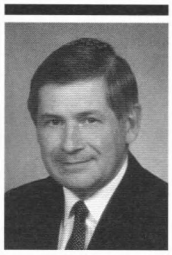
At the beginning of the Twentieth Century, two young men in search of the infinity of opportunity took a bold chance and added a technologic marvel of mobility to civilization. In 1903, Wilbur and Orville Wright flew their primitive aircraft at Kitty Hawk, North Carolina, and proved than man could lose his earthly bounds and fly. Just sixty-six years later, in the same century, man walked upon the surface of the moon. These pioneers of aerospace gave us ample evidence of all that is in the realm of possibility when one frees himself from what is and searches for what might be, what could be, and, perhaps, what should be. Their paths to discovery began with an open mind, the application of technology, and a willingness to accept change.

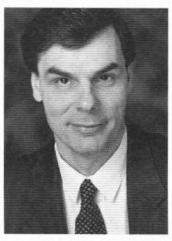
The past century is marked by many remarkable advances in science and technology. All are the product of talented men and women who sought the infinite possibilities that come from the relentless pursuit of new perspectives, through investigation, research, and trial. They embarked from curiosity, diligently endeavored, and changed the ways in which we live and work, often in the face of controversy. Their achievements reflect an ever present constant in the evolution of civilization–change.

The marvels of modern medicine now sustain and prolong life because of continuous research, development, and change. Advances in disease prevention, drug therapy, medical technology and materials for diagnosis and treatment, surgical techniques, medical informatics, molecular biology, and our understanding of the human genome enable physicians to manage illnesses today and prepare for challenges yet to come.

Dentistry can also point with pride to results of research which have brought dramatic changes to contemporary dental practice. Remarkable developments in science and technology now enable dental practitioners to offer their patients practical preventive strategies for the preservation of oral health; new diagnostic and imaging methods and devices; improved techniques and materials for restorative treatment and cosmetic enhancement of dentition, tissue regeneration, implantology; and computer-based informatics. But how many dentists are actively seeking and using these technologies? Are we taking advantage of the opportunities at hand?

Dentists are quick to embrace the endless array of new materials for en-





Dr. Belenky is Associate Professor and Director, WHO Collaborating Center and Director, Dental Practice Systems Dental School University of Maryland. Dr. Rucker is Associate Professor and Director of Clinical Simulation and Chair, Division of Operative Dentistry, Faculty of Dentistry, University of British Columbia

hanced cosmetic dentistry and to acquire such devices as video cameras, VCRs, and playback units which enable patients to understand and appreciate their need for our services. The benefits of such additions to our practices are readily apparent and their accession is relatively inexpensive. But such changes fall short of all that could be and should be among the attributes of a modern dental practice.

In view of the many scientific and technologic advances of recent years, it appears reasonable to suggest that a technologically integrated dental practice of the Twenty-First Century could reflect many or all of the following characteristics:

- The existence of a written practice philosophy which speaks to the future as well as the present, cites practice values and standards, encourages change for improvement, and is made known to staff, patients, and professional colleagues.
- Deliberate and frequent continuing education for all members of the oral health team to ensure awareness of current concepts and future possibilities in the science, art, and technology of dentistry. Continuing education should include open-access web-base, and multimedia technologies.
- The use of computer-based management programs to broaden and facilitate practice management for all aspects of the dental practice, to include patient reception and disposition, patient case flow and treatment progress, financial management, patient recall, and patient satisfaction surveys.
- Use of integrated technologies which simplify, minimize, and enhance intraoral and extraoral processes of care delivery. These technologies might include surgical telescopes (for magnified viewing of the operating field and voice activated "heads-up" displays of patient information), video cameras (for patient education and recording of "before and after" images of intraoral conditions), radio-visiography (for reduced radiation exposure of patients, simplified and improved imaging, and elimination of processing and storage of radiographic film), lasers and micro-abrasion devices (for the specialized applications to which they are uniquely suited), apex locators (for accuracy in endodontic therapy), and computer based information management (for patient scheduling, financial management, and "paper-free" electronic patient records).

Many contemporary practices presently aspire to such a profile, but many dentists may be unwilling or feel unable to incorporate major technological changes into their practices. They may be content with the current state of their practices. They contend that they remain current in the science and art of their profession by incorporating new materials from time to time, that they satisfy the expectations of their patients, and that they are able to achieve their personal and professional objectives without such technological upgrading. Add to this the relative explosion of scientific and technologic opportunity which presents so many choices to the profession that their selection and implementation in the average practice may seem increasingly difficult and may often discourage their acceptance.

Isn't it likely that our patients also expect that our practices and the services we offer them will reflect all that technology allows?

So what is the problem? Why change what doesn't seem broken? For one thing, the world about us is in constant flux. In our private lives we seek and acquire many enhancements to daily living, and they are largely the products of extraordinary advances in technology. Isn't it likely that our patients also expect that our practices and the services we offer them will reflect all that technology allows? It has been said that to stand fast upon the past is to regress, while moving forward in today's world of meteoric change is the only route to progress.

Historically, dentists have enjoyed the privilege of individual practices in relative isolation. The independence and self-determination long associated with dentistry have attracted many to the profession. This began in our dental schools where we acquired our technical skills through a process of self-learning in which we satisfied faculty expectations by experimentation, intuition, trial and error, and practice until perfect. We proudly developed an independent style of practice and this individualism became a professional hallmark. The resulting isolation may have yielded practice satisfaction, but it also produced barriers to change in a world of dramatic change. Minimal mandatory continuing education requirements and professional curiosity notwithstanding, communication of professional information related to patient care and dental practice has not paralleled like activity in medicine.

In order to move confidently with rapid technological shifts, it is essential for a profession to have a rapid communications system. Unfortunately, dentistry still remains professionally isolated. Most dentists do not regularly interact with the research community or with other general practitioners. Our medical colleagues treat their patients in shared clinical and hospital facilities, where communication with peers regarding treatment regimens, practice standards, and new technological modalities occurs with regularity and frequency.

Although computers have become increasingly commonplace in dental

practices during the last five years, four out of five practitioners still use this technology only for its very limited potential in office management. While hospitals, pharmacies, and general medical practices have been building databases and information sharing channels, dentists seem reluctant to do so.

With less intra-professional communication and a relatively slow uptake of electronic communication technologies in dentistry, there is less professional consensus in providing the collective direction necessary for manufacturers to developers products which meet the profession's needs. For example, a great deal of effort has been devoted to the modification of the innate and unique properties of fifth generation composite adhesive systems and resins to enhance "packability," so that these resin materials can be handled clinically like silver amalgam. The reluctance and refusal of some professionals to welcome the emergence of new working properties for an entirely new biomaterial may have impeded certain lines of innovative materials development. Fortunately, there have been just enough islands of individual creativity and professional curiosity in dentistry that such progress eventually occurs, but given the current pace of technological change and opportunity, such disjointed development imposes costly limitations upon progress in dentistry.

Technology is expensive, particularly during the early stages following development and marketing of products. At the practice level, dentists must absorb all of their own costs privately. There are no central pooling resources for expensive technologies which might only be used intermittently or occasionally as they are introduced into a private practice. Such costs may be pooled among physicians and surgeons and even shared by the public directly when equipment is purchased by a hospital or large medical clinic. For their part, manufacturers depend upon early sales of complex technological devices to larger, better funded entities such as governmental organizations, large multidisciplinary clinics, etc. This allows the manufacturers to refine the developments and to reduce prices to allow for the second stage of broader purchase for use of the technologies in smaller practices. Dentistry has few such bridges to allow development of materials and equipment specifically for its needs. Often, devices and technology are developed for non-dental commercial, surgical, and medical purposes and later retrofitted or adapted to the special needs of dentistry. Not only does this result in delays of technological utilization by dental professionals, it also encourages less than ideal developments for our unique requirements.

Most human beings exhibit an inherent reluctance to change, whether in dentistry or any other area of endeavor. Other barriers to change include a new product's complexities and low user-friendliness, non-intuitive software or hardware, complex installation and user training requirements, poor compatibility with current practice systems, and poor service support. For some, any of these barriers independently are sufficient to discourage consideration of change.

Most certainly, change should not occur without reason. The introduction of beneficial new technologies to dentistry must begin with an appreciation of their real need, of their potential impact upon patient care, and of the obligation of a health profession to fulfill its responsibilities to the patient community it serves.

As with computers, it is likely that new and improved technologic devices will appear in the dental marketplace before dentists have exhausted the benefit of their precedents. This further confounds the selection and acquisition of new products. Maintaining the state-of-the-art in dentistry has never before posed such challenge and opportunity at the same time. The dental practice designed to be a platform of dynamic transition will be prepared to respond to worthwhile opportunities for change and improvement.

The pace of introduction of new technologies will vary, of necessity, between dental practices. The relative benefit and value to patient care, their initial and long-term costs, and the decision process by which the dentist selects a product will be among the factors influencing technology acquisition. The selection of any product should be based upon three criteria:

1. The task to be accomplished
2. The manner in which the task might ideally be accomplished
3. What equipment would ideally support such a process.

The application of these criteria to the selection process, in order, assures a purchase of new technologies which meet the needs and expectations of practitioner and patient.

The search for the infinity of opportunity and the elimination of barriers to progress is not only a task for the dental practice community. It is equally incumbent upon dental educators to inculcate in students, our future dentists, a keen awareness of the realities of contemporary dental practice and encourage their investigation of the challenges and opportunities which they may encounter in their professional careers. There can be no better time to begin than in the formative years of dental school.

Few know, with certainty, what awaits us in the Twenty-First Century, but all can be certain that increasingly sophisticated technology will offer unparalleled opportunities for progress in the health professions. If it is to be in the forefront of progress, dentistry must seek its future with an open mind and a willingness to consider technologic change. To do so is to gain, but to do less is to lose the promise of the future. The choice is ours.

