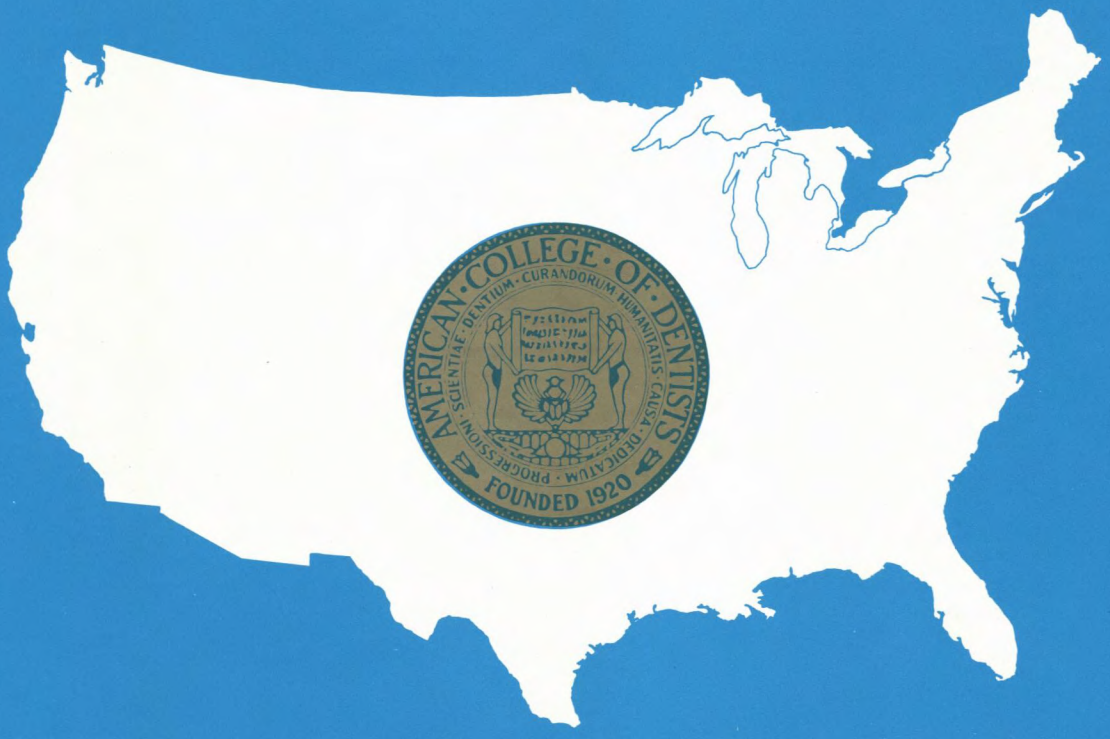
SPRING • 1986

JOURNAL

AMERICAN COLLEGE OF DENTISTS



NEW FELLOWS INDUCTED

THE RIGHT STUFF

Purposes and 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 the professional man the extent of his responsibilities to the community as well as to the field of health service and to urge his 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.

Revision adopted October 10, 1980

(ISSN 0002-7979)

The JOURNAL of the AMERICAN COLLEGE of DENTISTS

Volume 53
Number 1
Spring 1986

A Quarterly Publication Presenting Ideas & Opinions In Dentistry

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The Journal of the American College of Dentists (ISSN 0002-7979) is published quarterly by the American College of Dentists, Inc., McFarland Company, Harrisburg, Pennsylvania, with Second Class Postage paid at Harrisburg, Pennsylvania and additional points. Copyright 1985 by the American College of Dentists, Inc.

Subscription $15.00 a year. Cost of additional postage for airmail will be billed to subscriber. Single copies $6.00.

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For bibliographic references the *Journal* is abbreviated J Am Col Dent and should be followed by the volume number, page, month and year. The reference for this issue is J Am Col Dent 53:1–48, Spring 1986.

The *Journal* is a Publication Member of the American Association of Dental Editors

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FROM THE EDITOR'S DESK

FRAGMENTATION

There is a serious problem with the dental profession. Groups are splitting off to form their own separate organizations with specialized interests. These special interest groups are becoming more numerous and increasing their scope of activities every year. There is much competition and tension between some of these groups, and dentistry is becoming greatly divided by such actions. This process of a part breaking away from a whole is described as fragmentation.

The proliferation of these organizations and the entrepreneurship occurring both from within and without the profession offers unquestionable risk to the integrity of the entire profession. Yet a new concern on the horizon is the recent introduction of corporations to operate dental care facilities, which may produce one of the most divisive future problems to be encountered.

Presently we have conflicts that exist between practitioners and educators, between practitioners and dental examiners and between general practitioners and specialists. The rift between practitioners and educators is of particular concern because in some areas it has reached into the state legislatures where dentists are fighting dentists.

Because there is gradually increasing friction among the special interest groups, it sometimes becomes impossible to reach a consensus of opinion on important issues facing the entire profession, which makes it very difficult for organized dentistry to act on legislative matters. There is no doubt that economic impact is one of the contributing factors in these differences.

Keith P. Blair

The issues that are of the most concern deal with professional standards, but the profession is also significantly divided over other issues such as manpower, licensure, credentialing, education, standards of practice, marketing, advertising and legislative activities. Each of these issues can spark heated debate and produce diverse opinions between different groups. A large schism exists between older dentists, who tend to be more traditional in their methods and thinking, and younger dentists who feel more comfortable with new innovative ways of practice for the delivery of dental care.

Dentistry is an extremely diverse profession and there certainly is a need for specialization. The dental profession is enriched and enhanced by this diversity, and the public greatly benefits through specialized treatment. But specialized groups can surely work together for the best interests of the entire profession.

The problem of fragmentation is one that should be of great concern to all thinking dentists. For nearly one-hundred years, the strength of the dental profession has been in its unity of purpose with dentists working together as colleagues to serve the public. Dentistry cannot permit its strength to become diluted by internal conflict.

It is essential that we develop more inter-organizational understanding and cooperation within dentistry. Surely this great profession has the collective ability, wisdom, intelligence and sense of purpose to find a solution. We must accentuate the strong ties that have served to bind dentists together over the years. Individual dental groups should somehow adjust their goals and aspirations for the good of the whole dental profession, and for the benefit of the public we serve.

The major organizations which focus on American Dentistry are the American Dental Association, the American Association of Dental Schools, the International Association of Dental Research (American Division) and the American Association of Dental Examiners. Ultimately, these organizations have the main responsibility to unify the direction of the dental profession, but all groups should work together to that end.

Fragmentation is a problem that deserves a high priority. It needs the attention of the best minds and the best facilitators in dentistry. This is too important a matter to leave to chance.

Keith P. Blair

THE RIGHT STUFF

President-Elect's Address

Norman H. Olsen

Hannah Gray, President of the University of Chicago, has likened the president of an organization such as this American College of Dentists to that of a prophet. "Centuries ago," she says, "there were no presidents—only prophets."

And that, I suppose, is my role as your President for this coming year—to be your prophet; to help this distinguished College refine its purpose; to stir up its coals; to keep its flame alive—just as my predecessors have attempted to do.

Former Mayor Daley of Chicago once said that he was nostalgic about the future. Well, so am I as I talk to you today.

My warranty expires in just one year. During this time, I hope to do what I can to heal this profession's wounded self-perception and, perhaps, help this College do some fine tuning of its own.

I welcome healthy change and I savor challenges. I simply pray as did St. Francis that the Lord will give me the courage to change the things that can be changed, to live with those that can not be changed—and the wisdom to know the difference.

In just a few years, Northwestern's dental School will be 100 years old, and, thanks to a strong sense of history initiated by Greene Vardiman Black—whom I don't believe had an unwritten thought—our library is an enormously rich source of scientific and historical observations.

Norman H. Olsen
President 1986

G. V. Black's son, Arthur D. Black, was even more assiduous at book collecting. He succeeded his father as Dean at Northwestern and, a few years later, became one of the organizing members of this American College when it met for the first time at the Copley-Plaza Hotel in Boston, in August of 1920.

Thanks to Arthur Black and others, I have access to some 50 volumes of the written record of this group. They have proven to be an invaluable resource in preparing my remarks today.

These volumes reflect the thinking of all my predecessors. I could trace the intellectual and social development of the College, and literally feel its emotional thrusts as I probed its past, its present and its future.

At that first meeting in 1920, the organizing committee drew up a statement of requirements for Fellowship. It was briefer than our present one, but it had a kind of Harry Truman look-them-in-the-eye forthrightness about it.

The original requirements for Fellowship were:

- To cultivate and encourage the development of a higher type *professional* spirit and a keener sense of social responsibility throughout the profession.
- To inculcate higher ideals among the younger element,
- To hold forth fellowship as a reward to those who faithfully follow such ideals,
- To stimulate advanced work in dental art, science and literature,
- To honor men who have made notable contributions to the advancement of our profession.

That was it—67 words. The language is a bit dated, but the intent remains beautifully clear. This great dental profession was taking a giant step out from underneath the medical profession, from being considered as mere mechanics to becoming respected as true men and women of science—custodians of a still-growing tradition, and

trusted servants to a public who needed us.

Our first President, John V. Conzett, of Dubuque, Iowa—a man who had served earlier as President of the American Dental Association—was the first dentist to proudly place the letters F-A-C-D. after his name.

Now, six and one-half decades later, our President, Charles W. Fain, calls us to San Francisco to take another look at the meaning of those four letters.

Dr. Fain asks us to discuss the evolution of this profession in terms of the College's creed. There is *still* a need to discuss ethics, standards of practice, community relations, science, and our own interpersonal relations. We need to be certain that F-A-C-D *still* stands for high skill and intellectual effort, extended educational preparation, group dignity, intellectual superiority, and service to the public that is free of unscrupulous commercialism.

Reading through those volumes of speeches, minutes, articles and reports was both instructive intellectually and stimulating emotionally. The experience also served as an opportunity for me to reflect on the fact that we remain a very young profession here in America.

Formal dentistry wasn't practiced here in the United States until the late 1790's. Textbooks appeared only around 1800. It wasn't until 1840 that the first dental school opened in Baltimore.

I am privileged to know men—some of whom are members of this college—who can readily recall the days when dentistry was roughly divided into three classes:

- Those who took formal courses in dentistry,
- Those who studied a little medicine and slipped into dentistry,
- And those who simply decided that they wanted to be dentists, although they were barely trained technicians.

My good friend, Dr. Orion H. Stuteville—a distinguished dentist, orthodontist, oral surgeon, and physician, now retired in Arkansas—still tells stories from his own youth in Oklahoma where the so-called "dentist" was also the local purveyor of moonshine, and extractions were done in the back of the local store, with moonshine as the principal anesthetic agent.

The charm of a story such as this gets a bit lost on me, especially when it reminds me that the "dentist" was held in such low regard: that he was viewed as a mere mechanic—a dispenser of pain and puller of teeth—and that so many dentists were so poorly educated.

But the story does serve a purpose. It reminds us of how far we have come—and, as your duly-elected prophet for this year, I want to remind each of you that, far from being pessimistic, we can take justifiable pride in just how far we have come.

My colleague and fellow dean, Arthur Dugoni of the University of the Pacific, reminded a group of dental editors recently that the commission on accreditation was established less than 10 years ago in 1978. He recalled that in 1950, when many of us were still in dental school, only $300,000 was spent annually on dental research and 100 papers were given at an annual session of the IADR. Now, over 35 years later, $80 million dollars is being invested annually in research for dentistry and 1800 papers were presented this past March in Las Vegas at the IADR meeting.

Think a moment about this:

A few years ago, this College paid tribute to one of this country's great dental leaders—the former Executive Director of the American Dental Association, Dr. Harold Hillenbrand. He is not yet 80 years of age, and has been a dentist for only 55 years. Yet, he can readily recall when dentists entered the military service as privates or ordinary seamen. I mention this—not to revive some old hurts—but simply to remind each of you how dramatically things have changed within in our own lifetime.

Let me cite some additional facts gleaned from an address to the National Association of Advisors

for the Health Professions in June of this year:

- Dental care expenditures were $19.5 billion in 1982. The forecast for this year is $27.3 billion.
- The economic growth of dental care services between 1950 and 1982 exceeded the growth of the economy as a whole. This growth—some 47% in the period between 1967 and 1982—can be attributed to growth in *real* dental output, not an increase in the price of dental services.

I am sure you remember the howls of protest when dental insurance came in? It represented a different way of relating to the patient. But, with proper adjustments, thinking dentists have made the transition. As a result, dental prepayment has risen from $6 million to $87 million in 15 years and is expected to go to $100 million by 1990. Dental insurance accounted for 45% of the gross dental income in 1984.

And to those of you who are concerned about an oversupply of young dentists crowding the market, let me simply say that the 1985 enrollment in dental schools is *down* 24% since the high of academic year 1978-1979. That's roughly the equivalent of closing 10 schools.

This country will have a population of 265 million people celebrating the turn of the century in the year 2000. And that population increase comes during a period when Americans are having a highly contagious romance with self-improvement. As a consequence, even the normally conservative Department of Human Services has predicted a shortage of some 4000 dentists by the year 2000.

Dear colleagues—if anyone of you still feel the need to worry or bemoan or view with alarm conditions in your profession, direct your energies to the medical field, where it is expected that there will be a *surplus* of some 50,000 physicians by the end of this century. Those periodic stories one hears about cab drivers delivering babies just won't mean much any more. The cab driver in the year 2000 may well be an obstetrician! Seriously, I'm simply presenting such facts to support my contention—*dentistry is not going the way of the blacksmith!*

The truth, according to an article that recently appeared in the *Journal of the American Dental Association*, is that, if our citizens were properly motivated to demand and receive care, dentists could spend up to *ten* times the number of hours at their dental chairs just for periodontal work alone!

Why am I making so much of this progress? Because, quite frankly, in reviewing much of the College literature of this past half century, I detect a certain pervasive and mildly reactionary spirit. There were times, in fact, when the oratory and editorializing would suggest a profession under siege. There seems to be an impression today that the enemy is at the gate, simply waiting to destroy us. I do not share that view. I come before you to ask that you join me in improving a profession that has grown more since the establishment of this college than in the entire history of western culture.

My vision of this profession is one of even greater growth and greater opportunity.

I come to ask each of you to see change as a challenge rather than a threat.

I come to ask that you and I make ourselves the architects of any change—and not wait for others to do it for us.

I come to remind you that we must *never* become like that nameless French General who once said: "I must find out where my soldiers are going so that I can lead them."

Let me make an observation:

Membership in this college is not gained by calling an 800 number. You are here because you have met a high standard. Yet, therein lies a kind of catch-22. Perhaps, by the time we have earned the credentials for membership, we may have succumbed just a little to a certain mild hardening of the arteries within our psyches.

The literature of the college contains disturbing hints of such thinking. I found some worried little sentences such as "we are beset by outside forces"—and, "we must circumvent those who are trying to take over the profession." We must *not* see ourselves as under attack. No one will take us over unless we let them!

With all due respect, dear colleagues, let me suggest that such thinking would find a better home in the political rather than the professional arena.

One writer viewed a proposed unionization of dentists, for example, as a trojan horse which "by cunning and guile was brought into the city by the Greek soldiers."

The story of the Trojan horse is a good story—and one with a good lesson. But the lesson I draw from it is not that the Greeks were shrewd although surely they were that. The *real* lesson is that the leaders of Troy were incompetent. A closer reading of the story will reveal that, in spite of overwhelming evidence to the contrary, the Trojans repeatedly took actions that were against their own best interest.

If we are to see ourselves as the people of besieged Troy, then let us be careful that this profession does *not* take steps that are against its own best interests. Instead, let us listen to the voices that are out there and let us act intelligently and creatively in order to be certain that this profession remains in the hands of the professionals.

Professionalism is our most valuable asset. Our greatest virtue as professional people is that we place the welfare of others ahead of ourselves.

I firmly believe that we can adapt to many of the changes within society and our profession without losing our professional posture—and without having to treat people as customers rather

than patients.

Among senior dentists, there may be a tendency to look back, to select out the stories of heroes, and to romanticize the past. It's something akin to our attitudes toward baseball.

You and I remember with fondness the accomplishments of a Babe Ruth or a Lou Gehrig—a Ted Williams or a Joe Dimaggio. Like the great men of dentistry years ago, these were clearly men of exceptional merit.

But, if I may continue the analogy, I would remind you that these men were standouts—in part—because the sport was not nearly as large or as well developed as it is today.

Since those glory days of .400 hitters, the competition within baseball has so improved that the overall quality of play has advanced immensely. With all due respect to our early dental heroes, I submit that, overall, there are more and better dentists than ever before because there are more dentists and because both the science and the art of dentistry have advanced so much.

Believe me, I treasure the past. As a descendent of G. V. Black at Northwestern, I live with his bronze bust gazing at me from the bookcase in my office. There are moments, following a long and difficult decision making process, that I am tempted to turn to him and say: "Is that all right with you, G.V.?"

The reality is this:

Because of men like G. V. Black and his successors our schools are turning out dentists that are far better than he was. Because of him, *you* are a better dentist, and that is his greatness.

Because he was a consummate professional, he believed and taught that a license to practice was a license to *learn.* Because of him, you are here at this College, and you will remain for the ADA meeting, so that you can learn more about improving the quality of service to your patients.

