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TRUTH-TELLING
IN DENTISTRY

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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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- A. To urge the extension and improvement of measures for the control and prevention of oral disorders;
- B. To encourage qualified persons to consider a career in dentistry so that dental health services will be available to all, and to urge broad preparation for such a career at all educational levels;
- C. To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;
- D. To encourage, stimulate and promote research;
- E. To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;
- F. To encourage the free exchange of ideas and experiences in the interest of better service to the patient;
- G. To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;
- H. To make visible to professional persons the extent of their responsibilities to the community as well as to the field of health service and to urge the acceptance of them;
- I. To encourage individuals to further these objectives, and to recognize meritorious achievements and the potential for contributions to dental science, art, education, literature, human relations or other areas which contribute to human welfare—by conferring Fellowship in the College on those persons properly selected for such honor.

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Telling the Truth

4 Report on Ethics Summit III

7 Lying Through Your Teeth

David W. Chambers, EdM, MBA, PhD, FACP

14 Some Observations on Truth Claims in a Profession

Bruce Peltier, PhD

16 Inside, Outside, Truth Side Up

Don Patthoff, DDS, FACP

19 Ethics Fitness

Larry V. Kuhl, DDS, EdM

20 Why We Can't Believe What We Read

Richard J. Simonsen, DDS, MS

24 The Role of the Federal Trade Commission in Advertising Health Products and Services

Matthew Daynard

27 Will Dentistry Be Left Behind at the Healthcare Station?

Bruce J. Baum, DMD, PhD

31 Research of Importance to the Practicing Dentist: 2004 ADA Research Agenda

Issues in Dental Ethics

35 A Call for Ethics Committees in Dental Organizations and in Dental Education

Barry Schwartz, DDS

DEPARTMENTS

2 From the Editor

The Lost Innocence of Research

40 Leadership

The Second-best Solution: An Apology for Democracy



Cover Photograph: The 4th-century Bocca della Verità (Mouth of Truth) in the Church of Santa Maria Cosmedin in Rome. Tradition holds that anyone who tells a lie with his/her hand in the mouth of this river god will be bitten. © Inmagine/ImageSource.

FROM THE EDITOR

THE LOST INNOCENCE OF RESEARCH

The tensions between practitioners of oral health care and practitioners of research will be a defining challenge for the next quarter decade. The rules for that interaction are changing.

Biomedical research is generally portrayed as the selfless pursuit of truth. It would be accurate to characterize it as “rigorous” (with complex rules about experimental design, statistical analysis, and peer review). But changes in the past few years have made it anything but selfless. We are talking big money, large personal rewards, and politics.

In the January 2004 issue of the *Journal of Dental Research*, National Institute for Dental and Craniofacial Research (NIDCR) Director Dr. Larry Tabak announced, “Our collective goal is to move from the current surgical model of dental practice to a chemotherapeutic or biotherapeutic model.” This is not a comment about how to conduct research. It is a statement about how dentistry should be practiced, and thus guarantees the vitality of certain types of science.

The tensions between practitioners of oral health care and practitioners of research will be a defining challenge for the next quarter decade. The rules for that interaction are changing. This journal devoted the final issue of 2003 to the topic and published the mission statement of NIDCR there. This issue contains the ADA research agenda and an outstanding article by Dr. Bruce Baum making a strong case for a biological approach to practice.

Dr. William Gies was a biochemistry professor at Columbia University when dentists from the First District Dental Society in New York visited him in 1909. They asked for his help in clarifying the causes of caries and offered to support his research along these lines from funds the society had collected. This model—organized dentistry’s direct financial support for research—has continued to varying degrees since.

But the connection between knowledge generation and knowledge application has come unraveled. Both partners to the collaboration have become too big and independently successful. Dentistry’s need to demonstrate a scientific basis for recognition as a profession has been satisfied. The research enterprise has become so complex, arcane, and expensive that only the initiates find it understandable. I have never met a practicing dentist without an academic appointment who reads the *Journal of Dental Research*, the publication founded by Gies in 1919. Gies founded the International Association for Dental Research a year later and the first meeting had fewer than ten scientific papers. The 2004 meeting of IADR in Hawaii had more than 4,000 papers, but I met no practicing dentists there.

Two old friends who helped each other in the early days when they were struggling for professional identity have drifted apart. The resulting gap is being vigorously and efficiently filled by commercial interests.

The pseudoscience used to sell dental materials is now so common that it is being accepted, to say nothing of bogus science in the service of quackery and questionable techniques. Perhaps the lion's share of "research" funding in dentistry goes to product development, studies needed to earn FDA approval, and papers that function as advertising. Dentists are overwhelmed. Some struggle to keep up, and some delegate such decisions to writers of review articles and evidence-based dentistry. Some have surrendered to whatever claims seem most attractive financially and have a respectable appearance of science.

What is less apparent is the commercial invasion on the side of biomedical research. Ten years ago, we were looking at an annual tab of \$26 million for medical, dental, and related investigations. This year it is \$2 billion—almost doubling every year over the past decade. Of this amount, 60% is funded by drug, biotech, and other commercial firms. The NIDCR portfolio of extramural research has as many MDs as principal investigators as DDS/DMDs.

This summer, a panel at the National Institutes of Health will prepare recommendations on possible new guidelines for its scientists and administrators concerning limitations on commercial interests. It is not uncommon for federally employed scientists to accept oversized speaking and consulting payments, to sit

on boards of commercial firms, to own patents, and to hold stock options in companies that sell science. A number of these arrangements are believed to be worth multiple millions of dollars. Many scientists are selfless and under-rewarded. To paraphrase a comment in Gies' first editorial, "my concerns are not directed to individuals, but to a system whose credibility is open to question."

The rules for research in universities changed in 1980 with the passage of the Bayh-Dole Act. This legislation permits universities to commercialize scientific advances made with government funding. Most research-intensive universities now have offices for scientific commercialization. Some university scientists now earn more from commercial interests than from teaching or conducting funded research. Journal editors cannot close the door of peer reviewed publication because it is the rule rather than the exception for publication of research with financial implications. So many scientists have personal interests in the products they test and interests in competing products that disclosure is uninteresting.

What was in the days of Gies a dependency of research on practice may become a competition between the two and eventually a dependency in the other direction. The logic of dentistry, as in medicine, is procedure-based and available skilled labor is the limiting factor. So we can predict that dentistry, with the help of insurance companies, will resist diagnostic codes or reimbursement based on health. By contrast, the

biological approach to oral health will be grounded in proprietary knowledge and inexpensive delivery systems. In this system, a few people stand to make a lot of money.

The American Dental Association appears to be providing a useful counter force to the dangers of the growing gap between dental and research practices. They fund, through the ADA Foundation, the Paffenbarger Research Center in suburban Washington, DC, in the amount of \$4.5 million annually. In addition, the Council on Scientific Affairs prepares a research agenda each year. It is broader in scope and more precisely focused on providing oral health care than is the NIDCR mission statement. One of the most effective ways for dentists to ensure high-quality, high-relevance scientific advances is to support it. Dentists know that you get what you pay for. ■



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

REPORT ON ETHICS SUMMIT

INITIATIVE OF ORAL HEALTH ORGANIZATIONS

The third Ethics Summit was held on January 20 and 21, 2004, in Orlando, Florida, and addressed concerns related to truth claims in dentistry. Participants from 56 organizations examined the scope and possible causes of truth becoming a dimmer light in oral health care, the existing mechanism for promoting truth-telling, potential means for strengthening the truth climate, and next steps to pursue. Participants in the summit concluded that the truth climate in oral healthcare can best be improved by a combination of standards for making claims transparent, ethics education, regulations, and promoting general awareness of the problem.

The January 2004 conference was the third ethics summit convened by the American College of Dentists to explore ways in which the oral health care profession can develop ethics as an alternative mechanism to regulation, litigation, commercialism, and other means to improve oral healthcare. Participation in such conferences is unique in that invitations are sent to all organizations in the oral healthcare field to sponsor a representative. Although participants are selected by sponsoring organizations, they speak only for themselves, creating a comprehensive, well-informed, and candid dialogue.

Two general presentations were used in addition to the breakout groups and plenary sessions to explore the issue. Dr. Charles Dwyer, of the School of Education at the University of Pennsylvania, summarized research and practical applications for values, perceptions, and truth in the way individuals influence each other's behavior. Dr. David W. Chambers gave examples of declining truthfulness and argued that the problem involves relationships rather than characteristics of data and that the problems in dentistry are a reflection of such problems in society as a whole.

The definition of truthfulness offered was the mutual advantage of believing the promises we make to each other as a foundation for common action.

The format for the summit included three pairings of breakout sessions with plenary meetings. Each such pairing addressed one of the topics identified in the first paragraph above. Breakout groups were composed of twelve partici-

pants, each led by a trained facilitator and supported by a subject matter expert in dental ethics. The plenary sessions following each breakout meeting included reporting, development of a combined or consensus list of issues or approaches, and then prioritization of these lists. The lists were prioritized through an anonymous, electronic voting system. As in all such professional meetings, participants took advantage of the opportunity to renew and build relationships and informally explore issues.

NATURE AND CAUSES OF DIMINISHED TRUTHFULNESS

The first issue addressed by participants in Ethics Summit III was to identify the forces contributing to diminished truthfulness. The consensus prioritization of these forces is displayed in Table 1. The predominant motive for diminished truthfulness in the oral health professions is money. Participants at Ethics Summit III felt that individuals and organizations within the profession are willing to

Table 1.
FORCES FELT TO CONTRIBUTE TO DECLINING TRUTH-TELLING IN ORAL HEALTH

1st vote %	2nd vote %	Force
48	—	Money
12	34	Lack of accountability, practice alone
10	17	Pride, prestige
10	10	Time, balanced life
7	21	Skill level, competence, knowledge
6	10	Security, safety, fear
5	4	Power, influence
1	2	Charitable intent
0	2	Stress

shade or censor the truth if there is an opportunity for financial gain. It was also thought that pride is a contributing factor, especially in the sense that many look up to professionals, and admitting uncertainty or questionable practices would damage this perception. Time matters, both in the sense that it takes time to explain some of the complex matters in dentistry and because professionals would like to spend their time in other pursuits. These three motives, plus threats to a personal sense of security, power, and stress accounted for about 80% of the motivation to shade truth. These factors might be grouped in a general category of “human nature” and be regarded as reflections of society at large and as difficult to overcome.

A driving force that is arguably characteristic of dentistry is that about eight in ten dentists practice alone, while virtually all allied oral health professionals are in dental practices. The profession has prided itself on independence and freedom from regulation, oversight, and even from comparing work in a collegial fashion. Seven percent of participants thought that declining truthfulness could be traced to low skill levels, lack of competence in truth-finding and truth-telling, and even failure to appreciate the need for truthfulness or that truth is being abridged in certain circumstances. These are motives that can be addressed through education.

Table 1 also shows the percentage results of a second vote taken by participants. Because money was such a heavy influence, a second vote was taken with this alternative removed. This helped establish finer differentiation among the other factors.

Participants identified barriers that hamper improving the climate for truth in oral health (see Table 2.) In general, they parallel the idea of motivating forces. Basic human needs account

for about half of the perceived barrier, followed by structural obstacles and educational challenges receiving equal weight.

OPPORTUNITIES FOR IMPROVING TRUTHFULNESS AND USEFUL MECHANISMS

It is not surprising that participants in Ethics Summit III found a relationship between the forces behind diminished truth telling and the mechanisms in use or potentially useful for strengthening the climate of truth-telling. Table 3 displays the mechanisms currently used for promoting truthfulness. There are two columns of percentages, one representing the participants' views regarding the current value of such mechanisms and one representing the potential value of such mechanisms if they could be improved. In rough categories, the most useful mechanisms were those of disclosure and monitoring (36%), use of regulations and standards (33%), education (20%), and the promulgation of codes (13%). The same general pattern of perceived effectiveness appeared between mechanisms as they currently exist and as they might be improved. The major exception to this is that participants felt that education could be made a stronger tool for promoting truth and that regulation would play a diminished place in a better world.

Another way of looking at this issue is to ask, “What are the best opportunities for improving the truth climate in oral health?” The responses of participants are displayed in Table 4. Standards for making claims transparent were regarded as valuable, as were education in ethics, regulations, and general discussion aimed at increasing awareness.

TABLE 2. PERCEIVED BARRIERS TO IMPROVING THE TRUTH CLIMATE IN ORAL HEALTH

%	Barrier
26	Profit, lifestyle, debt burden
20	Fear lost prestige, power
14	Lack feedback, on-going peer review
12	Fear legal action—cost, penalties
9	Conflict of interests
7	Out of date, incompetent
5	Beliefs, culture
4	Local variability, no objective measures
2	Overwork
1	Communication, patients don't understand

TABLE 3. USEFUL MECHANISMS FOR IMPROVING TRUTH IN ORAL HEALTH

Now	Potential	Mechanism
25	11	Regulation, boards, agencies
17	19	Disclosure, transparency
14	12	Standards, credentialing
13	27	Education, EBD, CE
13	11	Peer review
11	14	Ethical codes
4	2	Public scrutiny
2	4	Feedback systems

TABLE 4. BEST OPPORTUNITIES FOR IMPROVING THE TRUTH CLIMATE IN ORAL HEALTH

%	Opportunity
21	Base oral health care on data vetted by recognized standards
18	Standards for disclosure
16	Credentialing, certification
11	Ethics training, mentoring
8	Broad dialogue, journalism, PR
8	Mandatory CE to make critical thinkers
7	Transparency in organizations
6	ADA to focus on ethics and truth claims
3	Due diligence, user responsibility
1	Peer recognition of the positive

Table 5. How Should the Oral Health Professions Work to Improve the Climate of Truth?

%	Strategy
21	Base oral health care on data vetted by recognized standards
18	Develop standards, including sanctions, for disclosure, advertising, research, etc.
15	Develop mechanisms for credentialing and certification at all levels in the profession
11	Strengthen ethics training and mentoring programs
8	Promote transparency within and between organizations
8	Ensure mandatory continuing education in areas such as ethics and critical thinking
8	Encourage broad dialogue, journalism, meetings, and other approaches to increased awareness
6	Encourage the ADA to make this a priority
3	Exercise due diligence, promote user responsibility
1	Peer recognition for excellence

POTENTIAL APPROACHES TO IMPROVING THE CLIMATE FOR TRUTHFULNESS IN ORAL HEALTH

In the final breakout session, participants discussed strengths and weaknesses of various approaches to improving truth telling. In particular, they were asked to prioritize approaches that could be pursued by the profession generally, and specifically what the American College of Dentists might do as a concerned group during the next year to follow up on this conference.

The priority scores for the question about potential approaches are shown in Table 5. Significant differences can be seen between the initial ratings of best opportunities (Tables 3 and 4) and the profile of approaches developed following critical analysis. The value of awareness and transparency—evidence-basing, broad dialogue, and transparency—appears most promising. Regulation, followed by education, remain about as attractive as they were in early discussions. The creation of new ethics codes is not seen as the most valuable approach. The shift in attractiveness of potential means of improving the truth climate in oral

health as they were debated is subtle and depends on preferences for classification.