Technology Meets Ergonomics in the Dental Clinic: New Toys for Old Games?

Lance M. Rucker, DDS

Abstract

Although there have been considerable advances in dental equipment, the introduction of such technology has often been piecemeal and "rushed to market." As a result there has been insufficient attention paid to ergonomic considerations and a systematic approach to, and theory of, dental ergonomics have not yet emerged.

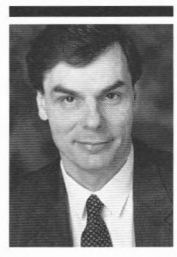
Clinical equipment technology is evolving at an ever-increasing rate and yet there has been little basic improvement to the ergonomics with which dentists operate. More often than not, clinicians still bend and twist and contort to operate inside the patient's mouth. In fact, the proliferation of new equipment and instruments over the past several decades seems to have complicated the patterns of equipment use in the operatories and to have intensified the risks of repetitive strain injuries (RSI) for all clinical personnel. But does it have to be so?

Work-related disorders and problems have been identified and reported for over two hundred years, but only in the past several decades has ergonomics received widespread attention (Shugars, Miller, Williams, Fishburne, & Strickland, 1987; Khalil, 1974). As worker populations increasingly specialize their operations into more and more restricted patterns of repetitive low-force, high-finesse movements, the thresholds for repetitive strain injuries are lowered, and more and more breakdown is occurring. Computer-based work springs to mind foremost among this new trend, but just as certainly dentistry is characterized by these high-risk conditions, too.

Before 1960 it was hard to imagine a "big picture" for clinical ergonomics in the field of dentistry. We worked as best we could with the available equipment. And for the most part, given that we are an intensely equipment-dependent profession and given the physical limitations of that equipment, we adapted to our equipment. We could design hand instruments and the occasional motorized instrument which made functional sense to the user and we could improve somewhat on certain limitations of access to the oral cavities of our patients. But our heavy equipment (patient chair, delivery systems, operatory light, and radiographic equipment) remained as chief limiting factors.

Then three technological breakthroughs radically changed the way dentists could work. The air turbine handpiece, first introduced in the 1950s, gave dentists much more freedom from the mechanical connection to the motor-drive. The advent of strong plastic and composite structural materials allowed manufacturers to streamline the designs and fabrication of the heavy equipment itself. High volume evacuation completed the prerequisites to allow for seated-operator delivery of intraoral care.

By the end of the 1960s most clinicians were sitting down rather than standing up. Kilpatrick and others



Dr. Rucker is Director of Clinical Simulation and Associate Professor and Chairman, Division of Operative Dentistry at the Faculty of Dentistry, University of British Columbia. Lrucker@interchange.ubc.ca.

outlined the first attempt at postural and procedural rules for sit-down dentistry (Kilpatrick, 1974). Efficiency-conscious dentists expanded duties and integrated auxiliary roles (DAU and four-handed protocols) in order to take optimal advantage of these new technologies, but clinicians were still having their handpieces delivered from behind the patient, some from over the patient, some from the side. Some dental practices have both right-handed and left-handed operators, some are strictly one or the other. Attempts, whether by manufacturers or clinic designers, to accommodate such any-

Dental clinic personnel remain at great risk for work-related disorders, including musculoskeletal problem.

twisting and contorting. Dentists experienced less varicosities of the legs, but there were more breakdowns of the upper back and extremities.

Beach and others took a somewhat broader picture of clinical ergonomics in the 1970s and 1980s and developed Performance Logic to try to give individual dentists the tools to derive their own optimal ergonomics (Robinson, 1976). This group showed clinicians how to set up and evaluate their clinics in ways which would work best for them.

Twenty years later, at the turn of the millennium, a strong case can be made that technology has made no net improvement to the way clinicians work. Dental clinic personnel remain at great risk for work-related disorders, including musculoskeletal problems which are clearly related to the physical settings of the clinics, the ways these settings are arranged, and the ways in which they are used (or abused) (Rundcrantz, Johnsson, & Moritz, 1991).

Dentistry today is characterized by geometrically (if not logarithmically) increasing combinations and arrangements of equipment and instruments. Dentists work every which way. Almost all dental chairs and delivery units are designed to allow for performance by both seated and standing operators and for patient presentation in a full range of positions from supine to seated upright. Some dentists favor which-way dental practice produce huge compromises to the basic delivery of care in all settings and huge compromises to health of all members of the delivery team.

Unpublished ADA data indicates that over 60% of dentists do not feel that they have sufficient ergonomic knowledge to properly select, set up, or optimally use their clinics (Guay, 1998). Not only do many dentists not understand the basic principles of clinical ergonomics, they have built-in barriers to applying what little they do know. New instruments for treatment, new delivery systems for new biomaterials, and new pieces of computer hardware are being added to the clinic armamentarium every month. Where should dentists put computer screens, input devices, laser units, curing lights, air-abrasion units, chairside computer-based patient education hardware, including digital photography and video equipment? Who trains dentist to use these new tools? How do we ensure that existing technologies are properly integrated?

We are rapidly developing a new generation of technologically advanced computer-based operatory tools which hold extraordinary promise of liberating dentists from most of the ergonomic limitations which have been imposed throughout the history of the profession. The new computer interfaces will provide voice-interactive access to any and all patient information via heads-up display on the operator's eye protection or surgical telescopes. Features include hands-free access to patient charts (for both input and output) and radiographs; hands-free control of light and trays; elimination of need for buttons, pedals, and handles to adjust the patient chair; and hands-free interoperatory communications. The simple, efficient, precise operatory management functions of such equipment should bring us closer to eliminating the technology-related compromises and adaptations to our settings which have become the bane of clinical dentistry in the Twentieth Century. But will the technology actually be used as intended? Will this be "new toys for new games" or another case of "new toys for the same *old* games"?

Would we be willing to speculate that with advanced computer-based technology we will see the end of work-related CTDs for dental office personnel? The usage trends of dental equipment technology over the past thirty years would certainly not support much optimism. We already have the physical components we need to reduce risk of injuries and to minimize unnecessary stresses in the clinical setting, but few dentists seem to be able to understand and use them. In order to combine current knowledge with current technology, there need to be motivation and access to related education and training for dentists and other office personnel so that they understand potential problems and their solutions. Along with these basics, dentists need support to optimize equipment integration and office layout design and redesign for ergonomic health (Rucker & Boyd, 1998).

Who might ensure that the profession meets its responsibilities for identifying and use optimal ergonomics so that new technologies can be used to their optimum? Who indeed? The manufacturers? The dental dealers, distributors, architects, interior designers, and consultants? The continuing education gurus or undergraduate

dental educators? Organized dentistry? The government? All of these groups might conceivably have roles, if not vested interests, in understanding and promoting technology integration and clinical ergonomics. But what has each group done so far?

Role of Manufacturers.

To be fair, few manufacturers include in their lines a complete range of dental operatory equipment. Because there is little or no unified ergonomic direction in clinical practice, and because the manufacturers must attempt to have adaptable equipment which works with any and all settings, they must often provide fittings and connectors which are far from ideal. For example, they may feel compelled to provide electrical cords and fiberoptic cords long enough to work in the most compromised setting in spite of the fact that from an ergonomic perspective, an overlong fiberoptic cord has definite negative implications for cross-contamination, location of the instrument, consistency of light intensity, and the weight and balance of the instrument.

With the rapid proliferation of computer-based technologies, the rush to get to market frequently results in considerable compromise in the packaging of the physical units. Handles and cases are often developed with non-standardized, non-integrating (and often cumbersome) designs. Ergonomic consultation during the design and development processes are often minimal or lacking altogether. Clinicians must await second and third generations of new equipment to enjoy any basic ergonomic advantages. By that time, another manufacturer (or the same one) may replace the technology with something entirely new. Unfortunately, the ergonomic considerations of a computer-based product are usually the last to be addressed, and may not be addressed at all by specialists in ergonomics.

Manufacturers must guess what the largest portion of the market will want (and pay for); and develop a single product which must be able to fit into a wide range of clinical settings; with a wide range of companion equipment; be used from a wide range of delivery placements; and with a wide range of grips by busy users who will accept little or no training time. Even those manufacturers who offer the widest range of equipment and instruments for dental clinics are usually unwilling to specify ergonomic interfaces too closely for fear of precluding purchase of any given instrument or piece of equipment by an interested buyer who was not prepared to purchase the companion equipment with which it had been designed to integrate.

The most common cornerstone of what they call "integrated operatories" is harmonious colors of upholstery and cabinetry.

Role of Dealers and Distributors

Though most dealers and distributors carry broad ranges of equipment, instruments, and materials and would seem to have a strong vested interest in clinical ergonomic integration of their various products, they know that most buying decisions are not based on such criteria. Few dealers expect to sell whole operatories anyway, and if they do, the most common cornerstone of what they call "integrated operatories" is harmonious colors of upholstery and cabinetry.

Role of Architects, Interior Designers, and Other Consultants

The best source of enlightened design and ergonomic integration for optimal clinical operation would seem to be those architects, interior designers, and consultants who work closely together during dental office installations and have studied and understood the special requirements and subtleties of dental clinical ergonomics. Some are associated with dealers and distributors, in which case their sense of ergonomic integrity may be forced to submit to the pressures to include only the brands and equipment which are most profitable for the dealer. Some of the consultants are more interested in form than function, and will provide an eye-catching, beautiful clinic which may well be a functional nightmare for the clinicians and the staff who try to use the setting. Others have had limited experience designing for dentistry, and may bring to the task irrelevant or even counterproductive elements from medical clinic or hospital design. Some may assume that it will be the individual owner-clinician who is the best source of information about optimal ergonomics of practice. Sometimes these dentists are correct. Odds are they are not (Guay, 1998).

