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The  
**JOURNAL**  
of  
the **AMERICAN COLLEGE of DENTISTS**





## **OBJECTIVES** **of the AMERICAN** **COLLEGE of DENTISTS**

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

(a) To urge the extension and improvement of measures for the control and prevention of oral disorders;

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

(c) To encourage graduate studies and continuing educational efforts by dentists and auxiliaries;

(d) To encourage, stimulate and promote research;

(e) To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

(f) To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

(g) To cooperate with other groups for the advancement of interprofessional relationships in the interest of the public;

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

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



# The JOURNAL

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## A New Era For The Journal

The Spring 1988 issue of the Journal of the American College of Dentists is the first issue of the *New Journal* and the beginning of a new era in which it has become a refereed publication.

After being in the planning stage for several years, the new Journal displays a new, modern cover design and masthead (page 1). It is enlarged to twice its previous number of pages. In addition to its stated purpose of presenting ideas, advancements and opinions, the Journal will now be publishing reviewed scientific articles on dental practice, dental research and dental education.

Four Associate Editors, Drs. William W. Howard, William D. McHugh, Alvin L. Morris and Prem S. Sharma, have been appointed by the Editor to assist in selecting articles for publication and to help direct the manuscript review process. Dr. Sharma will also edit the departments for News of Fellows and Section Activities.

A distinguished twelve-member Editorial Board of Review has been appointed and includes the following Fellows: Drs. Don L. Allen, Muriel J. Bebeau, Wilmer B. Eames, Paul Goldhaber, Harald Loe, James H. McLeran, Lawrence H. Meskin, Richard C. Oliver, Ralph W. Phillips, Jeanne C. Sinkford, George



Keith P. Blair

W. Teuscher and Raymond P. White.

It is the considered opinion of the American College of Dentists Board of Regents that there is a considerable need for more pages in more publications to publish important scientific articles and to publish them while the material is still current. It is reported that, unfortunately, many excellent research papers grow obsolete while waiting for their turns to be published, if they are published at all.

An organization as prestigious in dentistry as the American College of Dentists which, from its earliest days, has championed and sup-

## FROM THE EDITOR'S DESK

ported high standards for dental journalism, feels obligated to try to help this situation by establishing the new refereed Journal that will also strive to represent the best professional and journalistic ideals.

Since it was first established in 1934, the ACD Journal has stressed excellence and strong principles in dental journalism. Its illustrious Founding Editor was none other than William John Gies, himself. He was followed by John F. Gurley, Alfred E. Seyler, Thomas F. McBride and Robert I. Kaplan, all of whom served long terms. In addition, J. Ben Robinson and Robert J. Nelsen each served one-year terms. Now in its 55th year, the Journal has had only these seven editors previous to its present editor who has been in office since 1980.

The Journal was originally a refereed publication with associate editors, so changes with the new Journal actually mark a return to previous ways of publishing in that respect. From the time it was established, the Journal was a smaller size (7 x 10 inches) until 1982 when it assumed its present, modern format using the standard 8½ x 11 inch size.

In this new era, the Journal should enhance its highly respected position as one of the top publications in dentistry. Δ

Keith P. Blair

# Journal Is Now A Refereed Publication Editorial Board of Review Appointed

The Journal of the American College of Dentists has now become a fully refereed Journal for all scientific articles related to dental practice, dental research and dental education. A distinguished twelve-member Editorial Board of Review has been appointed by the Editor and is introduced on these pages. All of them are Fellows of the College and only their career highlights are presented in this brief introduction of the Editorial Board for the New Journal.



Richard C. Oliver

**Richard C. Oliver, DDS, MS.** Dean for nine years at the University of Minnesota School of Dentistry and previously Dean at the University of Southern California School of Dentistry. He is currently Professor of Periodontology and Health Ecology at the Minnesota School of Dentistry. He has served as President of the American Association of Dental Schools and was a Visiting Scientist at the National Institute of Dental Research in 1986-87. For 13 years he was editor of Periodontal Abstracts and now serves on the Editorial Board of three Journals. Throughout his involvement in education, organized dentistry and research, he has continued his practice limited to periodontics.



Lawrence Meskin

**Lawrence H. Meskin, DDS, MSD, MPH, PhD.** Dean of the Graduate School at the University of Colorado Health Sciences Center and Professor of Preventive Medicine and Biometrics. He is currently a guest researcher with the National Institute of Dental Research and Editor of the Journal of Gerodontology. He was Dean of the University of Colorado School of Dentistry in 1981-1987.



James H. McLeran

**James H. McLeran, DDS, BS, MS.** Dean of the University of Iowa School of Dentistry since 1974. Diplomate, American Board of Oral and Maxillofacial Surgery. He has served as President of the American Association of Dental Schools and is a researcher and author.

**Don L. Allen, DDS, MS.** Dean of the University of Texas at Houston School of Dentistry since 1982 and Professor for the Department of Periodontics, with a background in Oral Pathology. Previously he was Dean of the University of Florida College of Dentistry. He has been President of the American Association of Dental Schools and an author in the fields of periodontics and education.



Don L. Allen

**Muriel J. Bebeau, BS, MA, PhD.** Associate Professor in the Department of Health Ecology at the University of Minnesota and is Director of Education for the Center for the Study of Ethical Development. She is an educational psychologist working in a professional school setting and her work has established Minnesota as a nationally recognized center for research in ethical decision-making. She is a member of the Special Committee on Ethics for the American Association of Dental Schools.



Muriel J. Bebeau

**Raymond P. White, Jr., DDS, PhD.** Associate Dean at the University of North Carolina School of Medicine, Professor of Oral and Maxillofacial Surgery at the UNC School of Dentistry and Research Associate at the UNC Health Services Research Center. Former Dean of the UNC School of Dentistry (1974-81). Diplomate, American Board of Oral and Maxillofacial Surgery, Lecturer and author.



Raymond P. White, Jr.



George W. Teuscher

**George W. Teuscher, DDS, MS, MA, PhD.** Editor for the Journal of Dentistry for Children and former Editor for the Journal of Dental Education. He was the Dean at Northwestern University Dental School for 18 years, being appointed in 1953 and was previously a Professor of Pediatric Dentistry at Northwestern. He has been very

active in dental organizations, including being President of the American Society of Dentistry for Children and serving six years on the ADA Council on Dental Education. Dr. Teuscher has a background in psychology, philosophy and literature and has received several Gies Awards for editorial writing.



Ralph W. Phillips

**Ralph W. Phillips, MA, DSc,** Research Professor of Dental Materials at Indiana University School of Dentistry. Noted researcher, lecturer, author and expert on dental materials. Consultant to most prestigious research institutions and Editorial Advisor to many prominent scientific journals. Honorary member of many state and

foreign dental associations. He received the Gies Award from the American College of Dentists for his contributions to the profession that warrant exceptional recognition.



Wilmer B. Eames

**Wilmer B. Eames, DDS** has retired from formal teaching but continues to serve as a consultant in research and in the field of dental materials where his work has had significant influence on dental practice. Among his publications he lists over 60 papers with the International Association of Dental Research and has given

over 400 oral presentations. Dr. Eames has been the recipient of many well-deserved professional honors and awards, including the Gies Award of the American College of Dentists.

**Jeanne C. Sinkford, DDS, BS, MS, PhD.** Dean of Howard University School of Dentistry and Professor, Graduate School of Arts and Sciences, Department of Physiology at Howard University. Prosthodontist, researcher, administrator, author, lecturer, Dr. Sinkford has been very involved in dental education and dental organizations.



Jeanne C. Sinkford

**Harald Løe, DDS, Dr. Odont,** Director of the National Institute for Dental Research. Former Dean and Professor of Periodontology at the University of Connecticut School of Dentistry. Author of more than 240 scientific publications, he has received nine Honorary Doctorates from U.S. and European Universities. He is a



Harald Løe

past president of the International Association for Dental Research and is a Fellow and an Honorary member of a number of organizations around the world. Dr. Løe is the founding Editor of the Journal of Periodontal Research and is a member of several editorial boards for major dental publications.

**Paul Goldhaber, DDS, BS, MA.** Dean, Harvard School of Dental Medicine since 1968, Professor of Periodontology. Oral pathologist, researcher, author, reviewer, abstractor, educator, consultant. He was President of the International Association for Dental Research in 1985.



Paul Goldhaber



# CONVOCATION ADDRESS

**James L. Bomar, Jr.\***

Isn't it strange  
That princes and kings  
And clowns that caper in  
sawdust rings  
And common folks like you  
and me  
Are the builders of eternity  
To each is given a book of rules  
A shapeless mass, and a bag  
of tools  
And each must make ere his life  
has flown  
A stumbling block, or a stepping  
stone

Such a wonderful verse out of history challenges each of us everyday of our life.

You are professionals—with a worldwide interest in your fellowman—your background and education makes of you a very substantial promoter of peace in this troubled world in which we live.

Your theme "The role of excellence" is advanced by your competence, your ethical outlook, and your continued search for a better technological, and sociological world in which we all may live—with the welfare of every individual, no matter his station of life,

uppermost in your every action. To those of you being honored with fellowships today—I salute you! You are indeed a credit to your profession and your fellowman.

Today I shall discuss the phenomenon of the 20th century—the service club—as it applies to each of us in service to others, and its impact upon a goal of world peace, understanding and good will. I shall then discuss the efforts of one service organization, Rotary, in carrying the banner high in containing the dread disease of poliomyelitis—and answer the question, "am I a professional man important in this objective?"

Although service to others slowly evolved in the late 1800's the founder of Rotary International, a Chicago lawyer by the name of Paul Harris, in the year of 1905, launched a search for ways to improve all mankind through the field of service to others.

This idea of service was new in the concept of business persons, but the idea spread rapidly over an 82 year span under names of Lions, Kiwanis, Optimist, Exchange, Zonta, Soroptimist, and approximately 125 similar organizations. Today the membership in Rotary exceeds 1 million, with clubs in 161 nations. Several additional million business persons promote service to others through all the service organizations that exist today.

But the world in which the service club was established was no

better—or no worse—than today. In fact, every man in each age is called upon to answer a question "what can one man do?" and as Paul Harris faced the world in which he lived, he found a real problem in human character—it was indeed Harris' "stumbling block" because *he learned that man can be extremely cruel.*

He can speak in a vile and obscene tongue, callously offend his neighbor, and tear the world asunder in strife. He can waste it in violence. He can squander the possessions of his heritage. He can starve his fellowman in the midst of a cornucopia of earthly fruits.

*Yet this same man can be extremely good.* He has an innate sense of dignity and decency. He desires respect for himself, his family, his home and possessions, his ethnic background, his culture and—his nation.

He searches for happiness and he recognizes this longing in his fellowman.

He believes in certain rights—the rights of fairness and equal justice, the right to make full use of his natural gifts, and the right to a worthwhile way of sharing in every day affairs and values of life.

It is in these areas that all service clubs find a fertile seedbed. This year the theme of the President of Rotary International is "United In Service, Dedicated to Peace".

This is a dream of all of us. This is the stepping stone for bringing out

\*James L. Bomar, Jr., Past President of Rotary International, Convocation Address, Las Vegas, October 9, 1988.

the beauty of the rose, point to the stature of our highest mountains, and open wide the curtains that shelter the shadows of indifference and intolerance to allow the bright sunlight of understanding and love to penetrate the gloom that surrounds men's hearts, as they endorse man's humanity to man—instead of his inhumanity.

In fact, the charge and the challenge to each professional man today as he seeks to help others build a better world in which we all may live could well be expressed by Horace Mann, who stated:

"Be ashamed to die until you have won some victory for humanity".

So today, I shall discuss some ways in which we can assist in the pursuit of world peace in the very cruel world we abhor.

—The pessimist among us will say—it is impossible to attain, because so many programs have been initiated and so many have failed.

—Well Richard Niturus said it eloquently when he stated:

"But the road to your neighbor's heart  
Who has surveyed it?  
The formula to your neighbor's head  
Who has devised it?  
Peace resides in the hearts of men  
Not in conference tables and delegates signatures  
True friendship never dies  
It grows stronger the more it is tested.

World peace can be obtained—a gesture, a word, an exchange of family, of youth, of culture, of a

moment of friendship—we are part of it everyday.

I dare suggest some ways that are stepping stones to world peace.

1. *World peace begins at home.* Mrs. Smith and Mrs. Jones lived as neighbors for 50 years—each morning they greeted each other over the backyard fence with the words, "Good morning, you look very well today". But after this period of time, Mrs. Smith decided to speak the truth when Mrs. Jones said to her "Good morning Mrs. Smith, you look very well today". To which Mrs. Smith replied "I wish I could say the same about you; "Well you could" Mrs. Jones replied "If you were as big a liar as I am".

*Yes—World peace begins at home, not at some far distant city or nation, or at the home of some distant human being.*

2. *World peace begins with nations and people of peaceful intentions who reside there.*

For more than 55 years—two Rotary Clubs, one in Montana, and one in Alberta, Canada, meeting alternately in Waterton and Glacier National Parks, sought to recognize our common heritage and to celebrate the peaceful unguarded border which in fact has existed since 1812. This year a celebration was held with officials of both United States and Canada celebrating the U.S.—Canada days of peace and friendship. There are several lessons to be learned from this continuing experience. *First, if we have friendship, we must work at it, and secondly, peaceful borders are possible!*

The strength and vigor of the

peoples of these two nations, rising to the recognition of our two governments from a grass roots level clearly demonstrates to us that what two service clubs started, resulted in the building of bridges of friendship and understanding. *Yes—world peace begins with nations and people of peaceful intentions who reside there.*

3. *World peace begins in great conferences like this.* In early September, 1987, I attended the world conference on "Peace Through Law" in Seoul, Korea. More than 1200 jurists and international lawyers from 70 countries came to this place termed "The Best Kept Secret in the Pacific" to discuss ways and means of advancing peace through an increase in the mechanism to settle disputes between individuals and nations by any peaceful means. The philosophy of Ralph Waldo Emerson is forcefully quoted as a basis of the goal in each man's heart, when he stated:

"Great persons realize that all spiritual force is stronger than human force. And that *thoughts* rule the world".

The lawyers and the jurists concluded with a declaration which stated:

Any lasting peace must be based on a foundation of universal legal principles and institutions of the rule of law. Past and current brutal methods of conflict resolution between states and within states must be replaced with the rule of law concept, which is the only credible peace plan we know, works within nation states. The

Seoul Conference is keenly aware of mankind's common longing for a peaceful world. It pledges the moral and physical resources of the center and the diligent efforts of its members to achieve, uphold, and preserve a world of peace through the rule of law. What other nobler task could we seek".

What nobler objectives can we find to establish peace?

—Yes—world peace begins in great conferences like this—

4. *World peace begins in the lives of those who have no hope of redemption.*

The year I was president of Rotary International, I was invited to Ohio to visit a home for severely mentally retarded children. This home was constructed and operated by service clubs in the area. Every person there was a volunteer. I saw wheel chairs filled with little children—human derelicts—whose ages were less than ten years. No sight more sad could have been witnessed.

A young lady who had volunteered to take care of the needs of one child asked me if I would like to see her "Danny Boy". I noticed he had a metal box on his head. She explained that an engineer of a local service club had constructed this box to enable this child to hear music.

As I approached the wheel chair, the little child was crying. As she raised his chin with her fingers, music began to play in the box and the child actually started smiling. The young volunteer said "My job is to keep Danny Boy smiling".

This story world wide can be repeated in literally thousands of cases. Professional men service-minded helping to keep children with no hope of redemption—smiling!

As I left the home and its precious burden of mentally affected children, I could remember the words of Dr. Tennyson Guyer in the poem "God Forgive".

Today upon a bus I saw a girl  
with golden hair,  
She seemed so gay, I envied her,  
and wished

I was half as fair.  
I watched her as she rose to leave,  
And saw her hobble down the  
aisle,

She had one leg and wore a  
crutch, but as she passed—  
a smile,

Oh God, forgive me when I whine,  
I have two legs,  
And the world is mine.

Later on, I bought some sweets,  
The boy who sold them had such  
charm,

I thought I'd stop and talk awhile,  
If I were late, would do no harm.  
As we talked, he said, "Thank you,

Sir, you've really been so kind",  
It's nice to talk to folks like you,  
Because you see, I'm blind.

Oh God, forgive me when I whine,  
I have two eyes  
And the world is mine.

Later, walking down the street,  
I met a boy with eyes of blue,  
But he stood and watched the  
others play,

It seemed that he knew not what  
to do.

I paused, and then I said "Why  
don't you join the others, dear?"

But he looked straight ahead,  
without a word,  
And then I knew he couldn't hear.  
Oh God, forgive me when I  
whine—I have two ears,  
The world is mine.

Two legs to take me where I go  
Two eyes to see the sunsets glow  
Two ears to hear all I should  
know

Oh God, forgive me when I whine  
I'm blest indeed, the world is  
mine.

Yes—world peace begins in the  
lives of those who have no hope of  
redemption—

5. *World peace begins in the lives of young people who are maimed and crippled.*

Here I must tell you of one service club's effort to promote world peace through probably the greatest effort ever proposed.

The year I was president of Rotary International was its 75th anniversary. Our board was charged with launching a new corporate project. A program of 3H—Health, Hunger and Humanity, was developed and its first corporate project was to immunize 6 million children in the Philippines against the dread ravages of poliomyelitis—in five years!

This program was launched in 1979 and today tremendous inroads have been made in reducing the incidence of polio throughout the islands.

Rotarians in other developing countries of the world requested that a similar program be launched in their countries.

Our board of directors in 1984 decided to launch a program to



contain polio world wide by 1990. Through mass immunization days, rotary has immunized approximately 50 million children and it will immunize approximately 40 additional million by the year 1988. The cost of immunization is 12 cents per child—although approximately 500 million children are to be immunized, it is our belief that it can be accomplished.

The program is designated as polio plus because immunization other than polio is carried out also. This will require approximately 125 million dollars plus the voluntary effort of a literal army of volunteers. Today we are conducting a drive to raise the necessary funds, and we believe we can reach this goal within this coming year.

One school child in Milan, Italy, sent 87 lire to assist in buying vaccine for the program. She had sold fruit in the street for the money she mailed to Rotary International. Her letter was very poignant. She concluded by stating:

"I don't know any Filipinos—but some day, I hope to meet one, and I can then say to him I helped you to walk, jump and run, and I want to be your friend."

This basis of promoting world peace is accepted by *leaders of nations*, providing a better reception and visibility of the efforts of service-minded individuals to improve the lot of our fellowmen in health, literacy and nutrition. The impact will be beyond the horizon, *polio can be contained*—and peace is helped.

*What can one man do?* We say succinctly. He can turn every

stumbling block into a stepping stone—if he desires to act—just as the philosopher stated:

For a man is as great as the  
dream he dreams  
As great as the love he loves  
As great as the value he redeems  
As great as the happiness he  
shares  
A man is as great as the truth he  
speaks  
As great as the help he gives  
As great as the destiny he seeks  
As great as the life he lives

Finally, even though world peace is beyond the horizon; it still should be pursued like Stephan Crane, an American poet said:

I saw a man pursuing the horizon  
Round and round he sped  
I was disturbed at this  
"It is futile", I said, "You can  
never"—  
"You lie" he cried  
And ran on

As demonstrated by the gathering here today of professional persons you are dedicated to building a brighter tomorrow—by attaining excellence in your lives today. We can make a difference if we take steps—our steps—to further the objectives of world peace. However,—we must recognize that we are charged to let our message go forth at this time and in this place.

—That we must learn that no man is an island and we cannot live alone—and that this truism bears heavily upon us.

—That the only obstacle to our realization of a peaceful tomorrow will be our doubts and concerns of

today and our willingness to share ourselves with our neighbor—

—But we will not be deterred—because we know that in the heart and soul of every human being there is a dream and aspiration that all people shall live together as one great family—

Yes, people who are service-minded have the weapons of peace in their hands—let us all take up the challenge to build a better world and discharge it with boundless enthusiasm—

—This is our goal. *We must not—we will not fail.*

People have asked me—"How can you speak in so many languages"? I reply "I have no difficulty". For the language of a service-minded individual is universal. In some languages, it is a kiss on the cheek. In other languages, it is a kiss on both cheeks. Or—an embrace—or a handshake—or a cheery "hello" in a thousand different ways.

For the language of service is a language of the heart. It speaks as Mary Martin, an American actress said:

"A bell is not a bell until you  
ring it.  
A song is not a song until you  
sing it,  
Love in your heart was not meant  
there to stay  
For love is not love until you give  
it away"

So today, I say to each of you, in the words of the "Sanskrit"

"Walk together, talk together  
Ye peoples of the earth.  
Then and only then will there be  
peace" △

# THE PROCESS OF DEPROFESSIONALIZATION

## Getting Down to Business in Dentistry: The Effect of Advertising on a Profession

David L. Schiedermayer\*

Since antiquity the quandary for dentistry and medicine has been how to consider themselves as healing arts, and at the same time permit their practitioners to earn a living. The latin root word for profession, *profiteor*, means to make a public statement or announcement of a special skill, but the word *profit* is clearly visible in this root word as well. Hippocrates, a physician of noble birth who eschewed fees, noted that since physicians save people from death, "... no fee, not even a large one, is adequate for the physician, but it is with God Almighty that his remuneration rests—and what he may receive should be reckoned as a gift, a present."<sup>1</sup> Aristotle, also a physi-



David L. Schiedermayer

cian, was clearly on the nonprofit side of the debate: "The object which a man sets before him makes a great difference; if he does or learns anything for his own sake or for the sake of his friends, or with a view to excellence, the action will not appear illiberal . . . all paid employments . . . absorb and degrade the mind."<sup>2</sup>

In the fifth century, the Greek philosophers Aristophanes and Sophocles argued over whether medicine was a trade or profession: Aristophanes contended that medicine was an art, not a simple *techne*. Sophocles, on the other hand, asserted that a physician is merely a tradesman, a craftsman.<sup>3</sup> The dogmatic Galen thought he had settled the dispute when he

wrote, "It is not possible to pursue the true goal of medicine if one holds wealth more important than virtue, and learns the *techne* not to help people, but for material gain."<sup>4</sup> The debate rages still: medical historian Dr. Lester King titled a recent article on current medical practice, "Medicine—Trade or Profession?"<sup>5</sup>

Are health professionals profiteers or profiteers? What sets the health professions apart from other occupations? What effects have current societal trends had on the professions of medicine and dentistry, and in particular, what impact will current marketing and advertising practices have on professional values and ethics? In this paper I will address these questions, focusing on the effects recent corporate pressure has had on the healing arts.

### The Meaning of Profession

Becoming a member of a learned profession requires intensive study; the knowledge acquired sets the members apart from the laity, who, lacking such knowledge, depend on the statements and acts of the professional. As King puts it, "Members of a profession thus found themselves in a position of authority that rested on trust. This dual relation-

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ship imposed on the members of a profession a particular moral obligation, made explicit by a code of ethics."<sup>5</sup> While there is a large literature on the meaning of profession, most authors agree on five major elements of a profession(al):

1. Service orientation
2. Specialized training and skills
3. Ability to set fees
4. Formation of professional associations
5. Code of Ethics

Many of these elements are now common among occupations formerly termed "trades." In our service economy, many individuals possess specialized training and skills—e.g. lab technicians, communication experts, and computer operators. Professional associations and codes of ethics are nearly ubiquitous; Table 1, adapted from Dyer,<sup>6</sup> records the process of professionalization of numerous groups. Business, as King points out, is undoubtedly in some of its aspects a profession today; when the Harvard Business School was founded, the president of Harvard University identified business as the newest of professions.<sup>5</sup> Note, however, that it is doubtful whether advertising is a profession; this will become important as we consider its impact on dentistry and medicine.