Dr. Milton B. Asbell authored an article titled *The Heroes of Yesteryear.* It was distributed recently to the regents of this College by your Executive Director, Gordon Rovelstad.

Dr. Asbell asked some challenging questions:

He asked about leadership today, and whether or not we can find it in administration, organization and clinical practice. I maintain that we can.

He asked whether or not we are producing a more qualified practitioner in tune with the times. I *stoutly* maintain that we are.

He spoke of research and the fact that the breakthroughs we are achieving today would astound the practitioner of a generation ago. I maintain that what is happening today will continue to astound us, and that those who are willing to be lifelong learners will be even more sophisticated in serving their patients.

Dr. Asbell asked if the improved delivery systems and computer analyses—now commonplace in the profession—will help us set guidelines for the future. I believe that they will and that we should make even fuller use of them.

There are now over 60 professional organizations in dentistry—groups covering every imaginable facet of the profession. I applaud all such groups. One of the marks of a good professional is that he or she belongs to organizations that exist to improve the quality of the profession. I am suggesting that we in the College explore improved links with all such groups.

Homer C. Brown, a former President of the ADA, has written that "unless some practical readjustments are formulated and promoted by organized dentistry, some other interest outside of dentistry will assume the initiative in promoting a type of service that will probably prove a decided handicap to the dental profession and lower the standards of service to the public." (That was written in 1913 and things haven't changed that much from today.)

I believe that we can take initiatives so that this will not happen. I believe that, if we represent ourselves properly to the public, only a few people will be fooled by delivery systems that promise much and deliver little.

I believe that the seeds of dentistry with integrity will, if properly cultivated in the public arena, choke out the weeds of dishonest dentistry.

I would challenge each of you to return to your towns and cities across this nation, and, by word and example, show the public what a professional dentist is. Talk to your local rotary, your Lions Club, your Elks, your Knights, your Shriners and your Chamber of Commerce. Be a speaker at the social activities of your church or synagogue. Volunteer to visit your local schools to talk about dentistry. Tell them all what quality dentistry means to them. Listen to them and answer their questions and tell them how ethical dentists practice their profession.

Your fellow citizens *will* listen and I have great faith in their ability to discern.

We are *not* and must *never* even pretend to be a profession under siege.

I don't mean to oversimplify complex issues, but I *do* firmly believe that there are more good guys around than there are bad guys.

If we could develop the means to join hands with other professional dental groups in making our case to the federal government, state legislatures, our colleagues in the other health professions—and to the public we serve—no individual or group would be able to dismantle what we have so carefully built.

Yellow pages that once listed dentists as equal partners offering service to the public now contain ads that strain the limits of legal responsibility, and sometimes bury the ethical, honest dentist who promises only what he can do with integrity. It is a bit frustrating to witness the impact of avarice and greed on ethical behavior. Again, however, before leaving home, I

checked out Chicago yellow pages and was pleased to note that the vast majority of the dentists continue to adhere to dignified standards.

We in this college *can* influence those who would dilute standards of practice and behavior. We are 5000 strong. We were admitted to this college because we represent a high standard. Without meaning to sound self-serving, we are considered to be the first team of dentistry and we can readily place our standards on the line to protect what we stand for. We can find platforms from which we can herald the gospel of good dentistry.

In my browsings through the rich history of the College, I was delighted to discover an address on *Professionalism* by a then much younger Norman H. Olsen.

In that address, I cited former Columbia University Provost, Jacques Barzun. In an article on the same topic, he stated:

"What the professions need today are critics from *inside*—men and women who know what the conditions are—and also the arguments and the excuses, and a full sweep over the field, so that they can offer their fellow practitioners a new vision of the profession as an institution.

As self-described elite members of this profession, it is our duty to provide this criticism and this new vision to those with whom we practice and those who will follow us.

It is an awesome task. Even as we hear expressions of concern about the busyness problem, we still face the much larger problem of delivering quality dental care to 50% of the population who never see a dentist. We have yet to find ways to serve the underserved.

We have yet to find ways of placing dentists in areas that have none or few. I believe that improving the quality of life in less populated areas of this country will make these areas more attractive for dental practice and that we can distribute the present, modest oversupply of dentists to these pockets with populations of under 25,000 people.

I foresee a "boomlet"—not quite a boom—in the number of children being born. And I am informed of a significant increase in the number of people over 65. There will be 30 million of them by 1990. We will have plenty of people to serve.

Our profession needs only to find ways to better serve the people who need us. I cannot believe that a corporation as successful as Sears would enter the dental field if the patients weren't there. So let's find better ways to serve them before Sears does and sells them a lawn mower in the bargain.

Fifty years ago, this College sponsored a symposium on "Medical-Dental Relationships". Its purpose was to clarify misunderstandings between the professions.

Now, a half-century later, at this gathering, this College will sponsor another symposium entitled "The Interrelation of Medicine and Dentistry In Total Health Care." This 1985 discussion will examine the ways in which these two professions can help each other to deliver better health care to the public we serve.

The language has changed a little—from "relationships" to "interrelation"—but the change in health care over these 50 years has been nothing short of miraculous.

I do not foresee insurmountable problems with this new relationship. I do see both professions becoming better recognized for what they are under an umbrella of "Health Services", and I see dentists ultimately benefiting from this more than physicians.

We will see a certain flattening out of health care fee structures. We will also see more dentists working in hospitals alongside physicians.

But none of this is to suggest any diminution in our role as dentists or loss of professional quality.

In my over 30 years as a dentist, I have gone from a solo practice to one with associates, to a group practice involving 25 other dentists. I believe that my association in the large practice I now enjoy has made me a better dentist. These men are my colleagues. They energize me. They are independent thinkers within a dynamic group. They are teachers to each other. What frightened some people just a few years ago does work and is working well.

Last year, Charles Fain, in his address to this group, used the

expression "heroes". If I were to pick one of mine, I would choose the late Willard "Bill" Fleming. Bill passed away in 1972, but I remember him fondly because he was a straightforward, honest man with a dedication to this profession—and to upholding professional standards.

Our senior members will recall that he was President of this College in 1951.

In an article published in the *Journal* of the College, Bill pointed out that every person seeks the basics of life—food, shelter and clothing. To this, Bill added a fourth necessity—health services.

Bill did not see dentistry as something elective, like cosmetic surgery. He saw it as a vital service and his vision of the profession was to deliver that service to the people of this nation *without* diminishing our status as members in the health professions.

Bill believed that the profession could make accommodations to societal changes without loss of professional status. He cautioned, however, that "simply playing on a tradition of service" could cause agencies outside the profession to take the initiative.

I firmly believe that we can accommodate ourselves to change by simply making certain that we remain the architects of change.

Former Dean of Baylor University, Kenneth V. Randolph, described a health professional as a person who is "knowledgeable, skillful, inquisitive, honest, humble, charitable and sensitive—a person who recognizes his own limitations and who strives for personal development."

Note well that conspicuously absent from such a definition are promises of painless dentistry, free examinations, professional superiority over other dentists, guaranteed dental work or dentures in less than 24 hours.

Those promises, as the late Chief Justice, Charles Evans Hughes, wrote are "generally the practice of the charlatan and the quacks."

Theodore "Teddy" Roosevelt has become one of our legendary presidents. His life was far more than his almost mythic charge up San Juan Hill.

It was Teddy who coined the expression "The Right Stuff." The term defies accurate definition, but we all know what it means. It is having what it takes to believe in yourself, in what you are doing and in your fellow man.

Teddy was a wealthy man who fought his fellow Republicans when it was clear to him that certain big businesses were corrupt. When he felt that his own party was no longer true to its principles he founded one of his own. The Bull Moose Party went down in flames in an election against Woodrow Wilson, but Teddy made his point, and his principles have influenced legislation to this day.

If I can accomplish one thing during my tenure as your President, let it be that I have urged each of you to seek that elusive "Right Stuff" that is deep inside you.

Bill Fleming used to say: "Almost anything a man can imagine can be achieved—or will be."

And your former Executive Director, Robert J. Nelson, has written that "there is no glory in handing down to the following generation a torch whose flame has gone out."

I pledge to each of you that I will devote every resource within me to pass the torch you have given me to my successor with the flame glowing brighter.

In closing I remember that among those wonderful volumes of the workings of this College, I found a little page filler that was so much a part of those earlier bulletins. It was a quote from Horace Greeley—and this is what it said:

> "Fame is vapor
> popularity an accident,
> riches take wing,
> only one thing endures,
> and that is *character*."

Thank you so much for the confidence you have placed in me. I only pray that I will have "The Right Stuff."

God bless each of you and this College. △

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MEDICAL AND DENTAL SCHOOL FACULTIES WORKING TOGETHER

The Interrelation of Medicine and Dentistry in Total Health Care

James E. Eckenhoff*

When Norman Olsen asked me to participate, I was pleased, doubly so upon learning that he was to be inaugurated as your next president. As deans of dentistry and medicine at Northwestern University, Norm and I had a close relationship over 13 years. For much of that time our Dental and Medical Schools shared the same building; our offices were 6 floors apart; we dealt with similar problems such as antediluvian quarters, inadequate space, markedly restricted budgets and with a university administration located in the suburbs 14 miles away that wasn't quite sure of what we did or how we did it. It was only natural for the two of us to confide with each other, cry on each others shoulders, laugh together when things went well, and struggle to keep our heads above water when the academic spring flood tide budget time came around. With this background, when asked to speak my response was, "But what about?" Norm's response, "Jim Eckenhoff, you don't know how unique the relationship between this dental and medical school is. You should tell the audience how we were able to develop this uniqueness." Accepting that opinion, this speech has been prepared. It will be in three parts: 1) In what ways have we proven a dental and medical school can work together; 2) Discuss the necessary ingredients for developing a collegial relationship between the two diciplines; and 3) Express an opinion of what I would do were I a Dental Dean facing the problems confronting dental schools.

Ways in which a dental and a medical faculty can work together

Perhaps the first instance of our two faculties working together came in 1965-6 through the department of Dental Materials. The Chairman, Evon Greener, was attending a national meeting on dental materials. Unknown to Evon, one of our orthopaedists, Paul Meyer, was also in the audience. Both had plied the speakers with questions, sought each other out at the end of the meeting and were surprised to learn that they both were from Northwestern and in fact did research in the same building, albeit on different floors. A few months later, the orthopaedists approached Greener with a clinical problem related to factors determining the rapidity with which bone cement hardens. Greener and his associates solved the problem; it was related to temperature differentials. This led to an expansion of interests, a change of the departmental name from Dental Materials to Biological Materials, and Greener and his associate, Eugene Lautenschlager began to work with our Orthopaedic Surgical group which was involved with electromechanical and engineering research on prostheses. Biological Materials began to do the companion research on acrylics, adhesives and glues. Lautenschlager received a Career Development Award and made a request to my office to audit medical student courses, which I was happy to approve. He spent 3 years auditing various courses. Since the early 70's, Biological Materials has been concerned with 3 areas of investigation with our orthopaedic surgeons; the effect of temperature on polymers, corrosion resistant features of metals used in prostheses, and color stability of materials used in maxillo-facial reconstructions. Each year 3 orthopaedic residents work with the Biological Materials faculty doing research projects. This has been an outstanding and productive example of interdisciplinary collaboration.

The second meeting of the two faculties came at about the same

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Presented as a part of a symposium at the Annual Meeting of the American College of Dentists, November 2, 1985.

time through a different avenue and one that was more or less forced by circumstances. This was a merging of basic science departments of the schools into one with one chairman who reported to both the Dental and Medical Deans. There were several reasons for this action: dental students were doing poorly in their national examinations, the dental basic scientists had become undistinguished, none of the dental faculty had research grants, and together these facts had led to financial disaster for the dental basic science departments. The decision to merge wasn't accepted without rancor. Dental faculty didn't want to mix with medical basic scientists, and the latter thought their departments would be downgraded by the dental faculties. In retrospect this fear of downgrading is interesting because at that time the medical science faculties were rather average themselves. However, the decision was worked out by a faculty committee and the Deans, and approved by the President of the University so there was little the faculties could do. The process of merging was complete by 1968. I recall in the early 1970's that the Dental accrediting body didn't like the idea and preferred that the dental school have its own separate departments, but they reluctantly gave approval. Far be it for me to argue with that body, but today dental students perform well in basic science tests, all basic science departments are distinguished, and I am told that the basic science faculty salaried through the dental budget have one of the highest research grant incomes among dental schools in the country.

As a result of these mergers several other changes occurred.

First, faculty were identified as medical or dental depending upon the source of salary, although all received an identical appointment in both schools. This meant that one appointment and promotion committee representing both schools had to approve all appointments or promotions in the basic sciences. This forced the two faculties to mingle and importantly, led to an equalization of standards in the schools. I doubt if some faculty know in which school their primary appointment is located. On several occasions faculty with a primary appointment in the dental school have chaired the medical schools appointment and promotion committee.

Second, as the school identification began to blurr, involvement in research grants often came from both faculties, and only when a single principle investigator was named was the school to which the grant should be credited clear. Thus, when the funds of the Basic Research Support Grant were awarded to faculty internally, a research committee representing both schools needed to make recommendations to the Deans. Personally, I couldn't have cared less where a member of the faculty had the primary appointment. If the research proposal was good as judged by a peer group, then award the grant; the Research Committee was so instructed by the Deans.

Third, laboratory space originally assigned to the Dental or the Medical School lost its school identification after the first few years; it became departmental space under the control of the Chairman of the department. Similarly, the multidisciplinary teaching laboratories for dental and medical students were merged. The medical multidisciplinary laboratories had been constructed in 1965 through a government grant and occupied two floors, one for freshman, the other for sophomores and each accommodating 160 students. The dental laboratories were built in 1925, were dingy, crowded, dirty, showing the wear of 45 years, poorly equipped and unconducive to study. It became apparent to me that our multidisciplinary laboratories were not efficiently used, so we struck a bargain with the dental

school for its students to move into one floor of our newly renovated and equipped laboratories and we would use the other for both freshman and sophomores. In return we would receive one old dental laboratory, which we would renovate to be occupied by two medical clinical departments, one new and one whose faculty was becoming full-time rather than volunteer, hence the need for more space. Most of us thought the swap equitable, although not all.

The third meeting of the medical and dental faculties has proven very important and also involved space. Traditionally, Northwestern University housed all medical outpatient facilities and except for emergencies the two nearby affiliated hospitals did not provide ambulatory care. Our clinics were ancient and poorly equipped, only indigent patients were treated—private patients went across the street to doctor's offices; students disliked both the instruction and care provided; the volunteer faculty didn't want to teach there; and the operating deficit was unacceptable. In 1971 we set out to form a one class ambulatory care service to be housed outside of the medical educational facilities and invited the dental faculty to participate if they so desired. They did, and within several years we had a free standing building (the old but renovated American Dental Association building on Superior Street) where care was provided to both private and indigent medical patients and to private dental patients. This practice has flourished, has an annual income now exceeding $40 million, and is an independent not-for-profit corporation. The dental practice has since separated, but remains within the same building with dentists rubbing elbows with physicians. Until the formation of this group practice neither school had private practice facilities for its clinical faculty. I can assure you that the availability of this practice capability has provided a strong impetus in attracting highly qualified faculty.

Perhaps these examples provide the most significant three interactions of the dental and medical schools; however, there are five others of consequence that I will mention briefly.

1. The establishment of an MD-DDS degree program for oral surgeons. To qualify for this program, the dentist had to be in the oral surgical residency, and based upon performance in the National Medical Board Examination, might be admitted to the third year of medicine. Our oral surgical program has required close support from and cooperation of the departments of anesthesia and pathology, and by any measure this has been a resounding success. I have personally supervised all oral surgical residents in the program as they rotated through the anesthesia service, and think that on average all have been of superior quality.
2. The creation of a course, Introduction to Physical Diagnosis and Clinical Medicine for the sophomore dental students at the end of their second year. A retired chairman of our Department of Medicine willingly accepted this assignment.
3. Appointment of dental faculty to two other important medical school committees: the curriculum committee and a long range planning committee. Presence of dentists on these committees has given the dental faculty a voice in medical school activities, to suggest areas in the medical curriculum where they can have valuable input, and to look out for the interests of dentistry as the medical school plans for the future.
4. Appointment of dental faculty to a task force of the McGraw Medical Center of Northwestern University charged with creating a Center on Aging. The senior dentist faculty member on this committee carried some of the ideas discussed back to the dental school, which led to formation of a program in geriatric dentistry, now an expanding 4 year old activity with several satellite clinics in homes for the elderly.
5. When a new building was completed in 1978 to accommodate dental school clinical activities as well as 27 operating rooms and the critical care units of Northwestern Memorial Hospital, provisions were made for a dental ambulatory surgical unit, something not in the hospital plans. Even though housed in the same building as the hospitals operating suites, this unit is shared with Northwestern surgeons. Obviously close cooperation

between the Dental School, the Department of Anesthesia and the surgeons has been necessary and that has been accomplished. A spin-off benefit for dental students has been the opportunity to scrub-in for all types of ambulatory surgery as well as to observe and participate in the administration of anesthesia.