Some consultants rely heavily on a successful design rendered by a colleague for another contract. Such a strategy may be helpful if it is clearly understood in what terms the previous design was considered successful, what differences exist in the work styles of the clinicians involved in each clinic, and what changes have occurred in the technologies of equipment and instrumentation since that previous design was completed. In general, however, architects and designers need constant, ongoing, enlightened frontline intelligence from clinicians with a keen understanding of optimal clinical ergonomics and from the specific dentists for whom they are designing. Unfortunately, the majority of dentists acquire (or associate in) an existing practice, or replace or change some of the equipment in their clinics from time to time without consulting an architect or ergonomist. Who helps them ensure optimal

selection and ergonomic integration of their new technology so that it works best for them?

Role of Continuing Education Lecturers

There are excellent continuing education lecturers who focus on new techniques and new devices, as well as the many other topics of relevance and interest to dental practitioners. Few dwell on ergonomics issues, for many of the same reasons already discussed. By and large, continuing education courses focus on intraoral photos of the clinical outcomes rather than on the mechanics and proprioceptive process of the armamentarium used to achieve those outcomes. Most courses lack even general guidelines for optimal use of new clinical devices. For example, should there be one device in each operatory? Where might one place the device if the clinician uses rear delivery, or side delivery?

A hands-on course format may offer more opportunity to test the ergonomics of manipulation of a device or the flow of a procedure or technique, but the biggest challenge happens when the device must be integrated into the operatory setting of an individual dentist in the home clinic. Without guidance, the results are likely to be haphazard.

Role of Dental Education

Undergraduate dental education would seem to be the best place for educating students in ergonomics, operatory design, and principles of utilization of equipment to optimize the workplace for all personnel. Unfortunately, schools are often operating with older equipment which may have been designed more for teaching efficiency than practice efficiency. In the vast majority of cases a student clinician learns to set up operatories for two-handed operation, and works throughout the undergraduate training period with a mentality of add-on ergonomics. When student clinicians go to the dispensary to check out a curing light or an electrosurgery unit, or an intra-oral digital camera, or an ultrasonic or air-abrasion device, the equipment will be plunked down at whatever location in their operatory allows it to be plugged in and which allows access for clinic group partners who may be sharing the device during the clinic session. Not surprisingly, dental schools have not been especially closely associated with good modeling for healthy practice ergonomics.

Roles of Government Groups and Organized Dentistry

Pressure from OSHA (Occupational Safety and Health Administration), fueled by growing pressure from workers' compensation groups and disability insurance carriers is at last forcing the profession to examine a bigger picture of practice ergonomics and technology integration. Unfortunately, the adversarial relationship of government groups with their draconian measures and organized dentistry (which steels itself in diametric opposition to the threat of such intervention), has delayed for fifteen years the profession's access to optimal ergonomic practice models and to education which would allow dentists to integrate the new and existing technologies in ways which are both safe and efficient. The situation will change, likely, and the gridlock will be broken, but the unnecessary sacrifice to the health of dental professionals along the way is regrettable.

There are real problems with developing, adapting, and introducing any new technologies into dental clinics. And the poor integration of technological advances and new equipment into dental clinics only tends to intensify the problems. Unfortunately, the gains from sound ergonomic strategies, like the pains from inattention to the ergonomics of practice, are most noticeable in the longer term (Shugars, Miller, Fishburne, & Strickland, 1987). This makes research difficult and atrocities more difficult to identify and to neutralize.

As a profession we can derive and confirm profiles of extremely high-risk ergonomic practice postures and patterns and equipment layouts, and we can identify those equipment groupings and applications which have minimal risks. As more elements of that picture are emerging from new ergonomic research each year, it is clear that clinicians who regularly and periodically assess and reassess their own practice ergonomics are best able to reduce their ergonomic risks. This reassessment is especially important whenever a new instrument or process is introduced into a practice.

As a profession it behooves us to be vigilant lest the introduction of valuable clinical technology be delayed or, worse, be introduced as "new toys for old games."

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Translating Clinical Practice into Evidence-Based Research Through the Use of Technology

Richard J. Manski, DDS, MBA, PhD

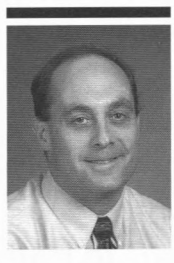
Abstract

Gaps exist in the extent to which technology has been fully integrated into dental practices. This is partially the result of continuously emerging technologies and partially attributable to different attitudes among dentists toward innovation. Further development of Evidence-Based Dentistry is needed before it becomes a productive and widely used part of practice.

While not yet ubiquitous, the presence of technology in America's dental practices is considerable. From its less than impressive start, the growth of technology in dental practice has been considerable during the past twenty years. According to the American Dental Association, the percentage of dental practitioners with a computer in their offices has grown from approximately seven percent (7.3%) for all solo and twenty percent (20.1%) for all non-solo dental practices in 1984 to about seventy-seven percent (77.4%) for all solo and eighty-five percent (84.5%) for all non-solo dental practices in 1997 (American Dental Association, 1997). This trend is expected to continue until the dental practice market is fully saturated sometime during the next ten years. While technology and computers are not necessarily synonymous, computers and information management systems can serve as an important indicator for the presence of technology.

Technology as the term is often used is eclectic in its meaning. Almost anything new and certainly almost anything new that is electronic can be categorized as technology. For the sake of convenience, I have categorized technology into three groups. Technology that is established, technology that is almost established, and technology that is best described as pioneering. Established technology includes practice management systems that are primarily designed for transaction posting, billing, accounts receivable management, insurance processing, recall management, scheduling and marketing management. Technology that is almost established includes many of the newer computer based systems or applications including the intra-oral camera, digital radiography, multi-media based patient education, electronic PDR, electronic medical information data base, and WWW applications and web pages. Pioneering technology includes some items that are already here such as, simulation training, CAD-CAM, and digital imaging, and some that are not yet available but should be soon including a progress note creator, intra-oral vision enhancement, and a research center data manager.

Integration of "new" technology into a dental practice is not unlike the integration of "new" technology into everyday life. Some practitioners will be early adopters wanting to be the first on the block to have the newest and best that technology can offer (Assael, 1984). Others will be more reserved and wait for the market to mature and prove itself before jumping in. The remainder will resist change, resist technology, and continue their



Dr. Manski is Professor, Department of Oral Health Care Delivery at the Dental School, University of Maryland and currently Visiting Scholar, Agency for Healthcare Research and Quality. Manski@dental.umaryland.edu.

practices in a manner that is most comfortable for them.

Interestingly, our attitude toward the adoption of technology is inconsistent with the way we have been trained as health professionals, researchers, and teachers. As professionals we observe, learn, and rely on a process that is systematic for most of our decision making. As technology adopters we rely on fancy, collegial opinions, and a gut feeling. As such, while we may be confident that the acquisition of computer based technology is increasingly being used among dental professionals, we would be less than certain to describe why the technology was initially acquired or how the technology is actually used.

A gap between what technology can do and what the technology is actually used for may exist and this gap results in opportunities that are lost.

For some types of technology such as an intra-oral camera or digital radiography, the reasons for their purchase are seemingly obvious. Additionally, the measure of technology use for these products is simple. Either practitioners use the technology or they do not use it. On the other hand, the reason for the acquisition and a measure of use for the most established of the technologies that have been available to dentists are much more difficult to assess. Practice management applications, the type of technology that is the most pervasive in private practice, are typically full of features and capabilities. In fact, they may be so full of features that most practitioners do not know that many of these capabilities are included and hardly ever get a chance to make use of them. Without prior knowledge of software application capacity and some forethought to its use, it is difficult to determine if practitioners are using their acquired technology to its fullest potential. As such, a gap between what technology can do and what the technology is actually used for may exist and this gap results in opportunities that are lost.

Interestingly, these lost opportunities may coincide in time with the somewhat recent surge in interest in and attention to Evidence Based Dentistry. Evidence Based Medicine (EBM) as described in its development is the "process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions" (Rosenberg & Donald, 1995). Describing an approach to EBM, Rosenberg and Donald considered the gap that exists between scientific research evidence and clinical practice in the context of changing technology. They note that with the advent of inexpensive electronic databases and widespread computer literacy, physicians now have access to enormous amounts of data which can be used to augment clinical practice (Rosenberg & Donald, 1995).

Chambers in a recent essay on this topic and its potential applicability to dentistry, nicely elaborates on the sometime incongruity between the lofty goals of EBD and the somewhat less than practical application in practice (Chambers, 1999). He notes that while good dentistry depends on good science, dentists should not be scientists and that they should certainly not turn over their decision making to biomedical or policy researchers. He further notes that every case of recurrent decay is not a research project and that the hope among EBD enthusiasts for declining technology costs to improve the cost benefit ratio of EBD is not justified. I agree with Dr. Chambers, not because I believe that EBD is not important or useful and not because the cost of the technology makes it prohibitive. Instead, I concur because I feel that the fervor to replace the current standard of care with EBD based guidelines is misplaced. EBD based guidelines should never supplant years of experience and the creative art of diagnosis and treatment planning. Instead, I believe that the lessons learned from the implementation of EBD research should be added to and included as one element in the armamentarium of clinical practice. As such, EBD has a place and it has an important place in the practice of dentistry. Additionally, while I agree that dentists should not be expected to make each treatment encounter into a research project, each and every patient encounter can and should be viewed as an opportunity to collect patient data.