My point is this: there is a blurring, in contemporary society, of

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... there is a blurring, in contemporary society, of the distinction between profession and trade, and many occupations now have most of the elements of profession; there has been a relative professionalization of society.

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**To the extent that physicians and dentists are learned and powerful enough to control their own work, set their own fees, and agree on their own ethical standards, they are professionals. To the extent that physicians and dentists lose the power to control their own work, set their own fees, and promulgate their own codes of ethics, they are deprofessionalized.**

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the distinction between profession and trade, and many occupations now have most of the elements of profession; there has been a relative professionalization of society. Of the many formal characteristics of a profession proposed by sociologists, the one which most withstands modern scrutiny is autonomy.<sup>7</sup> Friedson states, "The only truly important and uniform criteria for distinguishing professions from other occupations is the fact of autonomy—a position of legitimate control over work... The single zone of activity in which autonomy must exist in order for professional status to exist is in the context of the work itself."<sup>8</sup> To the extent that physicians and dentists are learned and powerful enough to control their own work, set their own fees, and agree on their own ethical standards, they are professionals. To the extent that physicians and dentists lose the power to control their own work, set their own fees, and promulgate their own codes of ethics, they are deprofessionalized.

#### **The Process of Deprofessionalization**

Deprofessionalization proceeds in the opposite direction as profes-

sionalization; via the watering down of ethical codes, the weakening of licensure processes and professional associations, and the lowering of scholastic and quality control standards. Clifton Dummett provides us with a picture of dentistry in the late 1800's: "... patients were not protected from practitioners with unscrupulous tendencies. It was difficult, often impossible, to ascertain whether some dentists were either capable or qualified to perform the services they advertised in an obtrusive fashion. The combination of privately owned schools, unregulated scholastic standards, implausible state licensing procedures, clamorous advertising, and proprietary journals all seemed to encourage the dissemination of improper or even harmful services to the American people... the (current) trend toward commercialization of the health professions merits extensive analysis... undue emphasis on business and profit-making aspects of health care can erode the moral and ethical commitments of all health professionals to the welfare and the interests of the sick and disabled."<sup>9</sup>

Kramer has traced the effects of commercialization on the changing language of ethical codes. He points out that one of the distinguishing features of a profession has been the requirement for its members "to adhere to principles of conduct loftier and more stringent than

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**Deprofessionalization proceeds in the opposite direction as professionalization; via the watering down of ethical codes, the weakening of licensure processes and professional associations, and the lowering of scholastic and quality control standards.**

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Table 1 The Process of Professionalization\*

	Became Full-time Occupation	First University School	First Local Professional Association	First National Professional Association	First State License Law	Formal Code of Ethics
Established:						
Accounting (CPA)	19th cent	1881	1882	1887	1896	1917
Architecture	18th cent	1868	1815	1857	1897	1909
Civil engineering	18th cent	1847	1848	1852	1908	1910
Dentistry	18th cent	1867	1844	1840	1868	1866
Law	17th cent	1817	1802	1878	1732	1908
Medicine	ca 1700	1779	1735	1847	Before 1780	1847
Others in process, some marginal:						
Librarianship	1732	1897	1885	1876	Before 1917	1938
Nursing	17th cent	1909	1885	1896	1903	1950
Optometry		1910	1896	1897	1901	ca 1935
Pharmacy	1646	1868	1821	1852	1874	ca 1850
School teaching	17th cent	1879	1794	1857	1781	1929
Social work	1898	1904	1918	1874	1940	1948
Veterinary medicine	1803	1879	1854	1863	1886	1866
New:						
City management	1912	1948	After 1914	1914	None	1924
City planning	19th cent	1909	1947	1917	1963	1948
Hospital Administration	19th cent	1926		1933	1957	1939
Doubtful:						
Advertising	1841	1909	1894	1917	None	1924
Funeral direction	19th cent	1914	1864	1822	1894	1884

\* Modified after Wilensky

those governing commercial enterprise."<sup>10</sup> One problem with lofty and stringent advertising codes in an era of consumer advocacy is that these codes are subject to criticism for being protectionist and restrictive. The antitrust suit brought by the Federal Trade Commission (FTC) against the American Medical Association (AMA) was the result of concerns about the restriction of free trade, and this suit has had a major impact on both the professions of medicine and dentistry.

#### Antitrust and Advertising in the Health Professions

On December 19, 1975, the FTC brought action against the AMA, the Connecticut State Medical Society, and the New Haven County Medical Association, charging them with illegally restricting members from advertising and soliciting patients and interfering in the contractual relations between members and other entities, such as group prepaid plans, health maintenance organizations, and non-physicians. The administrative law judge and the Second Circuit Court of Appeals found that the AMA's practices were restraints of trade, the FTC established jurisdiction over organized medicine, after an equally divided (4-4) US Supreme Court affirmation.<sup>11</sup> In section IV of the FTC document, the AMA was ordered to "remove from . . . Principles of Medical Ethics . . . any provision, interpretation, or policy statement which is inconsistent with . . . the provisions . . . of this order."<sup>12</sup> The AMA complied by removing the portion of the AMA Code of Ethics which the FTC deemed "broader than necessary to protect the public." On January 4, 1977 the FTC filed a complaint against the ADA, which immediately advised constituent societies to cease initiation of any discipli-

nary proceedings against any members who merely advertised in the public press the availability of their services and their routine fees. In March, 1979, the FTC and the ADA settled out of court, with terms of settlement as follows:<sup>10</sup>

1. The ADA agrees not to restrict truthful advertising
2. The ADA may prohibit "false and misleading advertising"
3. There is no admission by the ADA that any law has been violated

L. Barry Costilo, an FTC commissioner, commenting on whether the suit has generally favored consumers of health services over providers, states that antitrust enforcement has increased competition with the result of ". . . providing more service and price options . . . the antitrust laws are concerned with maximizing the long-term welfare of consumers, but this is not inconsistent with the interest of efficient providers."<sup>13</sup> Despite Costilo's reassurance, it is evident that the advent of consumerism, and the outcome of the FTC suit, have resulted in the revision of the entire ADA Code of Ethics, even those portions not currently under challenge. In this sense, the action represented a force for deprofessionalization; we have seen that a weakening in the code of ethics of a profession is a movement away from professional status. The preamble to the current version leaves open the possibility for further change even as it appeals to the past, "Although the structure of society may change, the overriding obligation of the dentist will always remain the duty to provide quality care in a competent and timely manner. All members must protect and preserve the high standards of oral health care provided to the public by the profession. They must strive to improve the care delivered—through education, training,

research and, most of all, adherence to a stringent code of ethics, structured to meet the needs of the patient."<sup>14</sup>

While the new code may be realistic and responsive to societal change, it fails to meet the criteria for being stringent, i.e., rigidly controlled, enforceable, and strict.<sup>15</sup> It is, in fact, lax and unenforceable when it discusses advertising; "may" and "could" are used instead of the ethical "should" and "ought." Problems are to be resolved "within the broad boundaries established in these principles." Despite attempts at specificity during a discussion of advertising regarding fellowship and specialization, the following disclaimer is included:

"Advertising, solicitation of patients or business, or other promotional activities by dentists or dental delivery organizations shall not be considered unethical or improper, except for those promotional activities which are false or misleading in any material respect. Notwithstanding any ADA Principles of Ethics and Code of Professional Conduct or any other standards of dentist conduct which may be differently worded, this shall be the sole standard for determining the ethical propriety of such promotional activities."<sup>11</sup>

Realizing that the FTC ruling signals that medicine is now regarded primarily as a trade, not a profession, dentistry in its code of ethics has been forced to abandon any pretense of a professional ethic above and beyond that of a commercial enterprise. The only obligations of this business ethic are as follows:

A dentist may advertise in any media, although not in a manner that is false or misleading in any material respect. Statements should be avoided, according to the document, which:

- a. Contain a material misrepresentation of fact
- b. Omit a fact necessary to make the statement considered as a whole not materially misleading
- c. Contain a representation or implication regarding the quality of dental services which would suggest unique or general superiority to other practitioners which are not susceptible to reasonable verification by the public
- d. Be intended or be likely to create an unjustified expectation about results the dentist can achieve.

The ADA has been forced to write the dental equivalent of the Hippocratic Oath in a modern corporate version;<sup>16</sup> this response is understandable, since the commercial pressures on both medicine and dentistry are intense and their potential impact on deprofessionalization is significant. Professional associations are seeking to minimize the damage through education and communication; for its part, the American College of Dentists lists as objectives, "To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient . . . to encourage the free exchange of ideas and experiences in the interest of better service to the patient."<sup>17</sup> Despite these efforts, the growing number and increasing competitiveness of health professionals, the internal fragmentation of health professions, and the growing involvement of government and corporate authority all impact negatively on professional autonomy.<sup>18</sup>

These observations are not necessarily made in an anti-capitalistic or anti-advertising spirit. My purpose here is not to comment on the relative merits of the free market system vs. other economic systems; to

paraphrase Churchill, capitalism is the worst possible economic system except for all the others. (The Soviets are now short on toothpaste: demand will exceed supply by 80 million tubes this year, so there are few fresh smiles among consumers in the Soviet Union).<sup>19</sup> Advertising is routine in capitalistic cultures, and it often seems to work well, so my concern is, rather, the potential impact that certain forms of advertising, like those of the 1800's described by Dummett, could have on the professions of medicine and dentistry. The ethical issue for advertising by professionals, as Dyer points out<sup>6</sup>, is whether such advertising is truthful and whether there can be objectively measurable standards for judging the truthfulness of advertising claims; advertising at worst plays upon unconscious wishes for sex, greed, power, status, and perfection, and manipulates our longings and fears. Health professionals in a capitalistic society have every right (and even a duty) to advertise in the former sense, but risk deprofessionalism and disgrace if they advertise in the latter.

### The Spectrum of Advertising

One commentator from Canada has asked a series of important questions regarding the propriety of advertising by health professionals: How do you legislate good taste in advertising? Where is the line between "providing information" and "touting your wares?" When does legitimate competition among ethical professionals deteriorate into commercial warfare? Who is to judge what is "professional, dignified and ethical" and what is "crass and commercial?"<sup>20</sup>

While these questions may be difficult to answer in the abstract, the use of specific examples can enable us to discern several ethical breakpoints along the spectrum of

advertising. In some cases, the lines are indeed blurry, but in others, the difference between professionalism and hucksterism becomes more obvious. For ease of discussion, I will consider the following types of marketing: tombstone ads, verifiable promises, unique selling propositions, and unjustified health expectations. The former two are traditional forms of professional advertising, the latter two have traditionally been considered ethically suspect, and the last, if flagrant enough, is considered inappropriate by the FTC.

### Tombstone Ads

The great majority of physicians and dentists who do advertise use tombstone ads—name, location, hours, and specialty.<sup>20</sup> I have observed that in the Milwaukee phone book the dental ads are larger, more colorful, and contain more symbols and signs than the medical ads—"monuments," if you will. Morse has pleaded with fellow health professionals to avoid the temptation of block advertising, in order to avoid misleading patients with self-promotion. "Don't let fingers do the talking for you," he implores.<sup>21</sup> To this appeal, however, a patient writes back, "The shingle and a name in a directory are all we have . . . While one hardly wishes to see full-page four-color ads for doctors glaring out at us like so many drug ads in a medical journal, one also hopes that, given just a touch more information about a physician's practice—such as office hours, special interests, and abilities—most patients would exercise good judgment in their choice and would not be misled."<sup>22</sup>

In return, Morse countered with some statistics from a recent survey of 1250 people which revealed that 43 percent selected their physicians on the basis of the recommendations of trusted friends and



relatives; 26 percent, on the basis of the physician's manner and personality; 9 percent, on the proximity of his office; 8 percent, on his hospital affiliations; 5 percent, how much he charged; 4 percent, the ease of making an appointment; and 4 percent, whether he was in a group practice.<sup>23</sup>

The contents of even tombstone ads remains controversial—one eye surgeon has objected to the common use of the word "laser" close to statements about cataract surgery, since lasers are not used for this purpose and the public may be misled,<sup>24</sup> and two researchers pointed out that in the specialty listings of the Hartford Connecticut phone book, 12 percent of those listed as specialist were not board-certified.<sup>25</sup> Tombstone ads, however, are relatively less obtrusive and more easily objectively verified than other forms of marketing. A flashier form of tombstone advertising, the use of the various media to present essentially educational messages, without flagrant featuring of the speaker-writer of his clinic, is also widely condoned.

### Promises

Advertising which makes promises to patients is a more troublesome area of marketing. When these promises are made in non-print media, they are difficult to monitor.<sup>20</sup> Promises may often be negative; examples are warnings that "cataracts can hurt you," and "endanger your life" through automobile accidents.<sup>24</sup> While under most current state medical acts physicians and dentists can not make promises or claims to superior medical care,<sup>26</sup> professionals can promise "reasonable fees" and "personal, caring attention to you and your health care needs." These types of promises seem reasonable enough; extensive promises, however, may lead to difficulties and

may be deceptive if impossible to keep. Searle has recently promoted a "Patient Promise"<sup>27</sup> with these terms: if a doctor prescribes a Searle product and the product does not achieve the desired therapeutic benefits for that patient at any time, Searle will refund the patients's money.

If promises are extravagant enough, they may become unique selling propositions and may create unjustified health expectations (i.e., perfection). But many promises, like tombstone ads, are verifiable. For example, if a dentist promises same day walk-in service, patients can easily ascertain if the promise will be kept. If a health professional promises to keep his fee less than \$100 for a certain procedure the patient can find legal redress for the broken promise. While ads with various promises are more problematic than simple tombstone ads, one might argue that they favor the consumer and have relatively few adverse effects on professionalism. This is not the case, however, with unique selling propositions.

### Unique Selling Propositions

Ads which are unique selling propositions run the risk of crossing the line between providing information and "touting wares," between legitimate competition and commercial warfare. Such marketing devices focus on the uniqueness of the individual or institution, the use of breakthrough treatment, and the denigration of others.<sup>20</sup> Such advertising is primarily an attempt to gather business for one's self; if it results in the destruction of one's competition, the attempt is more successful than usual.<sup>28</sup> One dentist claims to be the most skilled orthodontist in a metropolitan area; one HMO claims to be "the only one for you." Marketing expert Robert F. Schlax has said that health profes-

sionals will have to establish their own "unique selling propositions" to define the specific market they want; they must find out what the market wants, package it, and deliver it at a fair price.<sup>20</sup>

Many ads stop just short of the unique selling proposition mark. Advertisements for liposuction, face lifts, permanent eyeliner, and radial keratotomy (multiple deep corneal incision to reduce myopia) in medicine and various forms of non-indicated cosmetic work in dentistry are examples of this powerful advertising ploy: in order to attract people in a unique fashion, one often has to make them want something that they don't necessarily need. It is difficult to reconcile this element of advertising with the goals of health—to reduce suffering and cure disease.<sup>24</sup> Furthermore, unique selling propositions run the risk of creating unjustified health expectations.

### Unjustified Health Expectations

Marketing techniques which aim at creating unreasonable health expectations are more likely to be "false or misleading in a material respect" than other forms of advertising. A material representation of fact which should not be omitted in either advertising or in informed consent discussion with a patient is that imperfection is common in health care and that tradeoffs are the rule; benefits bring risks, procedures have complications, medicines have side effects. In a sense, the Searle promise may be implicated as creating unjustified health expectations, if it creates the impression that Searle medication will always be effective. On the other hand, if the Searle promise is merely that in the many cases where the product is ineffective, money will be refunded, no unjustified health expectations are created.

While aesthetic appearance is important, purely cosmetic dentistry under the promise of a perfect smile creates unjustified health expectations. Similarly, the claim on the part of some eye surgeons that radial keratotomy is safe and effective would seem to be an example of unjustified health expectations, because 10 percent of those who undergo the procedure are dissatisfied with the results and up to a third complain of fluctuating vision one year after surgery.<sup>29</sup>

The use of shapely young women models in liposuction ads also may create unjustified health expectations for a perfect body sculpture. In dentistry as in medicine, the creation of unjustified health expectations does a public and professional disservice, leading to lawsuits by disgruntled patients, and placing unacceptable pressures on the health professional. Public expectations of dentistry and medicine are already excessive; the public expects only perfect babies to be born. Fueling these already unreasonable expectations seems medicolegally and professionally unwise and ethically inappropriate.

### Conclusion

The age-old battle between trade and profession in the healing arts continues; at the current time those on the side of Sophocles are winning. The question remains whether the consumer will benefit in the long run from all forms of advertising; to the degree that advertising results in deprofessionalization of dentistry and medicine, I would argue that both patient and doctor are harmed. Of course, not all advertising is bad, and within a competitive, capitalistic system a total ban on advertising, either covert or overt, represents a restriction on trade.

In the spectrum of advertising, ads which play upon the desire for physical perfection and manipulate our longings and fears are unverifiable and unprofessional; extensive promises are impossible to keep. Despite the strength of the FTC ruling,<sup>30</sup> sufficient professional autonomy remains in the health professions for us to discourage and censure unscrupulous practitioners and those who would disseminate improper or even harmful services to the public. Aristophanes must still have his part among us. I am convinced that somehow the caring tradition of our professions can survive even our current greed, competition, and advertising. We have been at this point before and the profession recovered; the art is long, and it will go on even after you and I rest under our final tombstone ads.  $\Delta$

### References

1. Biesterfeldt HH. Some opinions on the physician's remuneration in medieval Islam. *Bull Hist Med* 1984;58:16-27.
2. Aristotle Politics 1337 b14ff, b17ff.
3. Kudlien F. Medicine as a "liberal art" and the question of the physician's income. *Journ Hist Med* October 1976; 448-459.
4. Galen, *Quod optimus medicus* (n. 34), p. 4 line 13ff.
5. King LS. Medicine—trade or profession. *JAMA* 1985;253:2709-2710.
6. Dyer AR. Ethics, advertising, and the definition of a profession. *J Med Ethics* 1985;11:72-78.
7. Agich GJ. Professionalism and ethics in health care. *J Med and Phil* 1980;5: 186-199.
8. Friedson E. *Profession of Medicine*. New York: Harper and Row, 1970, p. 82.
9. Dummett CO. Bioethics and history: neglected essentials of modern dentistry. *Compendium of continuing education in dentistry* 1986;7:230-8.
10. Kramer MG. Professionalism and the principles of ethics: changing concepts in dentistry. *Pediatric Dentistry* 1980;2: 245-51.
11. Hirsh BD. Antitrust and medical ethics. *JAMA* 1983;250:2759-60.
12. United States of America before the Federal Trade Commission, in the matter of the AMA, the Connecticut State Medical Society, and the New Haven County Medical Association, docket no. 9064.
13. Costilo LB. Antitrust enforcement in health care: ten years after the AMA suit. *N Engl J Med* 1986;313:901-904.
14. ADA Council on Ethics, Bylaws, and Judicial Affairs, with official advisory opinions revised to June 1987.
15. Webster's New World Dictionary, 2nd ed, New York: Prentice Hall Press, 1986; p. 1411.
16. Schiedermayer DL. Hippocratic Oath—corporate version. *N Engl J Med* 1985; 314:62.
17. Purposes and Objectives of the American College of Dentists. Revision adopted October 10, 1980.
18. Mechanic D. Public perceptions of medicine. *N Engl J Med* 1985;312:181-3.
19. Few fresh smiles: Soviets find it hard to bear toothpaste shortage. *Milwaukee Journal*, October 4, 7A.
20. Korcok M. Advertising your services—a question of propriety. *CMA Journal* 1981;125:1026-33.
21. Morse LJ. Don't let fingers do the talking for you. *N Engl J Med* 1982;306:615.
22. Mathews M. Physicians in the yellow pages. *N Engl J Med* 1982;307:631-2.
23. Wolinski FD, Stiber SR. Salient issues in choosing a new doctor. *Soc Sci Med* 1982;16:759-67.
24. Margo CE. Selling surgery. *N Engl J Med* 1986;314:1575-1576.
25. Reade JM, Ratzan RM. Yellow professionalism: advertising by physicians in the yellow pages. *N Engl J Med* 1987; 316:1315-9.
26. Sherry J. Practice promotion can keep, boost patient base. *Am Med News*, April 3, 1987, p. 3.
27. Searle Patient Promise: 1987, G.D. Searle and Co.
28. Geist RW. Advertising in medicine—a physician's perspective. *N Engl J Med* 1978;299:483-6.
29. O'Day DM, Feman SS, Elliot JH. Visual impairment following radial keratotomy: a cluster of cases. *Ophthalmology (Rochester)* 1985;92:1788-9.
30. Johnson EP. An FTC view on codes of ethics: the legal limits for the 80's. *Journ of the American College of Dentists* 1983;50:10-13.



# GIES AWARD TO FRANK P. BOWYER, JR.

**Citation Presented by Regent Joseph P. Cappuccio**

The William John Gies Award was established by the American College of Dentists in 1939 in order to recognize Fellows of the College for outstanding service in dentistry and its allied fields. This award honors Dr. Gies, not only for his outstanding contributions to all facets of the profession of dentistry, but also serves as an index of appreciation and esteem for those Fellows of the College whose works have merited exceptional recognition. There have been sixty-six distinguished Fellows honored by this award. These sixty-six Fellows represent the most noble and dedicated among us and personify professionalism in the finest form.

The William John Gies Award for 1987 is being presented this year to three Fellows of the College in recognition of outstanding achievement.

Dr. Frank P. Bowyer, Jr. of Knoxville, Tennessee, has been selected for the William John Gies Award of the American College of Dentists for 1987. Dr. Bowyer has served as a Regent, Vice President, President-Elect and President of the American College of Dentists during some of the crucial times for the College.

Dr. Bowyer has served in practically every position in organized dentistry from the local level to the national and international level. His biographical and curriculum vitae measures like a who's who in world dentistry.

Dr. Bowyer completed his dental education at the University of Ten-



Frank P. Bowyer, Jr.

nessee, College of Dentistry in 1939 graduating with honors. He went on to advanced training in orthodontics and has limited his practice to orthodontics in Knoxville since 1942. He is a Diplomate of the American Board of Orthodontics. Dr. Bowyer has served organized dentistry in many ways through committees and special programs as well as through the various offices of local and national societies. He has held office as Speaker of the House of Delegates of the American Dental Association, President-Elect and ADA President. He was appointed by Governor Frank Clements in 1959 for a twelve year term to the University of Tennessee Board of Trustees and reappointed in 1971 for a nine year term. Dr. Bowyer was the "Dentist of the Year" in 1948, he was the "Young Man of the Year" Knoxville, Ten-

nessee, 1952, and he received the Distinguished Alumnus Award, University of Tennessee College of Dentistry, in 1973. The Mayor of Knoxville appointed Dr. Bowyer to the Board of Directors to plan, produce and operate the Knoxville Health Pavilion of the 1982 World's Fair. The dental health exhibit, planned, organized and chaired by Dr. Bowyer, was viewed by approximately six million adults and children. Components are now on exhibit in the Museum of Science and Industry in Chicago.

Dr. Bowyer is now serving his third term as Vice President of the Federation Dentaire Internationale. He has been honored and cited by some of the most prestigious dental organizations in the world.