It is probably a fair summary of the deliberations to say that after their analysis, the participants arrived at the conclusion that the truth climate can be improved most effectively by focusing on the climate itself, rather than on issues of what constitutes truth or on pressuring individual practitioners or organizations. Making the matter a shared responsibility and increasing awareness and transparency emerged as the major focus of the participants in the Ethics Summit III.

Table 6 displays the participants' preferences for immediate action that the summit's participants and the American College of Dentists could support during the next year.

At the end of the conference, participants were asked to write a brief statement of what they might personally be willing to do during the next six months as a result of the summit (see Table 7). The responses are grouped as numbers of responses, not percentages.

Table 6. What Might the ACD Focus on in the New Year to Continue the Work of Ethics Summit III?

%	Activity
21	Develop collaborations, increase the participation by others
21	Collect and disseminate data showing the nature and extent of the problem
15	Develop and collect standards and clarify what they mean
9	Create and maintain Websites, data sharing, and support for dialogue
8	Provide oversight, communication; especially to Ethics Summit III participants
7	Disseminate information to targeted opinion leaders
7	Work to influence policy
5	Prepare educational material, train trainers
4	Distribute information to increase awareness of the issue
3	Distribute existing policies

Table 7. PERSONAL COMMITMENTS OF PARTICIPANTS DURING THE NEXT SIX MONTHS TO PROMOTING A CLIMATE OF TRUTHFULNESS IN ORAL HEALTH

#	Responses
13	Discuss the topic and the summit with the leadership in their sponsoring organizations, attempt to get their organization to take a position
9	Write an article or editorial for their own organization or professional group
6	Increase time devoted to ethics or truth telling in existing ethics courses
6	Reevaluate the ethics statement of their sponsoring organizations
4	Attempt to involve and engage other organizations
3	Attempt to get the topic on the agenda for a meeting
2	Provide in-house training on existing codes
2	Attempt to influence the policy of another organization than the one who sponsored the participant
2	Support any future activities of the ACD
2	Make changes in organization's operation to improve its truthfulness
1	Work on credentialing standards
1	Wait for the research

LYING THROUGH YOUR TEETH

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

ABSTRACT

Evidence is presented that the concerns over diminished truth-telling in dentistry are a reflection of changes in society generally. Some of the reasons for dimmed truth-telling are listed, leading to a conclusion that society is in the process of rejecting an "objective" view of truth based on the word of authorities. An alternative, authentic conception of truth is proposed: truth is agreement that it is mutually advantageous for the parties involved to believe the promises they have made as a foundation for common action. Some of the characteristics of this view are discussed.

Telling the truth isn't as common as it used to be; and it probably never was (Chambers, 2000a). We hear of dentists telling their patients they need twenty-eight "small" occlusal fillings or, like physicians, rationalizing their failure to follow clinical guidelines (Cabana et al, 1999). There are those without licensures treating patients. There are cures for diseases that don't exist. Some dentists cheat on insurance reimbursement applications and IRS returns. Their sons and daughters cheat on exams in dental schools. Research data is fudged, and the FDA bars dental products from sale. The American College of Dentists has just devoted an issue of their journal to quackery and fraud (Chambers, 2003a). The bright lights at conventions and continuing education programs somehow make things seem a little bigger than they really are.

Consider the following indictments made against dental journalism. "Trade houses have learned that the interspersing of sales propaganda with instructive writings on professional subjects is a very effective means to advertise the goods they offer for sale. Probably the most important factor, from the beginning, has been the unwillingness of the dental profession to assume the financial responsibility that is inescapably associated with the conduct of a dignified journalism. Many dentists, as individuals, have complicated the situation by an attitude of indiffer-

ence to the forfeiture of self-respect and independence, and to the loss of control of their professional affairs."

These concerns appeared in the 1931 report of the Commission on Journalism of the American College of Dentists (American College of Dentists, 1932). The report noted hopeful signs in the profession. Between 1925 and 1930, about twenty-five state associations and similar groups adopted policy statements condemning trade journalism. Rhode Island's 1928 resolution contained this language, "The Rhode Island State Dental Society records its disapproval of the continuance of trade journalism and privately owned, undergraduate and postgraduate schools of dentistry, and looks with disfavor upon the practice of the itinerant vendor of dental education and the teaching aspirations of dental supply houses." The Kentucky State Dental Association went on record as prohibiting the appearance on the program of any of its meetings any



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salesman or representative of any person whatsoever regardless of his degrees or qualifications who is in the employ of a manufacturer or dealer in dental supplies or accessories, or who has directly or indirectly interest in the manufacture or sale of medicaments or accessories intended for public use. In 1930, North Carolina was opposed to proprietary graduate or undergraduate dental schools, proprietary journals, and laboratories and supply houses offering instruction in dentistry. The Wisconsin Dental Association favored using only the facilities of dental schools in continuing education.

The report urged the following policy (among others) to improve truth-telling in dentistry:

- Speakers should not address dental societies that engage with proprietary journalism and refuse to allow their talks to be carried in such publications.
- Dentists should decline appointments to proprietary editorial staffs and not contribute papers to such publications.
- Let the trade publications know the stance taken by the profession.

Unless an individual is caught and convicted, there is no shame.

It is recommended that reprints of important writings expounding the cause of non-proprietary dental journalism be secured, wherever practicable, and that they be effectively distributed in the name of the American College of Dentists.

The voices of concern about corrosive commercial interests and the counsel for truth telling have been overrun in the last seventy years in a fashion that can only be described as spectacular. (See O'Keefe, 2003, for a contemporary discussion of the role of journalism in truth-telling.)

The concern here is to place the issue of telling the truth in context. It is too restrictive to consider the bad apples. We must look at the whole barrel. New research at Harvard followed young men and women in careers such as journalism as they finished their education and began work (Fischman, Solomon, Greenspan, & Gardner, 2004). The study concluded that these young men and women "know" what is ethical, but pressures of the work environment and lack of supervision and role models cause them to consciously decide to "bend the rules."

Consider the rules of the con game (Goffman, 1959). The first rule of a successful confidence game is to play it in an atmosphere of trust. It is easier to lie among those who are expecting to tell the truth. The second rule is that confidence schemes thrive on unhealthy dreams. Fear works, but greed is the most powerful motive. Finally, con artists hurt more than the initial victim. They poison the atmosphere of trust. That is why credit card companies run television ads about identity theft.

The ethical dental community needs to worry about truth-telling in the profession. Precisely because the vast majority of dentists honor honesty and benefit from it, they must work to maintain an environment where truth-telling is to everyone's advantage.

It's NOT A DENTAL Problem

In an important sense, the growing shallowness of truth-telling in dentistry is a reflection of larger, general, societal trends. Dentistry bends to the culture in which it is practiced. Consider the following forces that are at work eroding truthfulness in society.

Truthfulness is judged to some extent on content and to a large extent on how something is said, who says it, what the circumstances are, and what symbols and rituals accompany the content. Claims cannot be witnesses for their own veracity (Bacharach & Gametta, 2001).

Society has always tried to protect itself by marking off trustworthy individuals or making it especially expensive for untrustworthy ones to speak (Heimer, 2001). Professionals are licensed. Reputations take time to develop. Truly knowledgeable people have degrees and titles, and they have published books or written in journals. But the badges of credibility have become cheap in recent years. For fifty bucks anyone can have a Web page and appear in print. Degrees, licenses, and titles are now so numerous that the public doesn't understand many of them and therefore stops looking. Even one's reputation is losing its clout as America becomes more mobile and our sense of community thins (Putnam, 2000). I have been told by an insurance executive—not to be quoted—that insurance fraud is much higher in large cities than it is in stable, rural communities.

Trusting is different across generations (Lancaster & Stillman, 2003; Zemke, Raines, & Filipczak, 2000). Baby Boomers are more likely to use a personal standard for what is true or fair than their parents did. Watergate and

the assassination of Martin Luther King, Jr., left the Generation X'ers with a bitter taste about those in positions of trust and a passion for superfluous consumption. The Millennial Generation has reintroduced trust, but in a shallow and constantly shifting fashion. Generation X'ers purchased their college term papers on the internet: Millennials merely cobble together reports, quotes, and images without regard to the authority of sources.

Litigation has had a chilling effect on the maintenance of truth. During the last quarter century, the number of lawyers has increased at three times the rate of increase among all other professionals (Putnam, 2000). One of my favorite cartoons is of a man talking to his lawyer and the lawyer saying "You have an excellent case, Mr. Smith. How much justice do you think you can afford?" I have seen e-mail messages from questionable practitioners and manufacturers threatening suits against individuals or state board members if they should express public opinions that might damage the economic interests of these frauds and quacks. The first editorial I wrote was never published. It was quashed as part of an injunction prohibiting the American Dental Association from holding a scientific session without specifically including individuals using a particular, unusual treatment approach.

Advertising influences perceptions. There is so much of it now that it distorts both our choices and our perceptions of reality. Even more damaging, advertising is so obnoxious and overwhelming that many Americans have become cynical and stopped inquiring about truth generally (Davenport & Beck, 2001). The term "puffery" refers to a claim that is widely regarded as not true, but is still honored. "This bonding material is suitable for all uses" would be an example.

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Truth has become a spectator sport. We may not watch congressional hearings as my family listened to the McCarthy hearings on the radio years ago, but we do catch the headlines and the Sunday morning talking heads giving their spins on who won this session or that speech. Some of the most highly watched television shows now include the "Judge Judy" form of entertainment, and some of the catchiest news is body counts and public opinion polls.

Shame and guilt have become confused (Kohn, 1986). Psychologists distinguish between the two concepts. Guilt involves transgression of publicly accepted standards that are publicly applied. Shame is an internalized sense of what is right and wrong, a personal way of guiding behavior. Increasingly, Americans have downplayed a healthy sense of shame and replaced it by the external standards of guilt. Unless an individual is caught and convicted, there is no shame. Plea bargaining has institutionalized this tradeoff, as have consent

decrees, where organizations agree to pay large fines as long as they don't have to admit that they have done anything wrong. Trust in institutions and professionals are declining. Venality is not a twenty-first century invention. But a constant diet of politicians lying under oath, corporations cooking the books, researchers fudging their data, and athletes popping pills becomes disorienting. The unrepentant Jayson Blair (2004), who was recently sacked at the New York Times for flagrant and public disrespect of the truth, brings the problem full circle. We can no longer be sure of the reports about corruption.

Bullet journalism is fashionable. The clean kill with a provocative bon mot seems to get above the messiness of our complicated world. There are some dental journals now where it is difficult to tell the articles from the advertisements. Both have attractive photographs, a few paragraphs of text, some specific claimed benefits, and the picture of a person with lots of degrees after his or her name. The accepted argument is that dentists are practical and busy (Bedos & Allison, 2002). They value messages that extract the truth for them. But dentists work fewer than forty hours a week on average, much less than other Americans. And there may be another way to look at the matter. Colombotos (1989) has argued the physicians actually do not want to know the full story because that constrains their freedom to use the facts in various ways to their benefit (see also Cabana et al, 1999; McGettigan et al, 2001).

We live in an age of a growing sense of entitlement. "You deserve it." is sometimes the only reason offered in support of an action or an argument. The Georgetown philosopher Robert Pellegrino lists it as an ethical violation to state that something is true just

Advertising is so obnoxious and overwhelming that many Americans have become cynical and stopped inquiring about truth generally.

We have reached a critical mass of chronic, low-grade dishonesty.

because you want it to be true. David Callahan (2004), in his book *The Cheating Culture* argues that America's wholesale engagement in cheating is grounded in a personal belief that "the system" is unfair and thus should be justly bilked for compensation. We have reached a critical mass of chronic, low-grade dishonesty. Many individuals no longer take the word of authority for what is true and have set themselves up as a one-person judge, jury, and executioner for extracting "their entitlement" from the faceless public.

WE DON'T KNOW WHAT TRUTH IS

A new view of what truth has begun to emerge. To be more precise, the old view is getting dimmer. Throughout modern times, there has been pretty general agreement that something is true if its being true does not depend on whether various people agree with it (Kane, 1994). It comes from science, religion, ethics, logic and other authoritative sources (Nagel & Newman, 1958; Popper, 1959). Newtonian physics is an example (unless you happen to accept Einstein's views as being more correct today). The particle theory of light is another example of scientific truth (except for those who follow the wave theory). Nothing is more certain than the physical reality of individual atoms (unless you are familiar with Heisenberg's work), and what could be more certain than the consistency and completeness of our basic number system (except for Gödel's destruction of it)? (See also Chambers, 2001, for a similar analysis in the history of medicine.) Ethics is a booming field today—not because more folks are engaged with the ethical code, but because more conflicting ethical codes are being offered.

There are some problems with the "objective-authoritative" approach to truth telling (Bernstein, 1983). You might tell me for example that fluoride and amalgam as used in dentistry are safe, and I might think you are lying. Each of us appeals to a different external standard and in some such cases, there is no practical way to find common ground. In some cases, the external standard may be insufficient or not well known. The faculty might say to the dean that all students are ready for graduation based on the available information about their performance. Perhaps some information is missing; or perhaps some is even forged. Although the faculty does not intend to mislead the dean, they may in fact be doing so and they may be negligent in their attempts to discover the facts of the matter. Truth in the "objective" sense encourages certainty but not necessarily stability.

Rear-guard actions to save "objective" views of truth tend to collapse into paternalism. These are attempts to protect truth by marshalling the authority of those who believe it. Expert witnesses, consultants, paid spokespersons, and a string of credentials are muscling out arguments on the grounds that "things are too complex for ordinary people to understand" (Ortega y Gasset, 1985). We are becoming a nation of experts at the same time we are losing faith in authority. That is not a paradox. We have returned to the medieval notion of trial by combat where my cause is crowned as "true" if my champion can beat your champion.

Besides making a mockery of the concept of truth by deciding it by hired authority, paternalistic views of truth damage relationships among people (Brammer, 1973). The principle of autonomy necessarily suffers when one party grabs the opportunity of deciding for the other what is true based on his or her private conception of truth.

Informed consent is supposed to protect against this happening in health care. A paper by Dlugokinski and Browning (2001) shows how even this practice can be accommodated to the economic interests of practitioners.

Here is the heart of the problem: “objectively” true, regardless of whether believed, may be a good description of what philosophers are looking for, but it is inadequate as a way for deciding which claims are true. Remember, claims cannot testify on their own behalf. There has to be an external standard, and that has to be somebody’s standard. For several hundred years we have been fooled into thinking that the truth of the authorities and experts was the truth. As authority has lost its stature in society, as it is doing today (Putnam, 2000), truth is being stripped of its formerly invisible support.

We need to build a new view of truth that doesn’t depend on the Wizard of Oz hand of authority. The public has already had a look behind the curtain. We need an approach that says, “If you value truth, you must participate in creating it.”

I suggest an authentic approach to truth: one that does depend on whether claims are believed to be true; one that requires that individuals agree on what it means to believe a claim of truth. On this view, truth is agreement that it is mutually advantageous for the parties involved to believe the promises they have made as a foundation for common action. This can be as simple as a patient nodding agreement when the dentist says “you have a cavity here that should be filled.” It might be an agreement reviewed by lawyers about reimbursement schedules, research findings, or marketing claims. If all parties concerned are mutually benefited by reasonable actions based on their understanding, truth has been told (Chambers, 2000b).