During 1997, the Agency for Health Care Policy and Research, now known as the Agency for Healthcare Research and Quality (AHRQ), launched an initiative to promote evidence-based practice in everyday care through the establishment of twelve Evidence-based Practice Centers (EPCs). EPCs were to develop evidence reports and technology assessments on clinical topics that are common, expensive, and are significant for the Medicare and Medicaid populations. With this program, AHRQ (formerly AHCPR) became a "science partner" with private and public organizations in their efforts to improve the quality, effectiveness, and appropriateness of clinical care by facilitating the translation of evidence-based research findings into clinical practice (Agency for Health Care Policy and Research, 1999). The implementation of EPCs should be considered an innovative and important addition to the advancement of clinical practice. The results obtained from these centers will be of great value to practicing clinicians. However, the progression of EBM or EBD can be even further advanced with an approach that also includes an analysis

of the vast wealth of data that is collected daily by clinicians. A strategy to advance clinical practice through the dissemination of evidence to clinicians could be augmented by a plan to include the dissemination of evidence from clinicians to researchers. The translation of evidence-based research findings into clinical practice would be furthered with the translation of clinical practice into evidence. The distinction between clinician and researcher would be diminished as a result of this implementation thereby furthering the advancement to and support for EBM and EBD.

To some extent, the realization of this construct is already in progress. Analyses of proprietary third party payer data and analyses of government sponsored national data have provided clinicians and researchers with some baseline and preliminary data (Department of Health and Human Services, 1994; Eklund, Pittman & Smith, 1997). These data are rich and full of clinically relevant and meaningful data. For instance, the Department of Health and Human Services (DHHS) has sponsored the administration of several national health surveys including the National Health and Nutrition Examination Survey (NHANES). NHANES is a nationally representative survey which includes data obtained from a physical examination as well as background information on health and socioeconomic status. The physical assessment component has included a thorough oral examination. While a few manuscripts have been published subsequent to NHANES analyses, these data have hardly been harvested. Too few studies have to date been published from this rich source of information.

Third party payer claims data constitute an additional important source of clinically relevant oral health data. Insurance carriers collect an enormous amount of important, relevant, and useful data. The relevance and importance of such data are demonstrated by the outcome of analyses conducted by Eklund, Pittman, and Smith (1997). Further analyses of these data are warranted and would only help to advance EBM and EBD.

Further evidence can be secured from practitioner collected patient encounter data. Additional clinical practice based EBD research can be accomplished with minimal difficulty with technology that is already established. An opportunity that has been lost now provides the prospect for the development of a practice based grass roots research team. An army of clinician researchers will further contribute to the betterment of our nation's health. The underutilized capacity of practice management software can provide the underpinning for some of these analyses. In addition to baseline data on the number of procedures that are provided, these procedures can be tracked over time to assess longevity and success and correlated to initial condition, oral health status and socio-economic and demographic characteristics. Granted, a typical practice management software package is not set up to make this easy to do. In addition, some software packages have built-in limitations that will not allow these kinds of analyses at all. On the other hand, with a reasonable amount of effort some of these analyses are possible today. Collaboration between interested practicing clinicians, health services researchers, organized dentistry, and government could begin this now. These analyses would contribute to our knowledge base in an important way.

Recognizing that the current state of practice management software is limited, we have to look forward to pioneering technology to truly advance the concept of a grass roots research team. Clinicians will not be able to completely participate in EBD research until newer technology makes its entry into the clinical scene.

At the heart of tomorrow's practice management software will be a research center data manager intimately linked to progress notes, treatment plan, and clinical findings. Until such time that this new technology is available practitioners and researchers can begin to collaborate with the use of existing practice based technology and data. While these clinically derived data may not exactly match with the terminology of evidence, EBM, or EBD they are significant and meaningful. This concept may not fit exactly with the process of systematically finding, appraising, and using contemporaneous research findings as the basis for clinical decisions and it may not be the translation of evidence-based research findings into clinical practice. However, the evidence that these practitioners will provide will nonetheless be important, relevant, and useful and will help to establish an additional construct of evidence by translating clinical practice into evidence-based research through the use of technology.

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The Future Is Coming and It Will Be Amazing: Computers in Dentistry

Lawrence F. Emmott, DDS

Abstract

The computer in the dental office, especially at chairside, provides both "high tech" and "high touch" benefits. Single entry of data has the benefit of accuracy and time savings. It also makes data available regarding the practice in an easy-to-use fashion. Some suggestions are offered to those contemplating the addition of a computer system to their offices.

There is a fundamental change taking place in how computers are being used in the dental office. Dental computers are being used for more than just bookkeeping and are making their way into the treatment rooms. This basic shift in use and vision for computers goes by a number of names, "clinical work stations," "frontdesklessness," and the "paperless office." Some of these ideas seem pretty extreme at first, but once you understand why and how, the transition is inevitable, and it will transform the way we manage our dental practices forever.

"High Tech — High Touch"

John Naisbitt the author of the best selling book *Megatrends* coined the phrase "High Tech–High Touch." Naisbitt noted that people really do like high tech. That is they like the excitement of it, they like the change, the novelty, the speed and rapid access to information, they like new and innovative ways of doing things. But they don't like being depersonalized. They don't like being turned in to a number or "digitized." If they perceive that technology is taking over, if the technology is more important than they are, then high tech back lash results.

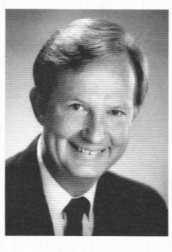
The challenge, according to Naisbitt, is to provide the high tech innovation people want and businesses need and at the same time to provide the personal high touch relationships people demand.

Dentistry is a perfect example of a "high tech–high touch" profession. Dental patients really do want their dentist to be up to date, using the latest and best methods. They want and even expect their dentist to be state of the art, cutting edge techno perfect. And yet at the same time what most of them really want even more is a personal one on one relationship with their dentists. They want to be recognized and appreciated as an individual human being. They crave high touch.

With that in mind it is appropriate to begin a discussion of computers in dentistry not with computer systems but with human systems.

Putting Dentistry and People First

Computer enthusiasts or sales people often make the mistake of jumping into dentist's lives with wonderful stories and demonstrations of what computers can do. They are so focused on the computer they miss what is really important to the dentist, which is the daily grind of dental practice. It is hard for a dentist who is worried about crown margins and in-



Dr. Larry Emmott is a practicing general dentist in Phoenix, Arizona. He is a frequent speaker and writer on computers in the dental office and invites contact at his web page: www.drlarryemmott.com or by e-mail at emmott@primenet.com.

surance hassles to become excited about computers unless the dentist can see a real high touch relationship to daily practice.

So, what happens in daily practice? Dentists diagnose and treat dental disease. Once a dentist diagnoses a dental condition and proposes a treatment, a series of steps is begun to properly document and communicate the procedure. These same steps are required whether or not the dental office is using a computer. Following are the communication and documentation steps most dental offices would commonly follow on paper to complete a simple single procedure.

The process almost always happens this way. The dentist, dental patient, and dental assistant are all sitting in the treatment room. The dentist peers into the patients mouth and says something like "tooth number three needs a crown." The assistant then makes a mark on the patient's tooth chart almost always in red, outlining or highlighting tooth number three in some way. That is the first documentation step. Then a treatment plan of some sort is made. There are virtually dozens of ways this can be done but in all of them someone writes down "tooth number three crown."

The patients are then sent to the front to be scheduled. Before they make an appointment they almost always ask, "How much will this cost and what will my insurance pay?" At this time the dental staff member will give the patient an estimate, prepare an insurance pre determination form, make an appointment in the book, and give the patient an appointment card. At a minimum the staff member will write "tooth number three crown" on all four pieces of paper. The staff member will also write the patient's name, the fee, insurance codes, and a lot more in some cases.

When the patient returns for treatment another whole series of documentation and communication steps begins. These include the daily schedule, chart notes, lab slip, chart update, ledger, receipt, day sheet, and insurance claim. Once again the dentist and staff must write "tooth number three crown" and usually a lot more on all of these forms. But that isn't the end of it; the patient still needs to come back for a seating appointment. That means another book entry, an appointment card, a daily schedule, and then more chart notes.

The final step is payment. This could include payment entries to the ledger and monthly billing statements. Again there are half a dozen ways to do this, but most of them require the dental staff to again write "tooth number three crown."

If you go back and add up all the entries, there are up to twenty times the dentist or dental staff must write "tooth number three crown," usually along with a lot more general information such as the patient's name, social security number, insurance codes, fees, and on and on. And these twenty entries represent one procedure for one patient. If you start adding up all the patients and every procedure the paper work burden is staggering. If that isn't frightening enough keep in mind that every time an entry is made there is a chance to make an error.

Dentistry is a perfect example of a "high-tech–high touch" profession.

Single Entry

There are some things computers do well and there are some things they don't do well at all. One thing computers do very well is the same thing over and over again. They do it very accurately, very quickly, and they never get bored with it. That means that with a good computer system the dentist only has to enter "tooth number three crown" one time. The computer will then transfer that information to all the other places it is needed. It will attach the other information such as fees and insurance codes automatically. It will do it instantly and accurately. This feature is called single entry.

The single entry feature of a computer system has a profound effect on the human systems of a dental office. Single entry frees the staff to do other things, such as care directly for the patient. It speeds up the communication process, saves time, and reduces errors. It reduces stress and makes dental staff jobs more meaningful and human directed. The single entry concept is very important because it answers the fundamental question, "What the heck does a dentist need a computer for anyway?" and it leads to most of the advanced features and uses of computer systems in dentistry.

For example, the two most critical entries from the list above are diagnosis and completion of treatment. Both of these events take place in the treatment rooms. If you do not have treatment room based computers then you can not do true single entry and must rely on notes or other person-to-person communication. The dentist must make a paper chart entry then take it to a computer to enter it again. Everything is done at least twice and there is more chance for error. Using the power of the computer for single entry to speed production and reduce error is the goal and treatment room based computers are a logical extension of the goal.