Dr. Bowyer relates to all segments of our profession both young and old, national and international leaders. He symbolizes all that is good and decent as a highly, ethical professional. He personifies the essence of professionalism and southern gentleman. Dr. Bowyer has given a lifetime of total dedication and service to his profession, community and nation.

His most lasting and worthwhile contribution is as a role model for all who know him to try to emulate in both professional and personal life. Dr. Bowyer is truly a legend in his own time.

Mr. President, it is a distinct pleasure and an honor for me to present Frank P. Bowyer, Jr. to you for the William John Gies Award of the American College of Dentists. Δ



## GIES AWARD TO LYNDEN M. KENNEDY

**Citation Presented by Regent W. Robert Biddington**

Dr. Lynden M. Kennedy, private practitioner in Dallas, Texas, is to be recognized with the William John Gies Award of the American College of Dentists for his outstanding and untiring service to his profession and to organized dentistry. He has served as a lecturer, clinician, and has frequently been the speaker for public relations functions for dental organizations. He has been President of the American College of Dentists, the American Dental Association, the Texas Dental Association, the Dallas County Dental Society, and the Texas Academy of General Dentistry. He has given many years of service to the Texas State Board of Dental Examiners and in the last several years has served as its President.

Dr. Kennedy was born in Davis, Oklahoma, on January 31st, 1917. His father was a dentist who began his practice in Indian territory before the turn of the century. Dr. Kennedy had five brothers all of



Lynden M. Kennedy

whom studied and practiced dentistry. Additionally, there are two sisters; one of whom married a dentist.

Among his many professional honors are the William Jarvie and Harvey J. Burkhart Award of the

Dental Society of the State of New York, Distinguished Alumnus Award of Baylor College of Dentistry, the Al Borish Award of the Academy of General Dentistry, and election to the Hall of Fame of the Baylor College of Dentistry. He was elected Dentist of the Year by the Dallas County Dental Society in 1973 and Dentist of the Year by the Texas Academy of General Dentistry in 1978. Dr. Kennedy is serving as a very active member of the Board of Trustees of the Baylor College of Dentistry and has served three terms as its Chairman. He is a director of the Blue Cross-Blue Shield of Texas and advisory director of M/Bank Preston.

Dr. Kennedy is married to Jimmie Olinger and they are the proud parents of two children.

Mr. President, it is a pleasure and honor for me to present Dr. Lynden M. Kennedy to you for the William John Gies Award of the American College of Dentists. △

## GIES AWARD TO RUSSELL I. TODD

### Citation Presented by Regent Albert Wasserman

Versatile researcher and scientist; able author; recognized leader and practitioner in the field of dentistry; the distinguished son of Madison County whose career of professional and public service is an inspiration to all who would seek to improve the quality of life. This describes Dr. Russell I. Todd, 1987 Gies Awardee for the American College of Dentists. These words were first used at Eastern Kentucky University in 1973 to describe Dr. Todd in recognition of his able leadership and noteworthy contributions in advancing the standards of dental education, in promoting the national level of qualifications for dental practitioners and in unifying the methods and procedures of the Boards of Dental Examiners within the several states.

Dr. Todd has been engaged in the general practice of dentistry in Richmond, Kentucky since 1924. It was while serving as Executive Director of the Kentucky Board of Dentistry that he had some contact with every dentist in the state. He became disturbed by reports about serious tissue damage to several dentists from excess radiation. During the mid-twenties the so called shock proof x-ray machines made their appearance. However,



Russell I. Todd

what the dentist did not know and was not told was that it did not eliminate x-ray hazards. Through a lifetime friend who headed the Physics Department at nearby Berea College and by obtaining funds through a grant from General Motors Corporation, he became actively involved in a research project designed to eliminate the hazards of dental X-radiation. It was shown that some dentists were receiving

x-ray dosages above the safe amount. The report of this project was published in the JOURNAL OF THE AMERICAN DENTAL ASSOCIATION in December, 1955, and presented in an address given at the Indiana Medical Center in November 1956. This research demonstrated the serious hazards if x-ray machine safety procedures were not followed.

Dr. Russell Todd is a man of wide and varied accomplishments. He has written articles of historical nature for the RICHMOND DAILY REGISTER as well as for other historical publications. He has written and published several books. He was Vice President of the American Dental Association in 1960-1961. He received a Doctor of Humanities Degree from Bethany College in 1975 and a Doctor of Laws Degree from Cumberland College in 1982.

Todd Hall is a twelve-story skyscraper dormitory at Eastern Kentucky State College housing more than 300 students. This building was named in honor of Dr. Russell Todd. Mr. President, it is a pleasure and an honor for me to present Dr. Russell I. Todd to you for the William John Gies Award of the American College of Dentists. Δ

# HONORARY FELLOWSHIP FOR LEON SINGER

**Citation Presented by Regent Thomas W. Slack**

From time to time the American College of Dentists confers Honorary Fellowship upon persons who are not members of the dental profession but have contributed in an outstanding manner to the advancement of the profession and to its service to the public. These contributions may have been made in education, research, administration, public service, public health, medicine and many others. This year it is a special privilege for the College to confer Honorary Fellowship upon an individual whose contributions have been in research and education: Leon Singer, Professor of Biochemistry at the University of Minnesota, Minneapolis, Minnesota.

He was appointed to the University of Minnesota as an instructor in physiological chemistry in 1949 and has continued through the ranks as assistant professor, associate professor, the Hill Professor for Basic Dental Research, and professor. Dr. Singer is world renowned for his research efforts in the entire field of fluoride biochemistry. His early work in fluoride chemistry and physiology at the University of Minnesota was with Dr. Wallace D. Armstrong, also an Honorary Fel-



Leon Singer

low of the American College of Dentists. Dr. Singer's accomplishments in fluoride research brought national and international recognition to the School of Dentistry and the University of Minnesota. In addition to his research and teaching, Dr. Singer has become a prolific contributor to the school as a member of many committees and

other operational activities. He has published over 250 articles and has participated in numerous scientific organizations and endeavors, both nationally and internationally. He has lectured widely locally and abroad.

Dr. Singer and his colleagues are currently working on a number of different projects today including the examination of factors influencing the biochemical, physiologic and nutritional effects of fluoride as well as the forms and concentration of fluoride in body fluids, soft tissue, and calcified tissues.

Dr. Singer has been very active in his professional organizations and has held many significant positions including an appointment to the National Institutes of Health Dental Study Section and the Subcommittee of the National Research Council of Fluorosis. He has been chairman of the Advisory Committee on Mineralization for the National Institute of Dental Research and a member of the American Dental Association National Fluoridation Committee.

Mr. President it is an honor to present Dr. Leon Singer for Honorary Fellowship in the American College of Dentists.  $\Delta$



## AWARD OF MERIT TO JO CLARK

### Citation Presented by Regent George L. O'Grady

The supporting services of dentistry are universally recognized as being very important to the mission of the professional. From these derive many of the elements that enhance the effectiveness of dentistry for the delivery of care and the management of its own affairs. The Award of Merit of the American College of Dentists was established by the Board of Regents on February 8, 1959, in order to recognize unusual contributions made towards the profession of dentistry and its service to humanity by persons who work with the profession in common purpose but are not Fellows of the College.

Mrs. Jo Clark has been selected for the Award of Merit for 1987. Mrs. Clark recently retired as the Executive Secretary to the Executive Director of the American College of Dentists where she served for over sixteen years. Mrs. Clark came to the American College of



Jo Clark

Dentists in 1970 on a temporary assignment from an agency in Bethesda, Maryland, and agreed to stay on to become the Executive Director's secretary and right hand until her retirement in 1986.

A native Missourian, Mrs. Clark has contributed significantly to the

growth of the American College of Dentists. She has been involved in almost every activity that this College has pursued in the period from 1970 through 1986. During this time she processed over 8,000 nominations for new Fellows and supervised the affairs of the College in almost every aspect. She became known from coast to coast and provided great stability for the administrative affairs of the College. Her dedication and great efficiency contributed to the success of the management of the affairs of the College. She served the College well. In honoring Mrs. Clark, the American College of Dentists gives recognition to an outstanding service to the profession with the highest degree of dignity and efficiency.

Mr. President, it is a pleasure and an honor for me to present Mrs. Jo Clark to you for the Award of Merit. Δ

# DENTISTRY AND THE DENTAL TRADE WORKING TOGETHER

**Bernard J. Beazley\***

I am here this morning as a representative of the American Dental Trade Association, a trade association including in its membership both the manufacturers and the distributors of dental equipment and supplies here in the United States. We in the dental industry recognize that the American College of Dentists is a pre-eminent professional member of the dental community and we welcome this opportunity to participate in your discussion of the maintenance of ethical standards in the provision of dental care to the American public. The American Dental Trade Association congratulates the members of the College for their historical and current interest in the development, promulgation and discussion of ethics in dental practice. That interest is evidenced by the recent revision of the code of conduct, its republication in a recent issue of *News & Views* and in this panel discussion this morning. If a man may be judged by the quality of his friends and associates then the continuing *leadership* role of the American College of Dentists in the dental community will surely be measured by the quality of its members and their dedication in their professional activities to the standards set forth in your code of conduct.

It has been almost a year since your Program Chairman, Dr. Jim Harrell, and your Executive Director, Dr. Gordon Rovelstad, discussed with me the format of



Bernard J. Beazley

today's program. Particularly in this Las Vegas environment where time and judgment come together on a roll of the dice and the turn of another card, I think Jim and Gordon should be congratulated on the perceptiveness with which they identified twelve months ago a topic that this morning enjoys such prominence in the public and professional media. During the past year, the American public has been inundated in an extraordinary way with newspaper, magazine, radio and TV reports on ethics and the observance thereof, or more correctly, the apparently and distressing unethical conduct of many prominent figures in business, government and the pulpit.

Many of you probably read the Time magazine cover story entitled "Whatever Happened to Ethics" and wondered with the Time writers whether recent reports of hypocrisy, betrayal and greed have

unsettled the nation's soul. For example, shortly after the college met in Miami Beach a year ago, Ivan Boesky, described by Time as the "Dean" of the Wall Street arbitrage community, pleaded guilty to trading on insider information in some very significant securities transactions and agreed to pay a staggering fine. Most of us, whether believers or not, were stunned by the testimony of the charismatic Lt. Colonel Oliver North and a host of other prominent figures involved in the Iran/Contra hearings. Somewhere in this time of revelation, we became acquainted with Donna Rice and learned of her relation with presidential candidate Gary Hart. When I wrote this draft, Senator Joe Biden, another presidential candidate, was identifying the real "ghost writers" of some of the extraordinary passages in his campaign speeches. Eventually, the chairman of the senate's judiciary committee admitted to plagiarism and duplicity just as that chairman and his senate committee sat in judgment on the confirmation of Justice Robert Bork. During the past year, we also learned with considerable dismay that some of our trusted Marine guards at the Moscow embassy may have traded government secrets for soviet sex. And then, for many the most distasteful news of all, the charges and counter-charges that led to the removal of Jim Bakker from his TV pulpit because of a dalliance with Jessica Hahn. Back home in the land of Lincoln and particularly in dear old Chicago, there are almost daily reports in the public media of the bitter, bitter fruit harvested from "Operation Greylord", the federal investigation of judicial cor-

\*Presented on October 9, 1987 at the Annual Meeting of the American College of Dentists by Bernard J. Beazley, Chairman, Professional and Laboratory Relations Committee, American Dental Trade Association.

ruption in the courts of Chicago-land. By early summer 1987, Operation Greylord had resulted in 65 indictments. So far, eight judges are among the 55 lawyers, police officers and court officials who have been convicted—and there is much, much more to come. And to add to our professional and civic distress, in early September, a former governor of the state of Illinois, Dan Walker, filed a motion in the Supreme Court of Illinois seeking voluntary disbarment following his guilty plea in a bank fraud case.

Against this background we note with special interest in a recent edition of the ADA News that the ADA board of trustees has approved a supplemental appropriation of \$132,000 "That will allow the Division of Members and Marketing Services to proceed with research for a national marketing and communications program" which will "...include a nationwide print and broadcast media advertising campaign, which the trustees intend to be funded largely through corporate sponsorship." So, with all of this in the public and professional media, our effort this morning at examining the maintenance of ethical standards in today's dental practice is most timely and appropriate.

I have been asked by your program chairman to review the historical evolution of the relation between your profession and the dental industry and to suggest how that relationship affects the practice of dentistry. By way of background, I thought it would be helpful to begin that assignment with a description of the American Dental Trade Association (ADTA), its members, its size in the domestic industry and to identify for you the

objectives of the Association. Much of what follows is taken from various ADTA publications.

The American Dental Trade Association is the oldest and largest trade association representing the dental industry in the United States. ADTA has been in continuous operation since 1882. ADTA membership includes both the manufacturers and the distributors of the supplies and equipment that are used in your dental offices, the dental laboratory, the dental school and by the federal dental services.

In terms of current size, the 1986 sales of the dental industry in the United States at the manufacturing level are estimated to have been 1.2 billion dollars. At the retail level, 1986 sales are estimated to have been 1.3 billion dollars. At the manufacturing level it is estimated that two-thirds of those sales were achieved by ADTA member companies and at the retail level, 70% of those sales were made by ADTA distributors.

The objective of the American Dental Trade Association as stated in its articles of association is to "promote and encourage the development, production and distribution of equipment and materials for the dental profession, dental schools and laboratories so as to enable its members to perform the highest degree of useful service for the public health and welfare". To achieve that objective, ADTA collects and disseminates statistical and other information which will assist each ADTA member in the conduct of its business and in making its independent, individual business decisions. ADTA is headquartered in its own building in Alexandria, Virginia, just south of Washington, D.C. The ADTA staff,

though just five in number, has an aggregate of 75 years of experience in association management, in market research, statistics, sales training, meeting planning, government and congressional relations and, of course professional liaison. The policy making body of the Association is a sixteen member board of directors chosen from both manufacturers and distributors. Additionally, the chief executive officer of the Association, Nik Petrovic, serves on the board in an ex-officio capacity. As with most associations, ADTA relies on the volunteer efforts of its individual members. Approximately 125 members now serve on one or more of the Association's seventeen committees. Many of the ADTA committees have titles and functions similar to those of your professional associations: for example, ADTA has an annual meeting program committee, a budget and finance committee, a membership committee, an exhibits committee, etc. I have been involved in one capacity or another with the ADTA Professional and Laboratory Relations Committee for more than thirty years. For about five years prior to 1960 I was a staff attorney for the American Dental Association and was the primary staff contact between your profession and the domestic dental industry, meeting regularly in that capacity with the ADTA P.&L. R. Committee. Since 1960, I have served either as a member or as chairman of the P.&L. R. Committee.

The Professional & Laboratory Relations Committee has the responsibility "to develop and make more effective" the relations between ADTA and the national organizations representing the den-



tal profession, the dental laboratories, the dental auxiliaries and dental education. To say it another way, the P.&L. R. Committee is responsible for maintaining liaison between the dental industry and the national organizations which represent the other members of the dental family.

As to the American College of Dentists, in recent years we have had several opportunities to meet with your Executive Director, Gordon Rovelstad, in our continuing effort to assure effective communication and liaison between ADTA and the College. Be assured, we welcome the opportunity to work with Dr. Rovelstad in our common effort to more effectively serve the dental needs of the American public.

The relation between your profession, as represented by the American Dental Association, and the dental industry, as represented by the American Dental Trade Association, has not always been a "thing of beauty and a joy to behold". In their admirable text, "The Hillenbrand Era", Cliff and Lois Dummetts have correctly identified the speech made by Dr. Harold Hillenbrand at the 1955 Annual Meeting of the American Dental Trade Association in Sun Valley, Idaho as the turning point in ADA-ADTA relations.

Mr. Chairman, I must depart from my text at this point for just a moment to express the gratitude of all members of the dental family to the Dummetts and to the Officers of the American College of Dentists and its Foundation responsible for the publication of "The Hillenbrand Era". The Dummetts, supported by the college, have preserved for all of us some of the remarkable episodes in the career of a unique

man, my dear friend, Harold Hillenbrand. For this, we all say "thank you"!

As the Dummetts so accurately describe it, at the time of the Sun Valley speech in 1955, "tense, unsettled, inimical relations had long existed between the dental profession and industries responsible for manufacturing, selling and distributing equipment, instruments, and supplies essential to the practice of dentistry. The obvious interdependence of the two antagonists made the adversative relationship all the more noteworthy." According to the Dummetts, neither party was ready to "... recognize that it could not flourish and prosper without the other."

"Hillenbrand recognized that the degree of hostility between the ADA and the ADTA would be amenable only to a drastic solution." When Harold was invited to speak at the 1955 Sun Valley Meeting, contrary to the advice of close associates, Harold "... decided to prepare a blunt, stern discourse tracing the steps of discord, laying bare the elements of strife, and charting the directions toward cooperation and conviviality." In his Sun Valley speech, Hillenbrand pointed out "... that the dental trade and dentists were full partners in providing the resources to achieve adequate dental health services for the American people. He insisted that both were necessary because dentists were no more competent to manufacture dental supplies and equipment than were dental industrialists qualified to treat patients. Harold stressed a mutual responsibility in delivering more and better dental care to more Americans, and concluded that the prosperity of the dental

industry was closely bound to the growth of the dental profession and its auxiliaries." The Dummetts conclude that one of the primary results of Hillenbrand's Sun Valley speech was that a "... collision between the two organizations (ADTA and ADA) was averted and ultimately improved relations ensued." The Dummetts also correctly attribute the improvement in those relations not only to Hillenbrand's leadership but also to the "constant and sincere efforts of Dr. Walter E. Dundon, then the chairman of the ADA's Council on Dental Trade and Laboratory Relations...", and to Henry M. Thornton and Vernon W. Rooke, who both served on the ADTA Professional and Laboratory Relations Committee in the years immediately following the Sun Valley Speech. Later, both Thornton and Rooke served as Presidents of ADTA. There were a number of others who also served in the common effort to achieve cooperative relation between profession and industry. Among your colleagues, Jerry Timmons deserves special mention, as do Harry Lyons and Maynard Hine. In all events, by the time the ADA celebrated its centennial at the Waldorf Astoria in 1959, cordial and effective relations between ADA and ADTA had been achieved and have been maintained and enhanced during the intervening years.

Essentially, the ADTA Professional & Laboratory Relations Committee seeks to achieve its primary objective of good relations by cooperative communication with the profession, the schools and the auxiliaries. We try to keep in touch by telling ADA, AADS and today the American College of Dentists, who we are and what we represent, and

we make a diligent effort to obtain the same information from our brethren in the dental community so that the results of our mutual efforts in communication may be informed, cooperative action by all members of the dental family.

Now just an example or two of how this effort at communication and liaison has been translated into constructive programs during the three decades since Hillenbrand spoke to the ADTA at Sun Valley.

One of the first fruits and probably the most notable result of the improved relation between ADA and ADTA was the co-founding of the American Fund for Dental Education (now the American Fund for Dental Health), with the support and active participation of prominent members of both ADA and ADTA. Through the years, ADTA and its member distributors and manufacturers have contributed more than \$5,000,000 in support of Fund activities. Annually, ADTA conducts a campaign among its members which usually produces contributions in excess of \$250,000 in support of the Fund. As you may know, the board seats at the Fund table are now apportioned equally among representatives of the ADA, the AADS, and ADTA.

At the ADA Meeting which will begin here in Las Vegas tomorrow, you will enjoy another benefit from the improved liaison between profession and industry that began at Sun Valley in 1955. Through the years since Sun Valley and, in particular, during the past ten years, the ADA Council on Annual Sessions and the ADTA Exhibits Committee have worked and planned together to structure a more efficient and productive commercial exhibits program at each ADA An-

nual Meeting. This kind of cooperative endeavor also occurs between ADTA and the professional societies which host other large dental meetings, such as the Chicago Mid-Winter Meeting, the Greater New York Meeting, the Hinman Dental Meeting, the Yankee Dental Congress, the California Meeting, etc. Just as an aside it might be interesting for you to know that ADTA now estimates that between 30 and 40 million dollars are invested annually by manufacturers and distributors in the support of commercial exhibits at national, regional and local dental meetings.

Time does not permit a complete enumeration of other programs supported by ADTA or by its member companies in the continuing effort to demonstrate that the dental industry is a participatory member of the dental community. Through the years, ADTA member companies have supported the Options Program, the development and promulgation by AADS of teaching guidelines in practice administration, the 1983 ADA closed circuit TV practice management seminar, etc. About a year ago, ADTA enlisted in the Select program, the joint effort being orchestrated by ADA and AADS to encourage highly qualified undergraduate students—"the best and the brightest"—to choose dentistry as a lifetime career.

So much for history. Now back to ethics.

My fellow panelists have or will distinguish ethics from law and comment on the need to do good and avoid evil not only within the context of statutory mandate but within the context of a professional code of ethics. In "Dentistry, A Health Service" the "Guide To

Professional Conduct" published several years ago by the College I note that your code of conduct is said to be "... not a law but a standard by which a dentist may determine the propriety of all conduct in one's relationship with patients, with colleagues, with members of allied professions and with the public."

Those of us who are engaged in commercial enterprise: i.e. the making and selling of dental equipment and materials for a profit, also attempt in every sense to do good and avoid evil in our mercantile endeavors. We are assisted considerably in our entrepreneurial efforts, at least here in the United States, with guidance furnished by the corporation acts and other laws of the states wherein we are incorporated and do business and also by the Justice Department and the Federal Trade Commission through their application to us of that body of laws known generally as the "anti-trust laws". Although those of us who are engaged in interstate commerce—and most of us are—are also subject to a host of other rules and regulations emanating from the Federal Food & Drug Administration, the Equal Employment Opportunity Commission, the Occupational Safety and Health Administration, etc., etc. The primary federal statutory restraints imposed on the business conduct of those of us who are engaged in competitive, commercial endeavor flow from the anti-trust laws. That body of law prohibits, among other things, agreements between or among members of the industry to fix or maintain the prices, discounts, terms or conditions of sale for any kind of dental goods. The anti-trust laws also prohibit manufacturers



and distributors from certain agreements regarding territorial restrictions. To say that another way, arrangements between one member to confine its sales to a particular state or county if a neighboring member will follow similar limitations are taboo! One more anti-trust proscription—ADTA may not require its distributor members to buy only from ADTA manufacturers or contrary-wise require ADTA manufacturer members to sell only to ADTA distributors.

There are other anti-trust law restrictions but, in summary, because of legal strictures, there are no association policies with respect to business practices. ADTA publications emphasize that "... no association rules or regulations exist which in any way affect the freedom of any member to adopt any company policy he so desires, and to choose those with whom he wants to deal".

Although there are not and cannot be any association policies mandating the observance of particular business practices, there are ADTA companies which do have corporate codes of conduct that attempt to spell out in some detail the do's and don'ts of corporate conduct for their officers and employees. For example, the Dentsply Statement of Policy deals with subjects such as conflicts of interest, the use or disclosure of confidential information, the improper personal use of corporate property, the improper personal use of the services of corporate employees, the giving or receiving of gifts, the provision or acceptance of entertainment, etc., etc. Because of the basic distinctions between a profession and a for-profit commercial enterprise,

those of us in the industry must march to a different drummer than you in the profession. Our drummer beats out the constant theme of "compete, compete, compete"—and, if you wish to survive, "compete for a profit". And all this must be accomplished in an environment, frequently challenging, if not hostile, of a host of statutes, rules and regulations from which, for the most part, thank God, you are spared. However, as my fellow panelist, Mr. Sfikas, has just indicated, the profession is being drawn more and more into the morass of federal regulation.