If one party, knowledgeable, informed, and acting in good faith is surprised, they have been mislead, lied to.

Saying things that are advantageous to one person and disadvantageous to another while pretending not to do so is untruthful. Creating an expectation that others can believe the promises one makes when that will cause them future damage is inherently untruthful. Making statements that appear to be a foundation for common action when that is not the case is inherently untruthful. All truthful claims are redeemable through discussion with competent, autonomous, and concerned individuals (Chambers, 2003b).

This is not personal relativism, a view that would let individuals decide for themselves what is true. Truth is defined collaboratively in every situation where individuals interact. When understanding does not lead to future action (as information about the rainfall in Tibet in 1926 is unlikely to lead to action), truthfulness is only an imaginary issue as the Pragmatists have said (James, 1948). Oddly, this view also addresses the paradox that both Newtonian and Einsteinian physics are true (as are naive and Gödelian

views of numbers, wave and particle theory, etc.) since both are taught in schools, but at different levels. It is the mutual advantage of proceeding to specific actions in various contexts that determines truthfulness.

APPLICATIONS OF THE AUTHENTIC VIEW OF TRUTH

The accompanying table shows some of the steps that are being taken or might be taken towards basing truth on direct interaction among people to advance their mutual interests.

Truthful relationships are authentic—each of us must be entirely present in the exchange (Goleman, 1995; Stewart & D’Angelo, 1980). It won’t work to negotiate the best deal available while withholding the right to accept or reject your own negotiations. This division within the person, the uncertainty even when there is apparent agreement, is the cardinal sign individuals use to label others as untruthful (Goffman, 1959). It is the reason why car salesmen are at the bottom of the trust list; even after an agreement has been made, we expect to be surprised by them. People in positions of power, such as dentists with patients or officials in organizations, have to be

CHARACTERISTICS OF AN AUTHENTIC VIEW OF TRUTH-TELLING

Truth is agreement that it is mutually advantageous for the parties involved to believe the promises they have made as a foundation for common action.

Authentic	All those affected participate without reserve
Reasons	When appropriate, reasons will be given for claims made
Transparency	No reference to undisclosed information
Understanding	Claims must be understood by those who agree to them
Community	Truth creates communities of those willing to act together
Language	Ways of communicating and solving problems promote truth

especially careful to balance their power of knowledge and position with being fully present in the discussion. People who are aloof are perceived as being untruthful, even when they are right.

There are studies in the business literature showing that employees in organizations value both distributive justice (receiving one's fair share) and procedural justice (participating in a fair process to distribute rewards and obligations). The research generally shows that individuals are more concerned with procedural than with distributive justice (Alexander & Ruderman, 1987; Folger, 1977; Korsgaard, Schweiger, & Sapienza, 1995). The extreme form of inauthentic relationships is to deny another person's right to participate in discussions about things that matter to them (Habermas, 1984; 1993).

The fundamental rule is that rational people are expected to give reasons for what they do and say: professionals are expected to give reasons that are acceptable to their peers (Chambers, 2003b). We don't have to use the word "because" in every sentence, but when called upon to do so, rational people should be able to give support for the positions they take. This typically happens at the edges of relationships and when there are signs that truth may not be obvious to both parties. The reasons we give for what we say and what we do do not have to be incontestable proofs. They must, however, accurately reflect what we really believe and they must be recognized by others as sufficiently reasonable to continue the discussion. Our truth telling should be transparent. This

means we can provide an audit trail of how we got to our current position if one is requested.

Truth really comes from the people we are talking to. We don't so much "tell the truth" as we "answer it." The question of truth only comes up in others' minds, not our own, and it is there that the issue of truth must be addressed. Organizations and enterprises that depend on truth—such as dental

Rules and regulations, exaggerated claims, and building of apparent authority are all warning signs that truthfulness may not be a part of the relationship being considered.

schools, the research community, organized dentistry, and individual dental offices—are all composed of overlapping truthful two-party relationships. People choose to join and honor—or sometimes abuse—truthful communities. The philosopher Alasdair MacIntyre (1981) argues that such relationships become internalized as part of the meaning of professional practice.

Certain kinds of language and certain kinds of inquiry lend themselves to building truth (Austin, 1962). A useful test of the truth climate is to ask, "Is it mutually beneficial for all concerned for us to act jointly on the things we are telling each other?" There are certain mechanisms that naturally work towards building truthful communities. Aspirational ethical codes (American

College of Dentists, 1998), research protocols and practices, robust technologies that do not depend on individual variation (Chambers, Leknius, & Reid, in press), informed consent, total quality and continuous quality improvement practices (Chambers, 1998), and certain decision theory models such as Pareto optimality (Bodily, 1985). Some mechanisms signal the absence of truth (Messick & Kramer, 2001). Guarantees and warranties are admissions of expected failure. Rules and regulations, exaggerated claims, and building of apparent authority are all warning signs that truthfulness may not be a part of the relationship being considered.

Our goal should be to build communities where truth is based on reason and where reason is a public search for mutual benefit (Chambers, 1996). When this is done in an authentic fashion, all those concerned participate fully—it is mutually advantageous for us to go forward together. ■

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SOME OBSERVATIONS ON TRUTH CLAIMS IN A PROFESSION

Bruce Peltier, PhD, MBA

QUOTE

Honesty from health professionals matters more to patients than almost everything else that they experience when ill.

— Sisela Bok, *Lying* (1978)

This report will add anecdotal evidence and perspective to the report of Ethics Summit III on truth claims in dentistry appearing in this journal. I served as an ethics advisor to one of the four breakout groups. This paper is the result of two days of structured deliberation by a small group of esteemed and involved members of the profession. The group was led by Bruce Graham, Dean of the University of Illinois at Chicago School of Dentistry. I assisted him and made the following observations.

Truthfulness has always been the subject of hand-wringing in public discourse. Lying is something that no one overtly favors or endorses, yet it is widely perceived to be a problem in the professions these days. There is a view, hardly new, that the world (and dentistry along with it) is going to hell in a hand basket, and one of the symptoms is degradation in truth-telling.

While evidence exists to document a rise in the cheating behavior of American students, there is virtually no way to confirm an increase in dental dishonesty. There was, nonetheless, widespread concern about truth-telling in the profession at this conference and in our small discussion group. Dentists are still high on the list of respected professions and occupations, but they have slipped down the list (to fifth place) in the latest Gallup poll.

The need for honesty is clear, and the case for its central importance in health care need not be made here,

except to say what I regularly say to dental students: “Don’t lie to your patients (or your staff).” Once you lie to someone, you change your relationship forever. You change from a doctor-patient relationship, where care for that patient’s needs is the central concern, to a player-playee relationship, where one person manages the perceptions of the other to prevent the real nature of the relationship from being revealed.

This is nothing short of tragic when it happens, and it is usually impossible to reverse.

It was instructive to hear examples of how the truth in dental practice is sometimes degraded. Group members mentioned dental practices that offer “free consultations,” but charge a hefty fee for associated radiographs not mentioned in advertisements. They talked about orthodontists who promote a fee without mentioning the fact that the retainers (how many patients even know about retainers when they sign up for braces?) cost more than those of other orthodontists in town. They mentioned auxiliaries who are required



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to do things that are outside of their scope of practice, and wondered what patients assume when they see an assistant, dressed in a spotless uniform, ready for her first day of work without any prior training whatsoever. They told of dental labs that send work offshore (outside of regulatory purview) without revealing this to dentist-customers. We discussed the problem that all dentists face when learning to use a new instrument (lasers) or procedure (implants or veneers) or when deciding to refer a complex case to a specialist.

The “big” question, of course, is diagnostic. What’s the etiology of this perceived problem? Is it the result of actions by a small group of outliers, the inevitable “rotten apples” in any large group? Does it derive from the ways that dentists generally see themselves or view their profession and its obligations? Or is it a function of larger systemic and environmental forces, mostly outside of the control of individual practitioners?

Several overarching trends emerged. The basic delivery system in dental care was faulted. Most dentistry is delivered in a small office by a single, autonomous provider to a single patient where the fundamental interests are perceived by some as intrinsically in conflict. The patient’s needs do not always conform to the dentist’s needs. For the dentist to behave truthfully, he or she must be able to exercise good judgment and occasional selflessness. This must be accomplished against the grain of what social psychologists call “the fundamental attribution error,” the notion that we place too much blame on character when research demonstrates that the environment is generally more powerful than individual will. Social psychologists

can make (nice) humans do nearly anything if you let them arrange the environmental contingencies accordingly.

Our small group also blamed patients as part of the problem, especially for the magical thinking that they bring to the dental office. Patients often expect perfect care at no cost (to them). Imagine that. Imagine the problems that such a set of core beliefs can cause.

The root cause of problems with truthfulness, of course, is the intrusion of the “commercial” point of view into the ethics of care. The commercial view of the market economy is based on competitive relationships. Companies compete with each other, and the buyer-seller relationship is competitive, as well. All parties compete to make their best deal in the service of profit, often at the expense of the other. Customers understand caveat emptor to mean that they must look after their own interests, and they know that a seller might just shade the truth to sell a product. Patients, on the other hand, must trust their dentist, because they are in no position to compete fairly. When the commercial, profit-driven ethic prevails in health care, we all lose in the end.

Many participants recommended the strengthening of ethics teaching in dental schools. But Charles Bertolami, in a recent *Journal of Dental Education* essay (April, 2004), points out that more ethics lectures won’t get the job done. They tend to be boring, and they don’t seem to make a difference in the way that a student thinks of himself or herself. Instead, we need to “get at” dental students, to challenge their professional identity. Did they come to dental school to become a merchant? A beautician of the mouth? A small business person? A successful amateur golfer? It is hoped that most came to learn how to become a Doctor, with a capital “D.” We have to strengthen that desire, introduce it and

shape it in those who don’t have it, and model what we think to be important. If we reinforce the notion that money determines who wins, that doctors should weed challenging or difficult patients out of their practice, and that the business of dentistry is business, we will reap what we sow. When dentists become merchants, patients will become customers, and the truth will be the loser. ■

Once you lie to someone, you change your relationship forever. You change from a doctor-patient relationship, where care for that patient’s needs is the central concern, to player-playee relationship, where one person manages the perceptions of the other to prevent the real nature of the relationship from being revealed.

Inside, Outside, Truth Side Up

Don Patthoff, DDS, FACD

A useful way to talk about Ethics Summit III and truth claims in dentistry is to ask: what good did it do? The newer ways of doing practical or pragmatic ethics can help answer that question. Practical ethics are different from the pure scholarly approaches that rely on virtues, principles, casuistry, and other forms of moral investigation. One of those differences, for example, deals with their varying emphasis on realistic actions and experiences. Several forms of practical ethics are common in health care, and the Summit showed they are also common within the dental profession and the greater dental community.

While it is not necessary here to focus on the subtle differences between classical pragmatics and its newer forms, it is important to note that some of the new approaches used to help solve special problems in one particular area can also cause a loss of truthfulness in others. Still, clinical dentistry and bioethics are about doing, so pragmatics are essential to what the Dental Ethics Summit Initiative is all about. So, even though the benefits and cautions about pragmatics are worth some attention, let us start by simply saying that pragmatics is not really a special form of dental ethics, it is an integral and central part of what the summit was about: being, doing, and acting truthfully.

A recent issue of the *Journal of Philosophy and Medicine* focused on pragmatics and introduced a useful phrase—"my big fat moral community." That phrase fits this Summit so well it is worth adapting here as: "our big fat moral dental community" or OBFMDC. OBFMDC captures the cohesiveness and integrity that surround our need for the practical, and helps express my observations and claims about this past Dental Ethics Summit Initiative.

Just as the film *My Big Fat Greek Wedding* struggles with the issues of mixing one family and its set of beliefs about culture with another family and their way of living and contributing to culture, the participants of Ethics Summit III struggled with how they would mix, not only with each other but with the other organizations that each were speaking from rather than for. This pre-supposition about prepositions was like an elephant in a room that wasn't being talked about and more needs to be said.

To talk about OBFMDC and structure what could be done at the summit and what could be taken back to each of the organizations as a result of participation, we should notice that tolerance of diversity, and diversity itself, were built into the summit and therefore within our



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sense of how we can practically discuss OBFMDC. This is very different than how I do this outside of the summit. In order for diversity and tolerance to be built into the summit, the organizers needed to accept diversity as an essential of community and, at the same time, articulate a common good. In some ways, this is what happened—truthfulness was assumed to be a common good, even though there were diverse understandings about how it was or could be perceived and articulated.

In another sense, however, this is not exactly what happened. There is another notion at play. Toleration of diversity within OBFMDC is not the same as tolerating diversity outside of OBFMDC. This difference becomes more noticeable as the participants struggled with whether the American College of Dentists or the American Dental Association should be the focus of OBFMDC, or whether the nebulous summit group should be referenced as the central influence of our OBFMDC. The first possible choice was to recognize the College. This is because it organized and planned the event. It also places dental professionals as the central influencer and the reason for OBFMDC. This choice allows the profession to tolerate diversity within and outside the dental profession, and at the same time, to place specific restrictions on some forms of diversity within the profession itself that do not fit the mission of the common good as articulated, for example by the profession through the ADA Code of Ethics.

Another choice, recognizing the diverse gathering of the summit participants as the focus for imaging OBFMDC, was not as obvious because articulating a common good was not a planned purpose of the summit. Still, the summit's

I think...that the ACD and PEDNET (the Professional Ethics in Dentistry Network) should continue with the Summit Initiative and that both groups need to look very closely and very seriously at the focus of the next summit.

very structure built toleration of diversity and diversity itself into the group in a way that went outside or beyond the profession. This leaves us with a dilemma. Unless the summit group is able to author an articulation of a common good in such a way that it will not tolerate certain forms of diversity that do not fit its common good, then it will not meet one of the key characteristics of a viable and long lasting community—coming together in unity around a common good. It is not OBFMDC, but rather our Big Fat AMORAL Dental Community, that really has no way of articulating any normative sense of truth, and will, therefore, be of little support or an authoritative resource for those charged with articulating moral claims such as truth. This begs the question, then, why anyone would look to amorality to reference why any “moral” act should be undertaken, or why anyone should even participate in the very act of even discussing morality.

With this distinction being made, I am in the camp of the American College of Dentists as the true focus of this Summit Initiative and its vision of OBFMDC. I think, therefore, that the ACD and PEDNET (the Professional

Ethics in Dentistry Network) should continue with the Summit Initiative and that both groups need to look very closely and very seriously at the focus of the next summit.

There are two potential approaches. One is to continue improving on the ability of the College to organize, structure, and bring together a diverse group of dental organizations willing to commit the time and space to focus a dialogue around moral themes other than truth, such as justice, compassion, integrity, etc., and in doing so, accept that it is building diversity and tolerating it within OBFMDC. This means that the College will continue being ultimately financially responsible for discussing values in a practical way, for building and holding together OBFMDC. It also means that the College will have no practical way of knowing whether its efforts are having any meaningful effect outside of its organization and could, in some senses, undermine its mission for excellence, professionalism, and ethics.