Once the dentist makes the shift and puts the computer in the treatment room then other possibilities follow. If you can access the schedule in the treatment room via the computer then why not schedule the patient. The only reason we sent them up front to schedule before was because that's where the paper book was. If you can access patient informa-

tion such as medical notes and progress notes on the computer then why make a paper record. Electronic notes are easier to access, more complete, easier to store and transmit and contrary to popular conceptions are actually safer than paper records provided the office follows proper back up procedures. Also now that all the treatment and patient data are stored in the computer why print or write up an insurance form? Just send the data electronically with electronic claims. When the dentist reaches this point then clinical work-stations or computers in the treatment rooms makes more sense. "Front-desklessness" or scheduling from the back seems logical. And the "paperless" office becomes possible.

More possibilities. If the computer is already in the treatment room then it is easier and less expensive to add on extras such as digital x-ray, digital intra oral camera images, cosmetic imaging, patient education programs, drug and prescription programs, and to present complete treatment plans with accurate estimates and insurance information chairside.

To restate all this in another way: Advanced totally integrated, multiple application, chairside, computer systems are the ultimate dental version of "high tech." But the successful high tech dental office rarely starts with this in mind. Instead the first concern is human "high touch." How can I do the better job faster and with fewer errors? How can I serve my patients better and faster and cater to their needs? How can I make my staff members' jobs easier and more rewarding? And finally, how can I use the things computers do well to help me? The answer to all these questions is single entry computer use. From that everything else follows. If you start with the ultimate high tech office as the goal in itself with out the human "high touch" benefits in mind it doesn't make much sense. Dentists then rarely see the value or benefit in the "high tech" dental office.

It is unbelievable how many dentists not only don't use the system but actively undermine office productivity by refusing to use the systems they have paid for.

Bonus Information

The second thing that computers do very well is that they can store and sort data very quickly and completely. A computer can keep track of tremendous volumes of information that humans could never possibly follow. And the computer can do it faster, more accurately, and much less expensively than a human being. The single entry process creates vast amounts of data a dentist couldn't possibly collect by hand and it can be used to monitor how the practice is doing and to keep track of patients needing treatment. This is an extra, the initial goal was single entry, collecting and using data for management purposes is another logical extension of the goal.

The type of data and how it is related is almost unlimited. The dentist can now examine virtually any aspect of the practice using the numbers collected with the single entry process. The obvious information is the things we have always checked, like gross production and collections, past due accounts, and insurance tracking. But now with a sophisticated computer system you can monitor treatment diagnosed. What is the average amount you diagnose? What procedures do you do the most of? How much of the work you diagnose is accepted? How much time do you spend on certain procedures? Which insurance companies pay the fastest? Which local employers do most of your patients work for? You can track down people who need work done but have just put it off and never been scheduled. You can even combine the data with word processing to produce marketing letters to reactivate inactive patients.

In fact the data and what can be done with it can be easily overwhelming. Some dental offices see how overwhelming it is and say that's just too much I can't use that; I don't need that. However they fail to realize the real first step with the computer is single entry. The data and what can be done with it is just extra. And even more importantly, it is collecting, understanding, and using data wisely that is at the heart of the information automation revolution. It may certainly seem overwhelming but understanding and using information is the essence of the fundamental changes sweeping dentistry. Those who understand and embrace the information age will profit from it.

Getting Started

Two things are required to help an office get the most out of new technology. First the dentist must be involved and committed to the process. It is amazing how many dentists do not want to have anything to do with the computer. In fact some of them seem to be actively hostile. The dentist will never get the full benefit of the system unless he or she takes the lead and actively uses the computer. The improvements in office efficiency and the benefits from easy access to practice and financial data will easily pay for the system and ultimately increase office income. However it is unbelievable how many dentists not only don't use the system but actively undermine office productivity by refusing to use the systems they have

paid for. For example, some offices use an electronic scheduler but still keep a paper book. That is absurd; burn the book.

Once the dentist is committed, the next step is to get the staff involved and learn to use the whole system. One good way to do this is to develop a series of goals and rewards. Another means is to plan continued training on a regular basis. Some really motivated offices may want to try to do everything all at once but this can also cause problems. People and groups can only accept so much change at once. If you try and force things too quickly you may burn people out, indirectly sabotage your plans and lose staff members. Another common problem is people who want to read the entire manual and know it all before they start. Computer programs really don't work that way. Some basic training and understanding of the software is required but the best way to really learn a complex software program is to use it.

Set goals throughout the first year after you get a new system. Then reevaluate where you stand after that year and plan for new goals for the next year. Tie a reward to each goal. Money is always nice, but other rewards can be used as well. For example an office lunch or some small computer related gifts.

Budget

The final element is the budget. There are many costs associated with advanced technology besides the price of the software. These include hardware, networking, set up, training, future training, support, updates, and accessories. Anticipating these costs and planning for them will make your technology acquisition easier and it will pay off in greater value.

According to an article in *Investor's Daily* the average health care office spends 2% of revenue on technology. That includes hospitals as well as physicians and dentists. In addition the article noted that businesses in general spend an average of 10% of gross revenue on technology. Therefore an average dental office should plan to invest at least 2% of gross income in technology on an annual basis. For a typical single practitioner with a $450,000 gross the annual investment should be at least $9,000. A better budget would be 5-7% or more for an aggressive "high tech" office. That translates into $22,000 to $32,000 per year.

In addition to training, dentists need to budget for hardware replacement. Plan on replacing your computer hardware every three to four years. You will not need to replace it because it wears out but because it will no longer be powerful enough to run current software. A good method to do this is to cycle or replace one third to one fourth of the computers every year. If, for example, you have six computers replace one or two every year. That keeps the office more up to date and spreads the cost out over time.

Another continuing cost will be support, software upgrades, and new software. There are a whole bunch of software programs used in dentistry besides basic practice management. These include operating systems, word processing, check book and accounting, voice recognition, faxing, back up, human resources, utilities, as well as special dental programs like imaging, e-claims, or x-rays. All of these programs will need to be purchased, installed, supported and upgraded. All of that will cost more money. The point is not to be discouraged by the costs; wise technology investments will pay for themselves. The point is to be prepared; don't be surprised by these ongoing expenses and plan a technology budget.

A great computer system won't overcome a bad dental office manager any more than a great hand piece will make you a good dentist. Training and developing the people in the office, *including the dentist*, to use advanced technology effectively is at least as important as the hardware and software components. Dental office computer systems with chairside terminals are not just gimmicks using fancy toys but they will increase efficiency, save money, and quickly pay for themselves.

Computers in the treatment rooms, frontdesklessness, the paperless office, digital images, information management, and much more are all coming to dentistry. And they are going to come because they will make the way we practice better. Just like the high speed air turbine hand piece changed dentistry forever, new dental computer systems will change how we practice forever. Some dentists will hold back and fear change or even resent it. Others will embrace new technology and grow with it. But what ever your personal attitude one thing is certain, the future is coming and it will be amazing!

ADA Department on Dental Informatics

Robert E. Lapp

The primary goals of the Department of Dental Informatics are to improve patient care and increase dental office efficiency through the use of technology for information management. Since its creation in 1990, the department has focused greater attention on the informatics industry, provided technical content in standards-setting activities affecting administrative and clinical applications in dentistry, and communicated the impact to member dentists. The objective is to narrow the gap between what is possible and what is actually used by practitioners. The Department of Dental Informatics is involved in four principal areas.

Coordination With Practice Management Systems Vendors

The Department of Dental Informatics helps dental offices by providing product information and services that help members with vendor issues such as system selection, feature and function requirements, and vendor complaints.

In 1998-99, the department was responsible for helping members prepare their practice management systems for Y2K. This often involved intervention with vendors to resolve disputes, misunderstandings, and excessive charges for upgrades. Only three dentists reported Y2K problems in January 2000, and two of those were quickly resolved. The need for help with vendor problems continues, however.

Members with complaints about their practice management systems are encouraged to contact the department at informatics@ada.org. The results have been significant. In 1999, members recovered more than $300,000 as a result of ADA intervention. Complaints have been received about a wide range of computer problems, from software and distributors, to user training and inappropriate systems specification.

To help members better understand their needs, the ADA Standards Committee on Dental Informatics has prepared Technical Report 1004 "Computer Software Performance for Dental Practice Software." More than 10,000 copies have been distributed at dental meetings, by mail, and from ADA ONLINE at http://www.ada.org/p&s/stands/1004over.html.

After reviewing the specifications for a practice management system, many members seek help in selecting from the more than two hundred available systems. While the department does not recommend systems, department staff often helps members narrow their search by identifying member requirements and system capabilities.

There has been considerable consolidation within the dental software industry recently and several Web-based systems will soon be available. Anticipating membership requests over the next few months, department staff have developed an electronic survey form based on the Technical Report 1004 and solicited vendors for information on their products. This information provides members with a useful resource to evaluate the capabilities of potential software vendors and to better examine the alternatives for office automation.

Technical Support of ADA Programs

Health care has become an information-intensive industry, dependent upon accurate and detailed clinical information. All segments of the health care process must be addressed, such as physical findings, risk factors, or functional status. In addition, all fac-

ets of health care, independent of profession, discipline, or specialty must be consistently included in the terminology and electronic health record.

To support these objectives, the department provides database management of the Systematized Nomenclature of Dentistry (SNODENT) terms and codes, support for the electronic versions of the Current Dental Terminology (CDT-3), and monitors the Administrative Simplification regulations of the Health Insurance Portability and Accountability Act (HIPAA). The ADA's comments on the proposed regulations for the Administrative Simplification provisions of HIPAA were coordinated by the department. The proposed regulations have identified X12 health care transactions and CDT codes as the electronic standard. These include the dental implementation of the health care claim as well as eight other electronic transactions used in health care data interchange. No additional information should be required to transact business between trading partners.