To summarize, the manufacturers and distributor members of the American Dental Trade Association have made and will continue to make a good faith effort to cooperate effectively with you and your professional colleagues in your efforts to better serve the dental health needs of the American public. We attempt to do this by maintaining liaison or professional relations between ADTA and the national organizations, including the American College of Dentists, which represent the other members of the dental family. In this endeavor we long ago recognized that every family must have a leader, every team must have a captain. We in the industry agree that in the area of delivery of health care services the leader of the dental family, the quarterback of the dental team, must be the dental profession. The profession should call the signals and we in the industry will do our best to help you carry the ball. But, please, consult with us before you call the next play, especially in those areas of mutual interest. For example we joined

forces with you long ago in creating and supporting the American Fund for Dental Health. More recently, the dental industry has supported your Options Program. Now we have enlisted in the Select Program as members of the industry are vitally interested too in attracting "the best and the brightest" young people to your profession. Through the years, ADTA companies have worked cooperatively with the American Dental Association and other professional societies to make more effective commercial exhibits, product advertising and quality standards. I know that the Commercial Exhibits Program of the ADA meeting here in Las Vegas will be better for you and more productive for my brethren in the industry because of the years of dialogue between the ADA Council on Annual Sessions and the ADTA Exhibits Committee. Let's keep up that dialogue!

The ADA, apparently, is about to explore again the advantages of a national marketing and advertising program. Can the industry help? I think so. Remember, ADTA manufacturers and distributors have been advertising and marketing their goods to you for more than one hundred years. Why not ask us to share our experiences with you?

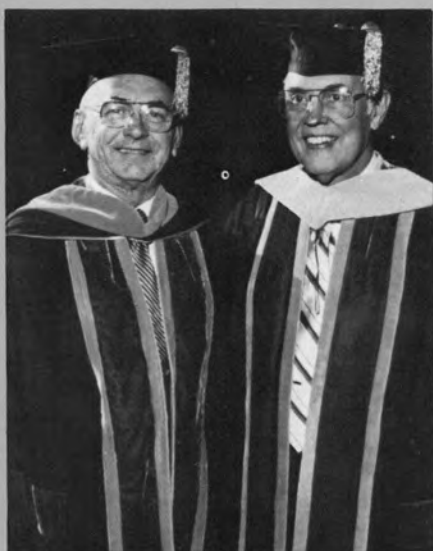
In all events, we in the American Dental Trade Association stand ready to help and we intend to continue our efforts to provide you and your fellow professionals with the very best in equipment and materials to better enable you "to perform the highest degree of useful service for the public health and welfare". Δ



# 1987 Convocation—Las Vegas



The officers of the American College of Dentists for 1987-1988: left to right are Immediate Past President H. Curtis Hester, Editor Keith P. Blair, Vice President W. Robert Biddington, President Robert W. Elliott, Jr., President-Elect James A. Harrell, Sr., and Executive Director Gordon H. Rovelstad. Not pictured is Treasurer Robert C. Coker.



Incoming President Robert W. Elliott, Jr., left and President-Elect James A. Harrell, Sr.



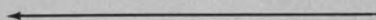
New Fellows and their sponsors march across the stage to receive their certificates from President H. Curtis Hester



Mace Bearer Jose E. Medina



Clifton O. Dummett gives the invocation.



Convocation speaker James L. Bomar, Jr.



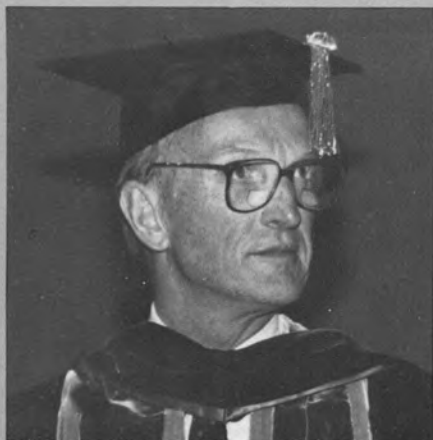
Torch Bearer Anthony La Forgia



Recipients of the Gies Award: Left to right. Russell I. Todd, Frank P. Bowyer, Jr., and Lynden M. Kennedy.



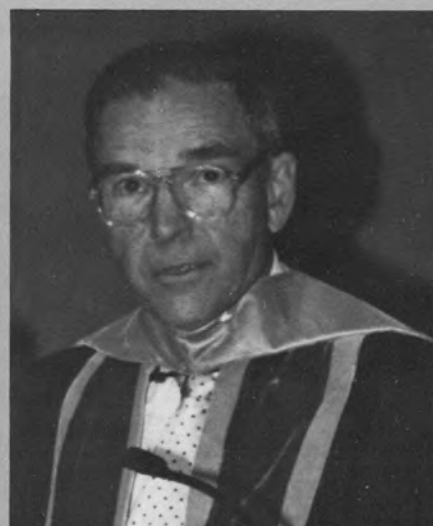
Marshal Robert E. Doerr and Assistant Marshal Chris C. Scures prepare the start of the Convocation procession.



Gordon H. Rovelstad reads the role of new Fellows.



Arthur L. Lundblad presents the Orientation Program.



President H. Curtis Hester at the Convocation rostrum.



President H. Curtis Hester, right, with his brother Flag Bearer Warren R. Hester.



Award of Merit recipient, Jo Clark, poses with President H. Curtis Hester.



Flag Bearers lead the procession: Warren R. Hester, left, and Geraldine T. Morrow.



Leon Singer, left, receives Honorary Fellowship from President H. Curtis Hester.



## Symposium on Maintaining Ethical Standards in Today's Dental Practice



Program participants in Symposium on Maintaining Ethical Standards in Today's Dental Practice: left to right Michael L. Perich, Bernard J. Beazley, David L. Schiedermayer, Moderator Ben D. Barker and, at the rostrum, Peter M. Sfikas.

## Section Representatives Meeting



President-Elect Robert W. Elliott, Jr., explains the ADA Select Program



H. William Gilmore speaks on the role of Sections in promoting ethics and professionalism.



Meeting Chairman Ralph R. Lopez addresses the role of Sections in promoting involvement in organized dentistry and government.



Regent Joseph P. Cappuccio reports plans to hold ACD Regional Leadership Conference.



ACD Associate Editor for Section Activities and News of Fellows Prem S. Sharma invites reports from the Sections on meetings and events for publication in the ACD Journal.



James G. Jackson covers the role of Sections in student, faculty and state society relationships.



Regency 1 Representatives



Regency 5 Representatives



Regency 2 Representatives



Regency 6 Representatives



Regency 3 Representatives



Regency 7 Representatives

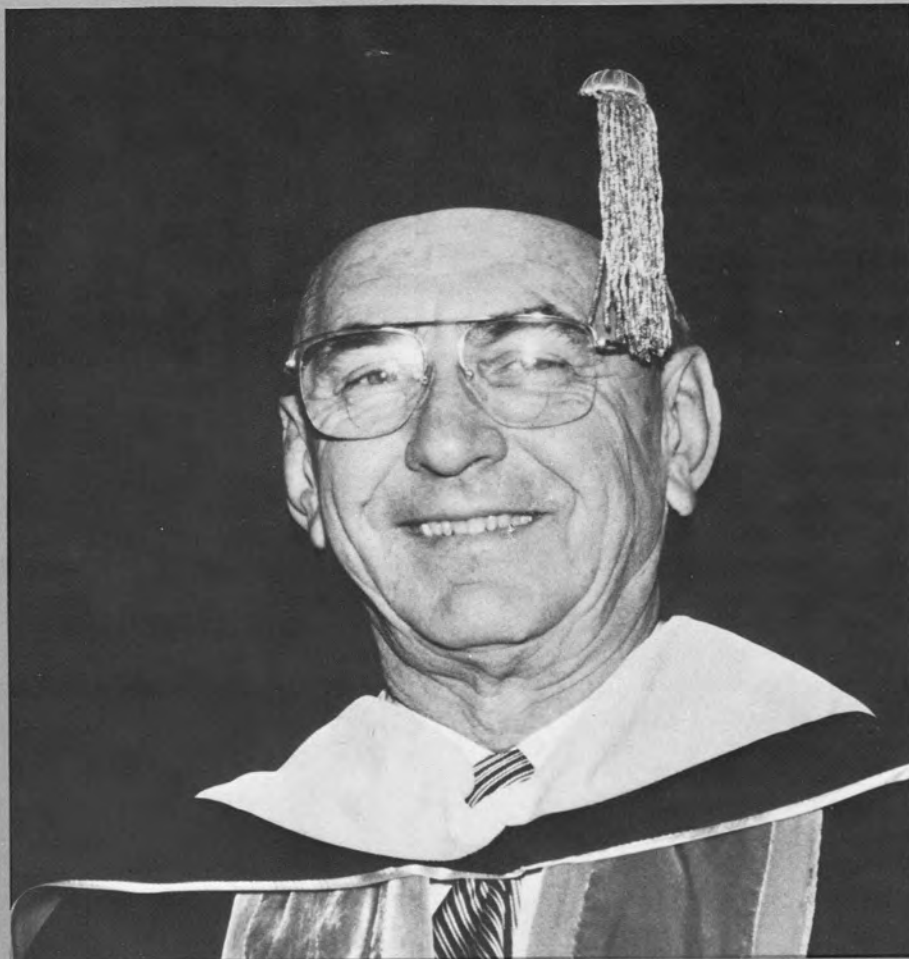


Regency 4 Representatives

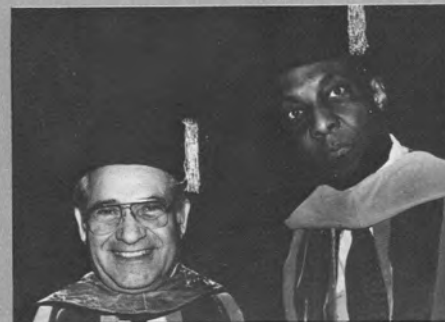


Regency 8 Representatives

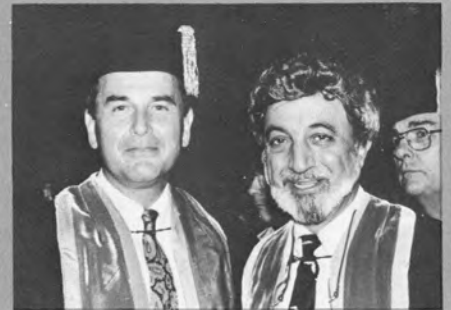
# Faces In The Crowd



1987-1988 ACD President Robert W. Elliott, Jr.







# HIGHLIGHTS FROM REGENT REPORTS

*A condensation of comments, highlights, projects and special events as reported in the comprehensive Regent Reports to the ACD Board of Regents on October 6, 1987*

## Regency 1: George L. O'Grady

At the New York Section Meeting, Dr. Edward C. McNulty eulogized the passing of Malcolm W. Carr who had been President of the American College in 1944-45. The Western New York Section held a dinner-cruise on Skanenteles Lake. Dr. Joseph DiStasio, Speaker for the ADA House of Delegates, spoke to the New England Section on the ADA's role in the future of the Dental Profession.

It is appropriate to comment also on the ready assistance and knowledgeable approach to solving problems provided by our Executive Director, Gordon Rovelstad and to his able management of our Central Office.

## Regency 2: Joseph P. Cappuccio

One of our stronger Sections, the Metropolitan Washington Section heard Congressman Phillip M. Crane of Illinois at its annual ACD-ICD Breakfast. Another strong Section is Maryland which holds several meetings a year, including its very successful American College of Dentists Student Day at the dental school. Section members volunteer to present table clinics for the students.

New Jersey is another very active and successful Section. Its program for placement of graduating seniors from New Jersey dental schools is unique and functioning well.

A European Section of the American College has been formed and the first organizational meeting was held in conjunction with the American Dental Society of Europe Meeting in Interlaken, Switzerland.

## Regency 3: Chris C. Scures

The Carolinas Section was addressed by ADA Trustee Dr. James Gaines and a senior dental student from each of the dental schools at North Carolina and South Carolina Universities was honored. The Florida Section presented its Professionalism Award to a senior dental student.

The philosophy of the College is to seek deserving dentists for Fellowship and awards. Every Fellow in this College should feel that his life has been enriched by having been selected and invited for Fellowship.

## Regency 4: W. Robert Biddington

The Illinois Section holds three meetings a year, including its annual Chicago Midwinter Luncheon with many VIP's present. On this occasion, the Section presents an Award of Merit to one student from each of the four Illinois Dental Schools with a certificate and a monetary award of \$400. The Illinois section's one-year, one-person clinical fellowship program has completed its first year: the internship is a clinical experience that covers all specialty areas except pediatric dentistry and is particularly concerned with the care of the geriatric patient.

The Kentucky Section presented its American College Leadership Awards to one student from each of the dental schools in Kentucky: the University of Louisville and the University of Kentucky.

## Regency 5: Robert E. Doerr

All Sections in Regency 5 are active and viable and collectively nominated 37 candidates who have been accepted for Fellowship in the College.

The Iowa Section is working with the dental school in the recruitment of qualified students by contacting high school counselors and acquainting them with the facts regarding dentistry as a career.

The Upper Midwest Section is exploring special activities it might undertake to commemorate the 100th anniversary of the University of Minnesota School of Dentistry in 1988. The Section continues its active participation in the dental school's program on ethics and professionalism.

## Regency 6: Robert E. Lamb

The newly formed Arkansas Section is developing into a very active one and is undertaking some outstanding projects. It had an ACD-ICD breakfast meeting with Major General Lefler of the U.S. Army Dental Corps as a speaker.

The Mississippi Section will present an Ethics Award to a deserving member of the faculty at the U. of Mississippi Dental School. The Texas Section sponsors its annual Continuing Education program jointly with the three Texas dental schools, rotating the meeting from school to school each year. It is open to all dentists free of charge. The Section nominated 26 new Fellows this year.

## Regency 7: Thomas W. Slack

There is a keener interest in the Section activities than in the past. That is because of an increase in the importance placed on the activities by Fellows of the College. In light of the many controversial activities of dental professionals in the areas of advertising, continuing education and lessening support of organized dentistry, the Fellows of the College feel more strongly identified with the College and its goals.

## Regency 8: Albert Wasserman

The Washington-British Columbia Section met in Vancouver, B.C. at the British Columbia Club. The speaker for the meeting was the Honorable Chief Justice of the British Columbia Supreme Court, Nathan T. Nemetz.

The Northern California Section recognized and honored its 19 Satellite chairmen who are area leaders serving as a communication network within the Section and who keep in touch with all Fellows in their area by telephone. Information can be dispersed to the membership or it can be gathered from the membership through the Satellite system.

# DENTISTS' ATTITUDES CONCERNING INFECTION CONTROL AND OCCUPATIONAL HEALTH HAZARDS

Philip Yablon\*  
Ruth S. Spiegel\*\*  
Michael C. Wolf\*\*\*  
Kenneth P. Maykow\*\*\*\*

A version of this paper was presented at the annual meeting of the International Association for Dental Research, March 12, 1987, Chicago, Illinois

## Introduction and Background

The potential for the spread of infection and concern about occupational safety in the dental office have become important issues among dentists. Dentists, auxiliaries and patients are all at risk of contracting and/or spreading diseases related to dental procedures. Environmental concerns such as radiation dangers, nitrous oxide exposure, and mercury poisoning have also received attention and publicity in recent years.

Infection control aroused renewed interest in 1960 when the American Dental Association expressed serious concern about hepatitis B.<sup>1</sup> Reports published between 1975 and 1978 emphasized

the risk of hepatitis B and included recommendations such as wearing gloves and masks when treating patients.<sup>2,3,4</sup> In 1985, to minimize the threat of infectious diseases such as hepatitis B, tuberculosis, and herpes simplex type I and type II, the ADA issued guidelines for infection control measures in the dental office and the commercial dental laboratory.<sup>1</sup> On April 18, 1986, the Centers for Disease Control (CDC) issued recommendations covering AIDS and other diseases that may be spread by blood and saliva.<sup>5</sup> The CDC included recommendations on chemical disinfectants and sterilants as well as a guide for sterilizing and disinfecting dental instruments and materials. Known barrier techniques such as safety glasses, face masks and gloves were again recommended. The report also repeated the ADA's recommendation that all dental technicians and dental office personnel having direct or indirect contact with patients' mouths be vaccinated for hepatitis B.

The profession's increasing concern with the spread of infectious diseases, especially AIDS, as well as environmental safety, motivated us to undertake this study. The paucity of information about how dentists have responded to these proposed changes in their practice style was another reason for obtaining information on this subject. The questionnaire surveyed dentists' attitude changes related to office dangers, the factors that affected these changes and the preventive measures taken in response to these perceived dangers.

## Methodology

The questionnaire of 33 questions was operationally divided into the following sections:

Table 1

1. Demographics
2. Overall Attitude Change
3. Components of Attitude Change
4. Preventive Office Practices
5. Hepatitis B Vaccine
6. Personal Health Characteristics

Data were collected from June to September, 1986 from clinically practicing dentists in the New York-New Jersey metropolitan area. Dentists who were attending regional and study club meetings were asked to complete the questionnaire and return it to us. We received 216 responses. Data analysis was carried out using the statistical package for the social science computer method. To be included as part of the study group, dentists had to devote at least 50% of their time to clinical practice.

1. Demographics—Age, Marital Status, Sex and practice type.
2. Overall attitude change—to what extent, during the past few years, has there been a change in your attitude concerning health hazards and infection control in the dental office?
3. Components of attitude change—how have the following potential health problems contributed to your attitude change? Hepatitis,

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AIDS, herpes, mercury poisoning, radiation exposure and nitrous oxide exposure were studied.

4. Preventive office practices—the use of gloves, masks, rubber dam, radiation detection badges, nitrous oxide scavenging equipment, pre-measured silver amalgam capsules and sterilization practices were investigated.
5. Hepatitis B vaccine—its use and reasons for non-use were studied.
6. Personal health characteristics—such variables as cigarette smoking, use of seat belts, cholesterol intake and physical exercise were included.

## Results

### 1. Demographics

**Table 2**

Male	96%
Female	4%
Married	83%
Not Married	17%

96% of our respondents were male.

83% of the group were married.

**Table 3**

Age (N=216)	
Years of Age	Percent
Under 30	13
30-39	35
40-49	24
50-59	19
60 and Over	9

The median age of our respondents was 40-49 years.

**Table 4**

Type of Practice	
General	75%
Specialty	25%
Practice Style	
Solo	56%
Partnership	31%
Group	13%

75% of the dentists were in general practice

56% practice alone

31% participated in two-dentist partnership arrangements

**Table 5 Change in Attitudes Toward Health Hazards and Infection Control**

	%	N
Great	22	48
Considerable	38	83
Moderate	26	57
Slight	7	16
None	6	12

13% were engaged in larger group practices

### 2. Overall Attitude Change

The data indicate that there has been a considerable attitudinal change among the respondents toward health hazards and infection control problems. 22% cited a great change, while 87% of all respondents reported at least a moderate attitude change during the past few years.

### 3. Components of Attitude Change

**Table 6 Attitude Change Because of the Possibility of Contracting Hepatitis or Aids**

	Hepatitis B		AIDS	
	%	N	%	N
Great	23	49	27	59
Considerable	34	73	30	64
Moderate	26	56	23	50
Slight	11	24	14	30
None	6	14	6	13

Fifty-seven per cent reported either a great or considerable change for both of these potential health risks, while only 20% or fewer placed themselves in the slight or none category.

**Table 7 Attitude Changes: Other Health Risks**

	Mercury	Radiation	N <sub>2</sub> O	Herpes
Great	5%	5%	6%	6%
Considerable	5%	13%	7%	18%
Moderate	16%	20%	25%	33%
Slight	33%	33%	33%	27%
None	42%	29%	28%	16%
(N)	214	216	162	215

These data suggest that fears concerning mercury poisoning, radiation hazards, nitrous oxide exposure, and herpes infections played a much smaller role in dentists' overall attitudinal changes. Only about 5% of the respondents scored each of these potential dangers in the "great" category as compared to about 25% for both the hepatitis and AIDS questions.

#### 4. Preventive Office Practices (Tables 8, 9, 10)

**Table 8 How Often Do You Use the Following During Chairside Procedures? (N=216)**

	Gloves %	Mask %
Always	19	24
Often	24	11
Sometimes	34	25
Rarely	18	31
Never	4	9

The data further revealed that although dentists were highly concerned about contracting hepatitis B and AIDS, few dentists in the study group employed known preventive barrier techniques often. Responses revealed that only 24% routinely wear masks and only 19% wear gloves during chairside procedures. Forty per cent of the dentists almost never wear a mask, while 22% of the group almost never wear gloves. These results contrast sharply with Gerber's study on 297 dentists in California.<sup>6</sup> Eighty per cent of that group wore gloves, but only 57% actually changed gloves

**Table 9 Type of Sterilization Techniques (N=216) Used for Most Dental Instruments**

	Count	% of Cases
Steam Autoclave	139	64
Dry Heat	52	24
Cold Sterilization	109	51
Ultrasonic Cleaner	48	22
Other	11	5

after each patient. Seventy per cent wore a mask while examining or treating patients. However, the data from that study did not reveal how frequently the dentists used these protective measures.

In two other papers presented at the 1987 International Association for Dental Research meeting, data on the use of barrier techniques were offered. Rosen *et al* in a comparison of infection control procedures in dental offices between 1985 and 1986, found that 27% of personnel reported they always wear gloves during operator procedures in 1986, whereas only 12% stated this in 1985. In a study by Di Angelis *et al* on infection control practices of Minnesota dentists, 35% of the dentists reported using barrier techniques routinely.<sup>7,8</sup>

Fewer than 10% of our group use rubber dam often or always. 40% said they have used some form of radiation detection devices during the past few years. Of those dentists who use nitrous oxide in their practices, more than half do not use any form of scavenging equipment. Of those that use silver amalgam as a filling material, more than 25% do not use pre-measured capsules.

When sterilization techniques were examined, the data showed

that a combination of heat and cold agents were employed. Heat sterilizing procedures were utilized by 88% of the study group.

**Table 10 Type of Cold Sterilization Solution Used (N=208)**

Benzalkonium Chloride	26.0%
Glutaraldehyde	71.0%
Chlorine	0.5%
Iodophor	0.5%
Alcohol	1.0%
Other	1.0%

Of those dentists reporting on cold sterilization techniques, 71% use a glutaraldehyde preparation, which is reported to be more effective against the Hepatitis B virus, while 26% use benzalkonium chloride agents.

#### 5. Hepatitis B Vaccine (Tables 11,12)

**Table 11 Have You Taken the Hepatitis B Vaccine? (N=216)**

Yes	38%
No	62%

When we examined dentists' use of the Heptovax B vaccine, we found that 38% of the sample took it. These results compare favorably with those reported by Siew and others on 2,776 dentists surveyed at the 1983, 1984 and 1985 ADA annual sessions.<sup>9</sup> The vaccine became commercially available in 1982 and they found that the number of dentists taking the vaccine, in their sample, had increased from 17% in 1983 to 29% in 1984 to 36% in 1985.

**Table 12 Reason for Not Taking the Hepatitis B Vaccine (N=160)**

Concern for Side Effects	35%
Awaiting Longer Term Studies	22%
Haven't Gotten Around To It	14%
No Perceived Threat	11%
Other	10%
Awaiting Synthetic Vaccine	8%

The most often cited reasons for not taking the vaccine were: Concern for side effects (35%) and awaiting further studies (22%).