The problem is not that moral experiments, such as the Great American Experiment and the American College of Dentists, would take years and even centuries to effectively measure. The problem is that building toleration of diversity within OBFMDC without articulating and marketing the goods that give it its characteristics and character will undermine its very existence as a community. It is like the maverick child who wants to do what he wants to do outside the family and still go back to the family in which he grew up. He still longs for and wants to share it with others and yet hide it from others. And as long as he remains uncommitted to where he belongs, he can never see clearly where he belongs and is therefore lost, not

Some of those values are: a need for community, a need for dialogue, a need for truth, a need for justice, and a need for something beyond tolerance—that is, hospitality, authenticity, and integrity.

because the light of diversity blinds him, but because his family light is dimming. If this approach were the one that the College wants to pursue, I would argue that justice would be a worthy and needed significant effort for the next summit. The summit would need to focus more specifically, however, on the terms of just distribution and restoration, rather than on the terms of sanctions and the just standards designed for outsiders to enforce its sense of professionalism on OBFMDC. Such a theme would also help the ADA to focus better on another of its key ethical principles (justice) in addition to the one the summit just did with truth or veracity.

A second approach is to look more closely at the cause of the frustration expressed in this summit as it struggled

with what it could actually do to improve truthfulness in OBFMDC. This would focus the effort, not on the College's efforts and its essential role, and it being financially responsible for bringing together OBFMDC but on the actual role of OBFMDC and its desire to get off its Big Fat Moral *** and finance the process of continually turning the values of value into its true meaning of creating economic values.

Taking this second approach is a little trickier, and requires a clear understanding that there is a difference between tolerating and building diversity within OBFMDC and allowing diversity to grow outside OBFMDC. This means that the Code of Ethics as defined by the ADA is essential and central to the very being of the family of dentistry within the United States, and must be preserved not only by the profession, but by those who support and work with and benefit from the profession. The nature of ADA's Principles of Ethics and Code of Professional Conduct and its use as an ethical tool is unique to professionals and must not be contradicted by its ability to tolerate diversity outside of its membership. On the other hand, OBFMDC also needs to articulate a common good or it will never be able to maintain its existence and sense of family. Its good is so nebulous and so impacted by other parts of our national community that a code of ethics would not only be hard to articulate, but would be of no practical use to OBFMDC.

By going back to our experiences with the past three Ethics Summit

Initiatives, however, and realizing the practicality of a moral learning framework such as our ability to focus on awareness, articulation, motivation, and action, and our ability to design missions, visions, and strategic plans around such moral tools, we can begin to articulate the core values that support the very notion of OBFMDC and the Ethics Summit Initiative. Some of those values are: a need for community, a need for dialogue, a need for truth, a need for justice, and a need for something beyond tolerance—that is, hospitality, authenticity, and integrity. These are moral things everyone at the summit wants and expects others to support. They are worth investing in and until we as OBFMDC contribute significantly to this effort and not rely only on the American College of Dentists to solicit the financial support, and organize it, and underwrite the ongoing need to continually organize it, it will remain an initiative, and not the full product or the substantial always present resource that we want to take back to our organizations. ■

ETHICS FITNESS

Larry V. Kuhl, DDS, EdM

I think it is absolutely essential for dentistry to overtly address ethical issues. Ethical health and fitness needs to be in our face and on our mind wherever we are.

Is the dental profession (including all stakeholders) in “ethical shape?” Remember the oft-repeated phrase, “Where you stand on an issue depends on where you sit in the organization?” Participants in the Ethics Summit III that took place in Orlando, Florida, in January 2004 are involved in significant positions of authority, responsibility, and influence in more than fifty different dental organizations. These are some of the ethically fit individuals who met to advance our collective ability to improve the truth-telling climate. Additionally, the experience provided a wider and deeper reference point for their individual decision making.

We have as touchstones *A Code of Ethics* published by the ADA; some degree of ethics education in every dental school; ethics committees at all levels of organized dentistry; a growing number of continuing dental education courses addressing this topic; and ethics requirements by some specialty recognition boards and state licensing boards. But the question remains, are we more “fit” as a result of all this support?

It depends. Many individuals (and organizations) certainly are, as evidenced by demonstrated truth-telling, honesty, and integrity in their interactions and transactions. However, we still have fraud, abuse, and other unethical behavior by all too many individuals and organizations that point to a breakdown between information and action.

I think it is absolutely essential for dentistry to overtly address ethical issues. Ethical health and fitness needs to be in our face and on our mind

wherever we are. The disciplined and determined efforts of the American College of Dentists to lead this charge have earned my respect and appreciation.

There is a tremendous need first for more knowledge and then for a more effective connection between that information and desired outcomes—with an emphasis on personal responsibility and accountability!

What I saw at Ethics Summit III was so very encouraging. Here was a knowledgeable and dedicated group of individuals who represented not only themselves, but also that element of our profession that recognizes the need for significant and sustained improvement in this area. They clearly demonstrated the commitment and perseverance to provide more structure in the developing framework for all of us to become ethically fit.

Some might be concerned about the cost of such gatherings. Remember the bumper sticker, “If you think education is expensive, try ignorance.” Enron-itis is an unhealthy result of not having a climate in which ethics is addressed early and often. The dental profession has no choice but to be in dogged pursuit of a climate for truth-telling.

The ladder is leaning against the right wall; there is an established foundation and a plan for the climb. Let’s all get in better shape. ■



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Why WE CAN'T BELIEVE WHAT WE READ

Richard J. Simonsen, DDS, MS

ABSTRACT

It is argued that many claims made in the dental literature lack scientific grounding. Rather than become cynical, dentists are urged to use their own critical judgment and caution when reading the literature, especially articles and advertisements in the rapidly expanding area of dental materials. An example involving research on "condensable" resin-bonded composites is analyzed in detail, showing how an apparently credible claim can be lacking in support.

Caveat emptor, "let the buyer beware," should be in the mind of every dentist when selecting restorative materials, as much as when buying land in Florida through the Internet. While there are many trustworthy manufacturers of dental materials, some—usually the most aggressive marketers—go overboard in attempting to grab a larger share of the restorative materials market. Unsubstantiated claims go unquestioned, and dentists buy products with overblown expectations built on marketing hype. The materials fail and both dentists and patients suffer. Who can forget Artglass?—just one of too many disasters in the dental restorative material market (ADA, 2002). Patients suffer through replacement of the failed material, and the dentist's reputation suffers as patient doubts about clinical skill are confused with material failure. Thus, a well-developed, healthy skepticism is a necessary attitude in the decision-making process for the purchase and placement of today's dental restorative materials.

For many years I have observed that certain segments of the dental profession have had difficulty telling the truth. This has become particularly prevalent in two areas of the profession; in the cosmetic dentistry arena, where the financial rewards have led to an erosion of ethical practice standards, and in the sale of dental materials and devices. Of course

we have always had a militant minority with their inflammatory and unscientific anti-amalgam and anti-fluoride propaganda. And then there are the monthly dental tabloids, where the true objective is to sell, sell, sell, using articles couched in pseudo-scientific rhetoric. But it becomes alarming when telling the truth becomes secondary rather than an integral part and purpose of the publication of dental information.

Caveat emptor is a phrase anyone purchasing the latest untested restorative material, or the latest laser or bleaching light for dentistry, should heed. I have come to the regrettable conclusion that it is best to assume that those marketing instruments and materials in dentistry are, much of the time, at best exaggerating and at worst simply lying in order to enhance sales numbers. I had hoped that such deception would not be the case in an honorable health profession such as dentistry, but the entrepreneurial spirit makes no special exemption for the dental profession.

While there are many fine manufacturers of dental materials, there are some who are willing to place untested materials on the dental market for use in patients, in order to grow their share of



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Disclosure: Dr. Simonsen worked at a dental products manufacturer (3M Dental, now 3M/ESPE) for ten years.

the market, with little regard for the efficacy of the material and the effect it may have on patients and on the reputation of the dentist. Additionally, there has been a trend in the past decade for marketing departments in companies to get more and more power at the expense of the technical departments. Thus, for many companies today, the power of choice—to sell or not to sell—is in the hands of people whose future employment is dependent on how much of the product is sold, rather than in the hands of those most familiar with the properties, potential performance, and limitations of the materials as they relate to the dental patient.

RBCs AS AN EXAMPLE

Consider just one example of this trend—the introduction of the so-called “condensable” resin-bonded composites (RBCs) in December of 1997. At the time, the sales of regular RBCs for posterior use were stagnant. The huge market occupied by dental amalgam, although in decline, was a tempting target for the manufacturers. Materials as far back as the 1960s and 1970s had been aimed, unsuccessfully, at the amalgam segment of the restorative market. Remember Addent 12, introduced in 1964 by 3M Dental? (The 12 refers to the fact that the material was meant to be used in Class I and Class II restorations, as opposed to the other Addent material, Addent 35.) Then there was the S.S. White material, Profile, introduced about 1976 with the slogan, “Move over amalgam, Profile is here!” Both materials failed as posterior restorative materials, mostly due to the inadequacy of the materials, but partly due to the minimal understanding of the clinical importance of the individual steps in the acid-etch technique among the majority of clinicians at the time. In the 1980s several good posterior materials

While there are many fine manufacturers of dental materials, there are some who are willing to place untested materials on the dental market for use in patients, in order to grow their share of the market, with little regard for the efficacy of the material and the effect it may have on patients and on the reputation of the dentist. The 1990s saw the emergence of the “guru” dentist in the hyping and the sale of dental materials.

such as Heliomolar and P50 were marketed, but still their use was limited even though the materials were very wear-resistant compared to earlier options. Other materials designed as more wear-resistant than polishable, made some inroads into the posterior restorative market. However, more was needed to successfully conquer this market segment.

The 1990s saw the emergence of the “guru” dentist in the hyping and the sale of dental materials. In one classic example, a manufacturer actually created a guru for its indirect inlay RBC material. The dental entrepreneur was splashed all over the company’s advertisements for the material, claiming 3,000 placements of the material. Several gurus have subsequently “specialized” in promoting RBCs in dental tabloids and lectures for the manufacturers.

In the late 1990s, several manufacturers decided to try again to capture the RBC market. They apparently reasoned

that since it was so hard to switch dentists from amalgam to RBC, they had to make the composite handle like an amalgam, be applied like an amalgam, and be carved like an amalgam (the “walks like a duck” theory). The materials were called “condensable” (which of course they were not). In at least one offering, dentists were supplied with amalgam-carrier instruments for placement of the materials. The materials were in some cases delivered in “spills” just like amalgam materials. And the instructions called for “condensing” the composites into a classical amalgam-type preparation.

By early 1998, the marketing campaign for condensable composites was in full swing. Articles, in conjunction with advertisements for the claimed new category of RBC, were published in the dental tabloid press (Freedman, 1999; Leinfelder & Prasad, 1998).

About this time, marketing infomercials masquerading as scientific articles began to appear. These are ghostwritten by a professional writer following the script of the marketing departments, yet they appear to be “authored” by gurus who pose as disinterested evaluators of new materials. These experts receive a consulting fee for allowing their names to appear as the “authors” of the papers. Until recently, disclosure of the fact that many of these “authors” are paid consultants of the companies was not forthcoming. Shannon Brownlee discusses this deception in medicine where the pharmaceutical industry is a major player (www.washingtonmonthly.com/features/2004/0404.brownlee.) Additionally, respectable journals now publish supplements featuring several related “studies” of a product, the entire supplement paid for by the product’s

manufacturer. The letter “S” following the volume number in a reference is a red flag.

In the two papers previously cited, it was claimed that the so-called condensable materials could be placed to a depth of 5 mm prior to curing. This claim of bulk filling up to 5 mm has been refuted by several authors, including Choi, Ferracane, Hilton and Charlton (2000), who concluded that no composite had

adequate depth of cure when tested in layers greater than 2 mm, let alone 5 mm. Yet as of the end of May 2004, on the Web site for one of the materials, Alert, it still states, “A full 5.0 mm depth of cure (go ahead, bulk fill!)” (www.pentron.com/pentron/).

So how did these materials fare? One would think that with the research and development of the past thirty years, a new generation of materials for posterior use would be far superior to materials in use at the time. The materials were touted for their great wear-resistance, and for their ability to be “condensed” and cured in bulk. The hired guns of the profession came up with profound advertising quotes such as, “Wow, what a great material!”

As an editor of a peer-reviewed journal for more than a decade, the most personally disappointing aspect of the marketing of the condensable resin composites was one so-called peer-reviewed paper that gave a ringing endorsement to the second generation of these so-called condensable composite materials (Nash, Lowe, & Leinfelder, 2001).

Positive findings are one thing, positive claims that are “supported” by abuse of the literature are quite another. In this paper, claims were made about properties such as wear-resistance and shrinkage that positively affected the marketability of the product and, I am sure, influenced some dentists to use the materials on their patients. Unfortunately, the claims were not supportable in the literature. I carefully examined the references used in this paper as some of the claims seemed unrealistic. Analysis of the paper showed that the most important claims were, in fact, not supported by the references quoted. In other words, a claim was made, references were cited, and the references had nothing to do with the

claim. One claim in the paper spoke of the wear resistance of the second generation of the condensable composites being, “in the single-digit category for wear in micrometers.” Of the two references used to support this claim, one apparently does not exist (reference cited as Leinfelder KF, Sluder TB, Wall JT. Five-year clinical evaluation of composite resins in anterior and posterior teeth. *J Oper Dent* 1989;5:57-65) and the other (Mazer & Leinfelder, 1992) concerned a study published five years before the first generation of this category of composites was introduced. How a paper published so much earlier than the product was available could have anything relevant to say about the product was not addressed. The paper made no reference to the claimed “single-digit wear” of the second generation of condensable composite.

Another apparently false claim was a reference to the application technique and the shrinkage of the new category of composites. It was stated, using three references, that these materials “can deform a matrix band and they shrink less than do conventional hybrid materials.” This would be physically impossible—RBCs are liquids before polymerization. Two of the references (Sakaguchi, Douglas, & Peters, 1992; Walls, McCabe, & Murray, 1988) were from five and nine years before the first-generation material category introduction, and, not surprisingly, neither contained any support for matrix deformation or shrinkage of the second-generation “condensable” RBCs. The other reference (Cobb, MacGregor, Vargas, & Denehy, 2000) was an excellent paper published after the introduction of the condensable RBCs. Unfortunately,

That some dentists rely on inadequate data and unreliable sources for information in their treatment material decisions is unfortunate, and when carried out without due skepticism, is unprofessional and indefensible.

however, for the authors of the paper in question (Nash, Lowe, & Leinfelder, 2001), this reference came to the opposite conclusion about the suitability of this category of materials for use in the posterior regions than was claimed in the paper that cited it. The referenced paper commented that, "These materials may have the clinical drawback of increased wear." Thus a published, relevant fact that did not agree with the message the authors in question wanted to send was omitted from their paper even though the referenced paper itself was actually quoted as positive support for their claim!

One can wonder how the paper passed review, yet not only was it passed, it was made a "cover story" for the journal. Perhaps it is no coincidence that one author of the paper, in addition to being a non-disclosed paid consultant to more than one company manufacturing the condensable composites discussed, was also on the editorial board of the publishing journal at the time it was published. Thus not only the dental tabloids need to be passed through a critical screen, but all dental publications offering dental information on new materials and devices have to be evaluated for trustworthiness.