As a designated consultant in the HIPAA legislation, the ADA will be responsible for reviewing changes and assessing their impact on dentists, payers, employers, and the public.

External Representation of the ADA in Technology Areas

The department continues to represent the ADA at meetings of ANSI ASC X12, the Workgroup on Electronic Data Interchange (WEDI), and other technology forums to ensure that electronic transactions will allow dentists to obtain the highest level of efficiencies in reporting services performed. Active participation in these organizations establishes the ADA as the technology leader for dentistry.

The Workgroup for Electronic Data Interchange (WEDI) advocates the use of technology in health care, the Electronic Healthcare Network Accreditation Commission (EHNAC) establishes and monitors clearinghouse compliance standards, and the liaison with the Systematized Nomenclature of Medicine (SNOMED) editorial board ensures dental terminology is consistent and compatible with those used by other health care professions.

The greatest challenge will be to establish standards ...so members can be assured that their choices do not become constraints.

Participation in Electronic Transaction and Informatics Standards Development

The department provides staff support to the ADA Standards Committee on Dental Informatics and participates in standards for electronic data interchange (X12), the Health Informatics Standards Board (HISB), the International Organization for Standardization (ISO), and the American National Standards Institute (ANSI) meetings.

The scope of the ADA Standards Committee on Dental Informatics is to promote patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, specifications, technical reports, and guidelines for components of a computerized dental clinical workstation; electronic technologies used in dental practice; and interoperability standards for different software and hardware products which provide a seamless information exchange throughout all facets of healthcare.

This committee reviews and approves proposed ADA and American National Standards and specifications developed by the standards committee's working groups for items such as practice management systems, interoperability of peripheral devices, the electronic health record, education and research software, and other informatics issues.

The working groups were established to promote the concept of a dental computerized clinical work station and allow the integration of different components into one system in order to provide for all of a clinician's information needs. Clinical information systems include all areas of computer-based information equipment such as digital radiography, digital intraoral video cameras, digital voice-text-image transfer, periodontal probing devices, and CAD/CAMs. By establishing standards for these modules, that serve the clinical needs of practicing dentists, the need for several stand-alone systems in the dental office can be eliminated.

The ADA established the basic content elements of a computer-based oral health record in 1995 to guide the development of dental database management technology. Its purpose is to provide consistent structure across systems to prevent information obsolescence. Specifications, based on the concept model, have been developed for seventeen subject areas. These specifications are available for review and adoption by the other established standards organizations.

Through the efforts of the working group on inter-operability, standards have been developed for digital projection radiography including digital X-rays, including panoramic devices and digital mammography, and visible light devices. This group has produced a CD-ROM that contains two hundred and sixty DICOM standard dental images from a variety of imaging vendors to demonstrate the value of a common format stan-

dard. Current objectives for the working groups include:

- Decreasing the costs of future office and clinical technology through standards development and advocacy
- Determining the features of dental systems for practitioner comparison and evaluation
- Providing the dental team with the criteria necessary for evaluation of dental devices and equipment
- Increasing efficiency by improving both the utility and inter-operability of electronic equipment in the operatory and in the office
- Providing guidelines and standards for integrating system components to meet the clinician's information needs
- Designing the patient oral health record for integration with a computer-based patient record.
- Incorporating dental requirements within the larger health care and electronic commerce communities
- Representing and promoting the interests of dental education and research in the informatics environment

The greatest challenge will be to establish standards for inter-operability, patient records, system architecture, and information dissemination so members can be assured that their choices do not become constraints. Dentistry will be best served by products and services that contribute the greatest benefit to patient care and the efficiency of the dental office. The goal is to identify these products and services and communicate the information to ADA members quickly and effectively so they can make the best possible choice to meet their needs.

The vision for dental informatics is to adopt the technology model of evolution. Instead of incrementally building on existing knowledge, the department surveys, evaluates and communicates applicable technology solutions. This may include technological leaps (XML information structure, application service providers), transfer from other disciplines (data security), and perhaps even original ideas.

Issues in Dental Ethics

Professional Ethics in Dentistry Network

Correspondence relating to the Dental Ethics section of the *Journal of the American College of Dentists* should be addressed to:

PEDNET
c/o Center for Ethics
Loyola University of Chicago
6525 North Sheridan Road
Chicago, IL 60626
e-mail dozar@luc.edu

You're Invited

You are hereby officially invited to participate in this forum on ethics in dentistry. Let me flesh out the invitation. The purpose of this section is to provide a place for members and others to communicate about important ethical matters in public.

There is a good deal to be discussed in dental ethics, much of it extremely important. First of all, an anecdote from this past week's course at the dental school where I teach. We spent a three hour seminar evaluating and discussing ethical problems that students brought up from their own clinical experience. Student sophistication in this area is striking (although there is a significant range from most to least sophisticated in each class of dental students). After three hours of pouring over and sifting through ethical dilemmas and quandaries (not to mention some simply bad behavior), one student lingered until the others were gone. "This is depressing," he grumbled. "Whenever we talk about these things, I always feel worse off about being a dentist. It saps my energy. Why can't we ever talk about some positive things?"

It didn't take long for me to realize that he had a point. More often than not, we focus ethics discussions on the negative and the problematic. Ethical dilemmas are perceived as no-win situations. Which of these two bad potential outcomes seems the most "right?" If there were some really positive thing that one could do, there wouldn't be an ethical dilemma save the personal satisfaction associated with having done the right thing. In ethics cases, often the best, most positive thing one can do is to suck it up, admit something embarrassing, and face the music. Sometimes it means confronting someone with difficult news. Occasionally it means refusing to do something. Not fun stuff to deal with.

So, as Jim Rule and Mickey Bebeau have discerned (see last quarter's issue), maybe it's time to highlight and celebrate ethical heroes in dentistry, to point out the uplifting, generous, and positive things that ethics also includes. After all, shouldn't ethical behavior mean that life gets better?

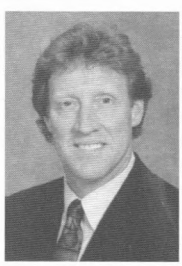
So feel free to use this section to celebrate good thinking and good behavior. Send us an article that highlights a positive person or trend. We welcome that.

On the other hand, David Satcher, the Surgeon General of the United States, just released a report on the state of American oral health. Dentists probably found no surprises in it. He chastised the public for not taking care of their teeth, noted that 100 million people drink water without fluoride, that 108 million people lack dental care coverage, and took us to task because of inequities in treatment outcomes and access based on race and income levels. He advocated that oral health be accorded the same respect and importance as other kinds of health care, and that efforts to recruit minority dentists be strengthened. The report states that the public takes teeth and oral tissue for granted, "...yet they represent the very essence of our humanity. They allow us to speak and smile; sigh and kiss; smell, taste, touch, chew, and swallow; cry out in pain; and convey a world of feelings and emotions through facial expressions."

What you do is important, and how you do it makes all the difference.

We welcome your ideas and invite you to join our group. Submissions to "Issues in Dental Ethics" and correspondence about PEDNET may be sent to:

PEDNET
(Professional Ethics in Dentistry Network)
c/o Center for Ethics;
Loyola University of Chicago;
6525 North Sheridan Road;
Chicago, IL 60626.



Bruce Peltier, PhD, MBA
President, PEDNET

The Ethical Complexities of Dual Relationships in Dentistry

Evelyn Donate-Bartfield, PhD, and Daniel D'Angelo, DDS

Abstract

Dual relationships hold the potential for conflict because each relationship involves expectations for behavior and these expectations may be inconsistent. Examples are provided in the dental situation involving romantic, social, financial, and familial second relationships. Care must be exercised by dentists not to abuse the power of their position.

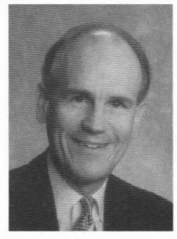
Dual relationships are created when a professional enters a second, nonprofessional relationship with a current patient or initiates a professional relationship when an existing social or business relationship is already in place (American Psychological Association, 1992; Pope, 1991; Sonne, 1994). For dentists, dual relationships occur when family members, close friends, or employees are patients, or when a dentist develops an intimate relationship with a current patient. Barter and business arrangements with patients can also produce dual relationships (Keith-Spiegel & Koocher, 1985).

Dual relationships can be harmful when they interfere with the professional's obligation to place the patient's care and well being before the professional's own interests (Gabbard & Nadelson, 1995; Keith-Speigel & Koocher, 1985). Specifically in regard to treatment, dual relationships can result in changes in expectations that may undermine the patient-professional alliance. They can distort the objectivity necessary for clinical assessment of a patient's behavior and adversely affect the patient's decision-making ability regarding treatment, as well as make confidentiality difficult to maintain (Chiodo & Tolle, 1995; Gabbard & Nadelson, 1995; Keith-Spiegel & Koocher, 1985).

While dual relationships are specifically restricted in the ethical codes of professionals offering psychotherapeutic services, dentistry's ethical code contains no such prohibitions (American Dental Association, 1999). Does dentistry need to be concerned with the ethical issues produced by dual relationships? Many dentists take such relationships, especially those in which family members are patients, for granted. Indeed, many dentists would never have completed their training and licensure if family members had not been willing to be their patients. But since dentistry produces interpersonal relationships characterized by trust, and since dual relationships place the professional in a position to misuse this professionally ascribed trust, the question of the ethics of dual relationships in dentistry requires careful consideration.