#### 6. Personal Health Characteristics

We thought that a preventively oriented personal health lifestyle might correlate with a similar preventive practice mode.

**Table 13 Do You Smoke Cigarettes? (N=216)**

Never	88%
Occasionally	7%
Moderate	3%
Heavy	1%

The respondents we examined were generally health conscious. In comparison to 28% of the general population who smoke, fewer than 12% of the dentists we surveyed smoked cigarettes.<sup>10</sup>

**Table 14 Wearing of Seatbelts as the Driver or Front Seat Passenger (N=216)**

Always	74%
Often	13%
Sometimes	7%
Rarely	5%
Never	1%

74% of the dentists always wear seat belts as compared to 55% of the general population.<sup>10</sup>

**Table 15**

Concern About Daily Intake of Cholesterol (N=216)

Yes	79%
No	21%

Frequency of Vigorous Physical Exercise (N=216)

Several Times a Week	53%
Once a Week	24%
Rarely	20%
Never	3%

75% of the group were concerned about cholesterol intake as compared with 46% of the general population. 77% exercise at least once a week.<sup>10</sup>

Despite our hypothesis, there

were *no* significant relationships between these personal health characteristics, either singly or combined, with any of the attitude change components or the preventive office practice variables.

#### Discussion—Relationships Between Variables

**Table 16 Relationship of Overall Attitude Change to the Following Infectious Diseases Environmental Factors and Office Practices**

	Overall Attitude Change
Hepatitis B	P<.000
AIDS	P<.000
Herpes	P<.001
Mercury	P<0.01
Radiation	P<0.05
Nitrous Oxide	NS
Masks	NS
Gloves	P<0.01

Here we see a very strong relationship between the attitude change question and the three infectious variables. There is a decreasing, but still significant, relationship between the attitude change variable and mercury poisoning and radiation exposure. When tabulated against nitrous oxide exposure and the wearing of a mask during chairside procedures, there were no significant relationships found. However, the wearing of gloves at chairside and the overall attitude change variable were highly related.



**Table 17 Interrelationships of Infectious Diseases vs. Environmental Factors and Two Preventive Office Practices**

	Hepatitis B	AIDS	Herpes
Mercury	P<0.001	P<0.01	P<0.000
Radiation	P<0.01	P<0.01	P<0.000
Nitrous Oxide	P<0.01	N.S.	P<0.000
Masks	P<0.05	N.S.	N.S.
Gloves	P<0.01	P<0.01	N.S.

In this table we can see that the hepatitis variable is significantly related to all of the other factors listed, while AIDS was not significantly related to the wearing of a mask or nitrous oxide exposure. Herpes, on the other hand, was not related to the wearing of either masks or gloves. The herpes variable tended to be evaluated in much the same way as the environmental dangers, none of which were significantly related to the wearing of masks or gloves.

#### Hepatitis B Vaccine—Discussion (Tables 18, 19, 20)

We have already stated that although dentists are highly concerned about contracting Hepatitis B and AIDS, relatively few dentists in our sample used barrier techniques consistently. We also found little, if any, relation between taking the vaccine and using protective measures against infection. For example, one might expect that most dentists who took the time and trouble to be vaccinated would at least wear masks and gloves routinely when treating patients. This was not the case.

Of the 38% of our sample who took the vaccine, only a 40.2%

minority wore masks frequently, and a bare majority, 51.2%, wore gloves frequently. Among those not taking the vaccine, the percentages were even lower, as only 32.1% wore masks frequently and only 38.8% wore gloves frequently.

Among those expressing concern about contracting hepatitis B, there seems to be a disparity between acting on that concern by being vaccinated and a lack of concern by failing to take simple precautions such as wearing masks and

**Table 18 Use of Vaccine vs. Use of Gloves and Masks (%)**

	Gloves		Masks	
	Always or Often	Sometimes to Never	Always or Often	Sometimes to Never
Use of vaccine (38%)	51.2	48.8	40.2	59.8
Non-use of Vaccine	38.8	61.2	32.1	67.9

**Table 19 Relation Between Age and Use of Vaccine (N=216)**

	(P<.05)			Total
	Over 50	40-49	Under 40	
Took vaccine	22	13	47	82
Did not take vaccine	39	38	57	134
Total	61	51	104	216

**Table 20 Relation Between Practice Configuration and Use of Vaccine**

	Solo	Partner or Group	Total
Took vaccine	39	42	81
Did not take vaccine	83	51	134
Total	122	93	215

gloves. What explains this? Perhaps people who took the vaccine considered themselves immune to the disease, and saw no need to protect themselves with additional barrier techniques.

We also found that there is a significant relation at the .05 level between age of the respondents and whether or not they took the vaccine. Of those who took the vaccine, 47 people, a 57.3% majority, were under 40 years old. Of those who did not take the vaccine, 77 people, a 57.5% majority, were over 40 years old. Of those under 40, nearly half our sample took the vaccine, while of those over 40, fewer than one-third took the vaccine.

We also approached significance when we use practice configuration, i.e., solo vs. group, as the variable between those vaccinated and unvaccinated. Of the 81 who took the vaccine, 42 people, 52% majority, are in partnership or group practice. Of the 134 who did not take the vaccine, 83 people, a 62% majority, practice alone. Of those practicing alone, 39 people, 32%, took the vaccine while of those in partnership or group practice, 42 people, 45%, took the vaccine. Perhaps peer pressure was a reason for dentists practicing together to take the vaccine more than their colleagues who practice alone.

#### Discussion (continued)

Fear of contracting AIDS and/or hepatitis B has caused a dramatic change in the daily practice style of many dentists. Gloves, masks, protective eyewear, surgical gowns, new and different sterilization techniques and an array of other changes have swept across the clinical dental community. In spite of the fact that so many of the dentists

in our study did not use gloves and/or masks routinely at the time of data collection (June-September 1986), the dramatic rise in the distribution of surgical gloves to dentists amply attests to an increase in this altered practice mode. The conclusion of a recent study that a New York City dentist contracted the AIDS virus from a patient while rendering routine care may dramatically increase the use of barrier methods, even for the resistant dental groups.<sup>11</sup> Nobody, however, has demonstrated the efficacy of such attempts at increasing asepsis in the dental office environment. The protection of the patient may not be enhanced by the use of surgical gloves by the dentist. A recent study in California failed to detect any positive HIV antibodies among the dental study group (N=255) exposed to patients infected with the virus.<sup>12</sup>

Further studies related to the role of saliva and blood-tinged saliva in the transmission of the AIDS virus, as well as protection of the patient, need to be undertaken.

#### Conclusions

1. The possibility of contracting hepatitis B and/or AIDS have increased dentists' concern about infection control problems in their offices.
2. Preventive measures such as routine use of gloves, masks and hepatitis B vaccination have not been utilized by considerably more than half of the survey respondents.
3. Those dentists who are more concerned about contracting AIDS, and especially the hepatitis B virus, are taking more preventive measures to protect themselves than their less concerned colleagues.

4. A significant interrelationship exists between dentists who are concerned about contracting infectious diseases, dentists who are concerned about office environmental dangers and dentists who have expressed an increased awareness of the hazards of dental practice.  $\Delta$

#### References

1. A.D.A. News. Infection control: Daily dental concerns addressed by experts; AIDS, hepatitis B, herpes, disease patterns presented. 17(11):1-15, 1986.
2. Crawford, J. J. New light on transmissibility of viral hepatitis in dental practice and its control. JADA 91(4): 829-835, 1975.
3. Council on Dental Therapeutics. Type B (serum) hepatitis and dental practice. JADA 92:153-158, 1976.
4. Council on Dental Therapeutics, Council on Dental Materials and Devices. Infection control in the dental office. JADA 97(4):673-677, 1978.
5. Centers for Disease Control. Recommended infection control practices for dentistry. MMWR 1986;35:237-242.
6. Gerbert, B., AIDS and infection control in dental practice: dentists' attitudes, knowledge, and behavior. JADA, 114: 311-314, 1987.
7. Rosen, S., Mlakar L., Crawford J.J., and Schaefer ME. Comparison of infection control procedures in dental offices between 1985 and 1986. J Dent. Res. 66 (Abst. 446):162, 1987.
8. DiAngelo, A.J., Martens L.V., Little, J.W., and Hastreiter, R.J. Infection control practices of Minnesota dentist. J. Dent. Res. 66 (Abst. 448):162, 1987.
9. Siew, C., and others. Survey of hepatitis B exposure and vaccination in volunteer dentists. JADA 114:457-459, 1987.
10. Prevention Magazine. The Prevention index '87, Rodale Press, Inc. 1987.
11. A.D.A. News. Dentist contracted AIDS virus in office, study suggests. 18(12): 1987.
12. Flynn, N.M., Pollet, S.M., Van Hane, Jr., et al. Absence of HIV antibody among dental professionals exposed to infected patients. West J. Med. 1987 Apr., 146: 439-442.

# PROFESSIONAL ETHICS

Richard J. Reynolds, D.D.S.\*

Soon, if all goes well, you will graduate, take the board and hang out your shingle to indicate to the public that you profess or proclaim a technical and intellectual competence based on a tradition of learning. Moreover, you will declare yourselves morally and ethically accountable for this expertise and ready to exercise it for a higher good and in the service of human need. For us all, accepting this privilege and responsibility involves certain moral, ethical and philosophic obligations to ourselves in terms of our pride and self respect, to the people we serve and live among, and to our profession and its public image and esteem. Before proceeding perhaps we should define some terms and draw the distinction between a profession and a trade. Clifford in 1875, was as succinct as anyone when he said "By ethics and morals we mean the doctrine of a special kind of pleasure or displeasure which is felt by the human mind in contemplating certain courses of conduct whereby they are felt to be right or wrong and of a special desire to do the right things and to avoid the wrong ones."

Philosophy in the original sense, is defined as the love, study or pursuit of wisdom or of knowledge of things and their causes whether theoretical or practical. Moral philosophy has to do with the knowledge or study of the principle of human action or conduct—in other words—ethics. The word profession is defined as a calling or occupation by which a person habitually earns his living and traces back to an act of speech or professing. A profession, therefore, would be an activity to which its practitioners publicly confess and proclaim their devotion. "Trade" is derived from the Anglo-Saxon verb meaning to tread. This originally referred to the daily treading of a regular and habitual course of action. This implies a manual art, handicraft, and know-how acquired and practiced habitually. A profession deals primarily with people and their personal and physical needs and is distinguished from a trade which provides for the external wants or occasions of men. Learning and knowledge are the hallmarks of a profession. Knowledge and science are critical and will always remain crucial to the professions, all the more-so in times of great scientific advance. Yet the pursuit and acquisition of knowledge does not necessarily, in and of itself, make the custodian of this specialized knowl-

edge a true professional. Professional character is rooted in other qualities. Being a professional is grounded in our moral nature, and in that which has to do not only with the mind and hand, but also of the heart; not only of intellect and skill, but also of character. A short list of professional virtues should include at least the following—perseverance, public spiritedness, compassion, integrity, veracity, fidelity and we must emphasize dignity—dignity in appearance, speech and demeanor. Times have changed and we have unfortunately, through the years, become more casual in our attire. I shall never forget the lesson I learned from an older physician whose office was next door to mine. He took me to task one day when he saw me coming back from lunch in my shirt sleeves and admonished me that this fell short of professional dignity. I thanked him and assured him that it would never happen again. I might add, to this day, I have never gone to or away from my office without a coat and tie.

Small thing you say—perhaps, however each of us has an obligation to uphold the dignity and public esteem of our profession. It is absolutely essential to our own personal happiness that we practice the golden rule and treat others

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as we would want to be treated. It has been said that the reward of a thing well done is having done it. Surely there is no greater satisfaction or reward than seeing well done restorative work which has lasted many years. We must set a high standard of quality for ourselves and not accept work which falls below that standard and that we would not want in our own mouths.

Every practitioner of any trade or profession has to realize a fair return on his effort in order to survive and stay in business. It goes without saying, that justice requires financial benefit to the practitioner by way of reciprocation. On the other hand, charging fees which are in excess of those considered to be usual, reasonable, and customary is demeaning to our self esteem and damaging to our conscience. Sir Thomas Browne, a 17th Century physician and philosopher, stated that no person should approach the temple of science with the soul of a money changer.

The basic doctrine of professional ethics is a single statement, "We profess to maintain superior knowledge, skill and judgment and will apply full measure of these in service to the public benefit prior to any consideration of self interest on our part." This statement contains no power of restraint. Adherence is voluntary; therefore, it cannot be challenged as being coercive.

Historically, the common bond of all professions has been the code of ethics, for it is through voluntary adherence to such standards of conduct that members of a profession manifest their moral and ethical accountability. Professions, like religions, have custody over the

credentials and the manner in which persons are admitted and maintain their membership. The obligation to abide by common beliefs, principles and ethics characterizes professions as well as religions. Because these ideals and objectives serve the common good both are entitled to the prerogative of self-governance. The same Sir Thomas Browne mentioned earlier held that common opinions and tradition are entitled to a legitimate presumption in their favor. "If a thing has been long believed and practiced, we ought not to discard it unless we obtain clear evidence that it is mistaken or outmoded."

Recently within the healing professions there has been growing anxiety and concern not only about ethical dilemmas but about the very nature of the doctor-patient relationship. Moreover, questions have arisen about the goals and limits of our professional ministrations and indeed, the very survival of the traditional health care delivery system. There are various attempts to downgrade the professions through widespread malpractice litigation, government regulation and efforts by consumer groups to cut the professions down to size and to redefine them as trades.

In the 1970's, the theme was "health care delivery". A massive effort was made to capitalize on the scientific advances of the preceding decades. Revolutionary social legislation was enacted with heavy emphasis on improving the public access to the health care systems primarily through Medicare, Medicaid and expanded third party coverage.

Now we find ourselves in an era

of "economic concern". An ever increasing share of our economic resources is being devoted to health care.

The rhetoric of the assorted critics of our traditional system is harnessed to the concept of cost containment through either a more competitive market or more intrusive bureaucratic regulation with the emphasis on low cost rather than high quality health care. No one can determine at this point the long term consequences of the changes which are looming on the horizon and which will have tremendous impact on career selection and enrollment, post graduate training, research and clinical practice. Our world is indeed changing and we must face the alterations and adjustments which are inevitably occurring with courage and cautious optimism.

I am reminded of the story from Greek Mythology of Pandora's Box. To be revenged on Prometheus for stealing fire from heaven to give to man, the Gods sent a beautiful woman, Pandora, with a closed box, to his brother Epimetheus. Epimetheus opened the box, thereby releasing diseases, pains and troubles upon mankind but managed to close the lid in time to retain hope which was at the bottom.

Our chief hope, it would seem to me lies in the recognition by our lawmakers and the public at large that some of the changes which have occurred are not in the public interest.

This is certainly a time for resolve not despair. We can be very proud that our professional record is not in question. We must, and I am confident that we will, ultimately achieve a satisfactory long term

solution to the unsettling socioeconomic problems that threaten to weaken us and to divert us from our purpose and professional progress. It is important that we as individual dentists portray ourselves as competent, caring and compassionate and in the words of Confucius "Inclined to the task not bent upon the pay".

A few years ago, Dr. Weber and I were members of a group who were privileged to visit and inspect dental facilities in Hungary, Russia, Poland and Yugoslavia. This experience gave us an overwhelming sense of pride in American dentistry. These Iron Curtain countries under rigid political control, are at least 30-40 years behind the United States in terms of dental progress. There is a great deal of dental work, such as it is, most of it performed by women dentists and with outmoded equipment, materials and techniques. Many stainless steel crowns were seen on anterior teeth. Crude removable orthodontic appliances and partial dentures were made from compound impressions. The pre-eminence we enjoy has been the result of a highly developed sense of order and organizational freedom within our profession which has made possible the interchange of knowledge and the enjoyment of certain rights, responsibilities and privileges unknown in those countries. Unfortunately, the traditional values which brought about our acknowledged superiority are being assailed. There are legal changes involving the legality and constitutionality of laws controlling advertising by professionals and the applicability of the anti-trust laws to the learned profes-

sions.

At this point a word about our state boards would be in order. Prior to the establishment of educational standards and laws regulating professional practice, ill trained and oftentimes unscrupulous practitioners abused the public to the extent that it was inevitable that there would be a demand for some measure of control over the healing arts. As a result by the beginning of the 1800's professional licensing was well established and a trend was set in motion for continued fine-tuning of the regulations governing practice administered by professional associations with the legal support of the states. However, after a time, opposition began to develop and serious questions were raised concerning the validity of the restrictions and what was perceived by many as a constitutional infringement of the right of an individual to pursue a trade or profession. Beginning about 1820, state laws governing practice began to be repealed out of existence or amended to the point that they were no longer effective. By 1850 there were almost no regulations and, predictably, a sharp decline in professional progress ensued. After a time, it was realized that states had to re-enact legislation regulating the professions and to re-establish educational standards. By 1900 practically all states had licensing laws with adequate provisions for professional self-government and a clearly defined professional role in the licensing and regulatory process. Basically, this is the framework within which present day professional licensure operates and there has been a rather stable

working relationship between state governments and professional associations.

Currently, there is once again increasing criticism and opposition to the concept of dental licensure. Many persons, some within the dental profession, would like to see state boards abolished and graduates of approved educational institutions allowed to go directly into practice. As a result of my 10 years as an active member of the Board of Dentistry and 12 years with the Southern Regional Testing Agency I am convinced that licensing laws are necessary to the public health and welfare. Even with the present level of control and standards, there are regrettably too many instances where patients have justifiable complaints involving mismanagement, faulty professional judgment in treatment planning and poor quality service. At the very least patients should have every confidence that they will receive competent, compassionate and honest treatment from one who has graduated from an approved dental school, has passed the state board examination and is licensed by the state. Any dentist who violates the public trust through unprofessional conduct, moral turpitude, drug or alcohol addiction or incompetence must be viewed as a menace and a misfit and should have his license revoked.

In closing let me welcome you into the fellowship of the dental profession. May you enjoy health, happiness and success and be looked upon as an ethical practitioner and a credit to our profession.  $\Delta$

# PROFESSIONALISM IN DENTISTRY: ONE MAN'S OPINION

**Faustin Neff Weber\***

I am greatly concerned and deeply troubled by what is happening to our dental profession; no doubt many of you share, in varying degrees, my perturbation. You may or may not agree with all the observations I shall make concerning the past, present, and future events that have affected, are now affecting, or will affect the practice of dentistry, but you must have an interest, as I do, in appraising our current status and exploring the course of action we may take to reverse or at least minimize what I perceive are retrogressive changes in the health service professions.

## Dentistry's Status

Within the lifetime of many of us we have seen dentistry emerge from the status of a lightly regarded profession to one that is now recognized and appreciated by the public. Hillenbrand [3], in reviewing our history of the past century and one-half, noted that "in 1840 dentistry began its emergence as a true profession with the first university-oriented system of dental education. . . . Historically the mission of early dental practitioners was the relief of pain. Their art was dismal and their science non-existent. Most of the practitioners were beset by lack of educational and

ethical standards. Charlatanism and commercialism were rife and subject only to regulation of the market place. Today . . . dentistry is recognized as a true profession. . . . As a result of this heritage, dentists are professionally and economically secure, educationally qualified, ethically vigilant, scientifically informed, strongly organized, socially perceptive and publicly appreciated."

## Advertising

My concern is that the high regard in which we are held will not be sustained if the public begins to perceive our current aggressive marketing techniques as self-serving means of increasing practice revenues while decreasing the personal doctor-patient relationship which has been the hallmark of dental professionalism. Our image as an honored and respected profession will be seriously diminished as the actions of our members come to parallel those of the tradesman. Nelsen [6] correctly observed that the practitioner who advocates advertising cancels his professional standing because advertising is the distinguishing characteristic of commerce and the nature of a profession does not include commercial trappings.

Haffner [2] believes there are societal pressures working in the dental community that "contravene the foundations supporting professionalism in dentistry" and have created a climate that encourages advertising. He lists them as legal, public policy, economic, man-

power, peer behavior, organizational behavior, and community behavior.

## Reasons Some Advertise

The large number of dentists we have graduated in recent years with the support of federal capital grants has increased our dental manpower significantly; however, as Bentley and Barnett [1] observed, the population of dental utilizers has not increased proportionally during the same period. Moreover, the money many patients have to spend for dental services is less because of the condition of the economy and the fact that dentists have to compete for the dollars potential patients are spending for automobiles, vacations, TV sets, and clothes. It is this competition for discretionary spending which has persuaded many dentists to advertise their services.

## Legal History

Advertising by dentists has been a recent development; until as late as the mid-1970s, it was prohibited by most state dental practice acts and according to the American Dental Association (ADA) was a breach of professional ethics. The ADA's position in this regard was upheld by the Supreme Court in 1935 in the *Selmer v. Oregon Board of Dental Examiners* case; but in 1975, the court ruled in the *Goldfarb v. Virginia State Bar* case that learned professions, including dentistry, are subject to antitrust laws; and in 1977, the Supreme Court in

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the *Bates and O'Steen v. State Bar of Arizona* case ruled that it was restraint of trade for the legal profession to restrict advertising by its members. Because of these rulings, the ADA and the Federal Trade Commission in 1979 entered a consent decree to allow dentists to advertise. This decree truly opened Pandora's box. What has followed and continues at an unabated pace is a succession of developments that, in my opinion, are returning dentistry to its level of the 1930's, a period I well remember, when the advertising dentist was an all-too-common blight on our profession.

### Advertising Defined

It is important to remember that there are several types of advertising. Bentley and Barnett's [1] definition of a dental advertisement is "any message that is broadcast or published, designed to reach mass audiences and has the purpose of increasing the demand for services provided by a particular dentist or group of dentists." In the Dental Practice Act of Tennessee, Chapter 0460-7, advertising is defined thus: "An advertisement is information communicated in a manner designed to attract public attention to the practice of a dentist who is licensed to practice dentistry in Tennessee." Messages that are directed toward active patients who are already a part of the practice informing them of such things as a change in office location, the opening of a satellite office, or the acquisition of a new associate are not considered advertising. Kerr [4] said that these and

other methods of promotion which stress personal contact or the recommendation of other satisfied patients are consistent with the usual and acceptable methods of promoting a dentist.

### Institutional Advertising

In recent years an approach that is new in dental advertising has been employed: It is institutional advertising. First used by the American Dental Association and the American Association of Oral and Maxillofacial Surgeons, these organizations have advertised in nationally circulated magazines and on t.v. the benefits to be derived from the services of the dental groups they represent, i.e., orthodontists, general practitioners, and oral surgeons, respectively. This approach, with which I have no quarrel, is in sharp contrast to that employed by the individual orthodontist, oral surgeon, or general practitioner who advertises, seeking to attract patients because of a more convenient office location, a more flexible appointment schedule, or a lower fee for his services.

### "Busyness"

Most dentists, generalists as well as specialists, are not treating as many patients, are not as busy as they would wish to be. The "busyness problem," of course, is the primary reason that dental specialists as well as general practitioners are advertising. Increasing numbers believe that the solution to this "busyness problem" lies in advertising their services. And yet studies

conducted in 1978 by Meskin [5] in regards to the potential effects of advertising showed that dentists and their patients have widely differing opinions on the effectiveness of advertising. Eighty percent of the patients said they would not go to the dentist advertising the lowest fees, while 69 percent of the dentists believed patients would. Sixty-six percent of the patients thought advertising would lower fees, while only 25 percent of dentists believed this to be true. Meskin [5] profiled a population group which is most likely to seek the services of an advertising dentist; it is headed by a male, having a large family, with an annual income lower than \$15,000, and a strong belief that dental fees are too high.