DENTISTS' RESPONSIBILITY

It has been disappointing to observe that no approach used by manufacturers to promote new materials is free of potentially flawed science and unworthy claims. Thus one could conclude that the only safe course is to give every claim of every new material a healthy dose of skeptical consideration. Ultimately of course, the responsibility for choice of materials used in patients is completely in the hands of the treating dentist. It is the dentist who has the sole responsibility for choice of which material to use in a particular patient,

and the dentist who should use his or her scientific training and professional standards of ethics to decide what is best for the patient, in consultation with the patient where appropriate, and avoid the tragic consequences of materials like Artglass, Alert, and Solitaire. That some dentists rely on inadequate data and unreliable sources for information in their treatment material decisions is unfortunate and, when carried out without due skepticism, is unprofessional and indefensible.

The example I have used here is but one of many examples of the lack of truth-telling in dentistry. More recently a paper on bleaching teeth from a franchised smile clinic, was published in a peer-reviewed journal (resulting, predictably, in massive advertising that the company now had a peer-reviewed publication endorsing their system). During the review process, the paper was rejected outright on grounds of flawed science by one of the most respected researchers in the field who reviewed the paper for the journal. Yet it still was published without any revision addressing the reviewer's concerns. And, guess what? It made the cover story too!

The cosmetic dentistry field is rife with wild claims, exaggerated benefits, and over-treatment that boggles the minds of those who believe in evidence-based, conservative approaches that aim to leave the patient better off after treatment than they were before treatment—a goal for which the cosmetic over-treatment gurus have little appreciation.

Caveat emptor. ■

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THE ROLE OF THE FEDERAL TRADE COMMISSION IN ADVERTISING HEALTH PRODUCTS AND SERVICES

Matthew Daynard

ABSTRACT

The Federal Trade Commission plays a unique role in enforcing well-established standards ensuring that consumers can make informed purchase and use decisions about health-related products and services based on truthful, non-misleading advertising claims while encouraging competition. Deceptive and unfair practices are defined. The importance of the "net impression" that ads convey to consumers and the need for substantiation of objective, factual claims is explained. The FTC uses its enforcement powers and consumer and industry outreach to create a climate for preventing misleading advertising.

The role of the Federal Trade Commission (FTC) is to establish and enforce nationwide standards that promote truthful and accurate advertising claims about products and services, including healthcare services, dietary supplements, foods, over-the-counter (OTC) drugs and medical devices, and cosmetics. The FTC shares regulatory responsibility with the Food and Drug Administration, the latter concentrating on establishing initial efficacy and safety of drugs and devices, on their appropriate labeling, and on ensuring sound manufacture, transportation, and storage of health products.

Jurisdiction for the FTC derives from 15 U.S.C. 45(a) which prohibits unfair or deceptive acts or practices in any medium and 15 U.S.C. 52 which prohibits false advertisements for foods, drugs, devices, cosmetics, and services. The FTC does not regulate the practice of health care such as dentistry, but it does set and enforce advertising standards governing claims made to the public about such care and claims made to the providers of care. Dentists can either be the party making a claim subject to FTC scrutiny or the consumer of such claims made by others.

Content in professional journals may or may not be subject to FTC review. If the intent of the material is to inform professionals regarding scientific fact,

claims likely are outside FTC jurisdiction. If the claim is an offer to supply products, information, or services for compensation, the FTC may exercise jurisdiction. In the case of dental journalism, this line between science and commerce is becoming more difficult to distinguish. Corporate sponsorship of both the research reported and the publication or a special supplement devoted to the product follow the format of scientific communication while serving commercial interests. The FTC can take action against the inaccurate use of legitimate scientific evidence for commercial purposes if it is done inappropriately.

MISLEADING CLAIMS, UNFAIR PRACTICES

The FTC's primary consumer protection mission is to prevent deceptive claims and unfair practices. A deceptive claim is defined as "a representation, omission, or practice that is likely to mislead consumers acting reasonably in the circumstances and is material that is likely to affect consumers' conduct or decisions with respect to the product or service at issue." An unfair practice is one that causes or is likely to cause injury that is substantial, is not outweighed by countervailing benefits to



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the consumer or to competition, and is not reasonably avoidable by consumers themselves.”

The key concepts of deception and unfairness are defined both by reference to their likely impact on consumers and the objective features of the claim or practice. An act or practice may be deceptive or unfair by what a claim says (e.g., “oral surgery is 100% safe”) or does not say (e.g., a product is inherently unsafe for some consumers but no claim or disclosure is made). In both cases, the practice is actionable because it creates a reasonable likelihood that consumers will purchase or use the service or product to their economic or physical detriment.

The advertiser is responsible for both expressed and reasonably implied claims. For example, if the ad asks, “Do you want the fastest setting and strongest bonding agent available to dentists today?” and shows an accompanying photograph and description of a bonding agent, a reasonable consumer (dentist) is justified in drawing the conclusion that a claim has been made that the product has these characteristics even though there are no expressed words to this effect. The net impression of the ad is considered in determining whether it is deceptive. Text, visual images, and even product name contribute to the net impression of an ad. When disclosures

are necessary to qualify a claim of safe use (e.g., the side effects of a product or procedure), the placement, proximity, prominence, and presentation of the disclaimers are regulated as part of the advertisement.

NEED FOR SUBSTANTIATION

Some claims in dentistry create impressions and some assert objective facts. “People say X is wonderful!” is a claim of the first type. “Number one selling material” or “Stronger than the best selling product” are statements of fact and must be substantiated. If the FTC becomes concerned about the facts of an ad, it will ask for the evidence substantiating the claim. The FTC standard for all health-related advertising claims is that the substantiation must be based on “competent and reliable scientific evidence.” Much like determining the standard of care in dentistry, “competent and reliable scientific evidence” is established by reference to guidelines, common practice, and expert opinion in the relevant fields. Also like the standard of care, substantiation is flexible with regard to the manner in which the claim is presented and the intended audience. The quality of substantiating evidence is more important than its quantity, and anecdotal evidence is not considered adequate.

In areas such as dentistry where research evidence is the accepted standard for substantiating advertising claims, the research must be relevant to the claim. Accepted standards of science—such as randomized controlled trials of sufficient size—must be used, and the protocols and populations must be appropriate. Claims must match the

FUNDAMENTAL RULES FOR ADVERTISING

Tell the Truth

Do not mislead consumers about the benefits or safety of the product of service by what is said expressly or by what is implied.

Tell ALL the Truth

Do not omit information that is needed to keep what you say from being deceptive.

Make Sure the Claim is True

Have adequate support to justify any objective claim before the ad is placed (the proof may not be required in the ad, but it must be producible if challenged).

The FTC standard for all health-related advertising claims is that the substantiation must be based on “competent and reliable scientific evidence.”

research with respect to dosage, application time and method, medium, outcomes and their measurement, etc. Most dentists are intelligent enough to recognize the tricks of presentation such a foreshortened vertical axes, comparisons against the firm's own last year's product, and percentages that magnify the effect. The FTC usually does not pursue claims where the intended audience (dentists) is expected to be well trained to detect flimsy claims.

Testimonials and endorsements can represent gray areas, but the FTC has rules here as well. The obligation to substantiate an objective claim cannot be avoided by placing it in the mouth of a "satisfied customer" or an "expert" endorser. For example, a statement by an expert endorser that "I believe this is the strongest bonding agent on the

The endorser also is subject to individual liability unless he or she is qualified to evaluate the product or service, does so in an independent and professional fashion, and has substantiation for any claim he or she makes in the ad.

USEFUL SERVICES AND CONTACTS FOR THE FTC

Advertising and Marketing on the Internet: Rules of the Road
www.ftc.gov/bcp/online/pubs/buspubs/ruleroad

FTC Guides Concerning Use of Endorsements and Testimonials in Advertising
www.ftc.gov/bcp/guides/endorse

Dietary Supplements: An Advertising Guide for Industry
www.ftc.gov/bcp/online/pubs/buspubs/dietsupp

market" still requires the advertiser to substantiate the underlying superiority claim. The endorser also is subject to individual liability unless he or she is qualified to evaluate the product or service, does so in an independent and professional fashion, and has substantiation for any claim he or she makes in the ad. If compensation for the endorsement is made, the advertiser needs to disclose that fact. In ads placed by a manufacturer in which an expert endorses a product or service and makes unsubstantiated claims about that product or service, the FTC may opt to take legal action against both the firm and the endorser.

ENFORCEMENT

In healthcare sectors such as dentistry where the vast majority of care is provided through small businesses operating locally, the FTC may prefer an enforcement approach centered on voluntary compliance. In those areas, the use of standards, education, and promotion

of self-policing communities are the primary tools of the commission. This preventive approach can be the most economically practical means for the commission to achieve its goal of reducing the incidence of deception.

Preventive efforts can include staff presentation, when invited, to national, regional, and state dental groups, and, when appropriate, letters to local practitioners advising them of the need to bring existing advertising into compliance. In flagrant or longstanding abusive practice, the FTC can take legal action itself or refer the matter to state dental boards and the U.S. Food and Drug Administration for appropriate action. ■

Will DENTISTRY BE LEFT BEHIND AT THE HEALTHCARE STATION?

Bruce J. Baum, DMD, PhD

ABSTRACT

The emerging opportunities for biological approaches to managing oral health were clearly apparent fifteen years ago. Responses in this direction have been tardy because of the economic prosperity of dental practice and the financial constraints on dental education. Representative existing and promising biology based technology is described. It is argued that education must be changed to teach the context and understanding of this technology. The alternative will be to concede important aspects of oral health care to physicians and others trained in their use.

Times are now good for American dentistry. Dental practices are full and dentists' incomes are high. Better, and easier to use, preventive, esthetic and restorative materials are available. Bright and talented students with very high undergraduate grade point averages are applying for dental school admissions in increasing numbers. Several new dental schools have recently opened. At the same time, the major player in American health care, medicine, appears to be suffering to some extent, becoming more corporate and more frustrating for physicians who long for past times. Dentistry seems to have generally maintained its independence of government and institutionalized health care, retaining a small business look. Many if not most within dentistry cannot imagine professional life any better. It appears that the course dentistry embarked upon in the 1970s has been successful, both good for the profession and good for the public. Is this appearance a reflection of future reality?

In the late 1980s, a bestselling and critically acclaimed book, titled *And the Band Played on: Politics, People and the AIDS Epidemic*, was written by Randy Shilts (1987). About a decade later, the then dean of the University of Kentucky College of Dentistry, David Nash, published an essay in the *Journal of Dental Education* using the first half of that title (Nash, 1998). The choice of title by both Shilts and Nash is a reference to the musicians on the steamship

Titanic who, somewhat heroically in accepting their fate, continued to play while this supposedly unsinkable ship sank after colliding with an iceberg. However, neither Shilts' book nor Nash's essay deals with any form of heroism, or even a vague philosophical notion of calm acceptance of change. Rather, both deal with a type of blindness, an inability of certain communities to respond in the face of a threatening circumstance. For Shilts, it was the intentional blindness of key segments of society to respond to the mushrooming AIDS epidemic, while for Nash it was the dental education establishment's failure to change the model of dental education in response to the 1995 Institute of Medicine (IOM) study explicitly calling for significant change (Field, 1995).

Interestingly, this IOM study was titled *Dental Education at the Crossroads: Challenges and Change*. Nash had a subheading in his 1998 essay termed "We are at the crossroads now," meaning at that time, in his view, was imperative for changes to occur in dental education. Based on Nash's timetable, dentistry may no longer be at the cross-



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roads; it may in fact be left behind at the station. It is now more than five years past Nash's imperative point, and dentistry has not offered any substantive positive response to the IOM's recommendations of almost nine years ago. Were the IOM and Nash correct in stating that dental education was at a critical crossroads? I believe so, but this is not the forum to debate the reasons for the crossroads metaphor. Assuming it is correct, why then has nothing been done in response?

I was specifically asked in this essay to address "the impact of emerging oral biology on the practice of dentistry." The answer to this charge is also integral to my understanding of why dentistry has failed to respond to the IOM challenge. Central to this understanding is biology. Oral biology does not exist in isolation from the rest of biology, and significant developments in biology will affect oral biology, and thus dentistry. Dentistry's inaction, with respect to the IOM study, was not the result of an intentional blindness by the people and politics involved. Rather, from my perspective, it is an innocent inaction resulting from a lack of familiarity, understanding, and comfort in dentistry with the advances being made in biological science. The environment for American dentistry in 2003 is seemingly bright, as noted earlier, with many suggesting an equally positive outlook for the next quarter century (Jeffcoat, 2003). However, when viewed from the perspective of a biologist, my niche in dentistry, it can be argued that ahead are changes with the potential to dramatically alter the existing paradigm for dental practice.

Accurate prediction of what is likely to transpire in the future is impossible, something well beyond human abilities.

The economic situation tends to dictate a pedagogical status quo that in part may be hampering dentistry's ability to critically evaluate, and reasonably respond to, what is transpiring in biological science.

However, humans can think logically, examine available evidence, and make reasonable conclusions so that intelligent and responsible planning can occur. Many factors can and will influence the practice of dentistry in America over the next few decades. Absent catastrophes, two arguably key elements appear to be economics and biology. It is certainly not my place to address economics here; I am not qualified. However, there is one important influence of economics that cannot be ignored in the present context. In the America of 2004 the economic circumstance of most major universities is becoming increasingly restricted and, as a consequence, limiting the development of academic programs. This comes at an especially unfortunate time for dentistry, because even if dentistry wished to respond to the IOM challenge substantively it does not now have the ready ability and resources to do so. Dental education is expensive and dental schools are receiving proportionately less and less from their parent universities and governments to cover costs. As a result, to balance their books, dental schools are requiring more income from student tuitions and student clinic fees. The critical need for student clinic fee dollars appears to be disproportionately influencing curriculum and professional development decisions (Hendricson &

Cohen, 2001). The outcome is more focused vocational training for students, with less time for scholarship and development of new programs, including those related to advances in biology (Baum, 2003). The high tuition fees are leading to increased student debt, and consequently more restriction imposed on students in their career choices. It is not economically easy to pursue a less traditional path in dentistry now, as it may have been earlier. Overall, the economic situation tends to dictate a pedagogical status quo that in part may be hampering dentistry's ability to critically evaluate, and reasonably respond to, what is transpiring in biological science.

So, what is transpiring in biological science? The time period from the latter part of the twentieth century, and likely continuing well into this century, represents an era of heretofore unparalleled growth in biological science. Many areas of cellular and molecular biology are flourishing, enabling scientists to understand processes that were only viewed as phenomena a decade ago. With this understanding comes the capacity for application, and clearly there are many potential applications on the clinical horizon, thanks to worldwide growth in the biotechnology industries (Baum & Mooney, 2000; Baum et al, 2002). Current dental practice, though biologically based, has not yet begun to adapt to the realities of modern biology for most diagnosis and treatment. In much of medical practice this adaptation is slow, but it is steadily occurring because historically medicine (particularly medical versus surgical specialties) has fully accepted the notion that progress in clinical care will result from increased understanding of basic and disease related biology. Advances in biological science are commonly recognized in medicine as being capable of

changing the standard of practice paradigm (Baum, 1996). However, that is not a generally accepted or appreciated view within dentistry, perhaps because dentistry is primarily a surgical discipline. Nonetheless, it seems reasonable that biology will soon (certainly within twenty-five years) affect dentistry in a profound way through the introduction of sensitive and more accurate diagnostic tools (for both local and systemic disease), as well as highly novel and biologically sophisticated methods of dental and oral disease treatment. Is there real evidence available that this viewpoint is reasonable?