One final collaborative activity must be mentioned. In 1973, we were able to merge two large hospitals, Passavant and Wesley Memorial, a feat that many knowledgeable of the Chicago medical scene still consider impossible. At the time of merger, a new affiliation agreement between the renamed Northwestern Memorial Hospital and Northwestern University had to be drawn up and signed. In this agreement, the departmental structure of the hospital was conformed to that of the medical school, something not true before, and a department of dentistry was added. This was a significant step forward, giving dentistry a voice in hospital affairs it hadn't had before. Initially, the department consisted only of oral surgery chaired by individuals with combined medical and dental degrees. A few years ago, another section was added to this hospital department, that of general dentistry, and a benefactor established a general dental clinic for the care of hospitalized patients as well as for private patients of the participating dentists, with Peter Hurst as Chief. This has appreciably augmented the exposure of dental students in the hospital and has allowed the creation of several postgraduate positions in general dentistry. Cooperation of the medical staff with this venture has been excellent and the immediate availability of dental consultation and services has led to better patient care. One example—patients scheduled for open heart surgery are now seen by the dental service, to rule out infection of gums or teeth as potential sources of postoperative infection.

Ingredients necessary for a collegial relationship between medicine and dentistry.

Perhaps we have had an advantage not available to many schools of dentistry. As mentioned, dentistry and medicine are housed in the same buildings. It might be more difficult to do what we have done if the schools and hospitals were separated by appreciable distances, although I think this problem can be surmounted.

The principle ingredient necessary to accomplish an interdigitation of dentistry with medicine is the compatible personalities of the individuals at the top of their interest in collaborative approaches to academic pursuits and to good health care delivery. A collaborative approach can not be mandated but if Deans and their faculties can discuss common problems and seek solutions of benefit to both, then the soil is very fertile. In academia, if the Deans of Dentistry and Medicine aren't friends, don't see each other often, and don't talk to each other, then collaborative approaches will be unlikely among their faculties. Mutual respect cannot be mandated—that has to be generated by actions and personalities.

Having said this, I should point out that the relationship of Biological Materials and Orthopaedics developed because of the common interests of two faculty members and essentially unknown to either Dean or Chairman of Orthopaedics. In fact I was unaware of it for the first 6 years of my deanship. Few people turn down help if it is offered.

Someone must offer the hand of friendship first. When I became Dean in 1970, nearly the first invitation to dinner came from George Teuscher, then Dean of the Dental School, to meet with him and his departmental chairman. I was surprised but pleased because of my prior relationships with oral surgeons at Pennsylvania as well as that with Mr. Terry Ward who some may remember as the Dean of the Faculty of the Royal Society of Dental Surgeons in London. From the time of that dinner on, my relationship with the senior dental faculty was warm, I was aware of Dental School problems, and when Norman Olsen became the Dean, we continued even closer ties. Seldom a week went by that we didn't have a telephone conversation—a much more effective way of communication than writing. It is immaterial who makes the first move, and if the medical dean doesn't the dental dean should.

A second ingredient is for a dental dean and his senior faculty to be alert to what is happening in the university, in the medical school and in its affiliated hospitals. There are a variety of ways of doing this but one of the principle ones is

through committee membership and attendance at meetings even though the dentists may not see much of interest on the agenda. Attendance signifies interest and by listening to discussions, one can see avenues for exploration. It is very likely that dental faculties or Deans will be the first to see an opportunity, rather than the physicians.

What would I do were I a Dental Dean today?

My comments on this point may be controversial and perhaps I should say at this point "thank you very much," then sit down. But, nothing ventured, nothing gained.

My understanding of the situation facing dental schools today is that the numbers of applications are dwindling, the caliber of applicants is falling off and there is greater difficulty in dental graduates finding employment or appropriate places to open an office. The basic science faculty tell me that performance of dental students is decreasing, but I have no information on the competence of dental graduates today as compared with a decade ago. General dentists all over the country are, on average, finding less work and incomes are suffering. While this is a sad state of affairs, I should point out that it is not unique to dentistry; to a lesser degree it is happening to medicine, although we have no evidence that the caliber of medical students is deteriorating yet. In Great Britain, there is an alarming rate of unemployment among physicians. The figure of 14,000 unemployed physicians has been mentioned.

The reasons for your problem are explained in great measure by the success you have had in dentistry and that your advances in dental care have amounted to working yourself out of a job.

With this background, what would I do? The first thing obviously is to decrease the number of dental students and perhaps of dental schools. This isn't easy, particularly in private schools, where school and perhaps university are variably dependent upon tuition income. However, the number of dental students apparently needs to be trimmed but the expected reaction should be that faculties and services may also have to be trimmed. Medicine is going through this same exercise.

The second direction that I would take would be to expand activities in the dental care of an aging population which didn't have the advantages of fluoride toothpastes and the like. Reconstruction work, periodontics and prosthodontics are apt to flourish for years to come.

The third direction would be to increase the activities of students, faculty and school in community health activities. There must be hosts of people in large urban remote rural areas needing dental care.

Finally, and perhaps controversial, I would begin to look around and exploit opportunities available. While reducing the size of the dental classes, I would develop or increase the number of and variety of graduate student programs. This may surprise some but there is an outstanding example in another discipline. Fifteen years ago, the Dean of Northwestern University's Business School realized that interest in undergraduate courses in business and commerce and in bachelor degrees in business was declining. He and his faculty made a startling move. They wiped out undergraduate courses, went completely into graduate courses, and established a School of Business Management. After a transition period of several years, applications far exceed capacity, tuition income is greater than before and recently the Kellog School of Business Management was adjudged to be the best in the country, eclipsing Harvard, Stanford and Pennsylvania. I'm not sure what polls of who is number one in professional schools amounts to, but at least it points out what can be accomplished by taking a hard look at the facts, breaking out of the mold, and taking off in a new direction.

I believe there will be an increasing demand for graduate work in dentistry and dental science; the demand will come from those who wish to excel and, after all, nothing succeeds as does excellence.

Were I Dean of Dental School, this is what I would be examining. But at the same time I acknowledge that this approach might be inappropriate for some dental schools, perhaps most. Where attempted, it will require a close association with a medical school for the greatest chance of success. △

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ENCOURAGE AN ENVIRONMENT OF INTERACTION BETWEEN MEDICINE AND DENTISTRY

The Interrelation of Medicine and Dentistry in Total Health Care

Charles A. McCallum*

When I was given this topic, my initial reaction was that dentistry and medicine have not worked together effectively in the past and that we have a long way to go in developing true cooperative efforts. Perhaps this reaction was precipitated by the knowledge that in 1840 when Dr. Horace Hayden approached the faculty of the University of Maryland School of Medicine to seek the establishment of a dental department, the medical faculty denied his request. Their denial was based on three factors: The subject of dentistry was considered to be of too little consequence, there was a lack of adequate space, and the faculty were unsure about the proper interrelationship between medicine and dentistry. Because of that decision, dentistry became a profession apart from medicine. Over the years, as it has matured and gained stature, it has made significant contributions to the health of society. Today, dentistry in the United States, like the practice of medicine in this country, is recognized as the best in the world. Whether dentistry would have achieved its current status had it been accepted as a part of the faculty of medicine at the University of Maryland, we shall never know. Over the years, however, the separateness of the two professions has produced some interesting conferences and debates, including a Symposium on Medical-Dental Relationships sponsored by the American College of Dentists at its annual meeting and convocation in New Orleans in November of 1935.

Charles A. McCallum

As stated, my initial reaction was that the two professions had done very little toward effecting cooperative relationships. On further reflection, however, it becomes apparent that over the years many significant complementary efforts have developed between medicine and dentistry. Let me briefly review these relationships and reflect on how we might enhance them in the years immediately ahead. Although there are many avenues by which to approach the topic of the interactions between medicine and dentistry, being an academician, I will limit my comments to the education and training of physicians and dentists.

The university has played an important role in assisting dentistry to mature as a true learned profession in the United States and has provided an environment for medicine and dentistry to interact. All schools of dentistry are a part of universities, and all but six of the 60 dental schools are located in academic health science centers within universities. This proximity makes possible daily interaction between the dental school faculty and physicians and other health profes-

*Presented as a part of a symposium at the American College of Dentists Annual Meeting, November 2, 1985, San Francisco, California by Charles A. McCallum, D.M.D., M.D., Senior Vice President for Health Affairs and Director of the Medical Center, University of Alabama at Birmingham.

sionals. This administrative grouping of schools of medicine and dentistry in the academic health centers made cooperative efforts inevitable.

Most students admitted to dental schools, like those in medicine, have completed four years of college with only 12 percent having less than three years of college. Most schools of medicine and dentistry have two years of preclinical studies in the basic sciences followed by two years of clinical studies. In 40 of the 60 schools of dentistry, the basic sciences are taught to the dental students either by the faculty of the school of medicine (10 schools) or by shared basic science faculty (30 schools). Thus, in two-thirds of the dental schools, the same basic science faculty are responsible for teaching both medical and dental students. In several schools, dental students take all or part of their basic sciences in the same classes with medical students.

Analysis of the 1983–84 dental curricula in our country's 60 dental schools reveals that almost 79 percent of the average 4,595 clock hours were devoted to clinical sciences. Slightly more than 18 percent of the hours were spent in basic science instruction, with some 2.7 percent devoted to behavioral sciences. It is interesting to note that in recent years, certain clinical areas in dentistry which have considerable relevance to medicine have received increased emphasis and in most cases increased clock hours. These courses and the mean number of hours they are taught are: anesthesia/pain and anxiety control (49.3 hours), clinical nutrition (15.8 hours), medical emergencies (21.8 hours), dental emergencies (45.6 hours), physical evaluation (60.5 hours), hospital dentistry (54.8 hours), and oral surgery (141 hours). I mention these courses, which comprise a total of approximately 389 hours, because most have a direct relevance to medicine. They are intended to educate and expose the dental student to the management of patients, including those with serious medical problems, and thus they foster a closer interrelationship with medicine. Until 10 years ago, few schools of dentistry devoted curriculum time to the subjects of physical evaluation, hospital dentistry, and medicine.

There are several reasons why dental educators believe that dental school graduates should be knowledgeable about systemic-disease states and why these courses have been added to the dental curricula. First, as patients present for treatment in the dental office, they may have certain systemic-disease conditions that dictate the altering of therapy to prevent undue harm to patients, for example, prescribing appropriate antimicrobial agents prior to surgically removing a tooth in the patient with a prosthetic heart valve. Second, many patients may be taking medications for certain physical conditions, and the dentist must be knowledgeable about clinical complications that are possible when a patient is on certain drugs, for example, the problems that can occur following surgery in the patient who is on anticoagulant therapy for thrombophlebitis. Third, with more than 100 systemic-disease processes having oral manifestations, the dentist should be suspicious of the existence of certain systemic disease when such oral conditions are present and refer the patient, where appropriate, to the physician for definitive diagnosis and treatment. An example of such an instance would be the occurrence of petechiae and hemorrhage in the mucosa of a patient with leukemia. Fourth, when treating patients with certain systemic diseases, the dentist must protect himself, his personnel, and other patients from contracting diseases, for instance, hepatitis B. These reasons clearly illustrate why dentists must be aware of medical problems in their patients and must work closely with physicians in assuring the best possible care of such individuals.

In examining the curricula of schools of medicine, we note that little time is devoted to teaching dental sciences to medical students. In a survey conducted of 140 medical schools in the United States and Canada reporting the extent and nature of instruction in dental topics for medical students, J. W. Curtis and his colleagues found that only six schools out of 115 completing the survey had a formal or structured course in dentistry. Of those who responded 46 institutions had programs in which medical and dental schools were formally associated. Among those 46 schools, 10 schools, or 22 percent, devoted 1 to 6 hours to teaching dental topics. Seven schools, or 15 percent, devoted 7 to 15 hours, while 3 schools, or 6 percent, devoted more than 15 hours. Six of the schools, or 13 percent, devoted no hours at all to teaching dental topics. Twenty schools (43 percent) did not respond to the question. The most frequent reason given for the exclusion of dental subjects was not that the subject was considered unimportant but because sufficient time was not available in the curriculum.

Analysis of the responses of all 115 medical schools relative to

hours devoted to dental science, indicates that five schools gave more than 15 hours to dental topics. Forty-three devoted less than six hours, and 40 schools did not respond to the question. The investigators reported that overall 63 percent of the respondents did not reply to the query as to the amount of time that should be allotted to dentistry. The lack of a course in dentistry may be due in part to a failure by dental school faculty to propose offering appropriate dental topics to the curriculum committees of medical schools.

A review of postgraduate programs in medicine and dentistry reveals considerable evidence of complementary and cooperative efforts between the professions. Although internships and residencies have been long established in medicine, and experienced considerable growth immediately following World War II, dental postgraduate education is relatively new. Although the first hospital dental service and internship was established in 1900, most dental residency programs in hospitals have been established and accredited during the last 30 years. During the 1984–85 academic year, there were 740 postgraduate programs in dentistry with a first-year enrollment of 2241 and a total enrollment of 3888. Of these residents, 1022 were in general practice and 706 in oral and maxillofacial surgery. These 1728 dental residents received the majority of their education and training in hospitals where they had the opportunity to interact with the medical staff. In addition, residents in other dental specialties may receive part or all of their postgraduate experiences within hospitals.

It should be noted that, except for oral and maxillofacial surgery and general practice residencies, all postgraduate dental programs are two years in length. Oral and maxillofacial surgery residency programs are a minimum of three calendar years. Of the 114 accredited programs in oral and maxillofacial surgery, 57 (50 percent) are three-year programs and 49 (43 percent) are four-year programs. Seven programs are five years or longer and permit the obtaining of a medical degree in addition to completing the residency program. Three other oral and maxillofacial surgery programs also offer the option of obtaining the medical degree.

Some dental residencies require the rotation of residents on certain medical services. In oral and maxillofacial surgery, residents must spend a minimum of 2 months on surgery, 2 months on medicine, and 4 months on anesthesia. Recently, it has been recommended that all oral and maxillofacial surgery residency programs be lengthened to 4 years, of which 10 months must be spent on a surgical rotation, 2 months on medicine, and 6 months on anesthesia. Thus, this recommendation proposes that 18 months of the training of oral and maxillofacial surgeons be devoted to full-time assignment to a medical service. Additionally, patients admitted by the oral and maxillofacial surgery service must have a complete history and physical examination performed by the resident. The rotation of dental residents on other services enhances close interrelationships between medicine and dentistry.

The 1022 general practice residents must receive experience in managing dental inpatients from admission through discharge. This process includes responsibility for taking appropriate histories and performing physical examinations along with training and experience in the diagnosis and management of medical emergencies that might occur concurrently when dental operations are being performed. The general practice residents must also have the opportunity to provide dental care to patients with coexisting acute and chronic disorders. They must receive instruction in managing pain and anxiety with conscious sedation and serve a rotation on the emergency service.

With the establishment of dental general practice residencies within the environs of hospitals, including their outpatient clinics, physicians and dentists have had the opportunity to work together to provide total health care to the patient. There are many examples where patients have benefited when they received treatment utilizing both medical and dental expertise, and it seems appropriate to highlight here a few of these examples. To avoid serious postoperative sequellae, patients scheduled for heart, lung, liver, or kidney transplants should be screened for the identification and eradication of oral sepsis prior to surgery. Similarly, the eradication of oral infection prior to the placement of heart valves, vascular grafts, and joint replacement is prudent. Maintenance of oral health is essential in the patient receiving chemotherapy, immunosuppressive therapy, renal dialysis, and irradiation of the orofacial region. Eliminating dental infection and maintaining oral health are important when treating the patient with bleeding diathesis or leukemia, and when regulating the diabetic patient. Dental services are also essential when patients are comatose,

neurologically impaired, and handicapped.

Conjoint treatment efforts between certain specialties in dentistry and medicine are essential to manage and correct certain serious diseases, deformities and injuries. The services of the neurosurgeon, ophthalmologist, oral and maxillofacial surgeon, otolaryngologist, and plastic surgeon are frequently required when treating severe craniofacial injuries. The services of the oral and maxillofacial surgeon and orthodontist are essential when correcting skeletal and orthognathic deformities of the jaws. Similarly, the neurosurgeon and oral and maxillofacial surgeon combine their skills and knowledge to correct severe craniofacial deformities such as craniofacial dysostosis. The prosthodontist frequently is needed to develop appropriate splints and stents and prostheses for managing disfiguring facial deformities. The prosthodontist working with the radiation oncologist can be helpful in constructing stents for the delivery of radiation and the protection of the jaws and teeth during radiation of tumors of the head and neck. Similarly, a variety of specialists from medicine and dentistry work closely together in providing unique joint expertise in pain, cleft palate, rehabilitation, and oncology clinics. These are but a few examples of instances in which hospital inpatients or patients in ambulatory clinics benefit from the combined knowledge and expertise of the dental-medical team.

Without the cooperation and commitment of clinical departments of medicine, dental residents would not have had the opportunity to attend conferences and serve rotations on such hospital services as medicine, general surgery, otolaryngology, neurosurgery, anesthesia, etc. All these experiences in clinical settings have been invaluable in the training and education of dental residents. Medical practitioners are to be complimented for their willingness to share their knowledge with dentists for the express purpose of enhancing the quality of care delivered to patients. Today there are more than 40,000 dentists on the staffs of hospitals in the United States, and 20,000 hospital staff dentists participate actively in the care of hospitalized patients. The acknowledgment of the active role of dentists within hospitals is reflected by dentistry's representation on the Joint Commission on Accreditation of Hospitals.