### Effects of Advertising

Bentley and Barnett [1] in their search of the literature could find no studies which reported that advertising caused an increased utilization of dental services. Early data from retail practices which advertise indicate that most of the patients in such practices are people who already are receiving regular dental care. The question then remains: how effective is advertising in affecting the attitudes and beliefs of people who are now only occasional or non-users of dental services? Another important question to ask about advertising is: What effect will it have on the cost and quality of dental services? For example, will the fee for a given dental service in the office of an advertising dentist be more, less, or about the same as that of non-advertising dentists in the same

area? If the fee is less, will the quality of treatment be equivalent, superior, or inferior to that being done in the offices of non-advertising dentists? The question of quality of dental service is of the utmost importance. I believe that the dentist who advertises is emphasizing the entrepreneurial rather than the service aspect of practice, and his treatment will focus on monetary profit and loss rather than quality of care. If the quality of our care becomes suspect and in time is judged to be inferior, we will lose the high trust which the public has had in the profession; a trust shown by the fact that in a recent Gallup poll the public ranked dentists fourth among twenty-five professions in a survey for honesty, integrity, and ethical standards [7].

### Advertising and Dental Image

If the public trust and confidence which we presently enjoy is eroded by what the public perceives of the advertising dentist; if advertising changes the image of dentists and the dental profession in the eyes of the public, and we are seen as tradesmen rather than members of an honored profession, we will indeed have "traded our birthright for a mess of pottage." Tremayne [9] said that if the public views the dentist as "a money-grubber in the marketplace," or as a huckster peddling his wares by aggressive advertising, the concept of professionalism and the moral basis of the conduct of the professional, which emphasizes service to the patient first and foremost, will be seriously demeaned.

### Profession Defined

I must stress the aspect of *service*, as Webster does in the *Third Unabridged New International Dictionary*, in which the word "profession" is defined as "a calling requiring specialized *knowledge* and often long and intensive preparation, including instruction in *skills* and methods as well as scientific, historical, or scholarly principles underlying such skills and methods, maintaining by force of organization or concerted opinion high standards of achievement and conduct, and committing its members to continued study and the kind of work which has as its prime purpose the rendering of a public *service*." Please note that in the definition I have emphasized the words "knowledge," "skills," and "service"; these three elements accompanied by what Webster calls "high standards of conduct" are the vital underpinnings of any profession. The dentist acquires the *knowledge* to practice his profession by completing the course of study in pre-dental and dental curricula, but his education and training do not end with graduation from dental school or a graduate program—in the case of the dental specialist—the true professional is a life-long seeker of knowledge.

### Continuing Education

As G. V. Black put it, "The professional has no right to be other than a continuous student." Note, too, that the definition of a profession includes the phrase "committing its members to continued study." By attending continuing education

courses and scientific meetings, and by reading the literature, the dentist not only maintains his knowledge and skills in areas where information and techniques are constantly advancing, he becomes more knowledgeable, more skillful in the process and therefore able to render the highest type of service to his patients.

While I have grave concerns about the erosion of our professional standards, I have no fear about the future of our profession from a technological point of view. Reynolds [8] noted that "there is constant progress in research and development of dental materials, new techniques, instruments and sophisticated diagnostic equipment." No doubt this progress will continue.

### Challenges to Survival

What should we be anxious about, and what may we do? The challenges to our survival as an honored profession come from two sources: first from within our own membership over which we can exercise some control, albeit less than we would wish; and second, from legal and governmental sources over which we have even less control. The tactic to be employed in dissuading our colleagues from joining the ranks of the advertisers is one that must be put into action early; the time to start is while the dentist-to-be is in dental school.

### Dental Ethics

Courses in ethics take on added importance and new significance in view of FTC intrusions on the

application of our profession's Code of Ethics. The dental student must possess more than the knowledge and learning which will enable him to diagnose his patients' problems; he must be taught more than the skills necessary to apply the appropriate treatment techniques; he must also be aware of the moral obligations his professional status imposes on him. To my way of thinking a professional in the health science services has responsibilities to discharge to his patients, his profession, his community, and his God. His responsibility to *his patients* is to give them the best care he is capable of providing, placing the patients' interests above his own. He is responsible for not only maintaining but advancing his knowledge and his skills by attending continuing education courses and scientific meetings and by reading the scientific literature. His responsibility to *his profession* is to be an active contributing member. He may contribute his time, his energy, and his talents while serving as a committeeman in local, state, or national dental society affairs. He may lend financial support to worthy dental projects such as dental college alumni funds, dental relief funds, the American Fund for Dental Health, and dental political action committees, to name just a few. His responsibility to *his community* is to be a good citizen, one who is informed on local, state, and national issues and uses his knowledge to support with his ballot those candidates for political office who will best serve the electorate and the local, state, or national interests. His responsibility

to his community further requires that he support the United Way, the American Red Cross, and such civic groups as the PTA and the Scouts. In our Judeo-Christian culture, his responsibility to *his God* is that he join a church, attend its services regularly, and be an active, supportive member. In the Decalogue, the first and the greatest commandment requires us to know God, to love him, and to serve him. Knowing, loving, and serving God is implemented by church membership. We should be ever mindful that what we *are* is God's gift to us; what we *become* is our gift to God. Hopefully, we will all become professionals in the highest and truest sense of that term.

### Political Action Committees

To cope with governmental and legal actions threatening dentistry's survival as an honored profession is of vital importance. Our efforts to influence state and national legislation that is not inimical to the health science professions must be unrelenting; they will be more effective if we speak with united voice through the leaders of our state and national associations, especially through the medium of our professions' political action committees. Giving monetary support to those candidates seeking public office who have expressed a philosophy in regard to the health science professions that consonant with our positions is no doubt the best means of affecting legislation. We would do well to continue to give generous support to our own state's political action committee and ADPAC, the American Dental

Association's political action committee; by such action we are becoming a lobby whose voice will be heard.

### Summary

In my opinion, professionalism in dentistry, a quality of conduct in the practice of our profession which has brought us to the high position of honor and respect we presently enjoy as dentists, is being eroded by the actions of an increasing number of our colleagues who are emphasizing the entrepreneurial aspects of practice while relegating to a level of secondary importance the *primary* purpose of our *raison d'être*—to render a healing service to the public. Δ

### References

1. Bentley, Marvin J., and Barnett, Peter R. "Advertising in Dentistry," *Journal ACD*, 48(4):227-34, 1981.
2. Haffner, Alden N. "Professionalism Endures Though Dentistry Is Changing," *Journal ACD*, 48(3):151-55, 1981.
3. Hillenbrand, Harold. *ADA News*, February 27, 1984.
4. Kerr, I. Lawrence. "Dentistry Is At a Crossroads," *Journal ACD*, 49(1):14-21, 1982.
5. Meskin, L.H. "Advertising of Dental Services: A Consumer and Dentist Attitude Survey," *Journal ACD*, 45(4):247-53, 1978.
6. Nelsen, Robert J. *News and Views*, American College of Dentists, Vol. 5, No. 2, May 1977.
7. *Our Sunday Visitor*, October 13, 1985, p. 25.
8. Reynolds, Richard J. "The Profession is Confronted by Formidable Challenges," *Journal ACD*, 48(4):205-13, 1981.
9. Tremayne, B.W., Jr. "The Intrusion of Government Into the Affairs of State Regulated Professions," *Journal ACD*, 48(1):37-46, 1981.



# ORAL SELF CARE

## Dentists' Attitudes and Behaviors in Counseling Patients About Oral Self Care

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### Introduction

Traditionally health professionals have been concerned about the need for individual patients to follow prescribed medical regimens. This remains a major public health problem. At the same time, changes in society have promoted healthier life-styles and new self-care activities.<sup>1</sup> Both of these components, the professional desire for compliance and the patient's need to achieve life style changes, converge in the attempt to prevent or control illness. At present there is considerable, widely publicized evidence that self care behaviors such as the use of seatbelts, the cessation of smoking, and diet control are associated with decreased mortality and morbidity.<sup>2-4</sup> Such health-promoting behaviors have been rated as very important by physicians.<sup>5</sup> However, there appears to be considerable variation in physician

practices in counseling patients about such behaviors.<sup>6</sup> Health professionals often despair of the difficulty in convincing a patient to alter behavior. Moreover, once change has occurred there often are difficulties in making it persist.

The situation in dentistry is similar to that in medicine. Surveys have confirmed positive professional attitudes toward prevention, especially with children. For example, dentists believe there has been a decrease in the incidence of caries in the last five years because of both improved oral self care practices and community water fluoridation.<sup>7</sup> The emphasis in adult disease prevention is almost totally on instruction in self care behaviors, and clinical data indicate that problems, such as root surface caries and periodontal disease, are largely preventable.<sup>8</sup> Moreover, the success of clinical treatment depends largely on adults cleaning their teeth effectively at home.

Dentists in the last decade have responded enthusiastically to the challenge of applying new scientific findings to the prevention and control of disease. Dentist clinical training has long included significant experience providing preventive services including counseling about oral self care.<sup>9</sup> Similarly, the dentistry pre-paid reimbursement system, increasingly a factor in the delivery of services, has fostered

first dollar coverage of preventive services. There are, however, significant gaps in coverage for adults: fluoride therapy and self care counseling are generally not covered. In addition, while surveys show that practicing dentists are generally aware of prevention knowledge,<sup>10</sup> dentists and dental students themselves have relatively poor oral hygiene and oral health.<sup>11</sup>

Initial clinical studies reported rapid improvement in self care after dentist counseling but regression to initial levels over time.<sup>12-15</sup> In addition, the success of dentists in getting patients to maintain long-term recall schedules for preventive activity is low; in one study only 16% of the patients maintained altered self care behaviors over one year.<sup>16</sup> Nonetheless, there is promising new work<sup>17-19</sup> which suggests methods to increase the success of dentists in preventive counseling and instruction.

Studies of provider attitudes and behavior in dentistry tend to be atheoretical;<sup>20</sup> efforts to comprehend the process, its determinants and its efficacy, have been hampered by the absence of a conceptual model of counseling and measures of counseling practice which are reliable and valid. In this report, we used the model proposed by Wells, Ware and Lewis<sup>21</sup> to explain physicians' attitudes and counseling practice regarding smoking

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cessation to explain dentist behavior. The model is an adaptation of the Health Belief Model and it postulates that background factors, such as personal habits, the reimbursement system, and clinical training lead to the development of physician attitudes. The attitudes they enumerate are motivation to counsel, perceived risk of smoking, perceived skill in counseling and perceived cost (profitability). The attitudes are posited to affect counseling practice. This model appears to be valuable as a starting point in investigating dentist attitudes and activities regarding oral self care.

## Methods

### Subjects

A mail survey was sent to a random sample of 521 general practitioners in Washington State. After mail and telephone follow-ups the response rate was 72 percent. A sample of 52 non-respondents was interviewed by telephone. There were no significant differences in number of operatories, use of sealants, and patients per week between respondents and non-respondents.

The sample of dentists and their patients appear typical for Washington State. The typical dentist in the sample graduated from dental school in 1968. Sixty-two percent graduated from the University of Washington. Others graduated from schools through the United States. The average age distribution of patients in the practices is as follows: 0-4 years, 5.4 percent; 5-18 years, 20.0 percent; 19-35 years, 31.8 percent; 36-60 years, 35.6 percent; and 61+, 7.1 percent. These data are quite similar to the average of practices in the United States excepting that the elderly are under-represented in the Washington practices. Patients in the practices were from households where the occupation of the head-of-household is as follows: unemployed (5-6%); farm workers (2-3%); blue collar workers (35.3%); clerical

and sales (33.6%); and professionals, managers and owners (23.2%). Seventy-six percent had private dental insurance; 2.37 percent received Medicaid dental benefits and 21.8 percent were uninsured. In comparison, the American Dental Association<sup>22</sup> reports about 59 percent of the United States population who seek care have private dental prepayment coverage. Washington practices saw about one-half as many public assistance patients than United States dentists as a whole, reflecting the lack of adult coverage in the Washington Medicaid program. Dentists reported that 44.7 percent of their patients drank optimally fluoridated water, similar to the U.S. as a whole. It is hoped these descriptive data are helpful in generalizing the results to other areas in the U.S.

### Instrument

The questionnaire was developed and divided into two parts; one to be completed by the dentist, and the other by the receptionist. The instrument was pretested extensively before use with this population. Scales were developed to characterize attitudes and behaviors toward a range of preventive activity in private practice. Scale development is described elsewhere.<sup>23</sup> Dentist counseling on preventive oral self care is termed *oral hygiene instruction*.

## Results

### Attitudes Toward Oral Hygiene Instruction

Three summary attitude scales, with a range of 7 to 21, were created. Lower scores indicate less agreement with the statements. The scale measuring importance of oral hygiene instruction had a mean response of 19.5 (SD = 2.35). An example of the items that make up this summary scale is "Oral hygiene instruction is an essential part of dental treatment." The scale measuring knowledge and skills of dental personnel had a mean response of 18.1 (SD = 2.95). An

example of the items that make up this summary scale is "Dental personnel are effective in oral hygiene instruction." The scale measuring the perceived profitability of oral hygiene instruction had a mean response of 14.9 (SD = 3.98). An example of the items making up this scale is "Oral hygiene instruction is not time consuming and does not cause loss of income for dentists." Analysis of variance with repeated measures was used to contrast the dentists' responses to the scales ( $F = 247.7$  df 283,2,  $p = .00$ ). Paired t-tests confirmed the differences between individual scales.

Dentists were asked to report their assessment of the attitudes of their employees. Staff attitudes toward oral hygiene instruction were generally rated positive by the dentist: 83 percent were rated as strongly in favor and 17 percent were somewhat in favor or neutral about providing that service.

When asked the percentage of their patients who had improved their oral hygiene six months after the start of the instruction, dentists reported a mean of 51.3 percent (SD = 22.5). In response to a question about patients' attitudes toward the service, dentists rated 80.0 percent as strongly or somewhat in favor. A minority were neutral (17.2 percent) or somewhat opposed (1.7 percent).

### Oral Hygiene Instruction

When the dentist was asked to estimate the number of hours per week spent by practice members in oral hygiene instruction (exclusive of prophylaxis), the median results were: for the dentist 1.3 hours; for the primary assistant, 1.25 hours; for the dental hygienist, 2.4 hours. Some practitioners were reported to spend no time at all in oral hygiene instruction: dentists 8.5 percent; assistants, 22.8 percent; and hygienists 33.1 percent.

Almost all patients (99.7 percent) receive oral hygiene instruction as part of a visit which includes other short services (e.g., cleaning or



recall exam), but only 38 percent of practices offer oral hygiene instruction (American Dental Association code 1330) as a separate service. The typical practice began offering this service 10 years ago. The median time devoted to oral hygiene instruction at the initial appointment is 10.4 minutes. Follow-up instruction lasts, on average, 8.5 minutes. The range of charges for oral hygiene instruction is from zero to 40 dollars; the median charge (1984) is zero dollars. Only 15 percent of practices reported a fee greater than zero. The mean charge for those who billed patients for the service was \$15.63. The group of practices that charged for the service spend significantly more time with the patient than those who did not charge a fee ( $F = 6.45$ ,  $df\ 1,153$ ,  $p = .0121$ ), mean time with fee being 19.4 minutes, with no fee 14.3 minutes. This was even more apparent in the time devoted in follow-up appointments ( $F = 10.397$ ,  $df\ 1,147$ ,  $p = .0016$ ), mean time with a fee being 11.4 minutes; with no fee, 7.8 minutes.

Dentists were asked to whom they usually provide oral hygiene instruction. The purpose of the question was to investigate whether dentists responded differently to various risk groups. In order of the proportion usually receiving the service, the responses were as follows: Caries-free individuals who have gingivitis-periodontitis (99.6 percent); individuals with both caries and gingivitis-periodontitis (99.6 percent); individuals with caries but without gingivitis-periodontitis (98.8 percent); and disease free individuals (76.5 percent). The last difference is significant ( $F = 64.7$ ,  $df\ 245,3$ ,  $p = .00$ ). The proportion of children receiving instruction varies with the stage of their dentition: children in primary dentition (94.3 percent); mixed dentition (98.4 percent); and permanent dentition (98.8 percent). The difference between the primary dentition and mixed and permanent dentitions is significant ( $F = 6.8$ ,  $df\ 245,2$ ,  $p = .00$ ). The rate for elderly varies according to whether they are

dentate (97.6 percent) or have dentures (72.2 percent). This difference is also significant ( $F = 72.7$ ,  $df\ 244,1$ ,  $p = .00$ ).

### Components of Oral Hygiene Instruction

Five scales were constructed from 22 four-point items to measure how often adult patients were provided various procedures within the oral hygiene instruction. The first scale assesses the frequency of giving general oral health information, demonstration of brushing and flossing, and providing feedback on patient technique. The second scale measures the use of printed pamphlets, large charts and diagrams, models, movies or slides in teaching and the use of phase contrast microscopes for patients to view their own infected plaque. The third scale assesses discussion, demonstration and feedback on the use of tooth picks, stimulents and perioaids. The fourth scale asks about the use of disclosing agents. The final scale measures discussion, demonstration and feedback to patients who have fixed bridges and removable dentures. The scales were standardized so each has a possible range of 0-100, a higher number represents the more frequent use of this set of activities. General information and instruction on brushing and flossing (Mean = 60.3), and instruction on cleaning under fixed bridges and removable dentures (Mean = 60.0) were provided most often. Interdental cleaning using aides other than dental floss (Mean = 42.1) and the use of disclosing agents (Mean = 29.1) were provided less frequently. The use of audiovisual aids, such as printed pamphlets, charts and diagrams, movies and tapes, was much less frequent (Mean = 19.0). Analysis of variance with repeated measures was used to contrast the dentists' responses to the scales ( $F = 1048.5$ ,  $df\ 200,4$ ,  $p = .00$ ). Paired t-tests confirmed the differences between individual scales. The ratings of how often individual activities are

carried out is in Table 1. Discussion of the rationale for plaque control and discussion and demonstration of frequently used cleaning techniques such as brushing and flossing occur most often. Feedback concerning proper technique was low in frequency for all cleaning procedures. In addition, some techniques, such as use of disclosing agents and stimulents, were not discussed frequently.

### Assessment Techniques

Dentists were asked how often they used various clinical assessment techniques to determine patient progress in oral hygiene. There were five 4-point scales rating visual inspection, visual inspection with disclosing agent, plaque index, bleeding index, and periodontal probing on a continuum from never (0) to always (3). A higher rating indicates the technique is used more often. Table 2 shows that how these assessment techniques were used from most to least frequent: visual inspection, periodontal probing, bleeding index, visual inspection with a disclosing agent, plaque index. Analysis of variance with repeated measures contrasted the responses to the technique scales ( $F = 162.8$ ,  $df\ 190,4$ ,  $p = .00$ ). Paired t-tests confirmed the differences between the individual scale means.

The dentists also reported using these assessment techniques (0 = never, 3 = always) during cleaning (Mean = 2.73,  $SD = .506$ ) and periodic recall (Mean = 2.72,  $SD = .504$ ) appointments; less often during non-hygiene related visits such as those for fillings (Mean = 1.39,  $SD = 0.693$ ). Analysis of variance with repeated measures contrasted the responses to the appointment scales ( $F = 714.4$ ,  $df\ 261,2$ ,  $p = .00$ ). Paired t-tests showed the frequency of use of assessment techniques not to be different between cleaning and recall exam appointments. The rate was different between cleaning and recall appointments and non-hygiene (restorative) appointments ( $p < .05$ ).



**Table 1 Components of Oral Hygiene Instruction Used by Washington State General Dentists**

(0 = never, 3 = always)		
Item	Response Mean	(SD)
1. Discussion of disease and plaque	2.54	.588
2. Discussion of benefits of plaque control	1.57	.584
3. Printed pamphlets	1.21	.759
4. Large charts and diagrams	1.13	.803
5. Dental forms or models	1.19	.771
6. Phase Contrast microscope	0.07	.335
7. Movies, slides or video/audio tapes	0.18	.486
8. Discussion of brushing technique	2.62	.559
9. Demonstration of brushing	2.49	.672
10. Provide feedback of patient brushing technique	2.04	.799
11. Discussion of flossing technique	2.55	.592
12. Demonstration of flossing technique	2.43	.629
13. Provide feedback of patient flossing technique	2.01	.788
14. Discussion of use of toothpicks, stimulents, perio-aids	1.78	.629
15. Demonstration of use of toothpicks, stimulents, perio-aids	1.20	.722
16. Provide feedback of patient use of toothpicks, stimulents, perio-aids	1.56	.748
17. Discussion of use of disclosing agent	1.20	.722
18. Demonstration of use of disclosing agent	1.14	.713
19. Provide feedback of patient use of disclosing agent	1.16	.772
20. Discussion of cleaning under bridge/dentures when patient has one	2.51	.681
21. Demonstration of cleaning under bridge/dentures when patient has one	2.47	.655
22. Provide feedback of patient cleaning under bridge/dentures when patient has one	2.12	.816

### Relationship between Attitudes and Behavior

Table 3 presents the results of a series of regression analyses where the three summary dentist attitude

scales (important {ESSENT}, effectiveness of personnel {KNOW}, and profitability {COST}) described earlier were used to predict the frequency of use of the five summary areas of oral hygiene instruction

**Table 2 Frequency of Oral Hygiene Assessment Techniques Used by Washington State General Dentists**

(0 = never, 3 = always)		
Technique	Mean*	SD
Visual Inspection	2.47	0.834
Periodontal Probing	2.21	0.739
Bleeding Index	1.22	1.10
Visual Inspection with a disclosing solution	0.85	0.916
Plaque Index	0.68	1.05

\*F = 162.8, df 190,4 p = 0

performance (general information, brushing/flossing; AV materials; interdental cleaning; disclosing agents; bridge/denture cleaning). The data in the table suggest that the more positive the dentists' attitude about the knowledge and skill of dental personnel to perform oral hygiene instruction, the higher the frequency of oral hygiene activity on four of five performance areas. This was true for general information/brushing and flossing; AV materials; interdental cleaning; disclosing agents; but not for bridge/denture cleaning. Dentists who say oral hygiene instruction is more important are more likely to indicate they provide general information, brushing/flossing instruction and assistance in cleaning under bridges/dentures. Data also suggest that dentists who are negative about the profitability of providing services are less likely to utilize disclosing agents, or provide discussion, demonstration, or feedback on interdental cleaning.

The three attitude scales as well were examined in relation to the dentists' estimates of what proportion of their patients had improved their oral hygiene after six months and to the total personnel time allocated to these instructional tasks per week. Table 3 shows that there was a significant relationship between attitudes on the profitability dimension and the dentists' rating of patient improvement but no relationship to the importance or knowledge/skills dimension. There was no relationship between total personnel time spent in oral hygiene instruction activity and attitudes. In other analyses we examined the relationship between charging a fee and assessment techniques and instructional areas. There were no differences in these variables associated with whether a fee was charged.