Not surprisingly, I believe there is. For example, a term seen with increasing frequency in the lay press is nanotechnology, referring to research and development at the nano (one billionth) scale. Indeed, a recent best selling thriller novel, *Prey*, by the celebrated physician-author Michael Crichton (2002), is available on the subject (actually on nanotechnology gone awry). While diagnostic technology has not yet achieved practical outcomes at the nano level, there are numerous examples of usable diagnostics at the micro (one millionth) scale. This existing micro technology can provide "point of care" performed with a device as large as a credit card, using a single drop of saliva or serum, or a sample of dental plaque from a single site. The methods are those of modern biology, e.g., immuno-electrophoresis, the polymerase chain reaction, or DNA hybridization, only miniaturized, thanks to micro fluidics, optical imaging fibers, and other engineering technologies. Such highly sensitive measurement tools can be used to detect trace amounts of pathological bacteria and viruses, as well as measure a variety of drugs, proteins,

and other analytes (Corstjens et al, 2001; Hatch et al, 2001; Walt, 2002). These microtechnological instruments are increasingly user-friendly, as well as highly accurate and inexpensive, and will greatly increase the diagnostic value of easily obtained oral samples for both oral and general diagnosis. While the interpretation and proper use of this information will require only a modest understanding of the analytical technology involved, more importantly a perspective on and context for the implications for human disease will be needed (Rees, 2002). Most dentists today have not been trained in a way that provides this understanding, perspective, and context (Baum, 1996, 2003; Hendricson & Cohen, 2001).

Numerous applications of recombinant DNA technology have found their way into common medical practice. All of us in America are by now used to seeing regular television advertisements touting the virtues of the commercially available recombinant protein, erythropoietin, in managing the fatigue of cancer therapy or chronic renal disease. Similarly, it seems as though not a day goes by without our email addresses receiving offers of bargain prices for recombinant growth hormone. Aside from the purported clinical merits of these biologicals, without recombinant DNA technology these and other proteins would require time consuming and very expensive protein purification procedures to obtain, and certainly would not be widely available and reasonably affordable. In addition to such highly visible protein drugs, there are many other recombinant DNA products less well-known that either have been recently approved for use by the Food and Drug Administration or shown to be useful in multi-site clinical trials. Some particularly good examples are found in the treatment of rheumatoid arthritis, a disease with some similarities to adult periodontitis. For example, two types

of protein drugs target the potent pro-inflammatory mediator tumor necrosis factor (TNF-) which is important in the pathogenesis of rheumatoid arthritis. Infliximab is a humanized monoclonal antibody, and Etanercept is a soluble form of the TNF- receptor. Both are effective in the management of rheumatoid arthritis (Bathon et al, 2000; Lipsky et al, 2000) and possibly other autoimmune disorders (Stokes & Kremer, 2003). Another recently developed, highly innovative, and related protein drug is Natalizumab, also a humanized monoclonal antibody but directed against the 4-integrin (Ghosh et al, 2003; Miller et al, 2003). It is reasonable to anticipate that similar immunomodulatory protein drugs, or growth factor related protein drugs such as the bone morphogenetic proteins (Li & Wozney, 2001), will be available for the treatment of periodontal and other oral diseases in the near future.

As noted above for micro technological diagnostic aids, use of protein drugs implicitly requires the clinician to understand not only the local pathobiology, but also the broader general pharmacological implications for the patient. Appropriate use of these existing biological tools by dentists requires that their training include more practical understanding of cellular and molecular biology, as well as a general facility in medicine. Similarly, broader training in biology and medicine will be necessary if dentists are to use any of several quite novel biological therapies that are now in more developmental stages. These include gene therapy, stem and progenitor cell therapies, DNA vaccinations, and tissue engineering devices (Baum & Mooney, 2000; Baum et al, 2003). Although new, each of these therapeutic approaches already shows considerable promise in their future applications with dental and oral diseases. Such

applications include caries, periodontal diseases, irreversible pulpitis, oral cancer (squamous cell carcinoma), salivary gland disorders, and mucosal diseases (Baum, 2003).

What could happen if these biological therapies are not used fully by dentistry because the dental education community and the overall profession are unable to prepare current and future students and dentists for this eventuality? It is certain that if there are good biological therapies available for dental and oral diseases, and mainstream dentistry is not able to or does not want to use them, specialties of medicine most closely related to dentistry (e.g., otolaryngology or dermatology or even general internal medicine) will do so. If this occurs, the purview of dentistry will become quite restricted.

In 1994, W.T. Williams, of the Carolinas Medical Center in Charlotte, North Carolina, in an essay published in the *Journal of Dental Education*, presented a relevant lesson. He stated that if dentistry did not begin to take hold of the oral medicine needs of their (geriatric and medically compromised) patients, medicine would do so (Williams, 1994). This was not made as a threat, but as a statement of eventual clinical reality. The role of health professionals is to provide care for patients with various diseases. The public, in exchange for the considerable privilege that clinicians of all types receive in America, wants competence, efficacy, and fairness. It is fair that most competently trained clinicians provide the effective biological therapies that exist now or soon will exist. That circumstance defines a large part of the

educational crossroads raised by the IOM and by Nash several years ago (Field, 1995; Nash, 1998), and underlies my response here. The train that is biological therapy has clearly arrived at, and indeed already left from, the healthcare station. It is gathering speed, while dentistry is lagging behind. Although still not too late, I believe that a considerable and multifaceted effort, by the organized profession and the dental education communities, will be required to prevent dentistry from being left behind altogether. ■

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Appropriate use of these existing biological tools by dentists requires that their training include more practical understanding of cell and molecular biology, as well as a general facility in medicine.

RESEARCH of IMPORTANCE TO THE PRACTICING DENTIST

2004 ADA RESEARCH AGENDA

An important role of the American Dental Association in scientific research is to serve as a facilitator of the national dental research effort, including promotion of adequate funding for the research, research training, and science transfer programs conducted by the ADA Foundation (ADAF), the National Institute of Dental and Craniofacial Research (NIDCR), the Agency for Healthcare Research and Quality (AHRQ), and other national foundations and institutions that support or conduct research related to the oral health sciences. In fulfilling this function, it is essential that the ADA work closely with the American and International Associations for Dental Research (AADR, IADR), the American Dental Education Association (ADEA), professional specialty groups, government agencies, and industry.

The ADA should maintain scientific expertise on its staff and in the Research Institute (RI) to conduct, evaluate, and anticipate new research of importance to the practitioner; to test new methodologies, develop standards, and establish guidelines for acceptance of various dental products; to resolve issues relative to acceptance and safety; and to address other critical issues. The RI and the Paffenbarger Research Center (PRC) serve as models of effective public and private collaboration, and should continue their research on technologies and materials of greatest benefit to the public and the profession. As needed, other

research should be conducted through extramural contractual arrangements.

It is the consensus of the Council on Scientific Affairs that the Association's most vital role and important responsibilities are in the area of knowledge and technology transfer, and in assuring that the profession is continuously kept abreast of scientific and technological advancements. With this in mind, the Council has performed its annual review of patient and provider safety issues, including governmental alerts and ethical/legal topics; health services research, including social/behavioral issues; and treatment-oriented research of immediate and emerging importance in the management of oral diseases. The Council believes that these issues have short- and long-term impact on the quality of patient care, "best practice" guidelines, and the continuing development of dental practice. The Council develops an annual Research Agenda to enumerate specific procedures for enhancing the process by which science is transferred into clinical application. To advance the knowledge base for dental practice, the Council encourages researchers to conduct high-quality systematic reviews of the best available scientific evidence, according to the steps of the evidence-based review process, on relevant diagnostic and treatment procedures.

The Council acknowledges that the following list of critical research issues is not exhaustive, and will continue to review and forward suggested changes annually to the Board of Trustees. While the Council feels that all of the issues listed are important, certain items are marked with an asterisk (*) to indicate greater urgency.

MISSION STATEMENT

A major objective of the Association is to promote a good quality of life by improving the oral health of the public and encouraging optimal health behaviors. To achieve this objective, it is imperative that the Association take a leading role in promoting, conducting and critically reviewing research on topics related to dentistry and its relationship to the overall health of the individual. The Association should serve as a facilitator of the national dental research effort, help determine the priority of topics for research, and ensure the timely dissemination of information to the profession.

I. ISSUES RELATED TO THE SCIENCE OF DENTISTRY

ORAL DISEASE

1. *Expand research on the transmission, early detection, and management of caries, including root surface caries.
2. *Promote research on the early detection, diagnosis, prevention, and treatment of oral and pharyngeal cancer.
3. *Promote research for the prevention and management of oral mucosal viral disorders, such as recurrent herpetic infections.

4. *Promote research on the transmission and detection of periodontal disease.
5. Promote research into the biology of dental plaque.
6. Encourage research on the diagnosis, classification, and effectiveness of treatment of temporomandibular disorders and orofacial pain.
7. Encourage surveillance of the prevalence of caries in all segments of the population.
8. Promote research on the etiology and treatment of pulp and periradicular disease.
9. Expand research on the etiology, diagnosis, and classification of oral mucosal disorders, such as recurrent aphthous stomatitis and lichen planus.
10. Encourage research on genetic disorders affecting the teeth and orofacial region.

ORAL CARE MANAGEMENT

1. *Study the use of antibiotics, and the development of antibiotic resistance, and promote the development of guidelines for the use of antibiotics in dentistry, including identification of appropriate and inappropriate drug regimens and indications for antibiotic prophylaxis.
2. *Promote research into the causes and management of xerostomia, especially regarding autoimmune disease and medications that induce hyposalivation.
3. *Continue research on the mechanisms of action of fluorides, the pre- and post-eruptive effects of fluoride on caries, and total fluoride exposure including dietary and environmental sources.

4. *Study the effectiveness of fluoride varnish for caries prevention in pre-school age children and the effect of fluoride varnish on the development of enamel fluorosis.
5. *Promote research on dental demineralization and remineralization.
6. Study the issue of tooth wear and erosion, especially with regard to what rate is considered to be pathologic.
7. Expand the research on pain and anxiety control, alternative and complementary approaches to local anesthesia, as well as approaches to intraoral and parenteral sedation and anesthesia.
8. Promote research on regenerative procedures to maintain the natural dentition that has compromised periodontal support.
9. Promote research in pulp biology and endodontic diagnosis and treatment to develop optimal means for maintaining the natural dentition.
10. Promote research on the development of optimal methods for the replacement of missing teeth.
11. Develop evidence-based indications for the placement, replacement, or repair of dental restorations.
12. Promote research on the cost-effectiveness of current dental treatment.

DENTAL BIOMATERIALS

1. *Promote clinical evaluation of restorative materials.
2. *Promote research and development on sealants, adhesives, and effective biocompatible dental materials for restorations.

3. *Promote research on biomimetic materials and other novel materials that minimize tooth loss or replace missing tissues.
 4. Promote research on biocompatible root canal and root end filling materials.
 5. Study the application of novel biologics in dental practice. This includes:
 - Diagnostics
 - Smart materials with diagnostic, restorative, and controlled release capabilities
 6. Create collaborative partnership to enhance the development and evaluation of engineered tissues.
 7. Evaluate the risks and benefits of single-tooth implants versus other treatment options (e.g., periodontal, endodontic or prosthodontic care).
2. *Promote studies on ergonomics as it relates to dental instruments, products, materials and dental procedures to help ensure the health of practitioners and allied dental personnel.
 3. Promote research on the use of safety devices to prevent percutaneous injuries in the dental setting.
 4. *Promote research on the health implications from exposure to aerosols generated during dental procedures.
 5. Investigate the acceptable and attainable levels of nitrous oxide in the dental office.
 6. *Promote research on the health implications from exposure to dental materials such as dental amalgam, resins, latex, and other chemicals in the dental workplace.
 7. Continue research to improve procedures for the protection of patients, practitioners, and allied dental personnel against contact, air- and bloodborne pathogens (such as TB, HIV, HBV, HCV, and HPV).
 8. Study the quality of water in waterlines in dental equipment and develop methodologies to ensure acceptable purity levels in coolant and irrigant systems.
 9. Study the potential adverse interactions between drugs used in dentistry and those used in medicine, and develop appropriate recommendations for the prevention and management of these interactions.
 10. Promote research to determine the validity of various types of clinical licensure examinations.

TECHNOLOGY

1. *Promote research on saliva diagnostics and other oral fluids.
2. Study the application of emerging technologies in dental practice and laboratories. This includes:
 - *Diagnostic devices and methods
 - Information management
 - Lasers
 - CAD/CAM
 - Genetic engineering
 - Tissue engineering and regeneration
 - Imaging devices and methods
3. Promote research to enhance imaging for determining the precise placement of implants.

PATIENT AND PROVIDER SAFETY

1. *Study the long-term safety of tooth bleaching procedures.

DEVELOPMENT OF STANDARDS AND GUIDELINES

1. Develop in vitro test methodologies predictive of clinical behavior to evaluate dental biomaterials and assist in standards development.
2. Standardize protocol for clinical evaluations of dental biomaterials in both university-based and private practice-based research.
3. Develop and evaluate the outcomes of protocols for managing oral diseases.

SYSTEMIC HEALTH CONSIDERATIONS

1. *Promote research on the interrelationship between oral and systemic health and on clinical management as it relates to:
 - Genetic profiles of different ethnic groups
 - Acutely ill patients
 - Chronically ill patients
 - Cancer patients
 - Female patients
 - Pediatric patients
 - Geriatric patients
 - Dental care as part of prenatal and perinatal care
2. *Promote research on the relationship between oral disease and systemic health and on clinical management as it relates to:
 - Cardiovascular disease
 - Preterm, low birthweight babies
 - Osteoporosis
 - Diabetes
 - Obesity
3. Study the effect that the use of different fluorosis indices has had on the reported prevalence of dental fluorosis over time.

II. ECONOMIC, ENVIRONMENTAL, SOCIAL, AND MANAGEMENT ISSUES RELATED TO THE PRACTICE OF DENTISTRY

ACCESS BARRIERS

1. *Promote research on the socioeconomic, geographic, and cultural barriers to oral health, as well as barriers within the dental profession, and develop strategies for extending quality care to all Americans.
2. *Address ethnic/gender differences in oral and craniofacial disease processes and treatments.
3. Develop further research on the clinical management of patients who may have particular problems in obtaining access to oral health care.
4. Promote research on the links between oral disease and general health outcomes specifically regarding chronic conditions encountered in an aging population and disabilities in children, and concomitant barriers to oral health care in those special populations.
5. Promote research on the cost-effectiveness of community water fluoridation and other preventive modalities, particularly with respect to barriers to access to care.
6. Promote research into clinical protocols for recall of patients with different levels of risk for developing oral and dental diseases.
7. Evaluate the impact of oral health-related interventions (such as oral hygiene instruction, fluoride treatment, or referrals for oral care) delivered in medical care facilities.

IMPACT OF ORAL HEALTH ON QUALITY OF LIFE

1. Study the social and economic impacts of oral diseases and treatments with special reference to quality-of-life functions.
2. Promote research into the interrelationships between oral health and social-behavioral health.