Besides the interaction taking place between medicine and dentistry in the education and training of future practitioners, close cooperative efforts are being mounted by dental and medical scientists. Research being conducted on the oral cavity and its associated soft and hard tissues, blood supply, fluids, and salivary glands has assisted medical scientists in better understanding disease, inflammatory, neoplastic, and degenerative processes elsewhere in the body. When dental scientists explore the immune system as it relates to caries and periodontal disease, their findings have relevance to a better understanding of other acute and chronic diseases in the body, such as rheumatoid arthritis. Studies within the oral cavity involving collagen may reveal or suggest solutions to diseases of the connective tissue elsewhere. The area of biomaterials provides a rather specific example of collaborative research efforts. In this instance, dental, medical, and basic scientists working together have developed bone substitutes, and joint replacements, and are continuing their joint activities to identify other materials to replace bone. The development of hydroxylapatite and its combination with collagen provide the neurosurgeon, orthopedic surgeon, oral and maxillofacial surgeon, and plastic surgeon with an exciting new substance for treating injuries, defects, and deformities of bones.

Research in dental schools involves millions of dollars each year, and the quality of dental research is sophisticated and enjoys great credibility. In 1984 the schools of dentistry in the United States received more than $45 million in research monies from the National Institutes of Health, with 20 dental schools attracting $38 million, or 83 percent of all the grants awarded to schools of dentistry. It is interesting to note that dental schools where basic science departments are either shared with, or under the auspices of medical schools attracted $37 million or 81 percent of all funds awarded to schools of dentistry by the National Institutes of Health.

In summary, for the most part there is minimal interaction between medical and dental students as they pursue their first professional degree. However, considerable interrelationships occur between physicians and dentists in hospitals and their outpatient clinics, and significant interdisciplinary efforts involving dental and medical scientists are found in biomedical research endeavors.

Having reviewed the current status of cooperative endeavors between medicine and dentistry, I believe it appropriate to reflect briefly on challenges facing our respective professions and how

these might impact on future interaction.

Simply stated, some of the challenges facing us include the following, and there may well be others. One, the abundance of physicians and dentists; two, the need to contain the cost of health care; three, the commitment to care for an aging population; four, the need to find ways to be fiscally prudent in educating physicians and dentists; and five, the perception by many that changes are needed in the manner in which we educate and train physicians and dentists. These challenges present some interesting options which deserve our attention.

I would suggest for consideration four educational goals that I believe to be both desirable and attainable within the near future. Achievement of these goals would make possible a more intimate interaction and exchange of knowledge between the professions of medicine and dentistry, and this result, I am convinced would be in the best interests of our patients.

One—The curricula of both medicine and dentistry should be more flexible. To create the time for this flexibility, certain of the basic sciences should become a part of the preprofessional curriculum. Equivalent courses in the preprofessional curriculum will eliminate these courses in medical and dental schools and provide additional time in our overcrowded professional curricula. The basic sciences not taken during the preprofessional curriculum would be taken by medical and dental students in joint classes during their first two years in professional school. During these two years, medical and dental students also would take the same course in physical diagnosis and introduction to medicine. With a decompression of the curricula, the students could participate in patient-care activities in the first and second years—a desirable objective.

Two—Interdisciplinary clinics should be established to deliver health care. I believe that the future practice of dentistry and medicine will take place primarily in multidisciplinary and multiprofessional outpatient settings where patients and even their entire families may come on the same day for one-stop complete medical and dental care. Medical and dental students should receive part of their clinical education and training together in such an interdisciplinary clinic. Clinical instruction in dentistry would be developed along the medical model where the teacher demonstrates the operations with the student initially assisting and then subsequently performing the procedures.

Three—Electives in the clinical years and during the summer would permit dental and medical students to select rotations in either school.

Four—Graduates of dental schools who had received this education could formalize their medical qualifications with minimal additional study—I suspect no more than an additional year. The converse also should be true. There are dentists who are, and will be taking, postgraduate training in surgery, pathology, and anesthesia who might find this option attractive. Dual qualifications and appropriate postgraduate training also may provide the opportunity for the coalescence of knowledge and technology.

I am not suggesting (nor would it be possible) that all schools of medicine and dentistry consider the pursuit of these proposed educational goals; many would not even desire to do so. However, we should encourage those wishing to explore the establishment of an environment that could enrich the interaction between the professions of medicine and dentistry. In the end, those who benefit most will be the patients we serve.

References

1. American Dental Association. 1983/84 Annual Report on Dental Education, Supplement 14, Dental School Curriculum Clock Hours of Instruction Summary Report. A Report Published by the Division of Education Measurements of the American Dental Association, Chicago, Illinois, 1984.
2. American Dental Association. 1984/85 Annual Report on Dental Education. A Report Published by the Division of Educational Measurements of the American Dental Association, Chicago, Illinois, 1985.
3. American Dental Association. 1984/85 Annual Report on Advanced Dental Education. A Report Published by the Division of Educational Measurements of the American Dental Association, Chicago, Illinois, 1985.
4. Curtis, James W., Jr., Garrison, Raymond S. Jr., and Camp, Martha G., Dentistry in Medical Education: Results of a Comprehensive Survey. Journal of Medical Education, January 1985,60:16–20.
5. Division of Research Grants, National Institutes of Health. Summary of NIH FY 84 Extramural Awards to Domestic Institutions of Higher Education, by Rank of Institution and Activity, July 1985.
6. Weinberger, B.W. *An Introduction to the History of Dentistry in America,* Vol. I and II. St. Louis: C.V. Mosby Co., 1948. △

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RECRUIT HIGHLY QUALIFIED STUDENTS

A Proposal for a Special American College of Dentists Foundation Project

W. Rupert Bodden, Jr.

Last year at the Section Officers and Representatives Meeting in Atlanta the floor was thrown open for discussion concerning possible future Foundation projects. At that time I pointed out that our sister organization, the International College of Dentists, had made a major commitment to a program of career guidance within dentistry for students already in dental school. I suggested a similar effort directed at an even more basic problem facing the profession today, that is, recruitment of well qualified students to enter dental schools. Subsequently I was invited to expand upon my initial comments and thus I am before you today.

First let me say that declining numbers of applicants for the available places in dental schools are obviously an immediate problem for our educational institutions. But what about the effect on our profession? There may be some—certainly not Fellows of the College—who would find some perverted sense of comfort in the fact that the total number of graduates in dentistry is decreasing significantly and who would feel that the personal advantages to them of less competition would offset any theoretical disadvantage that might occur if the caliber of available prospective fellow professionals diminished.

I am confident that members of the American College would not be that selfish or short-sighted. I would like to quote Dr. Irvin Mandel of Columbia University[1]: "Recruitment of qualified applicants is as much the concern of the practicing dentists as it is of the schools because the maintenance of a strong, uncompromising educational system is critical to retaining the confidence of the public and the long term stability of the profession".

Dr. Mandel goes on to say that there is "no danger of hordes of new dental students displacing established practices". The facts are that considering both the present trends in decreased enrollments and increased population, by the year 2000 the Dept. of Health and Human Services predicts that the pendulum will have swung to 4,000 on the shortage side of the arc.

Are there data to justify such a conclusion? There has been, according to the A.D.A.[2], a steady decline in the number of applicants for each available place in dental school entering classes from 2.49 in 1976 to 1.29 in 1984. Think of that! Almost everyone that applied to dental school last year was accepted. One of two sequelae will ensue—1) Schools will be forced to decrease drastically their class size or 2) the quality of accepted applicants will be compromised.

The first of these two events has and is occuring right now. The effect has been a steady decrease in the number of incoming first year students every year since 1978—from 6,301 that year down to 5,047 in 1984. On the graduation end of the pipeline, the peak year should have been 4 years after '78; that is, 1982, but due to some schools changing from a 3 to 4 year curriculum, the peak did not occur until 1983 when 5,756 graduated. 1984 saw the first real effect of decreased enrollment

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when the number of graduates dropped over 7.2% to 5,337. There is strong evidence already that this decline will continue at least until 1992 which is four years past the time when complete projections for first year enrollments are presently available.

The significance of the decrease in enrollment is that at some point the critical mass of students becomes so small that one cannot economically justify the maintenance of a faculty and a facility for training the remaining students. Already we have seen the tragic closing of one long established school, another younger institution, and discussions concerning the closing of others. Surely the profession looks upon this as a great loss, for traditionally dental schools not only train dentists but are the source for dental research and development—the very lifeblood of the profession.

Many of the schools have reached the point where further reductions in class size are not practical, which brings us to the second possible result of this dilemma. While dental schools may struggle valiantly to avoid lowering admissions standards, it becomes obvious with fewer applicants in the pool from which to select, the institution may be forced to accept a greater proportion of marginally qualified applicants to avoid falling below the minimum number of students which would justify their continued mission—effecting the leadership of the profession for an entire generation.

I could spend the entire time allotted me discussing the problem, but I feel that you, who represent the "thinkers and doers" of our profession, are already aware of the ramifications of this issue.

What can the College do about it? We are in a position perhaps to be the most effective means of re-establishing the enthusiasm that almost every dentist felt for the profession in years past.

We can challenge the pessimism exuded by many in our midst today who publically "view with alarm" their own lack of busyness blamed on an oversupply of dentists and an undersupply of dental disease coupled with an economic recession and its resultant changes in the way Americans will earn and spend their income—perhaps forever.

We are in a position to be effective because we cannot be perceived as having an ulterior motive. We cannot be accused of recruiting dental students to ensure our own jobs. Therefore, I propose that the College make a major effort in the area of student recruitment.

Perhaps some of you are aware of a program jointly approved by the A.D.A. House of Delegates and by the American Association of Dental Schools called "SELECT". The goals of the program are to create an accurate and positive image of dentistry as a career and to attract quality students to a career in the dental profession. The first phase of this program is developed and functioning—career choice surveys were conducted and the results used to design new materials to correct inaccurate perceptions of dentistry as a career and to emphasize unrecognized positive aspects of dentistry.

The College has an opportunity now to be a major participant in this program, the goals of which so closely parallel our own second objective: "To encourage qualified persons to consider a career in dentistry". The A.D.A. has suggested for our consideration two general areas in which we could be helpful. We might:

1. Encourage Fellows of the College to volunteer to be included in a "SELECT Directory of Dentists". This group of dentists would be willing to devote time, in or out of the office, to young people considering a career in the dental profession.
2. Support the development of the additional materials needed for this program, i.e., brochures, folders, packets, audio tape cassette or video tape cassette.

For example, the estimated cost of producing a first class videotape cassette is $40,000.00. By providing all or part of that amount, we could accomplish three important goals:

1. Contribute to the successful recruitment of qualified applicants to dental school.
2. Enhance the perception of our profession, and
3. Increase the visibility of the College—as appropriate recognition of our efforts would be made on any material developed with our contribution.

All this could be done with the full resources of the A.D.A. behind the program and actually performing most of the work for us.

In conclusion there are two points to be emphasized—

1. "SELECT" is *not* designed to increase dental school enrollment, but rather to attract more highly qualified students to apply, giving the schools the opportunity to maintain the quality of the graduate and future members of our profession.
2. We must make an intelligent and quick decision since the effect of any effort we make cannot be felt for several years to come. While we do not meet today as a governing body, I would hope that the chair would take advantage of the broad representation here and now so that a suggestion for our participation could be passed on to the appropriate group.

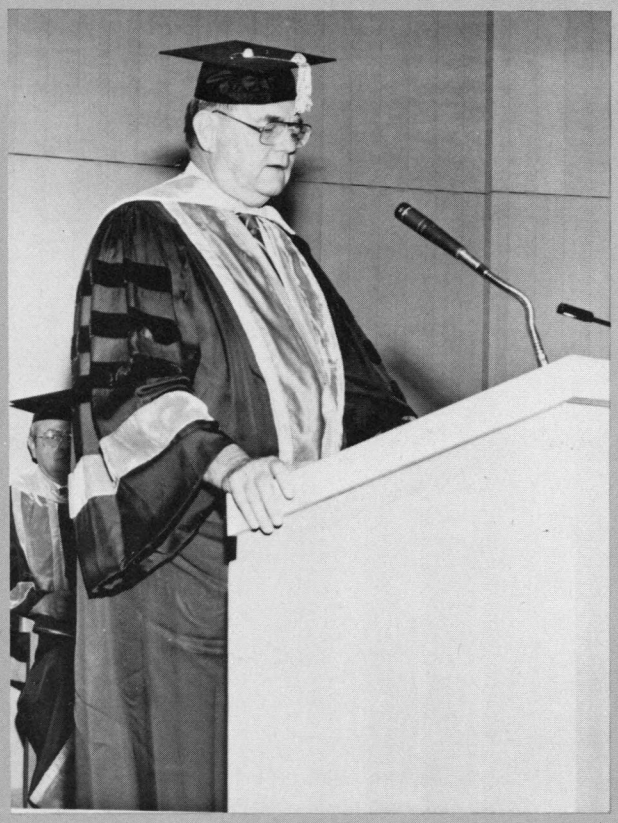
Thank you. △

References

1. Irvin D. Mandel, D.D.S., "Looking Forward To The Future Of Dentistry", *Perspectives In Dental Science*, Vol. No. 1, May, 1985.
2. *Trend Analysis 1984/85: Supplement II to the Annual Report 1984/85 Dental Education, 1985*, American Dental Association.

1985 CONVOCATION —SAN FRANCISCO

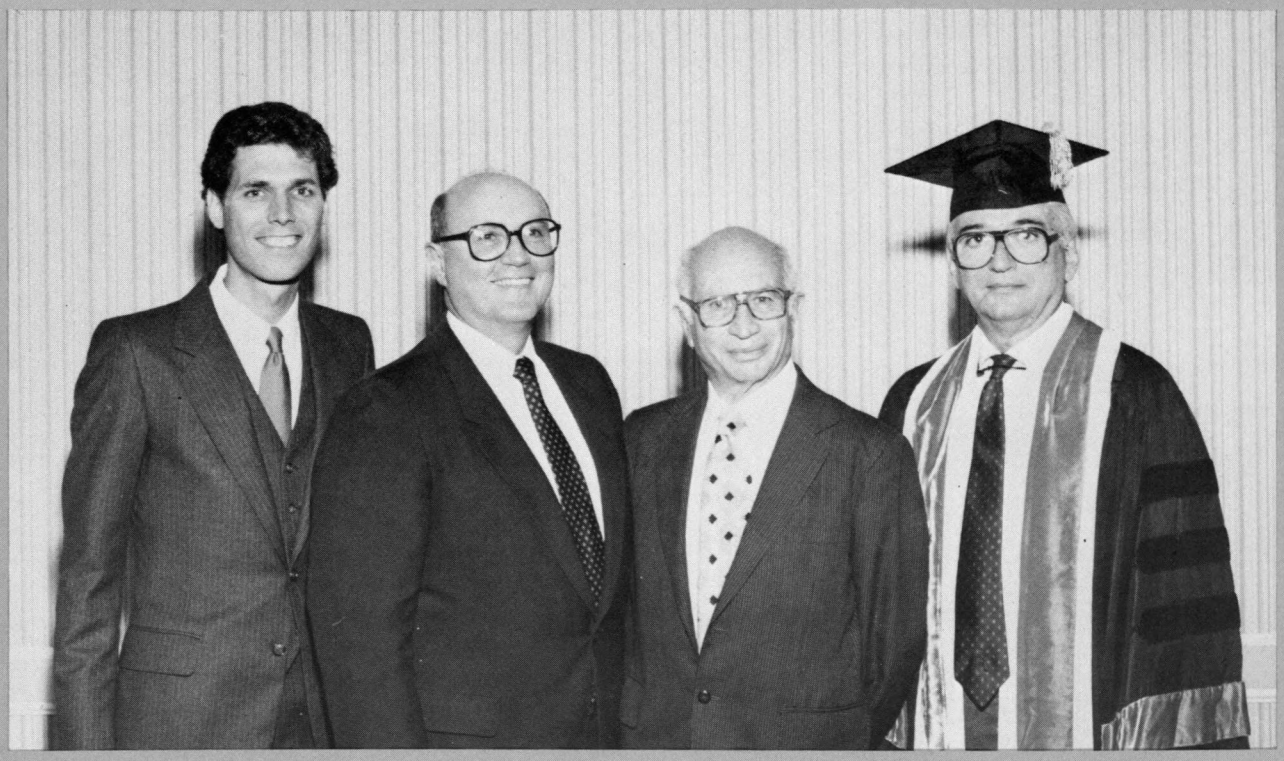
The officers for the American College of Dentists for 1986. Left to right are Editor Keith P. Blair, Executive Director Gordon H. Rovelstad, President Norman H. Olsen, President-Elect H. Curtis Hester, Treasurer Robert C. Coker and Vice President Robert W. Elliott, Jr.



President Charles W. Fain, Jr. addresses the Convocation.