## Discussion

### Attitudes

The model proposed by Wells, Ware and Lewis appears to yield useful information on the nature of

**Table 3 Relationship Between Dentist Attitudes and Specific Oral Hygiene Instruction Activities and Dentists' Estimates of Success**

Dependent Measure	Information Brushing/Flossing Instruction	Interdental Cleaning	Use of Disclosing Agents	Use of Audiovisual Materials	Cleaning Bridges/Dentures	% Patients who have improved their oral hygiene after 6 months
Independent Variables	B (Sig)					
ESSENT	+ .2769 (.025)	+ .6911 (.207)	+ .2669 (.676)	+ .4988 (.440)	+ .1267 (.020)	— .5733 (.387)
KNOW	+ .1918 (.047)	+ .1214 (.009)	+ .9849 (.054)	+ .1171 (.030)	+ .3451 (.439)	+ .7432 (.187)
COST	— .6831 (.298)	— .8760 (.006)	— .8921 (.016)	— .2512 (.530)	— .3748 (.219)	+ .9148 (.014)
Multiple r	.228	.231	.173	.188	.175	.201
R <sup>2</sup>	.052	.053	.030	.035	.030	.040
Significance	.002	.002	.056	.050	.039	.013
N	270	270	249	218	269	262

dentists attitudes. While essentially positive, dentists' views of oral hygiene instruction form a hierarchical pattern. These attitudes are most positive toward the importance of the service, are slightly less positive as to whether dental personnel have the skills to provide the services, and are even less positive of the profitability. Nonetheless, about three percent of the average practice's time is spent in these activities and dentists report that staff and patients are generally favorable toward them. Similar to other compliance problems in other medical areas,<sup>24</sup> dentists estimate they are successful with only about 50 percent of their patients.

Practices spend relatively little time (about 10 minutes) with each patient on oral hygiene instruction although some patients may have multiple visits. Not surprisingly, the gaps in current reimbursement practice may be a factor. We have shown that only a small minority of dentists (15%) directly charge for this service, and that those who do spend more time delivering them. These data are in contrast to the 55 percent of Connecticut dentists reporting to charge a fee for a similar

service in 1974. Though two data points from different samples do not indicate a trend, the small percentage of providers now charging a fee may be another indication of the disparity between the proverbial wisdom of prevention and its implementation difficulties. Moreover it is clear that effective preventive counseling requires a larger time commitment than is made by the average practitioner.

From the data we derive the impression that most patients get some form of oral hygiene instruction. But, there is little targeting of risk populations. This may stem from out-of-date notions among dentists that dental diseases are universally prevalent while in reality, disease patterns are changing. It is clear that much more attention should be directed to some patients rather than giving most patients a once-over. Such an approach is consistent with risk assessment in other medical settings.

When asked the source of their knowledge on these activities, most dentists listed dental school training (80 percent). Also, the major source of information obtained on deciding to incorporate these ser-

vices into the practice was dental school (82.9 percent). This pattern may occur because for many dentists, some of their knowledge may be out-of-date. Relatively few dentists reported courses, books or journals as sources for advice on these services.

The specific areas of instruction offered also form a hierarchical pattern where general information and instruction on brushing and flossing are very common. Instruction in other forms of cleaning, including the use of disclosing agents and audio-visual materials is less frequently offered. Perhaps more importantly, the data indicate that feedback to patients concerning the efficacy of their cleaning technique does not occur very often. Though practice and feedback are essential in building effective habits which have a skill component, these procedures were not utilized with high frequency. Also, without feedback there may be a lack of positive reinforcement, an essential ingredient in behavior change.<sup>18,27</sup> Most oral self care behaviors require considerable dexterity. There is evidence that manual dexterity of the right or



preferred hand showed significant correlation with oral hygiene scores.<sup>25</sup> Furthermore, to improve any manual skill, practice and feedback must be provided. Unfortunately, procedures such as the use of disclosing solution to provide feedback in the effectiveness of cleaning are more time-consuming than discussion and demonstrations. In all, new oral self care behaviors are relatively difficult to learn; and skill training requires the allocation of considerable time and effort.

Of particular concern is the failure of most practices to use formal assessment techniques during subsequent visits. In the absence of formal assessment, counseling is short term. Records rarely contain adequate data with which to assess progress. Recent work by Walsh *et al.*<sup>26</sup> and Baab and Weinstein<sup>27</sup> suggests also that using and teaching patients techniques to evaluate the outcomes of their self-care efforts, i.e., bleeding, tissue color, texture, etc. enhances their performance. Such strategies embody the elements of good instruction.<sup>18</sup>

## Conclusion

This survey has confirmed the commitment of Washington State dentists to preventive counseling. It has, however, identified several barriers to its effectiveness. We conclude that the attitude toward the profitability of the service and failure to charge for instruction has resulted in inadequate time being devoted. Perhaps stemming from this, most patients receive general instruction while many, who can use it, do not receive the time and attention required to teach them specific skills. In all, though most dentists say they counsel patients about oral self care, when specific practices are reported it is found that only a small percentage actually utilize an approach that would be considered effective.

## Author Biography

Dr. Milgrom and Dr. Weinstein are Professors, Dr. Chapko is Research Associate Professor, Dr. Grembowski is Research Assistant Professor and Ms. Spadafora is a Dental Hygienist. All are in the Department of Dental Public Health Sciences at the University of Washington, Seattle.  $\Delta$

## References

1. Levin, L.S.; Katz, A.H.; Holst, E. *Self Care: Lay Initiatives in Health*. New York: Prodist, 1976.
2. Califano, J.A., Jr. *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. Washington, D.C., United States Government Printing Office, 1979.
3. National Safety Council: Accident Facts. Chicago: National Safety Council, 1982.
4. Breslow, L. Prospects for improving health through reducing risk factors. *Preventive Medicine* 7:449-458, 1978.
5. Sobal, J.; Valente, C.M.; Muncie, H.L.; Levine, D.M.; Deforge, B.R. Physicians' beliefs about the importance of 25 health promoting behaviors. *Am J Public Health*, 75:1427-1428, 1985.
6. Wells, K.; Ware, J. Jr.; Lewis, C.E. Physicians' practices in counseling patients about health habits. *Med Care*, 22:240, 1983.
7. Milton, B.; Walsh, V.; Gift, H.C. Prevention in the dental office: results of a preventive dentistry survey. *JADA*, 108: 809-817, 1984.
8. National Opinion Research Center. Factors associated with preventive dental practices. Chicago, University of Chicago Press, Report no. 69, 1959.
9. American Dental Association Health Foundation, Department of Special Reports. The role of the health professional in the delivery of caries prevention: Vol 1, dentists. Chicago, American Dental Association Health Foundation, 1983.
10. American Dental Association, Division of Behavioral Sciences. The role of the practicing dentists in the delivery of caries prevention methods: final analytic report. Chicago, American Dental Association Health Foundation, 1975.
11. Weiss, J.; Diserens, D. Health behavior of dentist professionals. *Clin Preventive Dent*, 6:5-8, 1980.
12. Ash, M.M. Jr.; Gitlin, B.N.; Smith, W.A. Correlation between plaque and gingivitis. *J Periodont*, 35:424-429, 1964.
13. Anernd, A. The short and long term effects of A-V motivation, motivation by dentist and by dental hygienist. *J Periodont Res*, 4(2):171, 1969.
14. Lindhe, H.; Loc, G. The effect of supervised oral hygiene on gingiva of children: lack of prolonged supervision. *J Periodont Res*, 35:427-42, 1964.
15. Nikias, M.; Budner, N.S.; Glassman, M.B.; Turgeo, L.R. Planning and delivery of dental health care. *J Dent Res*, 59: 2216-2224, 1980.
16. Wilson, T.G. Jr.; Glover, M.E.; Scholer, J.; Baus, C.; Jacobs, T. Compliance with maintenance therapy in a private periodontal practice. *J Periodont*, 55(8):468-473, 1984.
17. Weinstein, P.; Getz, T.; Milgrom, P. Oral self care: a promising alternative behavior model. *JADA*, 107:67-70, 1983.
18. Weinstein, P.; Getz, T.; Milgrom, P. *Oral Self Care: Strategies for Preventive Dentistry*. Reston, Va.: Reston Publishing Co., 1985.
19. Weinstein, P.; Fiset, L.O.; Lancaster, B. Assessment of behavioral approach in long-term plaque control using a multiple baseline design: the need for relapse research. *Patient Educ Counsel*, 5(3): 135-140, 1984.
20. Tryon, A.F. An analyses of preventive dental activities in general practice. *J Am Soc Prev Dent*, 4:20-25, 1974.
21. Wells, K.B.; Ware, J.E. Jr.; Lewis, C.E. Physicians' attitudes in counseling patients about smoking. *Med Care*, 22: 360-365, 1984.
22. American Dental Association. *1984/85 Dental Statistics Handbook*.
23. Weinstein, P.; Milgrom, P.; Chapko, M.; Grembowski, D.; Spadafora, A. Development of a scale to measure dentists' attitudes toward oral hygiene instruction. Paper presented at the American Association for Dental Research, Annual Meeting, 1986.
24. Sackett, D.L.; Snow, J.C. The magnitude of compliance and non-compliance. In Hayes, R.B. and others. *Compliance for Health Care*. Baltimore: Johns Hopkins University Press, 1979.
25. Kenney, E.B.; Saxe, S.R.; Lenox, J.A., et al. The relationship of manual dexterity and knowledge to performance of oral hygiene. *J Periodont Res*, 11:67-73, 1976.
26. Walsh, M.M.; Heckman, B.H.; Moreau-Diettinger, R. Use of gingival bleeding for reinforcement of oral home care behavior. *Community Dent Oral Epidemiol*, 13:133-5, 1985.
27. Baab, D.; Weinstein, P. Oral hygiene instruction using a self-inspection index. *Community Dent Oral Epidemiol* 11: 174-179, 1983.



# A TREASURY OF DENTISTRY

## DENTIST INVENTORS

**Gardner P. H. Foley**

(CONTINUED FROM THE PREVIOUS ISSUE)

Dr. John W. Haughwaut (1841-1909) invented many useful products which, according to my single authority, "were placed on the market as soon as they were patented and, therefore, fail to bear his name. One of his more famous inventions was the rotary snow plow which has saved the railroads millions of dollars. He also invented an apparatus for trap shooters." (I am aware of the snow plow invented by Dr. J. W. Elliott, of Toronto in 1869)

Dr. A. C. VanSant, born in 1832, served as the first president of the Illinois S.D. Society. He was the founder of the touch system of typewriting.

One of the best known dentist-inventors is Dr. C. Edmund Kells, Jr., (N.Y.C. of D. 1878), of New Orleans. Besides his inventions of direct value to the practice of dentistry, Dr. Kells' inventions included bottle stoppers, automobile starters, electrical signalling devices, electric thermostat and automatic fire alarm.

In 1946 Dr. Elmer G. Kesling (Chicago C. of D.S., 1903), of Bloomfield, Mo., was awarded a judgment against the Chevrolet Division of the General Motors Corporation for \$310,468.08 for infringement of a patent. The patent was for a

vacuum booster mechanism for shifting automobile gears. In 1948 the Eighth Circuit United States Court of Appeals upheld a federal district court decision for Dr. Kesling. He reported that he worked 20,000 hours on his invention and had begun work on the gearshift process in 1918.

Because Dr. Mahlon Loomis (1826-1886), the inventor of wireless telegraphy, which he demonstrated in 1866 in the Blue Ridge Mountains of West Virginia, has been noticed so often in the dental literature, I merely cite him as a very important member of the "dental truants" classification of inventors.

Dr. L. D. McIntosh (d. 1892), of Chicago, invented an electric battery that was in wide use by the U.S. Army at the turn of the century.

After experimenting with various types of golf tees, Dr. William Lowell, of South Orange, N.J., received a patent for his Reddy Tee in 1924. He is universally regarded as the inventor of the first one-piece orthodox golf tee.

Dr. E. K. Mabry (Indiana D.C. 1903), of Holdenville, Okla., used his inventive mind to design a

buttonhole that one did not have to put the collar button through. He sold the idea to the Earl and Wilson Shirt Corporation for \$15,000.

In 1954 Dr. W. B. Massey (Northwestern, 1916), of Richmond, Va., invented an easily installed snow chain that goes on the tire in sections and is clamped fast to the rim. It can be installed in a few minutes.

From 1845 to 1886 Dr. Edward Maynard, of Washington, invented and patented many important devices relating to rifles and muskets, including the famous Maynard rifle. He was indeed a great "dental truant" but also a great dentist.

The practice work of Dr. Joseph H. Michtom, of Forest Hills, N.Y., with plastics led him to experiment with the manufacture of plastic dolls and the production of the first all-plastic doll in 1940. He served as president of the Ideal Plastics Corporation in Hollis, N.Y.

Dr. William J. Morrison (U. of Tenn., 1897), of Nashville, made two inventions that must have contributed to the happiness of many people. He invented a process for making lard out of cotton. He also

invented the Fairy Floss machine that made the popular cotton candy.

Dr. Graydon M. Terry, a Texas dentist who served on the Baylor faculty, combined his practice and teaching experience with an inventive urge. In 1926 he patented the glass bowl feature of gasoline pumps.

Dr. Josephus Requa (1832-1910), a Rochester dentist, had worked as a gunmaker for several years before turning to dentistry as his major interest, although continuing his sideline interest in working with guns. Dr. Requa invented the first rapid-fire gun in 1863. Fifty of these guns were used effectively in the battle of Petersburg and Cold Harbor. [The information on Dr. Requa is puzzling.]

One of the most stirring members of this group of "truants" is Dr. George P. Richmond (1844-1898), of Lansing, Mich. Dr. Richmond became widely known as an inventor and patented an electric motor and several minor inventions. He was principally concerned with the invention of the telephone in which it was claimed that he held a priority claim over Bell. He also invented a phonograph.

Dr. Walter Roberts (1823-1889), of the historic oil town of Titusville, Pa., patented, with Col. E. E. Roberts, a torpedo used in blasting oil wells. Dr. Roberts was in the right place at a very good time for such an invention and made a large fortune from it.

Dr. Theodore S. Rust (1844-1929), of Meriden, Conn., invented and built a rolling-mill for precious metals that would roll to a thickness

of .003 of an inch. He was fond of building mechanical oddities such as a clock with one hand.

Dr. Ira A. Salmon (Pa. C.D.S., 1867), of Boston, invented the Salmon system of hot water and steam heating for buildings, steam cars, and street cars. He also invented an improvement in autoharp mechanism.

Dr. William F. Semple, of Mount Vernon, Ohio, was the first to patent chewing gum (dated December 28, 1869). However, he was not the first to produce it commercially.

Dr. Henry Snowden (1820-1894) worked in several machine shops in Laurel, Md., before going to Baltimore where he established a large cotton duck factory. Following the destruction of his factory by fire in 1852, he became a dentist by studying with a preceptor. As a "dental truant" Dr. Snowden invented a hydraulic apparatus for freight and passenger elevators.

Dr. Eli T. Starr (1834-1904) studied dentistry under a preceptor in Wilmington, Del. Later he became associated with the S.S. White Co. and patented over one hundred dental inventions. He also patented forms of storage batteries and a system for lighting railroad trains by electricity.

Dr. Roswell O. Stebbins (N.Y.C. of D., 1882), a leading dentist of New York, became recognized as an explorer of distinction and also for his inventions in the field of mining operations.

Dr. L. Ray Temple (M.C. of Va. 1911), of Richmond, Va., invented a

life-saving suit in 1939 that was used in World War II. It is described as a complete one-piece suit of rubber fabric worn over clothing and covering all parts of the body up to the head. It can be put on in less than one minute and keeps the wearer dry and warm.

Dr. Claison S. Wardwell (1856-1936), a graduate of the Philadelphia Dental College in 1877, practiced in New York City. He became a versatile contributor to the invention and improvement of many dental instruments and procedures. His inventive mind led him into extradental fields such as architecture. He designed and built a box kite for meteorologic purposes that won a prize. Another of his box kites won the world title at the St. Louis Exposition in 1904.

Of course the well-known, both in and out of dentistry, Dr. Thomas B. Welch (1825-1903) requires a brief mention in this gathering despite his general recognition as the man who originated a method of preserving grape juice so that it would be free from alcohol. Though especially designed for church communion and medical uses, Welch's grape juice has become well-known throughout the world.

Let me wind up this discourse about many dental truants with Dr. John Runckel (U. of Oregon, 1954), who practices in Portland, Ore. I have placed him out of order because he was noted by Susan G. Hauser in the *Wall Street Journal* as recently as April 15, 1987. Dr. Runckel is president of Skyline Northwest Corporation, makers of Barracuda swim goggles. His patent (1978) is based on the shape that puts a pressure on the bone: a cushion of synthetic rubber around the plastic lens prevents water leakage. The Barracuda goggles have attained world-wide sales.

# PROFILE OF SECTIONS— AN ACD SURVEY

**Robert W. Elliott, Jr., ACD President**

Fellows of the American College of Dentists are frequently asked about the College and what it does. It is a relevant inquiry and one that those who are members of the College should be prepared to answer.

The reply, more than likely, would reflect what the respondent's Section and its fellows were doing—for in actuality that is where the action is and from where those who are not members of the College derive their impressions about the College and its programs.

However, though there are thirty nine College Sections, few if any of them are conducting exactly the same activities. This is so because the Sections differ greatly in such characteristics as the number of Fellows who are Section members, geographic size, their proximity to institutions of higher learning and the facilities available for their use, to name a few.

With this in mind, a survey of the thirty nine Sections was conducted to gather significant data that could be published to provide a profile of the College Sections. Similarities and differences could be reviewed and perhaps worthwhile activities supported by one Section might be appropriate for adoption into the agenda of another. All Sections completed and returned the survey instrument.

As was anticipated, the size of the Section membership varied greatly. There were four Sections in the category of forty members or under and three Sections that counted over three hundred and twenty fellows on their rosters. The subdivision of forty-one to eighty members contained the largest number of Sections—ten. Fig. 1

The number of meetings held by the Sections also varied considerably, ranging from zero to five annually. Eleven Sections met once

a year and sixteen met twice. Fig. 2

Each Section is required to hold one business meeting a year. (Art. IX Sec 2. (d) By-Laws) and the great majority met this obligation. One Section held four such each year. Fig. 3 When meeting, seventeen Sections met individually and nineteen Sections held joint meetings with the ICD. These joint sessions were usually during the ADA constituent society meetings. However, two Sections met in conjunction with the ICD whenever the Sections met. Fig. 4 When Sections

of both Colleges met together they separated to have their business meetings if they were conducted.

Given the varied geographic boundaries of the Sections, it was to be expected that the average attendance at Section meetings would vary and this was the case. As few as fifteen percent and as many as seventy-five percent of the membership attended Section meetings on a recurring basis with thirty-five and fifty percent attendance reported by the largest number of Sections. Fig. 5

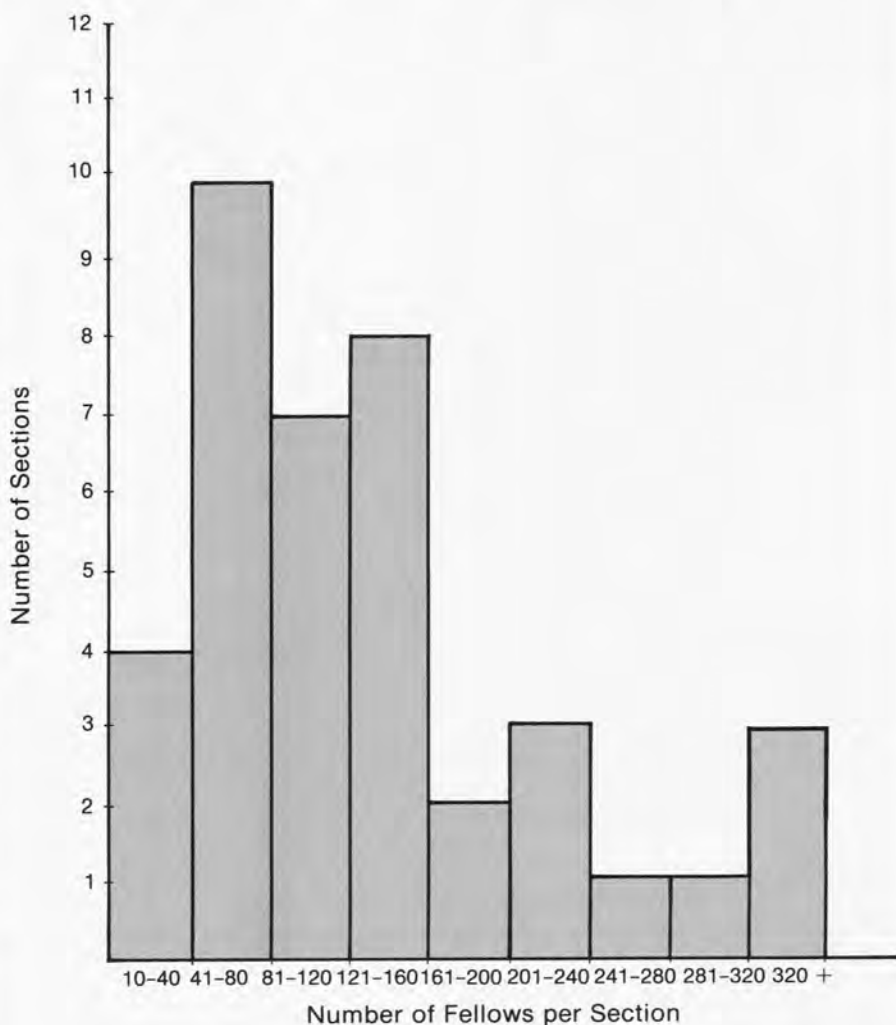


Figure 1. Distribution of Sections of the College According to Size



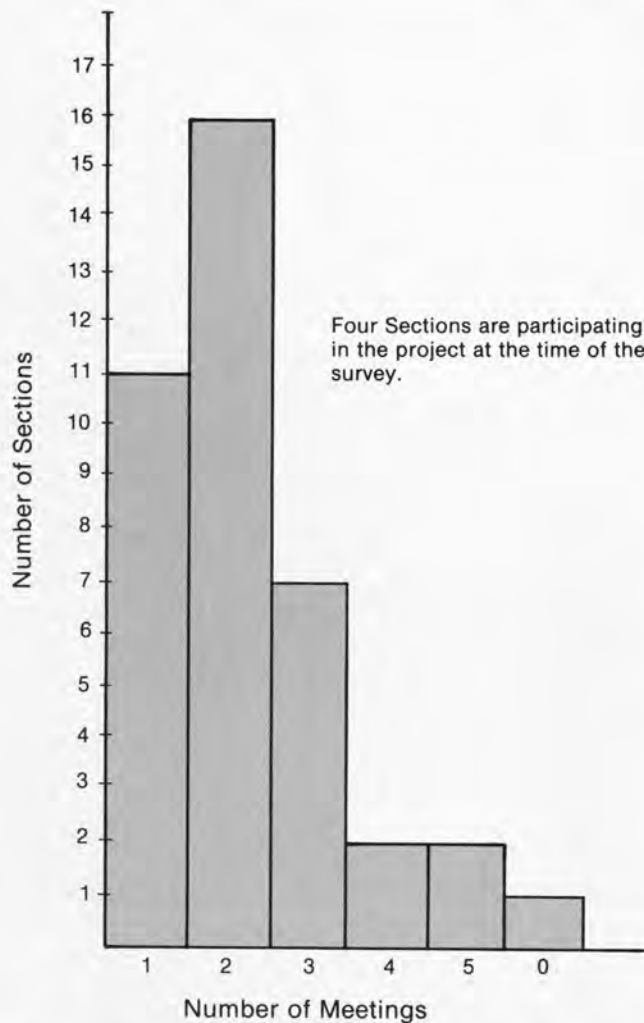


Figure 2. Distribution of Sections of the College According to the Number of Meetings per Year

The balance of the survey was devoted to determining what the Sections do to further the purposes and objectives of the College (Fellowship Handbook and Roster Pg. 8), methods of communication with members and recognition of those so deserving.