PRACTICE MANAGEMENT Modalities

1. Evaluate the electronic patient record and other aspects of oral health informatics, and their application to dental practice.
2. Promote research to optimize the ethical practice of dentistry.

ENVIRONMENTAL ISSUES

1. *Develop protocols for evaluating technologies and systems designed to reduce amalgam waste and mercury in dental wastewater.
2. *Promote studies aimed at determining:
 - the effect of the release of dental office waste on the environment
 - the need for and cost-effectiveness of chemical collection devices (such as amalgam separators) and other aspects of waste management in dental practice

III. ISSUES OF INFORMATION TRANSFER

INTERPROFESSIONAL TRANSFER

1. *Develop effective methods to disseminate current evidence-based protocols for the diagnosis, treatment and prevention of oral diseases.
2. *Develop and evaluate the impact of a national practice-based dental research network.

PUBLIC TRANSFER

1. *Develop methods to disseminate pertinent information on dental issues to the public.
2. Develop effective oral health promotion strategies to be employed by organized dentistry to reach various public audiences.
3. Promote research into behavioral change tools that can be used in dental offices to assist patients in adopting healthy behaviors.
4. Evaluate the transfer of research findings between health professions and the general public.

IV. RESEARCH MODELS

1. *Promote the concept of evidence-based research models.
2. *Support the continued need for animal-based research models. ■

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ISSUES IN DENTAL ETHICS

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A CALL FOR ETHICS COMMITTEES IN DENTAL ORGANIZATIONS AND IN DENTAL EDUCATION

Barry Schwartz, DDS

ABSTRACT

It is argued that dental organizations need ethics committees to address growing concerns among the public regarding ethical conduct. Such committees could provide education, help formulate policy and guidelines, and develop case review and consultation, as well as create useful networks. The results of a survey of Canadian faculties of dentistry regarding ethics resources are presented.

INTRODUCTION

The public has been bombarded of late with stories relating to ethics in politics, business, and professional practice. The issues surrounding corporate misdeeds may have violated statutes, but ethical obligations are often greater than legislated duties and these appear to have been violated even more. In Canadian politics, it seems that as soon as one ethical crisis is placated, another surfaces in the federal cabinet and things are little different in the United States. Insider trading issues seem commonplace, as do unethical accounting practices. Consequently, the public has lost confidence in the stock markets as a direct result of such fiscal impropriety, not to mention the shredding of documents and "creative" accounting practices on financial statements.

For its part, dentistry is facing increased public scrutiny after stories of waterline contamination were aired on "60 Minutes" and "W5." As a result, some patients have begun questioning whether dentists are putting cost-control

issues ahead of patient safety. Stories of insurance fraud and unnecessary treatment also surface in the press and cause the public to question the ethics of the dentists whom they used to trust implicitly. A *Readers Digest* article (Ecenberger, 1997) entitled "How Honest is Your Dentist?" raised national awareness on dental ethics. A recently aired program on the Canadian Broadcasting Corporation, entitled "Dental Boot Kamp," (Walsh, 2003) and a Canadian newspaper article in the *National Post*, "Dentists' Fraud Growing" (Blackwell, 2002), were quickly responded to by the president of the Ontario Dental Association. However, the question becomes: Is damage control the most effective method of regaining the public trust?

Medicine and biomedical research have faced similar situations in their history, and have moved to deal with conflicting value judgments, cost containment restructuring, and patient concerns with the development of ethics committees, ethics networks, and ethics educational programs. This



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article proposes a similar move for professional dentistry.

Ethics Infrastructure

Organizations, such as dental associations and faculties of dentistry, are faced with an onerous task of self-governance and the monitoring of organizational values. In order to have an effective organizational strategy, it is not enough to have peer review and other dentist-dominated committees. It is essential to have an independent ethics infrastructure. A dental ethics committee should be independent of the parent organization; otherwise there is a risk of the committee being captured by the organization that it professes to direct. Such an ethics infrastructure would link organizational processes and practices to the core values and/or mission statement of that particular organization. It would also put in place the means to assess and provide discussion and feedback on ethical performance. More importantly, such an ethics committee should be involved in the early decision making process of changes so that ethical concerns are dealt with prior to action being taken. Taking a proactive position makes changing proposals easier, less expensive, and less embarrassing than waiting until unnoticed ethical considerations surface down the road. The net result could be effective integration of clinical and administrative decisions (Goodstein, 1999).

History

In medicine and biomedical research prior to 1975 or so, there existed some special committees assigned to specific situations such as abortions, dialysis selection, and medical-morals with respect to Catholic doctrine in Catholic hospitals. The development of hospital ethics committees and research ethics

committees occurred in the late 1970s and 1980s as a means to ensure that physicians and biomedical researchers had the patient's and the research subject's best interests in mind when making treatment or research decisions. Some of these hospital committees dealt with the legitimate ethical goal of optimization of resources. Resources often have to be rationed, creating the need of an ethical review model. Thus the first dialysis committees, which were often composed of non-experts, made life and death rationing decisions. Some of them used middle-class values and were criticized for not being ethically knowledgeable enough to carry out their decisions. In the development of ethics committees, it became clear that they should not be about making decisions, but rather about the process of helping decision-makers think about decisions more carefully, assisting, not doing the ranking and prioritizing among competing ethical values (Ross, 1993). Ethical expertise is an essential ingredient in making good decisions; but the process of sharing knowledge from a variety of points of view is equally important.

In the U.S. in 1983, less than 1% of hospitals had ethics committees. In Canada at that time, 29% had ethics committees (Levine, 1984). By 1985, 50% of hospitals in the U.S. had ethics committees. By 1993, 85% of hospitals in the U.S. indicated in surveys that they had or were in the process of developing them. Although ethics committees were born to deal with crisis issues such as transplants, end-of-life decisions etc., other ethical issues (such as doctor patient communications, hierarchy of provider relationships, and administrative decisions) had to be dealt with as equally important. The complex and crisis issues are often resolved at some point in time; but systemic ethical issues, such as evaluating the way a clinic is run and whether patient's needs are being met, go on and on (Warren, 1989).

Ethics Committee Functions

Before any committee can function, it has to have clearly defined goals and a clear relationship to other elements of the organization and profession. If it does not have credibility with other parts of the organization and its various other constituencies, there would exist a hostile and doubtful environment that would impede the committee's effectiveness. Once established, a dental ethics committee should have three main functions.

1. Education. Dental ethics education involves the development of tools for teaching ethical values and the dissemination of cases for discussion so that practitioners and students can learn from them. In this way, others can learn decision-making skills to apply when faced with ethically similar situations. Currently, if a dentist is faced with an ethical concern, the answer might vary according to the background of the person asked. For example, a dentist with a background in dental public health would have a higher priority on social justice than a periodontist who works more with individual cases and deals more directly with patient autonomy.

With ethics committees functioning in organizations such as dental associations, members would be better educated and operate from something closer to an ethical consensus regarding changing dentist-patient relationships (e.g., capitation plans), billing practices (e.g., assignment of benefits), and new treatment options (e.g., implants, cosmetic procedures, bone and tooth transplants, periodontal plastics, etc.). The public would have input and access to these findings as well, which would lead to a greater level of transparency on how ethical decisions are made and to improved accountability of practitioners to their patients.

2. Policy Recommendations and Guidelines. The committees should also develop policy recommendations and guidelines. For example, in the clinic setting, patient confidentiality is a constant concern. This concern is even greater in the dental school clinic, where close proximity of treatment among patients and students provides even greater challenges. Guidance from an ethics committee and recommendations about relevant policies could be very helpful. Decisions that educational institutions face regarding patient's rights and ethical protection should have the same degree of organizational support as infection control, where committees have been routinely established to deal with patient and operator safety. Thus, in infection control, guidelines are developed in a committee setting and passed on to the various departments for implementation. Then, testing and feedback from staff, patients and students ensures both compliance and effectiveness of the regimen. A dental ethics committee could adopt a similar process of feedback and could obtain a similar measure of influence in the institution. Input could be sought on important issues, such as resource allocation and staffing. Ethics committees overseeing research ethics and integrity of reporting research have proven very effective and important. Recommendations from a dental ethics committee could develop into formal guidelines that would raise the ethical standards of practice throughout specific institutions and throughout the profession.

3. Case Review and Consultation. In addition, such a committee could offer the assistance of retrospective case review and consultation on ongoing cases. Reviewing recent cases would enable organizations and institutions to address changing structures more effectively and avoid the negative consequences

SURVEY of CANADIAN DENTAL SCHOOLS REGARDING ETHICS

10% teach formal ethics in only one of the four years, the last year.

40% teach ethics in two years and of those: 50% in first and last year; 25% in first and second year; 25% in first and third year.

30% teach ethics in three years; all in the final three years.

20% teach ethics in all four years.

None of the dental schools in Canada have a chair in ethics.

Ethics committees exist currently in 50% of the schools. But they deal exclusively with issues of research ethics in 40% of these cases. That is, only 30% of the schools have ethics committees of the sort discussed in this proposal.

As for advisors to the faculties on ethics dilemmas:

Ethics professors: 70%

Deans and associate deans: 70%

Department heads: 60%

Other staff: 10%

Ethics committees: 30%

Lay persons: 10%

Outside ethics consultants: 60%

Of the three faculties that have clinical dental ethics committees, they are made up of:

Ethics professors: 66%

Department heads: 33%

Deans and associate deans: 66%

Staff: 33%

Other: 33%

The faculties that are affiliated or collaborative with any joint bioethics centers: 40%.

The faculties that offer students graduate studies in dental ethics: 10%.

The faculties were asked how they viewed the current level of ethics education that they provide for their undergraduate students:

More than adequate: 20%

Adequate: 50%

Could be improved: 30%

Those that stated that they could be improved cited the lack of the following as reasons: time (100%), adequately trained educators (66%), funding (30%).

The faculties that offer continuing education for graduates: 40%.

The faculties that expressed an interest in being part of an ethics network to share ideas and dilemmas with other dental faculties: 80%.

of poor practice. They could also seek feedback from patients, especially when their level of satisfaction could be quite different from the level of success as determined by clinicians alone. For example, cases that may be biologically sound could be esthetically compromised or may leave the patient with uncomfortable sensitivity that should beg the question as to the value of the procedure. There is often a disparity in assessing positive or negative outcomes from the perspective of the clinician versus the patient. An ethics committee could provide retrospective review of such decisions so all involved could learn from them. Another example would be the situation in which patients have not received complete disclosure in order to direct the patient, in a paternalistic manner, towards the care that the dentist may wish to render.

ADDITIONAL STRUCTURES AND NETWORKING

In addition to ethics committees that perform these three functions, every dental school should ideally have a chair in ethics so that ethical considerations could receive the multidisciplinary support and funding that other disciplines in the curriculum enjoy. Wherever such committees are established, financial support is necessary for the establishment of an ethics resource library, administrative support, as well as workshops and ethics-related conferences. Affiliations with graduate programs in ethics nearby would enable graduate students to study, expand knowledge, and ensure continuity in dental ethics. Since ethical values have some fluidity and change with society—as evidenced in the historical evolution of codes of ethics, for example—collaboration with existing bioethics programs, such as the Joint Centre for

CHALLENGES THAT MIGHT BE TAKEN UP by ETHICS COMMITTEES

1. What is it like to be a patient here at the dental clinic?
2. What mechanisms are in place to assess patient satisfaction?
3. What is it like to be an employee here?
4. What is it like to teach here?
5. How knowledgeable and sensitive is the staff with regard to cultural and religious background of the patients, students and other employees of the institution?
6. How effective as communicators and conflict managers are the employees of this institution?
7. There is a constant conflict of the principles of beneficence and the respect for patient autonomy in dentistry. Patients' judgments of harm/good are unavoidably subjective, with the patient becoming the judge if the treatment rendered to them was in his/her best interest. How are these competing values to be prioritized in various practice situations?
8. The principle of justice has competing values as well. Justice means that we treat everyone fairly, and that everyone receives what he/she needs and deserves. But a choice might seem unfair to an individual when in terms of social values it could be just. What should guide dentists' judgment of fairness in individual cases?
9. Distributive justice is concerned with how resources are allocated socially, especially among those in need. What should be the status of "the greatest good for the greatest number" as a guideline for dental public health and how should conflicts about individual needs in a clinical case be dealt with?
10. Cultures, religions, professions, institutions, and individuals may each have a unique idea as to the good that is to be pursued by the right action. But many individuals can and do accept the goals of more than one system. How should dentists deal with culturally-based conflicting values?
11. The right of privacy and the informed consent doctrine are based on the principle of patient autonomy. There are times when respecting a patient's autonomy via confidentiality can cause great hardship to others, giving rise to other questions of beneficence, nonmaleficence and justice. An example of this would be the mandatory reporting of child abuse or communicable diseases. What guidelines should dentistry follow on these issues?

Bioethics in Toronto, would allow students to expand their knowledge in ethics, while concentrating their focus and its relevance to dentistry. Thus, as a true discipline within dental scholarship, dental ethics could carry out forward-looking research to help shape what constitutes ethical norms and societal values in oral health care and more broadly. Graduates of such MHSc Bioethics courses could be the committee chairmen of future dental ethics committees. In addition, such networking could provide educational programs for the dental ethicists' constituents, opportunity to carry out surveys, and even

provide public access to on-line forums with current subjects of interest. For example, the state of Michigan has a network of hospital ethics committees with nationwide web access to an electronic bulletin board for medical ethics. The focus of such networks would be to develop a sense of community among institutional ethics committees.

It is not the mandate of an ethics committee to resolve all the ethical issues that arise in the institution or organizations. As indicated in the

discussion of proper roles above, what it should do is raise the level of awareness of issues and their implications, and assist decision-makers in evaluating alternatives carefully in the light of relevant ethical standards. It can also issue briefs outlining concerns on issues and recommendations for policy. As already indicated, because professional groups may hold unique positions on the ethics of professional obligation that are not shared by the laypeople with whom the profession is interacting, an effective ethics committee must have active participation from both laypeople and health professionals (Veatch, 1984).

DISCUSSION OF CHARACTERISTICS OF CANADIAN DENTAL FACULTIES

A survey was completed by Canadian faculties of dentistry (Schwartz, 2004) (see sidebar). Dental faculties find themselves in a conundrum. Many recognize that there is a need for increased ethics education, however they lack adequately trained personnel to expand their teaching. Only one dental school in Canada offers advanced studies in dental ethics for graduate dentists. There are no ethics chairs at any schools currently, as there are in the other disciplines, such as; radiology, periodontics, endodontics, prosthodontics, etc. Ethics committees exist in half of the dental faculties, however only three discuss clinical dental ethics, whereas the others deal exclusively with research ethics on human subjects. There is a wide variation on the emphasis that is placed on dental ethics education as can be seen by the number of years that it is included in the curriculum. Most of the faculties (80%) are interested in being a part of an ethics network to share knowledge and advance education in dental ethics, however only 40% are currently collaborative with any joint centers for bioethics, where ideas can be shared and developed with the other health disciplines, and where graduate

students could collaborate studies in dentistry and bioethics together. These graduates could become part of the dental ethics development process by chairing ethics committees and by offering dental ethics training to dental students by dentists who are trained in ethical principles. Currently, 60% of the faculties bring in outside ethics consultants to fill that void.