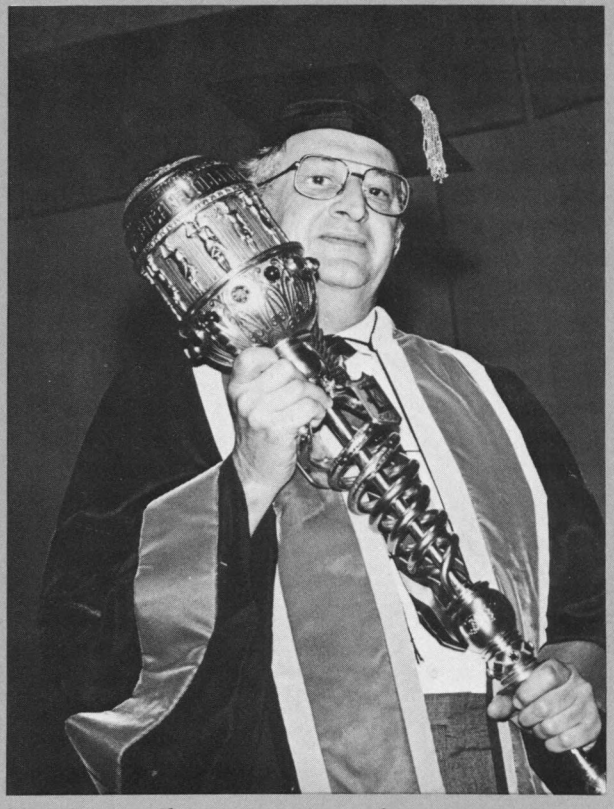
Vice President H. Curtis Hester introduces the morning program.

Speakers for the morning Symposium on The Interrelation of Medicine and Dentistry In Total Health Care. Left to right are Moderator Bernard S. Snyder, James E. Eckenhoff, Charles A. McCallum and John W. Traubert. Doctors Eckenhoff, McCallum and Traubert are physicians associated with teaching institutions.



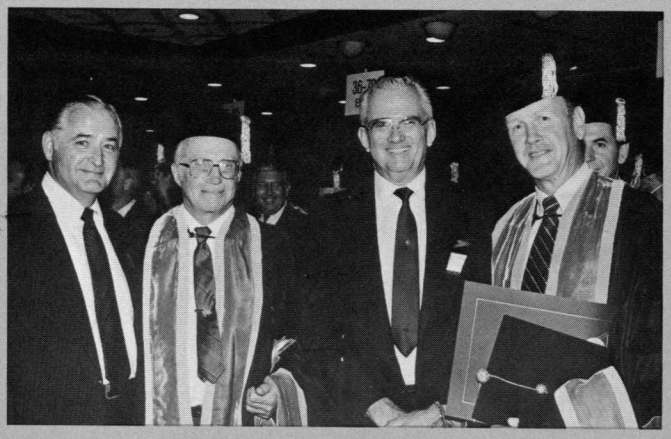
Awardees at the 1985 Convocation: Left to right John A. Paffenbarger accepting an award on behalf of his grandfather, George C. Paffenbarger; Delmar J. Stauffer who received the Award of Merit; Gerhard M. Brauer who was awarded an Honorary Fellowship and Allan A. Copping, the recipient of the William John Gies Award.

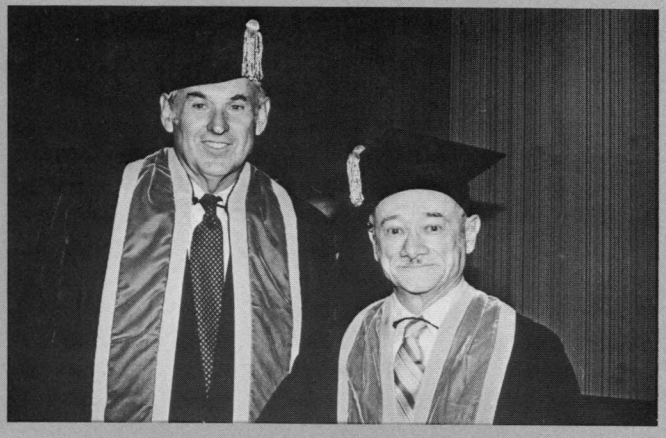
Leslie B. Bell, carrying the ACD Torch leads the officers into the Convocation room.

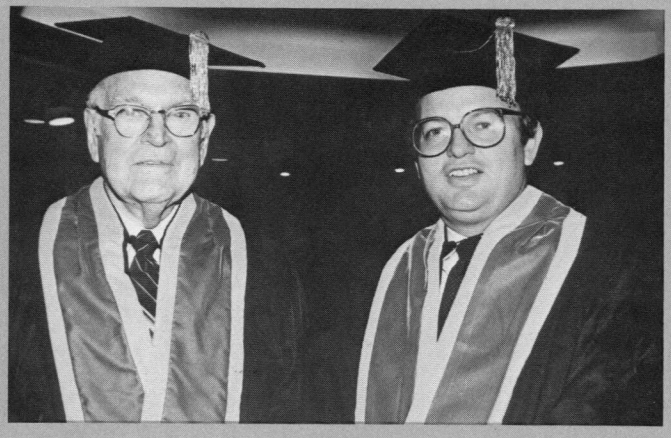


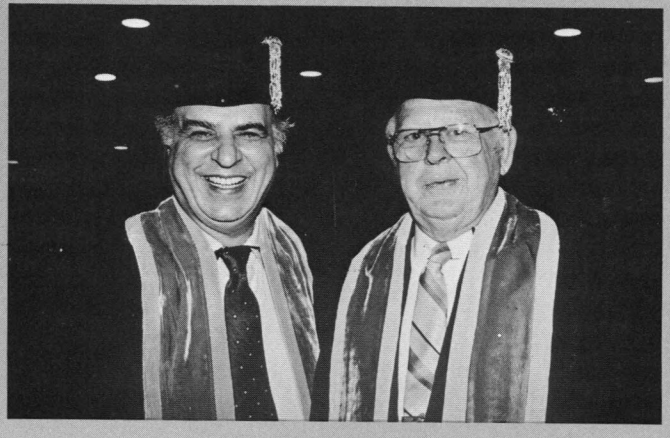
Mace Bearer, Chris C. Scures rests for a moment with the heavy Mace on his shoulder.

FACES IN THE CROWD

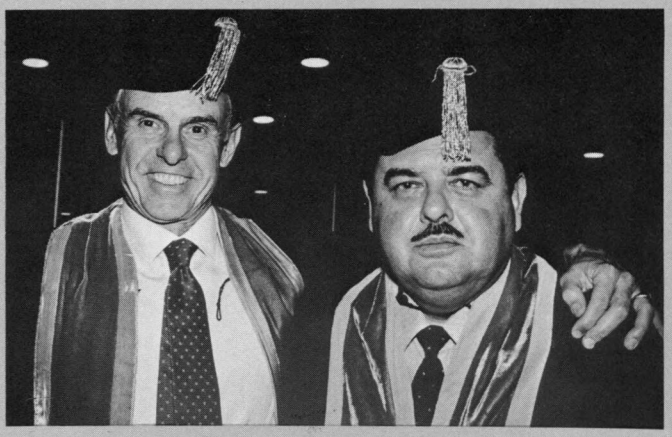


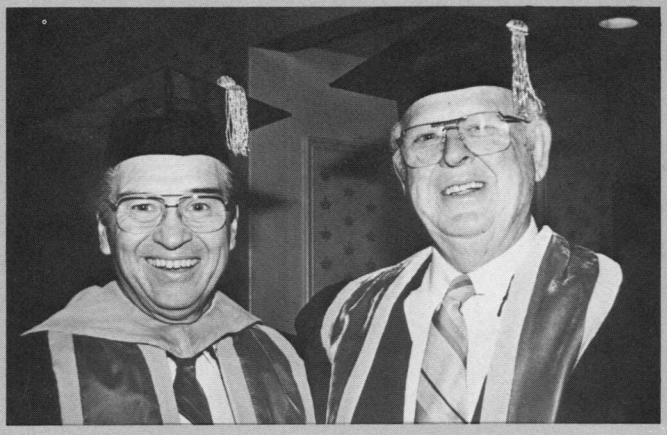


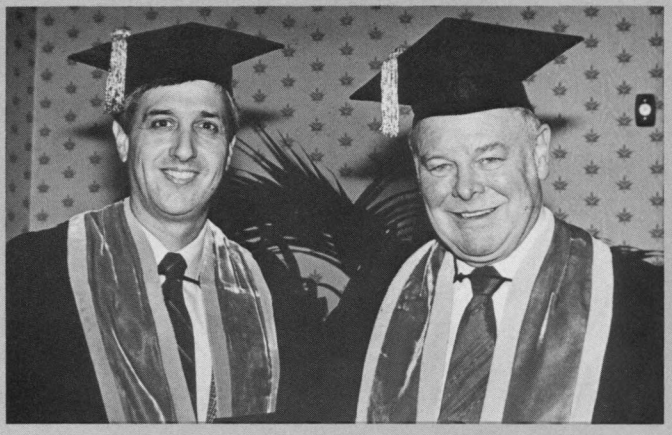


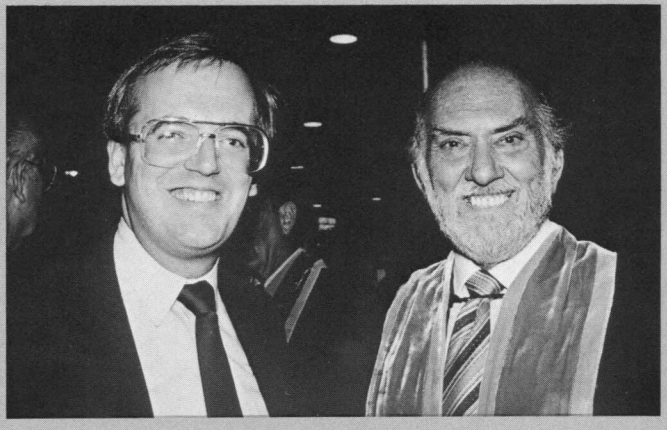


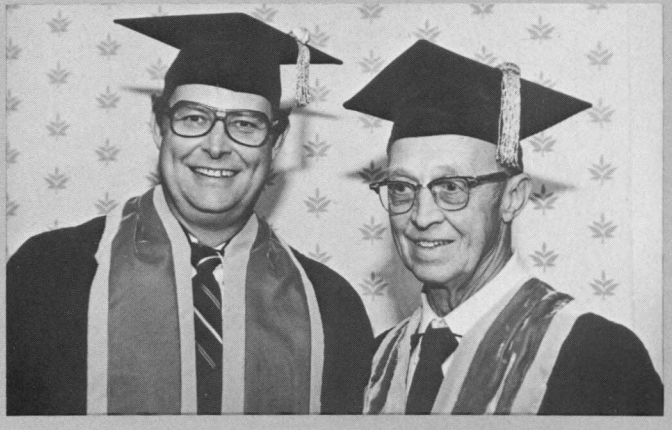
Photos by Edward F. Leone, DDS

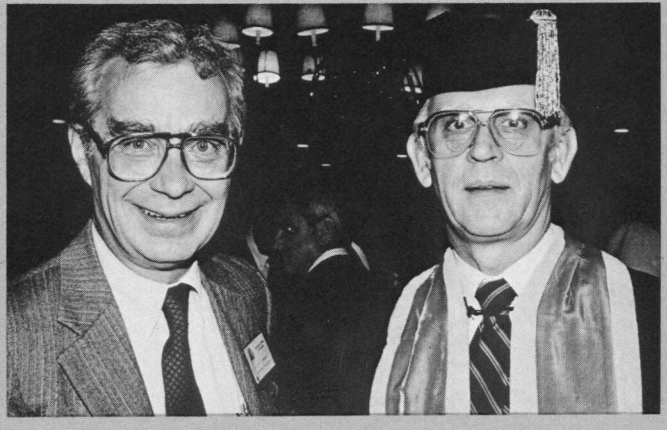


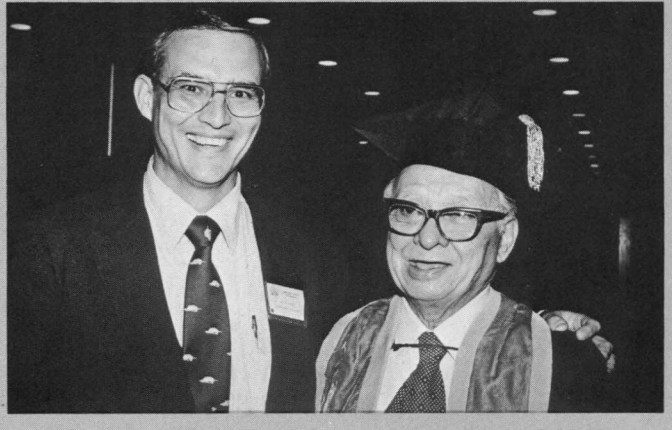












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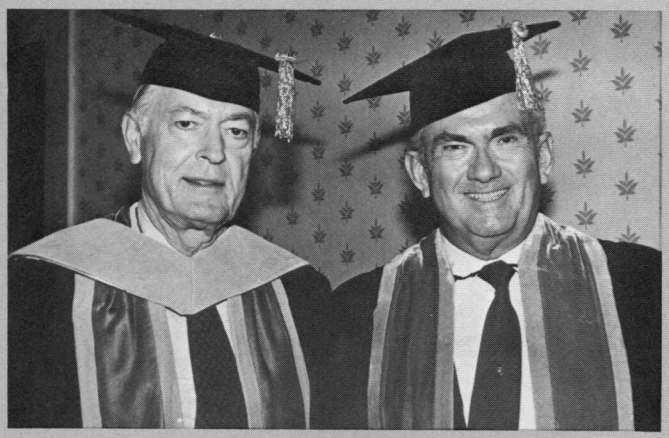

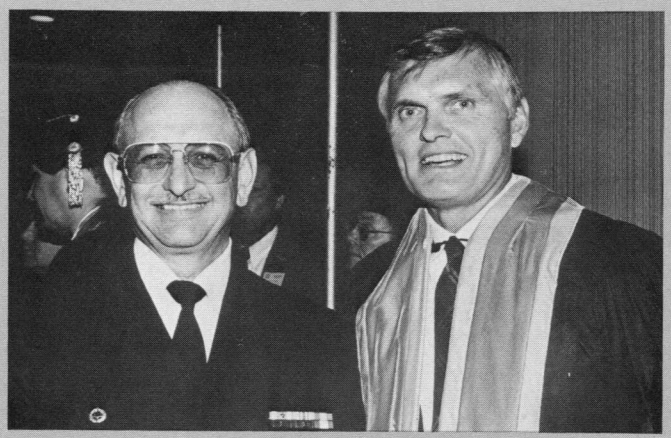

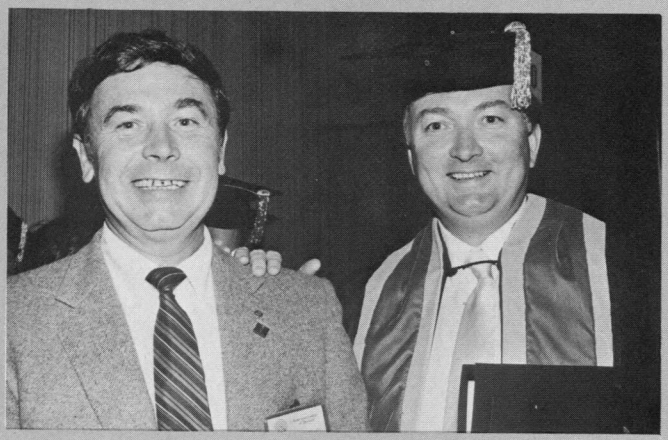

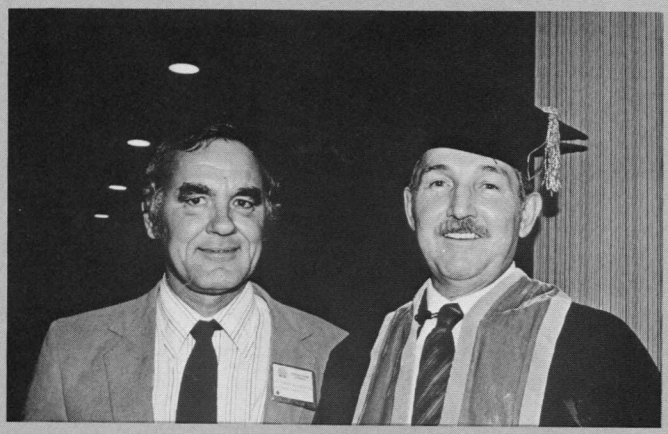

Photos by Edward F. Leone, DDS

POSITIVE OR NEGATIVE ATTITUDES IN PUBLISHING

Is the glass half full or half empty?

H. Barry Waldman*

The role of the editor of any publication (including professional journals) is to ensure that the material presented to the readership is, 1. relevant to the ideals established for the particular publication, 2. accurate, 3. concise, and 4. written with a reasonable degree of clarity and interest. In addition to the selection and editing of individual items for publication, the editor has *the* critical role of setting the overall general tone and direction of the publication in order to present an accurate (even in terms of the accuracy of reader viewpoint articles) representation of reality and to *lead* the readership in the evolving field covered by the publication.

Indeed, by selective choice of particular items, preferential highlighting procedures, physical placement within the publication, editorials and any number of other methods, the editor can effectively alter the readership's awareness and comprehension of particular developments. This ability to affect the readership's awareness and *overall* perspective on significant issues often is possible in dentistry because of the isolation of many dental practitioners in solo practice situations. Whereas many physicians have the opportunity of communication with a cross section of the general health community in the hospital setting, many dental practitioners have limited opportunities. Unfortunately, the extensive general media emphasis on medical news often is not extended to general happenings in dentistry—except possible sensationalized items. Thus, the variety of professional and commercial publications and reports generally are *the* means by which individual practitioners can view the changes affecting the profession from beyond the perspective of *their* practice.