Non-Dental Health Professionals and Dual Relationships

The most common restriction concerning dual relationships among the ethical codes of different professions is the uniform prohibition against sexual involvement with current patients (Gorlin, 1994). Because of the



Dr. Evelyn Donate-Bartfield is an Assistant Professor of Behavioral Sciences at the Marquette University School of Dentistry. Dr. Daniel D'Angelo is an Adjunct Associate Professor and Course Director in Dental Bioethics and Professionalism at Marquette University School of Dentistry. Evelyn.bartfield@marquette.edu.

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special nature of the psychotherapeutic alliance, engaging in a sexual relationship with a patient is viewed as harmful to the patient, represents a breach of professional trust, and is considered a serious ethical violation for psychiatrists, psychologists, and social workers (Gorlin, 1994; Plaut, 1997; Pope, 1988; Stasburger, Jorgenson, & Randles, 1995). The seriousness of this violation for psychotherapists is indicated by the recent movement in several states to criminalize the act of engaging in sexual activity with a psychotherapy patient (Stasburger, Jorgenson, & Randles, 1995).

Physicians' and chiropractors' ethical codes also contain prohibitions against sexual relationships with current patients. The American Medical Association's Code of Conduct warns that sexual relationships with former patients may also be unethical if the emotional condition the patient experiences after termination of the professional relationship is not sufficiently different from the condition that existed while the patient was being treated by the physician (American Medical Association, 1991; Gorlin, 1994).

Likewise, nonsexual dual relationships may also have the potential to cause harm. Psychologists, counselors, and social workers are prohibited by their codes of ethics from entering any secondary relationships that might exploit the patient's trust, and physicians are advised by the American College of Physicians against treating family members (Gorlin, 1994). Psychology's code of ethics warns that bartering with patients may evoke difficulties with dual relationships (American Psychological Association, 1992).

While other professions monitor dual relationships carefully, the profession of dentistry has paid little attention to dual relationships. The dental code of ethics makes no mention of multiple relationships (American Dental Association, 1999). In the dental ethics literature, several writers have discussed the difficulties associated with specific types of dual relationships, such as having sexual relationships with patients (Jorgenson & Hirsch, 1994; Rozovsky, 1989) or treating family members (Chiodo & Tolle, 1995). However, these articles focus on specific situations and do not examine the broader ethical issues evoked by dual relationships. What have other professions identified as the ethical issues raised by dual relationships, and how do these types of issues apply to dentistry?

When dental decisions are influenced or changed in a way that places the dentist's personal interests first, this can result in treatment that does not serve the patient's needs.

Problems Caused By Dual Relationships

Dentists are ethically bound to place their patient's care and well being before their own interests in most matters. This subrogation of self-interest permits patients to trust their dentist, knowing that the dentist will act in their best interests. A similar relationship exists between the trustee of an estate and its beneficiaries and is referred to as a "fiduciary relationship" (Plaut, 1997; Jorgenson & Hirsch, 1994). According to several writers, the critical problem caused by a dual relationship is that it may change the fiduciary relationship (Keith-Spiegel & Koocher, 1985; Gabbard & Nadelson, 1995). Having a second relationship with a patient is a problem because it violates a basic rule: The patient's needs are no longer the only consideration for the dentist. When dental decisions are influenced or changed in a way that places the dentist's personal interests first, this can result in treatment that does not serve the patient's needs. There are several ways the dental relationship can be adversely affected by collateral relationships.

Kitchner (1988) points out that in dual relationships, the behaviors, expectations, obligations, and goals of a professional role and those of personal relationships can conflict. For example, in one form of dual relationship, the dentist has to behave as a dentist and also as a friend at the same time. Sometimes, the dual role behaviors are consistent—such as the expectation that the dentist-friend will be kind and caring. However, the expected behaviors and the goals of the personal and professional roles can also conflict. The goal of dentistry is a positive oral health outcome, not a close friendship. Therefore, one does not expect a friend to act in a confrontational manner in response to noncompliance with treatment regimes or to ask personal questions about sensitive medical areas. When conflicts between the two relationships occur, the dentist may have difficulty upholding the responsibility to place the obligations of being a good dentist before the expectations of the secondary role. For example, a dentist treating his or her child may want to scold the child as a parent would for not complying in the dental situation when other behavior management techniques would be a more appropriate professional intervention. According to Kitchner, the greater the difference between the professional role expectations and the expectations of the other relationship, the more likely it is that there will be ethical problems caused by the dual relationship.

Another possible mechanism by which dual relationships may be ethically problematic is that they may cause harmful conflicts of interest between dentist and patient (Pope, 1991). With most patients, a dentist does not have a personal interest in the

final outcome, only a professional interest. However, when there is a dual relationship, having a personal stake in the outcome of a procedure may influence the treatment that is delivered. For example, an orthodontist might not seek orthognathic surgery for his or her child out of a parental concern for the child's welfare, thereby denying the child access to needed and indicated care that the orthodontist would otherwise recommend to a non-family patient. Another example of this sort concerns the dentist's commercial interest, in which recommendations to patients may be influenced by profits from the sale of products such as nutritional supplements or electric toothbrushes. In this case, the dentist is acting as both dental health professional and salesperson. Conflicts of interest occur if dental decisions made by the dentist are based on the dentist's interests rather than the patient's best interests. Again, the basic rule–patient's needs first–is violated.

While obvious conflicts of interests in dual relationships might be successfully avoided with sufficient self insight and care, or by appropriate disclosure of commercial interests, dual relationships may also cause a subtle distortion in professional judgment that is not as easily overcome by the professional (Keith-Spiegel & Koocher, 1985; Pope, 1991; Sonne, 1994). But since roles in dual relationships cannot always be clearly separated, one cannot always disconnect one's feelings, motivations, and knowledge in one relationship from affecting the other relationship. For example, it may be difficult to judge a patient's behavior independently of your history of interaction with that person. Interpreting communication can be clouded by one's familiarity with the patient. Patient pain, impatience, and anger may be misread. A purely professional stance is often the only way to offer treatment options effectively, to ask sensitive questions during an interview, and to negotiate pain management strategies with a patient.

The possible distortion of judgment that can accompany dual relationships is further complicated by changes in the nature of the professional relationship that result from the overlapping relationship (Pope, 1991). Dual relationships alter professional "boundaries"; that is, the rules, limits, and expectations the dentist creates to define an appropriate professional relationship (Plaut, 1997). Taken together with rapport (Chambers & Abrams, 1992), these unspoken understandings between the dentist and patient assist dentist-patient relationships in functioning efficiently (Kitchner, 1988). Dual relationships change these limits and produce a hybrid relationship where professional expectations and understandings are no longer clear. This change in the expectations about the relationship could undermine the dentist's influence as an oral health care provider and adversely affect the dental relationship. For example, familiarity in the patient-professional role may cause the patient to take the dentist's proscriptions less seriously ("It's only Uncle Dave"), and this, in turn, may influence the dentist's attempts to alter oral health behavior and the patient's compliance with oral health care instructions (Chambers & Abrams, 1992). Patients who have personal relationships with the dentist in other respects may fail to respect appropriate professional boundaries and limits. For example, they may call at inappropriate times, make inappropriate treatment requests, and fail to respond to the professional's advice regarding treatment planning.

Outside business relationships with patients can also complicate routine professional financial dealings, since interactions with the dentist involving money are occurring in other settings, and these experiences may change a patient's expectations about payment in the dental situation. An example of these altered expectations is when a business partner expects a reduction in fees for dental services, which would be particularly problematic for a dentist in a group practice where compensation is shared equally among the partners. Likewise, it would be difficult to collect payment for dental services from close family members, particularly if they had financed your dental education.

The change in the nature of the dentist-patient relationship is bi-directional. As is true of dentists, the influence of the second relationship may impair the patient's ability to act in the role of patient. Consequently, the patient may fail to disclose pertinent information or be influenced by the dentist's persuasive attempts to change oral health behavior. The patient's feelings of trust towards the dentist may be changed by the second relationship. The patient's ability to make his or her own best treatment decisions could be affected by the patient's perception of the dentist's behavior in the second role. For example, an employee-patient's feelings about the value of dental work done by a dentist-employer may be influenced by such matters as the employee's feelings about salary or knowledge of the dentist's finances and practice. Such perceptions could affect, and possibly interfere, with the dentist-patient alliance. When any harm is done to this partnership, the patient's best interests are not served.

Problems with confidentiality are another complication of dual relationships (Keith-Spiegel & Koocher, 1985). The professional receives confidential information both as a professional and as a friend, and the friend's obligations are different from the professional's. Because patients are disclosing information to both a dentist and a friend, patients may not be as willing to volunteer sensitive medical information (Chiodo & Tolle, 1995). Role conflicts also affect confidentiality, since information gained in one role cannot ethically be used in the second role. This can create conflict and difficult ethical dilemmas (Keith-Speigel & Koocher, 1985). For example, the dentist may be in an uncomfortable position if the medical

information that is learned in a professional setting cannot be shared with others (e.g., a dentist's best friend's wife discloses she has a sexually transmitted disease) even though the dentist might feel obligated to do so as a friend or family member. In these situations, the dentist's roles as a professional and as a friend or family member yield conflicts about dental obligations to maintain patient confidentiality.

A final, and perhaps the most important issue inherent in dual relationships, derives from the imbalance of power that exists in the dentist-patient relationship. Dual relationships are restricted in psychotherapy, above all, because it is recognized that a psychotherapist holds a position of influence and power over their patients and this power could be exploited by the therapist (American Psychological Association, 1992; Sonne, 1994). A similar, though ordinarily less potent differential in power, exists in the dental relationship because of the dentist's knowledge and skills that the patient needs but does not have. The dentist therefore needs to act to secure trust and establish a dental alliance precisely because the dentist is in a position of power relative to the patient (Chambers & Abrams, 1992; Gabbard & Nadelson, 1995).