Professionalism and scholarship among dental students was encouraged by twenty-five Sections by awards to students who exemplified such characteristics. Twenty four were presented on an annual basis and of these the majority were presented at a Section meeting. The others are given at graduation or dental school awards ceremonies. The award is a plaque (14) or a certificate (11) and eighteen of the Sections add an honorarium ranging from \$150 to \$400.

Continuing education is an activity supported by twenty Sections. The program is usually a speaker. However, some Sections conduct table clinic sessions, one Section provides a full day of continuing education at one of the three dental schools in its area (the program is open to all dentists), another Section sponsors a Memorial Lecture (it is also open to all dentists who wish to attend) and a joint program with a renowned dental center is conducted by another.

The College has recently supported the ADA/AADS sponsored SELECT program with two \$5,000 unrestricted grants. SELECT is directing its efforts to increasing the pool of well qualified applicants for admission to dental schools, thirty percent of whom had a GPA below

2.8 in 1986. It is *not* directed to increasing the enrollment in these institutions. Four Sections were participating in the project at the time of the survey. Sections are receiving more information about SELECT as this is written with the goal of involving College fellows in this most important recruitment activity. One Section has developed a Pre-Dental Scholar program with goals very similar to those of the SELECT Program.

The College Foundation provides funds for the College to purchase and distribute annually the pamphlet "Dentistry-A Health Service" to 54 Dental schools in the United States and Canada. This publication is given to the entering or graduating class at the Dean's discretion. It focuses on the ethics related to the practice of our profession. Additionally the Foundation with a grant from Delta Dental Plan of California funded the publication of *The Hillenbrand Era: Organized Dentistry's Glanzperiode* by Clifton O. Dummett D.D.S. and Lois Doyle Dummett B.A.. This book has been acclaimed worldwide in dental circles and should be on every dentist's and dental student's reading list. The Foundation is also supporting the development of an ethics program at the University of Minnesota.

Sixteen Sections contribute to the Foundation, half annually and half from time to time. Donations range from \$5 per Section member annually from one Section, a \$50 memorial upon the death of a Fellow from another Section, to as much as \$500 annually from four sections. Only the interest from the foundation funds is used to support projects.

Twelve Sections contribute to other worthy activities related to the advancement of the goals of the College, such as support of student loan funds, grants to dental students to support summer research projects, and one Section provided \$400 to help defray expenses of the dental student representing his or her school at the ADA Table Clinic Competition.

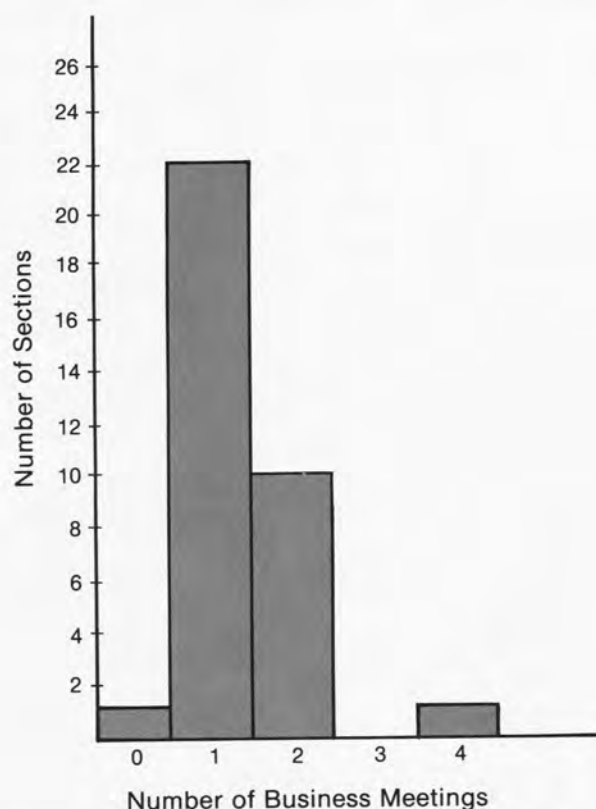


Figure 3. Distribution of Sections of the College According to the Number of Business Meetings per Year

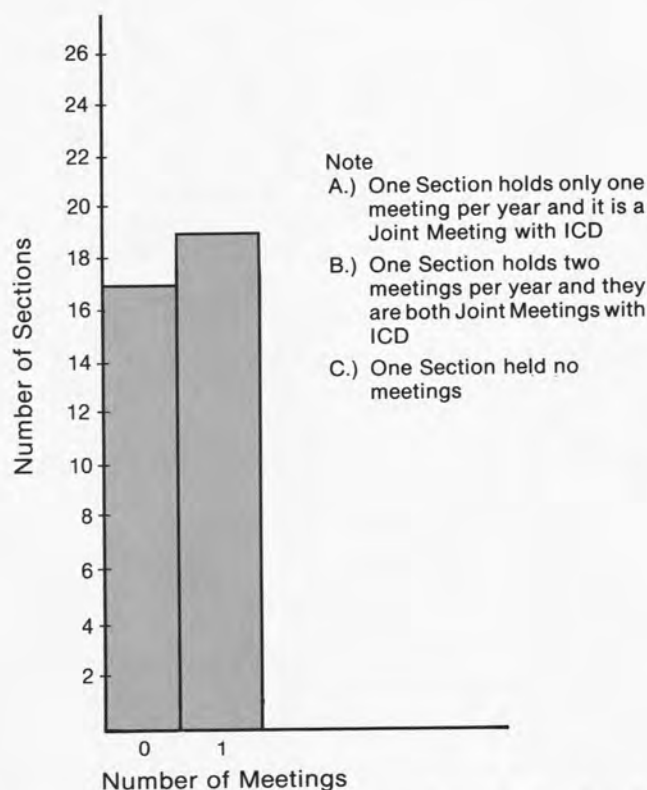


Figure 4. Distribution of Sections of the College According to the Number of Meetings Held Jointly with ICD per Year

Twenty-three Section secretaries stated that their Sections took an active role in promoting the ethical practice of dentistry. Some of the activities they reported are:

- 1) Invite young non-member dentists to Section meetings—a brief talk is given about the purpose and goals of the College—It is strong on ethics.
- 2) Ethics award to a faculty member—plaque and \$100.
- 3) Send books and journals to faculty of dentistry in Singapore.
- 4) Section members participated in a forum on ethics sponsored by an Odontographic Society. Conducts a fellowship program for a newly graduated dentist with emphasis on ethical practice—stipend \$17,000.
- 5) Section works with newly graduated dentists.
- 6) Section makes brochures and mailings discouraging blatant advertising.
- 7) Section members lecture to dental school classes on ethical and moral standards.
- 8) Section promotes ethical conduct by word and example—conducts annual Student/Fellow day at local dental school.
- 9) Section formed an Ad-hoc Committee on Ethics and Professionalism—active in identifying problems in state and developing measures to address them.
- 10) Section distributes "Dentistry, A Health Service" to new state board candidates—Giving the pamphlet to an entire district on a trial basis.
- 11) Promotion and discussion of ethics in schools—organizing a round table discussion on ethics to involve all segments of the profession—will video tape and share it.
- 12) Section involved in grass roots movement to reverse Supreme Court decision to allow advertising.

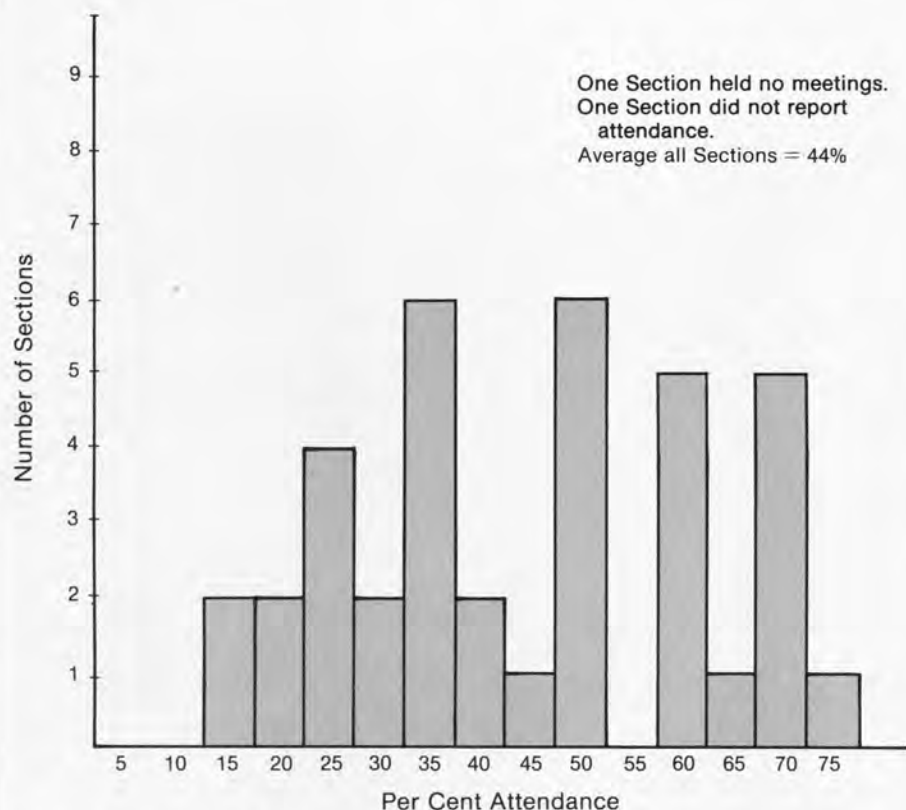


Figure 5. Distribution of Sections of the College According to the Per Cent of Fellows Attending Section Meetings

- 13) Section meetings address this important area (Ethics).
- 14) Section priority item—subject of continuing education program—published in the state dental journal.
- 15) Section funded a seminar and lectures on ethics which is now an ongoing part of the curriculum at the state dental school.
- 16) Section financially supports an ethics course at the state university and twenty Fellows participate as expert assessors in the ethic course there.
- 17) Many Sections encourage their fellows to act as role models.

To keep Section members apprised of national and local activities, nine Sections publish newsletters which are distributed from one to three times annually. They range from a one page letter to a professionally composed and printed publication. In all cases they provide a basic need of all organizations—a contribution to the feeling of belonging by closing the information gap.

In the recent past the Board of Regents has made it a College policy to attempt to assure a visit by an Officer or Regent of the College at least once every four years to maintain a flow of information between the national office and the Sections. Thirty-one Sections reported such a visit.

Twenty Sections recognize the chairman by the presentation of an award for service. This takes the form of a plaque (12) or a certificate (7) and one Section gives the outgoing chairman a mounted office pen set suitably engraved. Five Sections recognize the retiring secretary, four by means of a plaque and one by a certificate. Nine Sections give other awards to recognize long term outstanding commitment to the Section, for exceptional loyalty and service and a special award to a secretary/treasurer with exceptionally long service.

One Section has an awards dinner at which three deserving dentists who have distinguished themselves are honored.

As individuals, our actions are often related to our role models. This is especially so in the earlier years of our professional life. One Section suggested and in fact gives an award to a dental school faculty member who best exemplifies the role model of an ethical dentist. The question of the desirability of this award was posed on the survey instrument. Twenty seven Sections thought that it was a good idea, one of which thought that it should only be given from time to time, especially when appropriate.

Finally it was suggested that the College make available for purchase a banner that could be displayed during Section meetings that would identify the group as a component of the American College of Dentists.

It is abundantly evident that the College is an active involved organization promoting, encouraging, guarding and supporting the highest ideals of the dental profession by those activities that are in consonance with the size of the membership, and the unique geographic location of the implementing Sections.  $\Delta$



# NEWS OF FELLOWS

**James T. Jackson** received the Outstanding Community Service Award for Health Affairs at the 7th annual Howard University Distinguished Faculty Award ceremonies. Dr. Jackson is a Professor of Removable Prosthodontics at the College of Dentistry, Howard University, and the Director of the General Dental Practice Residency of the Howard University Hospital. He joined the faculty of Howard University in 1968 after a distinguished career in the United States Air Force, from which he retired with the rank of Lt. Colonel. He then served as Associate Dean for Clinical Affairs for over 9 years. Dr. Jackson is a Diplomate of the American Board of Prosthodontics and the Chairman of the Metropolitan Washington Section of the American College of Dentists.



James T. Jackson

**Aida A. Chohayeb** was the recipient of the American Association of Women Dentists' 1987 Lucy Hobbs Taylor Award which recognizes an individual's contributions in civic, cultural, humanitarian and academic areas. Dr. Chohayeb also presented a lecture at the 75th Congress of the Federation Dentaire Internationale held in Buenos Aires, Argentina in October, 1987. Dr. Chohayeb is a Professor of Endodontics at Howard University College of Dentistry and also the Editor of the newsletter of the Metropolitan Washington Section of the American College of Dentists.



Aida A. Chohayeb

**Clifton O. Dummett** presented the 1987 Pierre Fauchard Academy Lecture and memorialized Dr. Harold Hillenbrand at the Academy's annual meeting in Las Vegas recently. Dr. Dummett is a professor of Community Dentistry at the University of Southern California and the author of the book, "*The Hillenbrand Era: Organized Dentistry's Glanzperiode*," published in 1986 by the American College of Dentists.



Clifton O. Dummett

**Bailey N. Jacobson** was the recipient of the Distinguished Orthodontic Alumni Award of Northwestern University Dental School. Dr. Jacobson received the Northwestern University Service Award in 1978 and the University Merit Award in 1985. He is an Associate Clinical Professor of Orthodontics at Northwestern University and a Professor of Orthodontics at the University of Detroit Dental School. A Diplomate of the American Board of Orthodontics, Dr. Jacobson is serving his second term as President of the Dental Alumni Association of Northwestern University.



Bailey N. Jacobson

**Rafael L. Bowen** was awarded an honorary Doctor of Science degree from Georgetown University recently. Dr. Bowen is the Director of the American Dental Association Health Foundation Paffenbarger Research Center at the National Bureau of Standards. Dr. Bowen holds 17 patents on synthetic dental materials and has been the recipient of numerous awards for his research and development of various dental filling materials.



Rafael Bowen

**George A. Eastman** was elected President-Elect of the Great Lakes Society of Orthodontists at the Society's 59th annual meeting in Pittsburgh recently. Dr. Eastman is a Diplomate of the American Board of Orthodontics and practices orthodontics in Flint, Michigan. He is a past president of the Michigan Society of Orthodontists.



George A. Eastman

**Joseph Pollack** was the recipient of the 6th annual Colgate-Palmolive/American Dental Association Award for outstanding service to the public and profession. The award, presented annually, recognizes the individual's dedication to the enhancement of the health of the public, while exemplifying the highest standards of the profession. Dr. Pollack is presently the president of the New Jersey Delta Dental Plan and is a past president of the Essex County Dental Society and a past chairman of the New Jersey section of the American College of Dentists.



Joseph Pollack

**Laurence E. Johns** was recently honored by being presented the Maryland State Dental Association's Distinguished Service Award. Dr. Johns, who has been in the private practice of dentistry in Hagerstown for 25 years, has served as President of his county dental society and of the Maryland State Dental Association.



Laurence E. Johns

**Melvin A. Noonan** was recently appointed Executive Director of the Oakland County Dental Society in Michigan. Dr. Noonan retired after 38 years of pediatric dentistry practice in Birmingham, Michigan and was the founder and first president of the Kenneth A. Eastlick Graduate Society and the Michigan Academy of Pedodontics. A Diplomate of the American Board of Pedodontics, Dr. Noonan has also served as President of the Oakland County Dental Society and of the American Academy of Pedodontics.



Melvin A. Noonan

**Edwin S. Rosenberg** was the recipient of the clinical research award of the American Academy of Periodontology. Dr. Rosenberg, who is the Director of Post Doctoral Periodontics at the University of Pennsylvania School of Dental Medicine, received the award at the Academy's annual meeting in Denver recently.



Edwin S. Rosenberg

**Ralph W. Phillips** was made an Honorary Member of the Japanese Society of Conservative Dentistry at the annual meeting of the Society in Tokyo in September. Dr. Phillips who is Research Professor of Dental Materials at the Indiana University School of Dentistry, gave the opening address at the meeting and also presented lectures at the Fukuoka Dental College and Osaka Dental University. Many of the Society's members have studied with Dr. Phillips at Indiana University as graduate students or research scientists and are now teaching at various institutions in Japan.



Ralph W. Phillips

**William D. McHugh** was recently appointed to the National Advisory Dental Research Council of the National Institutes of Health. Dr. McHugh is the Director of the Eastman Dental Center in Rochester, New York, a position he has held since 1970. He is also an Associate Dean for Dental Affairs at the University of Rochester School of Medicine and Dentistry and Professor of Clinical Dentistry and of Dental Research. Dr. McHugh is the President-Elect of the International Association for Dental Research and was recently appointed an Associate Editor for the Journal of the American College of Dentists.



William D. McHugh

**Stanley Sutnick** was elected Miami-Dade Community College's 1987 Outstanding Volunteer of the Year. Dr. Sutnick, who has been practicing dentistry in Miami Beach for 40 years and is the founder of the Community College's Dental Hygiene Program, has also served as a founding member and president of the Miami Beach Dental Society.



Stanley Sutnick

## SECTION ACTIVITIES

### Western New York

The Western New York Section conducted its Fall meeting, Friday, November 13th in Rochester, New York. An all-day scientific program entitled "The Tools and Techniques of Estate Planning After the Tax Reform Act of 1986," held at the Eastman Dental Center, was followed by a reception and dinner where Distinguished Service

Awards were presented for 25 years of membership in the College. The meeting, which was attended by about 100 Fellows and guests, was also the occasion for the installation of the following new officers of the Section: Drs. Robert W. Baker, Chairman; Ralph S. Vescio, Vice Chairman; and Warren M. Shaddock, Secretary/Treasurer.



Western New York Section Chairman, Dr. Girard A. Gugino, on the left, seen congratulating incoming Section Chairman Dr. Robert W. Baker. Standing on the right is Dr. Warren M. Shaddock.



Photographed at the meeting are the new inductees from the left: Dr. Peter A. Carrillo, Dr. William J. Heneghan and Dr. James Orcutt.



Section Chairman Dr. Girard A. Gugino seen congratulating the recipients of the Distinguished Service Awards for 25 years of membership. From the left are: Dr. John P. Scullin, Dr. Lawrence L. Mulcahy and Dr. Newton E. White.



## Florida

The Florida Section held its annual scientific social and business meeting November 21st and 22nd in Orlando. An all day scientific program was followed by a dinner dance attended by 86 Fellows and guests. The next day, a business meeting was held and newly elected Section officers were installed by Dr. Robert W. Elliott, Jr., President of the American College of Dentists. The new officers are: Drs. Earl L. Williams, Chairman; Curtis E. Gause, Chairman-Elect, James E. Waddell, Vice Chairman and Chris C. Scures, Secretary-Treasurer. The Florida Section voted to continue the financial support of the following activities:

1. The Foundation of the American College of Dentists.
2. The Eminent Scholars Chair at the University of Florida College of Dentistry, which brings eminently qualified scholars to the dental college.
3. The Academy '100' of the University of Florida College of Dentistry, which was first formed when the dental college was established, to provide "instant alumni."
4. The Academic Enrichment Fund at the University of Florida College of Dentistry.

The Florida Section also voted to continue honoring a student for

professionalism and also to invite the senior class to be the guests of the Section at their annual breakfast meeting in June held in conjunction with the Florida Dental Association meeting. The day's activities concluded with a panel discussion on the past, present and future of dentistry. The panelists at the discussion were Dr. Donald W. Legler, Dean, University of Florida College of Dentistry; Dr. Gideon J. Stocks, Jr., President of the Florida Dental Association; Dr. Robert T. Ferris, Chairman of the Florida Board of Dentistry and Dr. Lewis S. Earle, Trustee of the American Dental Association.

## Maryland

The Maryland Section honored twenty-three Fellows at its annual meeting recently for having completed 25 years or more as Fellows of the College and Dr. H. Burton McCauley transferred the Section chairmanship to Dr. John F. Hasler.



Photographed at the Maryland Section meeting are, from left: Drs. Russell P. Smith, Jr., ex-Mayor of Cambridge; Albert W. Morris, Asher B. Carey, Jr. and Conrad L. Inman, Jr.

## Texas

The Texas Section recently conducted its 10th annual Continuing Education Program at the University of Texas Dental School in San Antonio. This activity of the Texas Section is in addition to its annual meeting which is usually held in the month of May. The Continuing Education Program is held each year on a rotating basis in one of the dental schools in Texas. No tuition is charged and the participants pay only a small registration fee to cover course materials and a lunch. Publicity for the program is provided through the Texas Section's Newsletter and through the continuing education mailings from the school at which the course is being held. The topic for the 1987 Continuing Education Program was "Advancements in Restorative Materials," which was presented by Dr. E. Steven Duke.



Photographed at the 10th Annual Continuing Education Program of the Texas Section of the American College of Dentists are, from the left: Section officers Dr. William R. Clitheroe, Chairman; Joseph G. Schneider, Immediate Past-Chairman; William F. Wathen, Chairman-elect and Ernest H. Besch, Secretary-Treasurer.

## NOMINATION FORM REQUEST

Name \_\_\_\_\_ F.A.C.D.

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Signature \_\_\_\_\_

A nomination portfolio to be used in nominating to Fellowship is obtained from the Executive Office upon the signed request of any Fellow in good standing.

February 1, — Closing Date for Nominations. Send the form to the American College of Dentists, Suite 352N, 7315 Wisconsin Ave., Bethesda, MD 20814-3202.

## INSTRUCTIONS FOR AUTHORS

## INTRODUCTION

The Journal of the American College of Dentists is published quarterly in order to promote the highest ideals in health care, advance the standards and efficiency of dentistry, develop good human relations and understanding, and extend the benefits of dental health to the greatest number. It is the official publication of the American College of Dentists which invites submission of essays, editorials, reports of original research, new ideas, advances and statements of opinion pertinent to dentistry. Papers do not necessarily represent the view of the Editors, Editorial Staff or the American College of Dentists.

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Papers should be in English, typed double space on white 8-1/2 × 11 paper. Left hand margins should be at least 1-1/2 inches to allow for editing.

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Dorland's Illustrated Dictionary will be used as the authority for anatomical nomenclature. The American Heritage Dictionary will

be used as the authority for spelling nonmedical terms. The American English form of plurals will be used where two are provided. The Index Medicus and Index to Dental Literature serve as authorities for standard abbreviations.

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Address all manuscripts and related correspondence to: The Editor, JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, Suite 352N, 7315 Wisconsin Ave., Bethesda, MD 20814-3202.

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A list of references should appear chronologically at the end of the paper consisting of those references cited in the body of the text. This list should be typed double space and follow the form of these examples:

1. Smith, J.M., Perspectives on Dental Education, *Journal of Dental Education*, 45:741-5, November 1981.
2. White, E.M., Sometimes an A is Really an F. *The Chronical of Higher Education*, 9:24, February 3, 1975.

Each reference should be checked for accuracy and completeness before the manuscript is submitted. The accuracy and completeness of references are major considerations in determining the suitability of a manuscript for publication. Reference lists that do not follow the illustrated format and punctuation or which are not typed double spaced will be returned for retyping.

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