QUESTION—Have the editors of dental publications carried out their responsibility of accurately presenting to the readership the evolving complexities of health services which face the dental profession? *Emphatically yes, however—*

The difficulty is in terms of interpretation of developments which face the profession. It will be the theme of the following material that, given the proverbial "half glass of water", all too often some editors have viewed the glass to be "half empty, rather than half full".

Example I. Journal of the American Dental Association (February 1985)

> Statement—"In summary, the data indicate significant growth in the real output of the dental services industry. In relative terms, during 1950 to 1982, the growth of dental services exceeded the real growth of the economy, aggregate medical care expenditures and physician services. Also, in contrast to the other sectors reviewed, prices for dental services increased at a rate slightly below the general economy."
>
> Highlighted statement—Prices increased at a rate slightly below the general economy. (1)

Yes, the headlined statement is correct, *but* what about the *positive* aspects of the statement. Reports from the Health Care Financing Administration indicate that, despite a 12 percent increase in the CPI (Consumer Price Index) for dental care in 1980 and the recent economic recession, "price-deflated" expenditures per capita for dental services increased 4 percent per year between 1978 and 1983. (2) This departure from traditional fluctutations of dental expenditures with variation in the business cycle reflects the increased extent of third-party dental coverage. For example, private health insurance, which covered one percent of dental services in 1965, paid for one-third of all services received in 1983. (2)

Example II. ADA News (August 1984)

*Professor and Chairman, Department of Dental Health, School of Dental Medicine, State University of New York at Stony Brook.

Statement—"Dentists' cash receipts increasing: census. Job market shrinking in dental supply industry."

Highlighted statements—Increased dentist cash receipts and shrinking market in the dental supply industry. (3)

The *front page* article in the ADA News reviewed data from the 1982 U.S. Census. The first part of the article repeats the statement that, "Census reports also show a shrinking job market in the dental supply industry." It is not until the last line of the article (*on the last page of the ADA News*) that it is noted from industry sources, there is a "report of a recent resurgence in sales." (3)

However, based upon information that was available at the time that the ADA News presented the data, by 1983, dental supply industry shipments increased about 2% (after adjustment for inflation) following a non-growth year in 1982. In addition, industry employment increased to 18,000 from the 15,400 figure reported in the ADA News report for 1982. (4)

Example III. ADA News—Viewpoint (February 1984)

Statement—"Do dental schools have moral obligations to inform potential dental students of the difficulty facing future practitioners? . . . I say yes. But is this being done? I say no, it is not . . . (What) is immediately needed . . . is the reduction of the numbers of dentists being trained." (5)

Dental Economics—Viewpoint (November 1984)

Statement—"There are only two areas that can be modified to alleviate the crisis (in practice busyness). These are the numbers of dental graduates and the public's demand for dental care." (6)

Yes, there was a surge in enrollment in dental schools in the late 1960's and 1970's to meet the then perceived developing shortage of practitioners and the expected increase in population and demand for services. By the 1978–1979 academic year, 6,301 students enrolled in first year classes in dental schools in the United States. (7) However, by the late 1970's federal agencies had recognized that sufficient numbers or possibly too many entry places) had been established in dental and other health professional schools. Modified population projections, changing needs for services and the altered economics of the late seventies were impacting on the practice of dentistry. The series of grants, loans and class size requirements, which had fueled the construction of new schools of dentistry and increases in class sizes, were either eliminated or scaled down. (8)

By 1980, entering class sizes had decreased to 6,030 students. In the 1984–1985 academic year, 5,047 students were admitted to schools of dentistry—a decrease of almost 1,300 entering places from the high point in 1978 (or a 19.9% reduction). (9) The 1984–1985 entering class size represents a return to the 1971–1972 and 1972–1973 period when 4,745 and 5,337 students entered dental school. (10) In addition, it is anticipated by the American Association of Dental Schools, that the continued decrease in entering places in dental schools will result in a class size of 4,300 students in the 1987–1988 academic year—or the approximate size of the 1968–1969 entering classes. (10,11)

The long term consequences of the continuing decreases in dental schol class size is outlined in the dental section of the 1984 Report to the President and Congress on the Status of Health Personnel. The report (based upon computer modeling procedures) predicts a shortage of at least 4,000 practitioners within 15 years. (The definition of shortage is based upon "the number of dentists needed to prevent inflation in the dental sector.") (12)

Finally, a telephone conversation between this writer and one editor elicited the thought that, since no

written factual errors had been made by the viewpoint writers, there was no need to correct any mis-impression. Apparently, an error *by omission* was not considered a factual error.

Example IV. American Dental Association (September 1983)

> Statement—"Eighty percent of all general practitioners perceive that they are not busy enough in their private practices." (13)

The editorial statement referred to the findings from the ADA 1982 Survey of Dental Practice. (14) However, the ADA report indicated that 33% of the respondents reported they were "not busy enough". When the discrepancy between the editorial statement and the Survey findings were reported, the director of the ADA Bureau of Economic and Behavioral Research commented:

> "The 80% figure represents the percent of all dentists who marked either of the last two categories (about practice, in the study).
> —Provided care to all who requested appointments and practice was not overworked.
> —Not busy enough, the practice could have treated more patients.
> The 33% represents those dentists who marked only the fourth category (not busy enough). In any case the response to this question . . . indicated that a significant number of dentists were practicing in offices that were not overworked and *by implication* believed they could have treated, at least, a few more patients." (emphasis added) (15)

Yet, almost 50% of the respondents (i.e. the difference between 80% and 33% *did not* check off "not busy enough". The 80% figure represents a combination of two *different responses.* How does one assume "by implication" *after* the study that the respondents meant something different from that which they indicated? It just seems appropriate that this "double think" response was published in 1984.

Example V. Trends in the Academic Qualifications and Performances of Dental Students—ADA (December 1984)

> Statement—"In conclusion, it would appear that the decline in the academic qualifications of accepted students was reflected in the performances of students in dental school." (16)

Yet, within the body of the extensive report on the performance, between 1979 and 1983, of dental school applicants, accepted students and dental students is the comment that,

> "the results of the five-year trend analysis of freshman and sophomore grades *did not reflect the pronounced declines observed for the students' academic qualifications.* (emphasis added) The declines in mean grades tended to be slight, if present at all." (16)

When the inconsistency between the two statements was brought to the attention of the Division of Educational Measurements, the response was made that, "you will note that the statement (in the conclusion) in no way indicates that there were *significant* (sic) declines in any or all performance measures." (17)

Yes, the conclusion does not use the word "significant", *but* how many busy readers would note this omission as they skim the ADA report and turn to the conclusion for a general view of the performance of dental students. Indeed, how many readers would note from the conclusion that, although the changes since 1979 in the predental performance records of accepted first year dental students have been pronounced,

1. between 1958 and 1970, overall predental grade point averages (GPA's) were lower than the science, non-science and overall GPA's between 1975 and 1983.
2. between 1958 and 1970, the mean Dental Admission Test (DAT) perceptual ability scores were lower than the scores between 1971 and 1983. Mean DAT academic averages varied considerably during the 25 years reviewed in the study.

Why these particular examples

It is by no accident that these five examples were selected for illustration. There undoubtedly are many other instances where varying interpretations of material could be presented. However, it is the common thread of *pessimism* which pervades these interpretations that is so significant. To these editors and writers, the "half glass

of water is half empty." The day is not "partly sunny, it's partly cloudy."

Yet, editors, writers and speakers collectively beat their breasts over the downturn in the number of applicants to dental schools and the never ending assortment of changes which are affecting the basic core of dentistry. Considering the general tone of the presentations in the journals, why should they expect increases in the number of young men and women seeking admission to the profession. Yes, dentistry did pass through difficult times in the early 1980's, as it reflected the recession of that period. But many current indicators in the economy point to increasingly positive changes in the dental sector.

Maybe, the difficulty is that many long time practitioners (and editors) view the evolving practice patterns of care with apprehension rather than with understanding. For example, referring to career expectations of dental school graduates, one writer considered the finding "somewhat startling, (that) . . . in 1978, 17.9 percent sought employment; in 1983, 34.5 percent sought employment." (18) The writer properly refers to the impact of the rising costs of education and establishing practices. But he does not include the possibility that the young men and women attracted to the profession, do so with a desire and expectation of employment in dentistry. (19)

The role of the editor is to present reality *and to lead.* Isn't it time for increasing numbers of editors to address the favorable developments within the profession and initiate a proverbial *positive* "snowball" effect? One is reminded of President Ford's much maligned WIN (Whip Inflation Now) campaign. Effective or not, the intent was to galvanize public spirit in a positive direction. How much better would our profession be if we (and dental publication editors) adopted such a perspective?

Personally, I believe the glass is half full. How about you? △

Addendum:

Headlined item—ADA News (January 20, 1986)

—Front Page—

West Germany dentists will take a pay cut in 1986 as that country's sickness insurance funds cut payments for dental services by 4.5% this year . . .

—continued on page 4—

German dentists earn 30% more than do physicians, and double the average salary of lawyers.

References

1. Gotowka, T.D. Economic growth of the dental profession: comparisons with other health care sectors. Journal American Dental Association, 110:179–188, February 1985.
2. Gibson, R.M. et al. National health expenditures, 1983. Health Care Financing Review, 6:1–29, Winter 1984.
3. ADA News. Dentists' receipts increasing: census. ADA News, August 27, 1984. pg 1.
4. U.S. Department of Commerce, Bureau of Industrial Economics. 1984 U.S. Industrial Outlook. Washington, D.C., Government Printing Office, January 1984.
5. Brady, R.R. My View, The student beware. ADA News, February 27, 1984.
6. Helfman, M. My Viewpoint, Addressing the busyness crisis. Dental Economics, 74:24–25, November 1984.
7. Division of Educational Measurements. 1983/84 Annual Report: Dental Education. Chicago, American Dental Association, n.d.
8. U.S. Department of Health and Human Services. Trends in BHPr Program, Statistics, Grants, Awards, Loans—, FY 1957–79, DHHS Pub. No. (HRA) 81–3. Washington, D.C., Government Printing Office, 1981.
9. Division of Education Measurements. 1984/85 Annual Report: Dental Education. Chicago, American Dental Association, n.d.
10. Division of Education Measurement. Dental Education Trend Analysis 1964–1974. Chicago, American Dental Association, 1975.
11. Bulletin of Dental Education, 17:1, July 1984.
12. U.S. Department of Health and Human Services. Report to the President and Congress on the Status of Health Personnel in the United States, Vol I. Washington, D.C., Government Printing Office, May 1984.
13. Scholle, R.H. Just the facts, please. Editorial. Journal American Dental Association, 107:536, September 1983.
14. The 1982 Survey of Dental Practice. Chicago, American Dental Association, n.d.
15. Response to letter to the editor. Journal American Dental Association, 108:942, June 1984.
16. Division of Educational Measurements. Trends in the Academic Qualifications and Performances of Dental Students. Chicago, American Dental Association, December 1984.
17. DeMarais, D. Director, Division of Educational Measurements. Personal communication, February 12, 1985.
18. Mascola, R. Today's graduates—outlook 1985. New York State Dental Journal, 51:140–141, March 1985.
19. Waldman, H.B. Some consequences of the increasing number of female American dentists. Journal American Dental Association, 103:563–567, October 1981.

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CLASS ATTITUDES IN A DENTAL SCHOOL

Diana M. Lancaster*
James F. Gardiner**
Elizabeth Ashin Strother***
Charles H. Boozer****

Students of varied backgrounds come together and go through a common educational regimen in dental school. Long and intense hours together lead to the evolution of common attitudes. Individual attitudes still exist but gradually attitudes emerge which become accepted by the members of the class: what and how much to study and how to make the transition from academia to a profession with the least possible pain.

Students consciously or unconsciously adopt many attitudes, only some of which are consistent with how the faculty views the educational process.[1] When a discrepancy exists, the goals of instruction may not be fully realized.

Student attitudes are as likely to affect learning during the years of professional training as is the education that the faculty hopes to impart. This is not always a beneficial development: if the students view the faculty as antagonists, learning can be impaired.

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Although there is much in the dental literature concerning dental students' attitudes as individuals,[2–6] research on class attitudes in professional schools has been mostly confined to medical education.[1,7] Becker and Geer closely examined the formation and manifestations of student culture and class attitudes among the medical students at the University of Kansas. They found that students tended to cohere as a group and give tacit approval to many attitudes toward their education that ran counter to faculty expectations. For example, medical students strongly felt that much of laboratory work that repeated classical experiments was a waste of time. They also found that where medical students perceptions of relevance and importance of material varied greatly from that of the faculty, they tended to find short-cuts or cheated in open defiance of faculty instructions.[1] No comparable study of dental students' class attitudes has ever been accomplished. This cross-sectional study describes class attitudes as they presently exist among the four dental classes at the Louisiana State University School of Dentistry.

Student attitudes are as likely to affect learning during the years of professional training as is the education that the faculty hopes to impart.

A survey was constructed to assess the class attitudes of dental students.[8] For purposes of this study, an attitude is defined as "a relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner".[9] The authors developed lists of items based on findings of the previous research among medical students. Additional items were written to cover topics relevant to attitude areas such as leadership which had not been extensively explored by previous research. After developing these lists, the assistance of reviewers was requested to ensure that the statements were clear and that the content appeared to be measuring valid and important student attitudes. Faculty members, including the Director of Research, were asked to review the survey instrument. Because the intent of the survey was to describe and compare existing attitudes, rather than rate them as positive or negative, the reviewers were not asked to indicate whether they thought the attitude statements were positive, negative or neutral. It also

became apparent that some important items could not really be assessed ahead of time in terms of positive or negative impact on the educational process. Instead the reviewers were asked to look for ambiguity in terms of whether the item could clearly elicit agreement or disagreement and whether it appeared appropriate to the study.

To furtl:er evaluate the structure of the instrument, an educational researcher and a sociologist not associated with the dental school were asked to review the instrument for design appropriateness and make suggestions for improvement.

After refinement and clarification of the original set of items, forty were retained for the survey. A five point Likert scale provided the measure for response to the attitude statements.

To assess reliability of the responses, items were designed to express opposite attitudes. Thus, agreement with one would preclude agreement with the other. If the responses maintained this distinction, consistency would be indicated. In addition, coefficient alpha was computed as a measure of internal consistency.

The survey was administered to the four dental classes as LSUSD during January, 1985. 238 out of 265 students (90%) completed the survey. Instructions for completing the survey stressed that responses were to be based on each student's perception of class attitudes, and not the individual's attitude. This was done to encourage the students as much as possible to think in terms of the attitudes of the class as a whole. The authors realize that such a distinction is not entirely possible.

Each item on the survey is analyzed separately. It appeared that obtaining one survey score for each student would obscure the descriptive information concerning which attitudes were held in common among students. Percentages of agree, neutral, and disagree were computed for each item and each class. Since interpretation of the findings is descriptive, no further statistical analyses are reported. For purposes of conciseness in reporting the results, percentages were combined as follows: a rating of 1 or 2 on the Likert scale is considered agreement, a rating of 3 is neutral, and a rating of 4 of 5 as disagreement.

Individual personalities may be stronger than class influences: one class may develop attitudes indicating cohesion while another remains less unified.

Table 1 reports the overall percentages of agreement with each item for each class. For purposes of discussion, the items are assigned to major topic areas: leadership, faculty and administration, study habits, laboratories and clinics, information, and social life and class unification.

Leadership

Based on overall percentages, dental students indicate that class leaders do not influence class attitudes more than other class members, and that decisions are not left to class leaders or fraternity members. Further, although the classes select someone who will stand up to faculty, it is important for faculty to like the class leader. There were differences among classes as to the type of leader selected. Sophomores selected a leader who is serious and scholarly, not one who likes to have fun. All other classes indicated the opposite opinion.