Thus, dental relationships bear a close resemblance to psychotherapeutic or medical relationships in some important respects. Dentists have confidential and sensitive information about patients, they create long-term relationships based on trust, and they have specialized skills that inspire a patient's regard and trust. They often deal with patients who are in pain or who are afraid, and these conditions may make patients emotionally vulnerable as well. In addition, the unidirectional nature of the dentist-patient relationship (with attention and care being focused on the patient and the dentist revealing little about themselves in the professional transaction) may inspire "transference-like" phenomena in patients (Gabbard & Nadelson, 1995; Plaut, 1997). Transference is a phenomenon where patients act as if the patient-provider relationship is similar to a significant past relationship. When transference occurs, the patient may generalize and project emotions from a past relationship onto the dental relationship. In doing so, they may ascribe qualities to the professional that are neither warranted nor desired by the dentist. For example, after successfully helping a fearful patient through a difficult and painful dental procedure, the patient may come to view the dentist as similar to other nurturing or powerful figures in the patient's life. This distorted emotional view of the relationship could place the dentist in an even more influential position of power with respect to the patient. Under these conditions, patients may not be able to make good decisions about entering into personal relationships or business dealings with their providers.

But even in the absence of transference, dentists still hold the upper hand in professional relationships. They set the tone of the relationship, they have knowledge of intimate personal information about their patients, and they control the details and the pace and intensity of treatment. Because patients do not hold equal power emotionally or socially, entering a dual relationship under these conditions creates the potential for the dentist to subtly exploit a patient (Pope, 1991). Since the fiduciary nature of the dental relationship requires that interpersonal influence given the dentist be used for the patient's benefit, this would seem to obligate dentists to avoid conflicts caused by dual relationships.

Why Should Dual Relationships in Dentistry be Examined?

Dual relationships have the potential to create conflict when professional and personal roles conflict, when one's professional insight is impaired by the dual relationship, and when the professional character of the dentist-patient relationship is changed by the second relationship. These conditions are likely to be present when a dentist is treating close friends, employees, and family members. The present analysis suggests that professional relationships with persons in these groups should be avoided. While other types of dual relationships (such as treating acquaintances) are less likely to create ethical difficulties, these relationships need to be monitored to assure that the professional's judgment and the patient's judgment are not being adversely affected by the second relationship. Likewise, outside business relationships with patients may create conflicts of interests and the potential for abuse of the trust striven for in the professional dental relationship. It is necessary to carefully assess such relationships to assure that the fiduciary relationship is maintained.

Good dental treatment does not occur in a vacuum. The success of oral health education, patient compliance and long term oral health outcomes depend on good dentist-patient communication (Chambers & Abrams, 1992). Such communication occurs best in the context of a trusting dentist-patient relationship. It is not consistent with the ethical practice of dentistry to have a secondary relationship with a patient that may disturb this trusting relationship. Examining the potential for such harm is an obligation that comes with the privilege of practicing dentistry.

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A New Look at Dentisry's First Ethical Question

Scott Jett

A professor of mine once told me a story I hope I will never forget. He told of a young Nebraska dentist from a long lineage of ranchers who became the first dentist in family history. He had poured his heart into dental school with visions of someday being able to drive his old ranch truck into town, toss his keys to the first car dealer he could find, and drive away in a shiny new Cadillac Seville. He worked hard his first year out, staying late, working Saturdays, cutting crowns and cementing bridges on every patient within a hundred miles. His patients liked him and he enjoyed the beginnings of living the American dream. Soon, the day came when he found himself behind the wheel of the Cadillac of his dreams, the hard earned fruit of his labor. He proudly drove to his office and parked outside. As he got out, a long time patient of his pulled up in a muddy Chevy truck. The old rancher leaned out his window, eyeballed the gleaming new automobile, looked at his young dentist and asked, "Hey, Doc, is that the new Caddy I bought you?" Then he put his truck into reverse and drove away, never to come back again.

When I first heard the story, I wasn't sure what I thought of it. Was it wrong for a kid to have a dream? What is so offensive about being rewarded for hard work? Then I really started thinking about what it means to be a health care professional, what it truly means to be in a profession like dentistry. When a dental school graduate is handed a diploma, he or she is accepted into a profession loosely governed by a defined code of ethics and conduct. The opening lines of this Code of Professional Conduct state, "The dentist's primary professional obligation shall be service to the public" (ADA, 1999). It continues with, "The competent and timely delivery of quality care within the bounds of the clinical circumstances...with due consideration being given to the needs and desires of the patient, shall be the most important aspect of that obligation." Most dentists like to think that they carry out their work within these basic parameters; however, in my short time in the profession I have come to believe otherwise.

Obviously, the day-to-day ethical dilemmas most dentists face do not arise from life-or-death situations. Our tough calls are more of shade selection and questionable margins than defibrillation and life support. But that should not trivialize the matter of ethics. The big ethical decisions are easy. Is it wrong to take advantage of a patient who is under sedation–yes! Is knowingly perforating a caries-free pulp horn to reap the financial gains of instant Endo a wrongdoing–definitely. Where dentists find themselves in a gray zone is in the more obscure realm of practice philosophy and standard of care. Dentists are a pretty

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Mr. Jett is a senior dental student at the Medical College of Georgia School of Dentistry, Augusta, Georgia. This paper was awarded first place in the Ethics in Dentistry competition by the Georgia Section of the American College of Dentists. Issues in Dental Ethics welcomes submissions of this type.

good group of individuals for the most part, but to say that as a whole we fully and earnestly subscribe to the professional obligation of always placing the patient first is far from the truth. I feel the time has come to re-evaluate just what it is we think our patients *need*, and to look hard at the fine line between those things we want and those *we* truly need.

Most dental practices today would not enjoy the current trend in business success if they hinged on a practice philosophy based solely on patient needs. A need-based philosophy is not quick to crown a large, twenty-year old amalgam with sound margins just because it is big and old. Why is it that so many of us see a large amalgam restoration as an immediate indication for porcelain coverage? Are we taught this "rule" in dental school? Has it been proven by sound scientific method that all large fillings will soon crack and are in immediate need of something better? Absolutely not. In fact, there are no studies comparing crowns versus four-or five-surface amalgam restorations over periods of five or ten years (Rule & Veatch, 1993). Preventive dentistry is a wonderful part of any practice, but it can be taken to extremes. Replacing every direct restoration that fills more than half the intercuspal width with a crown is standard operating procedure in many so called "high end" offices. This is great for business, but is it always best for the patient? True, placing a crown will nearly guarantee the tooth will never fracture, but often the patient is not given a true choice in the matter. Most patients trust the opinion of their dentists and assume the dentist is making sound decisions based on what the patient honestly needs.

One place where many stray from the confines of their ethical obligation is in simple treatment planning. A common scenario often involves a new patient who presents with multiple large but sound restorations who is told during the first visit that he or she will *need* a cleaning, bleaching, and numerous porcelain-fused-to-metal crowns, then is sent to the receptionist to book the next appointment. A situation like this may sound harmless, but if the dentist in question were to have looked hard at what the patient really needed, actually had to have to remain disease free and fully functional, the dentist may not like what has been done financially. The key point here is that we should feel ethically obligated to present more than one treatment option in most clinical situations. Perhaps those old amalgams could have been remarginated and may have lasted another five or ten years. It's not immediately profitable, but at least it is honest.

It is important to realize that there is a difference between presenting a single "best case scenario" treatment plan based on selfish financial motives and one that allows the patient to be educated about several treatment alternatives. The sad thing is that a dental practice can absolutely thrive on a selfish philosophy with the only consequence being a reputation for being over costly. And most dentists can defend themselves by claiming to hold to a standard of only the highest quality. I believe that if more dentists spent the time to really think about their practice philosophy, not the one hanging in the waiting room, but their true decision making gut instinct, they would begin to see the true motive behind their work.

A good example of selfless practice philosophy can be seen in many dentists who practice on our nation's Native American Reservation lands. Though I have heard dentists in the private sector refer to reservation health care as "patchwork" dentistry, this could not possibly be further from the truth. I recently spent a month working on a reservation in Northwest Montana and was inspired by what I saw. The dentists are paid on a fixed salary, which automatically eliminates any desire to "sell" dentistry. The government allocates vast sums of money for medical and dental facilities, so operatories and instruments are absolutely state of the art. This leaves the dentistry stripped to its purest form and gets the profession back to its roots, a profession whose *primary obligation shall be service to the public.* These dentists are able to practice on a level consistent with the ethical obligation to place the patient's needs above those of meeting office overhead or personal financial goals. These dentists may only earn a fraction of what they would in private practice, but the casual stress-free lifestyle they lead is more than worth the financial imbalance. They are able to close the office doors and go home each day knowing that they gave their patients a service that was both needed and appreciated.

The benefits of dentists as a whole getting back to the roots of an ethically based mission statement are twofold. First, by consistently making decisions based on what patients truly need versus what we, as dentists, know they will accept, we will begin to gain more respect from the public. This is vital in a society that has begun to feel that dentists overcharge their patients to support a high-end lifestyle. Second, we will start to see a decrease in the many stresses inherent to the field of dentistry. A fair amount of the stress dentists face originate from a need to produce, which in itself goes against the very grain of our ethical obligation.

So does all this change in philosophy mean that dentists need to forget about elective dentistry, shun cosmetic treatment planning, and go back to the days of simple drilling and filling? Do we need to drive modest cars, live in small homes, and embrace a pauper's life of humility to show our patients we care? Definitely not. I am simply asking today's dental community to remind itself that this profession was founded on a strict moral code that states we are to always place our patient's *needs* first. Let us be challenged to place our own motives aside each and every time we make a decision concerning what a patient honestly, truly needs.

American College of Dentists
839-J Quince Orchard Blvd.,
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