The dental schools, even though they are typically much more close-knit organizations than professional societies, clearly find it difficult to be responsive to the ethics needs of their students, faculty, and staffs. It is therefore reasonable to propose that enhancing ethics work within the professional societies will take a similarly monumental shift of focus and redirection of effort and resources to bring ethics to the prominence it ought to have in them.

CONCLUSION

According to a recent survey by the Royal College of Dental Surgeons of Ontario, dentists have identified ethics as the number one issue that is important to them. By following the example of other health disciplines in establishing ethics committees and ethics networks for our professional organizations and in similar structures in our dental schools, as well as the foundation of ethics chairs in our teaching institutions, we can meet the challenges to our profession that lie ahead of us. Dental ethics ought to become a discipline that is given the same priority as other aspects of clinical dentistry in both dental education and in dental practice (Schwartz, 2004). When it is, we will have solid evidence that as a profession we are preserving the public trust in dentists and we can be confident that we will be giving our students appropriate direction into the future. ■

Ethics committees overseeing research ethics and integrity of reporting research have proven very effective and important.

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THE SECOND-BEST SOLUTION: AN APOLOGY FOR DEMOCRACY

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ABSTRACT

The best ways to make group decisions are by consensus or the use of rational rules. Unfortunately, these methods are not general and are limited to various special circumstances. Some poor alternatives include authoritarian rule or chaos. Democracy, essentially one voice and vote for each concerned individual, is the most practical general alternative. A catalogue of democracy's flaws is reviewed, but it is concluded that, faults and all, democracy remains the best choice.

This is an essay about getting involved in organized dentistry, running for the school board, taking a leadership role in your section of the American College of Dentists, voting, and working through common problems with your peers—despite the frustrations and disappointments that seem to show up at every turn.

Winston Churchill had a strong position about democracy. He said, “Democracy is the worst form of government imaginable, except for all the others that are even worse.” Democracy is messy, and it could be accurately called the second-best system. If we recognize its flaws and compare it to perfect rationality (ranked #1), the tyranny of minorities or bosses (#2), or anarchy (#4), we realize that it is better to argue with our friends and forgive their shortcomings in hopes of similar treatment at their hands than it is to disengage.

I do not have a cast-iron definition of democracy at hand, but it seems to involve these elements: 1) decision making that gives greater weight to common wisdom than to the status of individuals (some form of voting); 2) the opportunity for every competent individual affected by decisions to have a voice in their resolution; and 3) maximum freedom, autonomy, and dignity for every individual, which does not compromise the freedom, autonomy, and dignity of others. Sometimes it is useful to add a fourth characteristic, namely that participants in the democratic

process are obliged to honor democratically made decisions, and even to enforce them.

WARTS ON THE FACE OF DEMOCRACY

Democracy is not ideal, either in theory or in practice. One of the inescapable consequences of majority decisions is the existence of minorities. Some dentists refuse to join the ADA because it does not represent every one of their personal interests. A colleague recently complained to me that he might resign from a committee on a local group. He said he had missed the last meeting and the other committee members had voted to give an award to someone he thought unworthy. The single-issue voter, the one who makes a career out of being offended, is becoming more numerous. There are many vacancies among the ranks of the loyal opposition.

Democracy did not invent the minority. That comes from diversity in human nature. There is no system that eliminates minorities, and most systems lead to larger and more abused minorities than does democracy. The rule in democracy about extending dignity and autonomy to individuals to the maximum degree allowable by the freedom of others is a strong protection of minorities. It is not always enough, however, as some find it easier to jump from group to group or become professional cynics.

The minor sins of democracy have been known for centuries. The Greek philosopher Plato, who died in 347 B.C., worked up a pretty powerful indictment in his classic *The Republic*. His catalogue of the flaws in democracy has a surpris-

ingly contemporary ring. As they are listed here, they may call to mind your own frustrations with a men's or women's group in your church or other organization, your disappointments with one or another aspect of organized dentistry, or national and local government as reported on the 10 o'clock news.

1. Popularity over Statesmanship:

Organizations that hold elections or give prizes promote popularity. Those who represent an organization must have an acceptable external and internal public image, be seen as approachable and a good example of the values of the organization's members, and be likable. A sufficient amount of this is important for getting work done. But "electability" tends to push aside statesmanship, visionary leadership, and articulation of what is ultimately in the group's best interest. The satire of political humor is grounded more in what it means to be "unpresidential" than it is in policy.

2. Short Horizons:

Democracy makes its leaders, and hence its issues, short-timers. There is a joke in higher education that professors do not conduct research on product longevity or the long-term effects of drugs because they have to go up for tenure within five years. Government officials tend to work in four-year frames, while elected officers in organized dentistry have even fewer years to prove themselves and their programs. Business executives are under the greatest time pressure for short-term results with quarterly earnings

reports. Instant media coverage has further made citizens in democracies impatient.

3. Pandering to the Public:

Democracy is inflationary. Jimmy Carter became an instant one-term president when he explained to the nation the difficulties we faced economically and socially and asked America to face up to these problems. A smarter move for any elected official or officer in an organization is to keep the public's and the members' gazes firmly fixed on the benefits they are about to enjoy. Organizations have multiplied the number of prizes and awards they give to such an extent that few worthy candidates fail to receive a prize, but the value of the prizes has been eroded. Pandering to the public and steering clear of the hard decisions is a good way to ensure re-election and is consistent with the democratic principle of keeping the minority as small as possible.

4. Shallow Debate:

Democracy favors the superficial. Modern life is complex, and the public has grown impatient with anything that adds to this complexity. Public hearings at the local government level have strict limits on time allotted for commentary. After all, democracy breeds some pretty strange self-appointed experts. The most popular dental journals have limited scientific content to fewer than 50% of the pages because they need the

Alice Sturgis on Majority Decisions

The majority vote decides. The ultimate authority of an organization is vested in a majority of its members. This is a fundamental concept of democracy.

A primary purpose of parliamentary procedure is to determine the will of the majority and see that it is carried out. By the act of joining a group, a member agrees to be governed by the vote of the majority. Until the vote on a question is announced, every member has an equal right to voice opposition or approval and to seek to persuade others. After the vote is announced, the decision of the majority becomes the decision of every member of the organization. It is the duty of every member to accept and to abide by this decision.

When the members of an organization select officers, boards, or sometimes committees, and delegate authority to them, this selection and delegation should be by the democratic process of majority vote.

The Standard Code of Parliamentary Procedure. Chapter 2: Fundamental Principles of Parliamentary Law

An economist named Kenneth Arrow actually proved an indeterminacy rule about forty years ago and showed that under any reasonable set of circumstances, no rational solution could be counted on for solving joint decision-making problems that would be regarded as fair to all under all circumstances.

space for advertising. The Gies Editorial Award Committee of the American Association for Dental Editors has a rule that editorials cannot exceed one thousand words, apparently to protect dentists from having to consider issues in depth. Television has made the sound bite intrinsically “unsound,” but it has become basic equipment in the project of forging Democratic policy.

5. Awash with Images:

Democracy, at least according to Plato and CNN, tends to function most comfortably at the level of appearances. Arguably, we are overwhelmed by special interest groups trying to put their spin on our world. The First Amendment protection of junk mail has created the modern equivalent of the messy office across the landscape. In our eagerness not to throw out the truth, we have made it hard to find things of value among the rest of this stuff. Dentistry is probably a good example, if one considers the ratio of publications picturing an attractive young woman’s smile to those describing the science of achieving a sound posterior occlusion.

6. Bad Diet:

Bombarded with images, left to our own choices, and taking the short view of things, democratic societies tend to be overweight. No joke: this is exactly what Plato argued 2,500 years ago. He would have snickered at our current attempts to legislate diet, allowing fat folks to sue our multi-billion-dollar diet industry. What would he have said about the fact that we pay more per gallon for drinking water than we do for gasoline?

7. Lost Sense Community:

Not wanting to impose our wills on others, democracies tend to fragment into pursuit of personal self-interests.

Watch any half-hour news program and count the number of stories about individuals or where individuals are the heroes in the face of collective interests such as clubs, school districts, or the government. The group has become the bad guy. It is considered poor taste today for those in authority to embarrass anyone “alleged” to have done something improper. Freedom from embarrassment has become a civil right. Balance is always necessary between the rights of individuals and the rights of groups of individuals. Plato suggests that democracy creates a drift toward imbalance in the favor of individuals.

8. Fads and Fashions:

Some people bemoan the loss of community values, core principles such as ethics, and shared vision in society. They say that miscalibrations in the moral compass are making society wobbly. Plato would have it just the other way. He believed that democracies, especially those who can afford it, are prone to fad and fashion and a general dislike of things that are stable and effective. History seems to support Plato on this argument. Democracies tend to have ethical theories de jour in much greater numbers than do traditional societies.

9. Generational Conflict:

Plato’s final beef with democracy is what he saw as inherent tension between generations. Among world cultures, the democracies seem to value expertise, physical appearance and athletic ability, and novelty more than the wisdom that comes through age. In centuries past, generation wars were waged because of impatience on the part of youth to take the place of their elders. Today, youth simply declare that the values of their parents are no longer relevant, thus making themselves instant cultural norms. One third of all movie tickets are sold to individuals

thirteen years of age and younger, and I don't even know what movies they watch.

Plato had good reason to distrust democracy. His teacher, Socrates, had the annoying habit of inviting or even demanding that people think for themselves. For his troubles, he was sentenced to death, not by a tyranny or oligarchy but when a new democracy was declared in Athens. Plato also engaged in a lifelong battle against a group of professionals known as sophists. The sophists were great supporters of democracy, especially those parts about image manipulation, superficiality of debate, short time horizons, and fads and fashions. They made their living by teaching citizens how to present arguments based on form rather than content. Plato lost this battle and the sophists became lawyers.

PRAISING DEMOCRACY

I am a big fan of Democracy, faults and all. Giving a voice to everyone concerned who can use it intelligently always seemed like the way to go. Voting, with all its variations in process, is an excellent way to identify the center of opinions and a sturdy invitation to ownership through participation. Plato's catalogue of the faults in democracy reminds us that we don't always get everything our own way when we do things together. But neither does that mean we should disengage unless we can find a better alternative. I suggest, under all but some special cases, there is not better alternative to democracy.

The "Best" Alternative: For centuries we have looked for an ideal solution, something better than the democratic vote. Some suggested improvements

It is better to argue with our friends and forgive their shortcomings in hopes of similar treatment at their hands than it is to disengage.

have been psychological in nature. For example, search for consensus, compromise, and negotiated alternatives have been widely advocated. The problem is that each works only under certain circumstances. They are special cases. The famous story of Solomon and the baby illustrates that half a loaf may be better than none but half a baby is no solution at all.

There have also been numerous rational approaches suggested as being superior to voting. Again, we find that rational methods do work better under very specific circumstances, but not work better generally. Pareto optimality merely identifies a set of potential solutions without selecting the best. Nash optimality produces consistent results in some settings, but generally requires greater sacrifices from those who are in the best position initially. An economist named Kenneth Arrow actually proved an indeterminacy rule about forty years ago and showed that under any reasonable set of circumstances, no rational solution could be counted on for solving joint decision-making problems that would be regarded as fair to all under all circumstances. When agreement can be reached without democratic vote that is wonderful. It should be attempted but abandoned as soon as it is realized that the circumstances do not support a rational or psychological solution.

Third Best: Plato's choice for the best form of government was a "philosopher king." This is the enlightened autocrat or benevolent dictator. Third best might be chosen when democracy fails under the special circumstances. For example, lawsuits are often resolved by arbitration since the vote is deadlocked in a "one-to-one" tie. More commonly, however, autocracy is chosen as an alternative to the fourth-best solution, chaos. This is what happened in Plato's Greece with the rise of the tyrants, in Hitler's Germany, or when Napoleon was named first counsel following the terrors of the French Revolution.

The potential for corruption under such circumstances is well-known. The eroded sense of participation, pride, and involvement that are lost when someone else seizes control or when control is relinquished by a group robs us of a vitality that can never be replaced by the efficiency of centralized control and command.

Join, participate, vote, and support the position of the group—whether you personally agree with every part of it or not. In the long run, democracy is your best strategy. ■

RECOMMENDED READING



Bodily, Samuel E. (1985).
***Modern Decision Making:
 A Guide to Modeling with
 Decision Support Systems***
 New York: McGraw-Hill.

Discussion of rational decision making based on mathematical models. Cases considered include deterministic and stochastic models, multiobjectivity, risk and utility, group decisions, and the value of time. A strong case is made for analysis of the boundary conditions of models—those circumstances in which they work and in which they do not.

* Fisher, Roger, & Ury, William (1991).
***Getting to Yes: Negotiating
 Agreement Without Giving In***
 New York: Penguin Books.

Negotiating should be based on interests and negotiated agreement about the process of negotiation rather than on positions and compromise. Your true power comes from your Best Alternative To a Negotiated Agreement. It is suggested that you look for mutual gains wherever possible, and that where

your interests conflict, you should insist that the result be based on some fair standards independent of the will of either side."

Locke, John. (1924/1962).
***Two Treatises on Civil
 Government***
 New York: E. P. Dutton.

A seventeenth-century physician philosopher laid the foundation for much of what we take for granted in the English/American forms of government.

* Luce, R. Duncan & Raiffa, Howard. (1957).
***Games and Decisions:
 Introduction and Critical Survey***
 New York: Dover.

Comprehensive survey of mathematical decision theory, including utility, zero-sum games, cooperative games, decisions under uncertainty, and group decision making. Arrow's theorem regarding the indeterminacy of group decisions is presented.

Patton, B. R. & Giffin, K. (1978).
***Decision-making Group
 Interaction***
 New York: Harper & Row.

Basic book on group dynamics with five chapters on how groups make decisions. The focus is on procedures that reduce the chances for groups to go wrong—domination by individuals, lack of creativity, inefficiency—rather than finding optimal solutions.

* Plato.
The Republic
 Various editions.

The classic is set as imaginary conversations between Socrates and other individuals in ancient Greece. The focal questions are "what is justice?" and

"how does the state maintain justice?" Plato answers that the just state must be ruled by a philosopher king, supported by guardians. These are trained to public service. Only the philosopher king, Plato argues, can see reality.

Sturgis, Alice (1988).
***The Standard Code of
 Parliamentary Procedure***.
 New York: McGraw-Hill.

Similar to *Robert's Rules of Order*, Sturgis is a complete handbook for orderly proceedings in groups as small as the local 4-H club to the ADA.

The Federalist
 (Numerous versions have been published)

The classic collection of propaganda papers written by Alexander Hamilton, John Jay, and James Madison in an effort to secure ratification by the states of the new United States constitution.

**Editor's Note*

Summaries are available for the three recommended readings preceded by asterisks. Each is about four pages long and conveys both the tone and content of the original source through extensive quotations. These summaries are designed for busy readers who want the essence of these references in fifteen minutes rather than five hours. Summaries are available from the ACD Executive Offices in Gaithersburg. A donation of \$15 to the ACD Foundation is suggested for the set of summaries on democracy; a donation of \$50 will bring you summaries for all the 2003 leadership topics.



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