Faculty and Administration

All classes report liking teachers who get the point across quickly, are relaxed, easy to follow, and easy graders. All classes also report that they encourage students with problems to go to the faculty and

Table 1. Percentage of Agreement with Each Item for Each Class

Leadership		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
The elected leaders of our class tend to influence the attitudes of the class more than other class members.	Agree	36	45	44	18	34
	Neutral	18	11	12	10	13
	Disagree	46	44	44	72	53
Our class is likely to select as a leader someone who can stand up to faculty.	Agree	66	62	67	86	72
	Neutral	16	17	14	13	15
	Disagree	18	21	19	1	13
Most class decisions are left to class leaders.	Agree	23	42	39	33	34
	Neutral	18	11	15	18	16
	Disagree	59	47	46	49	50
The elected leaders of our class are not the real leaders; the real decision makers often are not known to faculty.	Agree	18	34	27	35	29
	Neutral	36	32	27	36	33
	Disagree	46	34	46	29	38
Our class is most likely to select as a leader someone who is serious and scholarly.*	Agree	14	68	19	9	26
	Neutral	23	15	17	21	19
	Disagree	63	17	64	70	55
Most class decisions are made democratically; we vote on most issues.	Agree	88	79	75	57	73
	Neutral	5	4	4	22	10
	Disagree	7	17	21	21	17
Whether our class leader is well liked by the faculty is unimportant to us.	Agree	20	12	31	51	31
	Neutral	11	13	29	24	19
	Disagree	69	75	40	25	50
Our class is most likely to select as a leader someone who likes to have fun.*	Agree	59	26	62	69	56
	Neutral	23	38	21	23	26
	Disagree	18	36	17	8	18
Dental fraternity members make the important decisions in our class.	Agree	2	13	4	10	8
	Neutral	9	11	2	12	9
	Disagree	89	76	94	78	83

Faculty and Administration		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
Our class likes teachers who get the point across quickly and with little or no extraneous material.	Agree	91	89	94	91	91
	Neutral	9	6	2	8	6
	Disagree	0	5	4	1	3
Our class encourages individuals who are having trouble to go to faculty with their problems.	Agree	62	47	41	48	50
	Neutral	27	28	35	35	32
	Disagree	11	25	24	17	18
Our class believes that it is important to be liked by teachers and administrators.	Agree	84	87	65	44	68
	Neutral	11	6	14	20	13
	Disagree	5	7	21	36	19
Our class as a whole likes teachers who are relaxed and easy to follow.	Agree	96	98	96	97	97
	Neutral	4	2	0	3	2
	Disagree	0	0	4	0	1
Our class believes that faculty members in general like students and hope they do well.*	Agree	62	51	42	53	52
	Neutral	20	23	25	22	22
	Disagree	18	26	33	25	26
Our class as a whole likes teachers who are easy graders.	Agree	88	94	85	85	88
	Neutral	11	4	8	11	8
	Disagree	1	2	7	4	4
Our class as a whole is well liked by faculty.	Agree	66	96	94	27	67
	Neutral	18	4	2	29	14
	Disagree	16	0	4	44	19

Table 1. Percentage of Agreement with Each Item for Each Class *(continued)*

Leadership		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
Our class believes that faculty teach at dental school because they can't or won't practice real dentistry.	Agree	34	51	77	48	52
	Neutral	36	26	8	36	27
	Disagree	30	23	15	16	21
Our class believes that faculty members in general dislike students and don't care how they do in school.*	Agree	20	21	29	25	24
	Neutral	16	32	29	23	24
	Disagree	64	47	42	52	52

Study Habits		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
Our class encourages those students who want to do exceptionally well in their studies.	Agree	38	19	10	25	23
	Neutral	34	32	31	35	33
	Disagree	28	49	59	40	44
Our class believes it is important to do your own work.	Agree	88	70	54	57	67
	Neutral	7	19	21	27	19
	Disagree	5	11	25	16	14
Our class as a whole does not cheat on exams or in clinic.	Agree	82	77	81	75	79
	Neutral	7	8	4	16	9
	Disagree	11	15	15	9	12
Our class has developed ways of sharing information to ease the load of examinations.	Agree	75	68	62	89	75
	Neutral	11	11	13	8	11
	Disagree	14	21	25	3	14
Our class thinks it is important to get by with as little effort as possible.	Agree	36	44	42	40	40
	Neutral	18	19	31	21	22
	Disagree	46	37	27	39	38
Our class believes it is important to do one's best work at all times.	Agree	79	72	56	71	70
	Neutral	11	13	17	14	14
	Disagree	10	15	27	15	16

Laboratories and Clinics		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
Our class has developed ways of cooperating to ease the load of labs and clinics.	Agree	55	49	29	77	55
	Neutral	29	21	10	10	17
	Disagree	16	30	61	13	28
Our class enjoys clinics which relate to the practice of real dentistry.	Agree	80	96	90	95	91
	Neutral	15	2	4	5	6
	Disagree	5	2	6	0	3
As a class we develop short-cuts in lab or clinic whether the faculty approves or not.	Agree	43	49	73	60	56
	Neutral	30	25	15	24	24
	Disagree	27	26	12	16	20
Our class in general dislikes courses which do not provide technique experience.	Agree	51	53	57	53	53
	Neutral	38	28	27	26	30
	Disagree	11	19	16	21	17

*Items representing opposite attitudes as an indicator of reliability of response patterns.

Table 1. Percentage of Agreement with Each Item for Each Class *(continued)*

Information		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
As a class we believe there is too much information to be learned in dental school.	Agree	29	36	39	30	33
	Neutral	29	23	19	14	20
	Disagree	42	41	42	56	47
Our class thinks it is important to gain all the knowledge and clinical skills necessary to be a good dentist.	Agree	86	85	68	91	84
	Neutral	7	11	12	8	9
	Disagree	7	4	20	1	7
Our class believes that theoretical material and research findings which are not practical are a waste of time.	Agree	59	62	58	51	57
	Neutral	21	27	21	34	27
	Disagree	20	11	21	15	16
Our class believes that lectures which do not follow a text book are a waste of time.	Agree	14	2	21	8	11
	Neutral	32	17	19	18	22
	Disagree	54	81	60	74	67
Our class tends to decide as a group what is important to learn and what is not.	Agree	27	28	29	39	31
	Neutral	39	34	24	20	29
	Disagree	34	38	47	41	40
As a class we view dental education less positively now than when we entered dental school.	Agree	36	36	66	45	45
	Neutral	11	23	15	17	17
	Disagree	53	41	19	38	38

Social Life and Class Unification		Fr N = 56	So N = 53	Jr N = 52	Sr N = 77	Overall N = 238
Our class tends to socialize together because we believe that outsiders don't understand our problems.	Agree	31	23	37	33	31
	Neutral	29	19	15	23	22
	Disagree	40	58	48	44	47
Our class is very well unified on the whole.	Agree	55	43	33	74	54
	Neutral	27	25	15	14	20
	Disagree	18	32	52	12	26
Most people in our class participate in class social functions.	Agree	70	64	23	61	55
	Neutral	20	11	10	16	14
	Disagree	10	25	67	23	31
Our class has clearly known cliques (small groups).	Agree	77	87	86	59	76
	Neutral	18	9	4	22	14
	Disagree	5	4	10	19	10
Belonging to a dental fraternity is important to most of my classmates.	Agree	0	19	0	6	6
	Neutral	20	27	6	16	17
	Disagree	80	54	94	78	77
As a class we like each other and get along very well.	Agree	89	72	59	76	74
	Neutral	11	15	18	19	16
	Disagree	0	13	23	5	10

believe that faculty members in general like students.

Classes agreed that it is important to be liked by the faculty; however, this was less important to seniors and most important to freshmen and sophomores. In fact, seniors do not think that the faculty likes their class. There was also general agreement that faculty teach because "they can't or won't practice dentistry";—juniors had the highest agreement with this statement.

Study Habits

All dental classes report that they do not cheat on exams and believe that it is important to do their best work at all times. However, classes were equally divided in their attitude toward getting by with as little effort as possible.

Freshmen, in contrast to other classes, encourage students who want to do exceptionally well. Juniors and seniors do not agree as strongly as underclassmen that it is important to do one's own work.

Laboratories and Clinics

Dental students dislike courses which do not provide technique experience. Juniors, unlike other classes, do not see themselves as cooperating to ease the load of labs and clinics. More juniors and seniors than freshmen and sophomores indicated use of short cuts in labs and clinics.

Information

Dental classes do not think that the amount of information to be learned is excessive, nor do they decide as a class what to learn. They do think that theoretical material is a waste of time. In contrast to the other classes, juniors believe lectures which do not follow a textbook to be a waste of time as well.

Juniors agree less than others that it is important to gain the knowledge and skills to be a good dentist. Furthermore, their opinion of dental education is less positive now than it was when they entered dental school.

Social Life and Class Unification

Based on previous research with medical students, we expected that dental students would prefer to socialize with each other exclusively. Medical students reported that outsiders lack empathy with the stresses associated with medical school. However, dental students' responses indicate that they do not think this is true.

Fraternity membership is not important to the classes; small groups or cliques are less prevalent in the senior class. Unlike the other classes, the juniors stated that the majority of their classmates do not participate in class social functions. Juniors also differ from other classes on class unification. They disagree that their class is well unified and that the class members "get along well".

The items that were designed to express opposite opinions did indicate fairly consistent responses. These items involved the leader type selected and faculty like or dislike of students. The percentages in the table show general agreement with only one item in each pair (See Table). Coefficient alpha ranged from .44 for the Seniors to .59 for the Freshmen. This represents a moderate level of internal consistency. The Freshmen had the most consistent response pattern which produced the highest reliability.

The survey responses indicate that freshmen and sophomores hold class attitudes that are generally consistent with faculty expectations. Seniors tend to express attitudes representing more independence—particularly in regard to faculty.

Juniors showed the most inconsistent response pattern. It was expected that the juniors' and seniors' class attitudes would indicate a high level of cohesion. The

juniors, however, consistently expressed a lack of class unity. They indicated a lack of cooperation for school tasks and a lack of class socialization. Further, their attitude toward the educational process was less positive than that of other classes.

While a difference among the upper and lower classes would seem likely, the particular response pattern of the juniors is difficult to explain. It is possible that the clinical stresses of the junior year may have an influence. It is also possible that this junior class is idiosyncratic.

That students, in general, think faculty teach because they can't or won't practice dentistry may have negative implications for the educational process. Also the positive response to getting by with as little effort as possible is of concern.

The present cross-sectional study is limited in that findings may not be generalized beyond this sample. A comparison of responses to the same questions by the same class during each of its four years of dental education would provide additional information about changes in class attitudes or development of class cohesiveness as part of the educational process. Although many factors may impact on both individual and class attitudes, this would allow a more thorough description of the evolution of class attitudes over time.

Conclusions

Based on the results of the class attitudes survey, it appears that each class does hold certain attitudes as a group. It is possible that these attitudes enable them to cope with the demands of the faculty and the curriculum. However, the responses to the survey questions at LSUSD indicate that while each class expresses attitudes as a group, the attitudes differ among classes somewhat. Individual personalities may be stronger than class influences: one class may develop attitudes indicating cohesion while another remains less unified.

As might be expected in a professional school, student attitudes reflect an orientation toward technique experience and lack of interest in theoretical information or material viewed as impractical. △

References

1. Becker, H.S., and B. Geer, Student Culture in Medical School. *In Medical Care: Readings in the Sociology of Medical Institutions.* Edited by R. Scott and E. Volkart, New York: John Wiley and Sons, Inc., 1966, pp. 96–107.
2. Parrish, J.R. Professional Conduct in Dental School and After. *J. Dent. Educ.* 32(3): 326–329, 1968.
3. Morris, R.T. and Sherlock, B.J. Decline of Ethics and the Rise of Cynicism in Dental School. *J. Health Social Behavior* 12:290–299, 1971.
4. Cain, M.T., Silberman, S.L., Mahan, J.M., and E.F. Meydrech, Changes in Dental Students Personal Needs and Values. *J. Dent. Educ.* 47(9):604–608, 1983.
5. Bader, J.D. Differences Among Entering Dental Classes in Attitudes Toward Health Care Issues. *J. Dent. Educ.* 48(8):41–42, 1984.
6. Lee, M., McClugage, S., Weinberg, R., and J. Glover, Comparison of Attitudes and Final Grades Among Freshman Dental Students. *J. Dent. Educ.* 45(3): 141–146, 1981.
7. Becker, H.S., Geer, B., Hughes, E., and A. Strauss, *The Boys in White, Student Culture in Medical School.* Chicago: University of Chicago Press, 1961.
8. Kerlinger, F.N. *Foundations of Behavioral Research* (2nd ed.) New York: Holt, Rinehart and Winston, Inc., 1973.
9. Rokeach, M. *Beliefs, Attitudes and Values.* Jossey-Bass Inc., 1972, p. 112.
10. McLean, J.M. Personal communication. November, 1984.
11. Reichard, M. Personal communication, November, 1984.
12. Summers, G. *Attitude Measurement,* Chicago: Rand McNally and Co., 1970.
13. Ray, A. (ed.) *Statistical Analysis Systems User's Guide: Basics.* Cory, North Carolina: Statistical Analysis System Institute, Inc., 1982.

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A TREASURY OF DENTISTRY

A GATHERING OF "DENTAL TRUANTS"

Gardner P.H. Foley

In 1897 W. C. Barrett, one of the most distinguished and distinctive American dentists, wrote in the *Dental Practitioner and Advertiser:* "It always warms our heart when we see a dentist distinguishing himself in any branch of general literature. We always feel as if a little of the honor that he may indirectly bring to dentistry may be reflected upon us. When any dentist signalizes himself in any other department of science or letters, he confers distinction upon his profession, and when we shall be able to present to the world a considerable array of such names, we shall be credited with being a body of intelligent, learned, refined scholars, and every member of the profession will be the gainer in the added respectability which will be the result."

On reading Dr. Barrett's inspirational commentary, I was influenced to begin the gathering of information about "dental truants"; however, I soon became aware that there were a large number of dentists who had achieved prominent recognition in areas of contribution not mentioned by Dr. Barrett. In this article I will present a selective group of dentists who have brought to their profession impressive accomplishments outside their professional activities. This present series will include only a part of the collection of "truants" that I intend to write about in future contributions to the *J.A.C.D.*

Many dentists have gained local reputations as poets and several have become poet laureates of states. But only two have achieved national reputations for their poetry. Thomas W. Parsons (1819–1892), who practiced chiefly in Boston, published four books of poetry. He became best known for his translation of Dante's "Inferno", for which he was highly honored by the city of Florence. His best known poem is "On a Bust of Dante." A close friend of Longfellow, he served as the model of the Poet in the great poet's *Tales of a Wayside Inn.* The famous anthologist, Edmund C. Stedman, chose eleven of Parsons' poems for inclusion in his noteworthy *An American Anthology,* 1787–1900.—Anderson M. Scruggs (Atlanta-Southern), who practiced in Atlanta, served on the faculty of his alma mater as Professor of Histology and Embryology. He became internationally recognized for his poetry and won many prizes and honors. In 1933 he published his first book of poems *Glory of Earth.* For nine consecutive years some of his poems were selected by Thomas Moult for his yearly anthology *Best Poems.*

Two American dentists achieved fame in the field of fine arts. Adalbert J. Volck (Baltimore C.D.S. 1852), of Baltimore, earned national recognition as a dentist and as an artist. He developed astonishing versatility and attained expert craftsmanship in many fields of art. His caricatures in support of the Southern cause in the Civil War brought him wide recognition. Cardinal Gibbons said of Volck: "He was the most universally learned man I ever knew.—William G. Turner (B.C.D.S. 1857) is best known for his statue of Oliver Hazard Perry in his native Newport, R.I., erected in 1885. At the outbreak of the Civil War Turner gave up his practice in New York to enlist in the Second R.I. Regiment. Severely wounded at the battle of Salem Heights in May 1863, Captain Turner received a discharge for disability. After a long period of recovery he resumed his practice; however, on finding dentistry too exhausting, he decided to adopt a new career. In 1869 he went to Florence, Italy to study sculpturing. While in Florence he produced a number of works that were purchased for private and public collections in the United States; several of them are now in the museum of the Newport Historical Society. His "Transition" was exhibited at the Centennial in Philadelphia, 1876.

Many dentists have written novels, but the majority of those have

been of mediocre value, usually published by vanity presses. I shall consider here only three novels written by dentists. In 1893 Charles N. Johnson wrote *The Hermit of the Nonquon,* a story of the Canadian frontier in the first part of the nineteenth century. Dr. Johnson received the L.D.S. degree from the Royal Dental College in Toronto. In 1885 he was graduated from the Chicago College of Dental Surgery. Johnson wrote two important dental books: *Principles and Practice of Filling Teeth* and *Textbook of Operative Dentistry.* Eventually he became a giant figure in American dentistry, becoming president of the American Dental Association and the American College of Dentists; and serving notably as the editor of the *Dental Review* and the *Journal of the American Dental Association.* He was greatly honored by his profession. Dr. Johnson also wrote *Poems of the Farm and Other Poems* (1901). The recollections of his boyhood on a farm in Ontario were drawn upon for both his poems and his novel.—Newton G. Thomas (Northwestern 1914) taught at the dental schools of Northwestern, Illinois and Pittsburg. His first novel *The Long Winter Ends* was published in 1941. It is the story of a young miner who was forced by the closing of the mines in his native Cornwall to leave his family and come to America, where he found work in the copper mines of Michigan.—B. J. Cigrand gained prominence in dentistry, but he also gained recognition for his many accomplishments as a "truant". On June 14, 1985 when he was a young school teacher in Ozaukee County, Wisconsin, he arranged the first flag day celebration in his school. For many years he was president of the American Flag Day Association. The Association finally achieved its long sought purpose when it induced President Wilson to select June 14 for the national observation of Flag Day. Dr. Cigrand wrote several books: *The Real Robert Morris, The Life of Alexander Hamilton, Lincoln—Prophet and Patriot, The Real Washington, The Great Seal of the United States,* and *The History of American Emblems* (a recognized authority).—Dr. Raymond E. Myers, former dean of the University of Louisville School of Dentistry, wrote in 1964 *The Zollie Tree,* the biography of the Confederate General Felix K. Zollicoffer, who was killed at the Battle of Mill Springs. I would judge this historical work to be an excellent contribution to the Civil War literature, a well researched and well written book.

When Dr. Barrett wrote his commentary on "dental truants," he did not mention sports as an area of accomplishment in which dentists could achieve fame. At that time the status of sports was in a slowly developing condition and participants were relatively few. My presentations of dentists who became prominently recognized and honored for their records in athletic competition reveal an impressive change in the number of outstanding competitors and the variation of their participation.

The leading all-around dentist sports figure is Walter G. Kendall (Boston Dental School 1881) who practiced in Boston. In *Four Score Years of Sport* (1933), one of the few dentist autobiographies, Dr. Kendall recalled the leading events in his long and amazingly variegated career in sports and in other areas of "truancy." He was an enthusiastic devotee of hunting and fishing. In 1877 he started his Squantum Kennels and eventually became recognized internationally as the "Father of the Boston Terrier breed." He won many velocipede races and was captain of the Boston Bicycle Club for over forty years. For sixty years he regularly attended boxing matches and served as a judge for many New England and National Amateur Championship tournaments. He was a pioneer in golfing and played on links around the country. A keen spectator of many other sports, he also officiated at many track and field meets. He achieved wide recognition for raising pigeons; his birds won all of the pigeon prizes at the Chicago World's Fair in 1893.

Louis Charles Wallach (Leach Cross) was graduated from the New York College of Dentistry in 1907. He began his remarkable career as a boxer in 1906, while a student, and fought 152 contests till his retirement in 1916: 47 wins (24 by K.O.), 11 defeats (5 by K.O.), and 94 no-decision matches (most of them governed by the New York state law that prohibited decisions). Cross fought four men who won the lightweight crown—Battling Nelson, Willie Ritchie, Freddy Welsh, and Ad Wolgast—and several others who won championships in other classes. It must have taken a remarkable spirit of dedication for Cross to have combined dentistry and boxing over many years.

William S. Carrick, a Temple

graduate who practiced the specialty of oral surgery in Philadelphia, was awarded a fellowship of the Royal Geographical Society of London in 1942. The Award was made for three points: extensive travel, his fourteen years of travel in the jungle regions of Central America and South America, and for his giving five hundred public lectures on travel and natural history.

Calvin S. Case (Ohio C.D.S. 1871), of Chicago, won second place in a National Archery Tournament held in Boston; there were seven hundred competitors. Dr. Case (1847-1923) became a famous figure in the field of orthodontics.—Edward S. Hodgson (Washington U. 1904) was the Archery Champion of Illinois for four successive years and the Champion of the Missouri Valley Archery Association for three successive years.

I can come up with only one dentist who merits inclusion in this article for his excellence in tennis. Dr. Paul A. Pollard (M.C.V.), of Lynchburg, Va., was the Virginia State Champion singles player in 1936 and a doubles State Champion player in 1938.

Five dentists have represented the United States in the Olympic Games. Daniel Bukantz (N.Y.U.C.D.) was a member of the U.S. fencing team at the Games of 1948, 1952 and 1956. In 1948 he achieved the best record of his national team.—Clarence "Bud" Houser (U. of California), of Los Angeles, participated in two Olympic Games. In the 1924 Games he won the discus throw (151'5) and the shotput (49'2¼). In 1928 he again won the discus event (155'3). Dr. Houser is regarded as one of the all-time great competitors in his two events.—Walter B. Tewksbury (U. of Penn.), of Tunkhannock, Pa., won the 200 meters race (22.2) at the 1900 Olympics held in Paris.—Ken Wiesner (Marquette 1947), of Milwaukee, placed second in the high jump at the 1952 Olympics (6' ⅞). In 1953 at Milwaukee he set a new world record of 6' 9⅞. A month later in Chicago he bettered that record at 6' 10¾.—(See Swanson, shooting).

Benedict F. Sapienza (1898–1951), of Birmingham, Ala., was the Southern singles handball champion for several years. He also won several doubles titles with another Birmingham player.

My files include information about ten dentists who served as college football coaches. I will present them in another article of this series.

Several dentists have gained local prominence in golf, but only a few have achieved records worthy of inclusion here. In 1954 Dr. Ted Lenczyk won the Connecticut Open title as an amateur.—John Lorms (O.S.U.) won the National Intercollegiate Championship in 1945.—Cary Middlecoff, of course, had a long and very successful career in golf after an eye condition forced him to terminate his dental practice.—A surprising member of this golf group is the great W. D. Miller, the American who, while a professor at the University of Berlin, won the 1902 golf Championship of Germany and Austria.—In 1954 William Taylor, of Pomona, won the California Amateur Golf Championship. He had reached the finals twice before.—Oscar F. Willing, of Oregon, was a member of the U.S. team that won the Walker Cup in the international tournament of 1930.

Several American dentists have accomplished impressive records in the field of shooting.—Horace J. Brown, Jr. (U.S. Cal.), of Los Angeles, won more than 4,000 medals and 100 trophies for pistol shooting and was the Western States pistol champion.—W. J. Carver, of Nebraska, was a trick-shot artist with the Buffalo Bill Wild West Show.—Philip Philbrook, of Oxnard, won the California state championship for .30 rifles at varying distances from 200 to 1000 yards. In winning the title for the second time he scored 484 out of a possible 500.—Emmet O. Swanson, of Minneapolis, was a member of five international rifle teams. In 1930 Swanson was a member of the U.S. International Rifle Team that competed in the World's Rifle Championship match in Antwerp, Belgium. In that competition he won the individual kneeling championship of the world. In 1931 he won the British National Championship. In 1948 he was elected president of the National Rifle Association. He was a member of the 1948 Olympics team.—Irwin N. Tekulsky, of New York, won over 300 medals, cups, plaques and other prizes, plus many titles and honors during twenty-five years of shooting in local, national and international contests.—Frank C. Wilson (B.C.D.S. 1891), of Savannah, Ga., was a crack shot with rifle, pistol and shotgun. In 1898 he won the championship of the National Rifle and Pistol Tournament at Sea Girt, N.J. For four consecutive years Wilson won the National and International rifle championships. △

NEWS OF FELLOWS

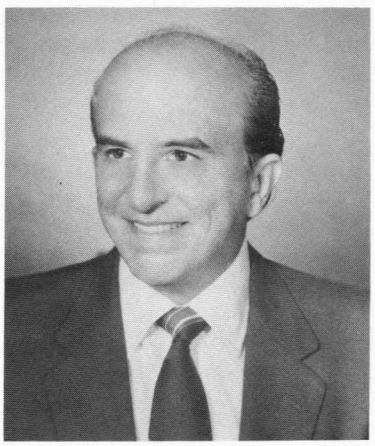
Bernard Gordon, Baltimore, was named the recipient of the Maryland State Dental Association's Distinguished Service Award in recognition of his 26 years of service as the MSDA Journal Editor. He also received a Distinguished Service Award from the American Association of Dental Editors which he served as president.

Robert W. Koch of Potomac, Maryland has been elected President of the American Academy of Periodontology. Dr. Koch is a Rear Admiral in the U.S. Navy Dental Corps and currently serves in the office of the Navy Surgeon General in Washington, D.C.

Robert W. Koch

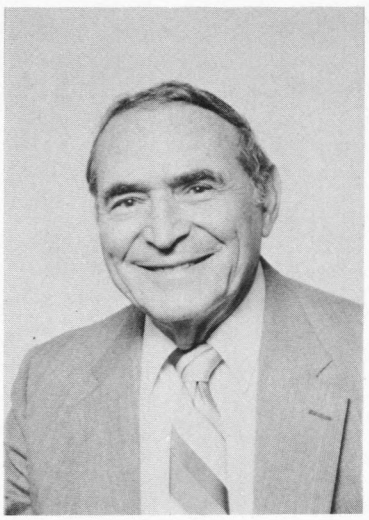
The Academy of General Dentistry has installed **Robert G. Ryan** of Duluth, Minnesota as President Elect and **Edward D. Barrett** of Rochester, Michigan as Vice President. **James W. Smudski**, who is the Dean of the University of Pittsburgh School of Dental Medicine, was awarded an AGD Honorary Fellowship. ADA Past President **John L. Bomba** received AGD's renowned Borish Award.

Jesus L. Lastra, Miami, Florida has received the Distinguished Service Award from the Florida East Coast District Dental Society. His efforts in planning and administering preparatory courses have helped a vast number of exiled Cuban dentists to take and pass the Florida Board.



Jesus L. Lastra

Abram I. Chasens of Hawthorne, New Jersey was elected Chairman of the American Board of Periodontology which functions to examine and certify candidates for Diplomate status in the specialty of periodontology. Dr. Abrams is professor and chairman, department of periodontics and oral medicine and director of postdoctoral periodontology at Fairleigh Dickinson University School of Dentistry.

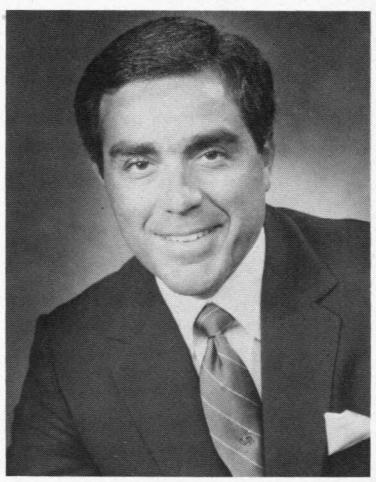


Abram I. Chasens

Gunter Schmidt of St. Louis and **Carl W. Sawyer** of Kansas City were the first recipients of the Missouri Dental Association's newly established Distinguished Service Award.

Noel D. Wilkie

Noel D. Wilkie, Rockville, Maryland was installed as President of the American College of Prosthetics. **Cosmo V. DeSteno** of Ridgewood, New Jersey was chosen President-Elect. Dr. Wilkie is Associate Professor of Prosthodontics at Georgetown University School of Dentistry and recently retired as Assistant Chief of Staff for Dentistry in the Naval Medical Command in the National Capitol Region. Dr. DeSteno is clinical professor of Restorative Dentistry at the University of New Jersey Dental School.



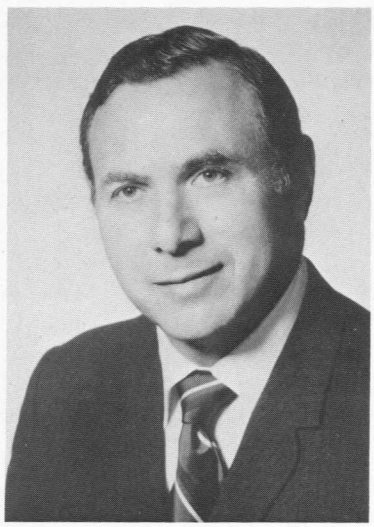
Cosmo V. DeSteno

Ralph A. Boelsche of Industry, Texas and **Robert E. Gaylord** of Dallas were recently inducted into the Baylor College of Dentistry's Hall of Fame for outstanding services and devotion to the Science and Art of Dentistry at Baylor College of Dentistry.

Charles F. Stebner of Laramie, Wyoming has donated his collection of 1,580 color slides to Northwestern University Dental School. The slides encompass the full spectrum of practical cases that Dr. Stebner treated during the course of his 50-year dental career. He lectured widely about his techniques.

Two dental leaders were inducted into Baylor College of Dentistry's Hall of Fame: Robert E. Gaylord (left) a Dallas orthodontist and Ralph A. Boelsche (right) of Industry, Texas. Dean Richard E. Bradley (center) of Baylor University College of Dentistry, presented the awards.

Irwin A. Small of Birmingham, Michigan received the 1985 Research Recognition Award from the American Association of Oral and Maxillofacial Surgeons (AAOMS). He received the award for his contributions to the direct treatment of patients by the application of scientific methods in development of the mandibular staple implant. Dr. Small is a private practitioner in Birmingham.



Irwin A. Small

E. Monroe Farber of Delray Beach, Florida was recently honored by having the Atlantic High School Stadium dedicated in his name. Dr. Farber was chairman of the school's booster organization for 25 years. He is a past president of the Florida Dental Association.

Hal E. Leyland, Nassau, Bahamas was honored upon his retirement from practice. Dr. Leyland was instrumental in developing the Family Island Kiwanis Dental Clinics. He was presented a plaque on behalf of the Bahama Islands Dental Association for 25 years of dental and community service.

Philip Williams of Lynn, Massachusetts has been honored by his alma mater, Tufts University School of Dental Medicine. A new library/seminar room has been established at the school and named the Dr. Philip Williams Library. Dr. Williams has served on the dental school faculty for 53 years and is the longtime chairman of the Department of Graduate and Post Graduate Prosthodontics.

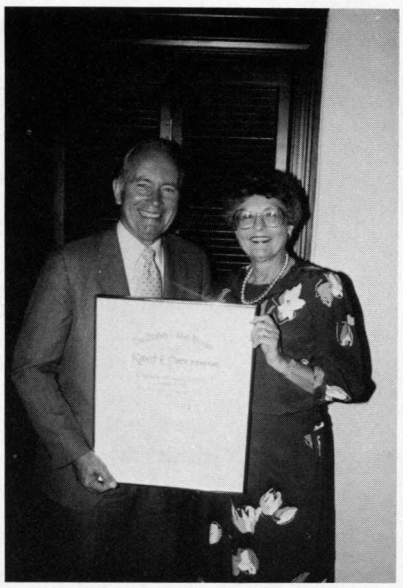
Ralph Bellizzi, an endodontist and a colonel in the U.S. Army serving in West Germany, has been elected to the Board of Directors of the American Association of Endodontists.

John G. Kramer of Martins Ferry, Ohio has been named to the 15-member University Hospitals Board for Ohio State University for a three-year term. Dr. Kramer is chairman of Peoples Banking Company and Finance Ohio, in addition to his dental practice.

Lon D. Carroll, Portland, Oregon was named 1985 Dentist of the Year by the Oregon unit of the Academy of General Dentistry. He also received the prestigious AGD Mastership Award.

Dale F. Roeck, dean of Temple University School of Dentistry, will retire as head of the school in August 1986. Dr. Roeck is credited with a leadership role in planning for a new clinical building at Temple University that will be completed in 1988.

SECTION ACTIVITIES



Regent Robert E. Doerr and Mrs. Doerr smile on the occasion of Dr. Doerr being honored by West Michigan ACD Fellows.

Michigan

Members of the American College of Dentists in West Michigan met in Grand Rapids to honor ACD Regent Robert E. Doerr prior to his retirement as Professor and Associate Dean at the University of Michigan School of Dentistry. A plaque bearing the signatures of all attendees was presented to him as a salute to his distinguished career and his tremendous contributions to dentistry.

Dr. Doerr is widely known as a lecturer and writer. He has served the Michigan Dental Association in many positions, particularly as Editor and President. He has also served the American Dental Association on several councils, commissions and committees.

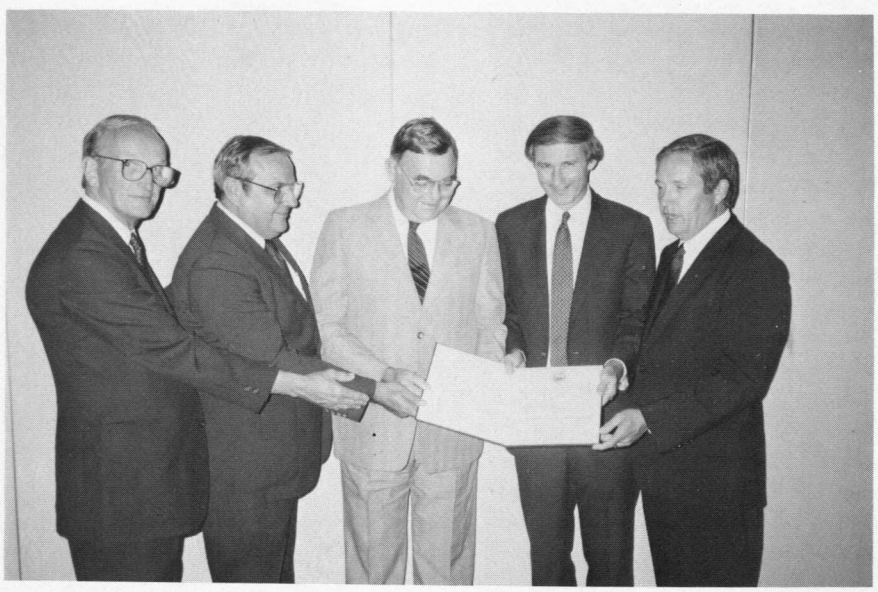
Knowing his involvement and his commitment to dentistry over the years, his friends doubt that he has retired in the full sense of the term retirement.

New Mississippi Section Receives Charter

The Mississippi Section of the American College of Dentists was chartered as the newest section of the College in Jackson, Mississippi on August 24th, 1985. The chartering ceremony was held at the Jackson Country Club during a special dinner held for the Fellows of the College and their wives which was attended by the President of the College, Dr. Charles W. Fain, Jr., the Executive Director, Dr. Gordon H. Rovelstad, and the Regent, Dr. Robert C. Coker. In addition to the Fellows of the College, there were several new candidates for Fellowship present who were inducted into the College in November.

The Fellows of the College living in the State of Mississippi have been members of the Tri-State Section of the College. The numbers have grown sufficiently now to warrant an independent section. The Fellows of the College and the State, therefore, petitioned the College for such organizational change. The new officers elected to lead this new Section are Robert T. Ragan of Cleveland, Chairman, John M. Faust of Hattiesburg, Vice Chairman, and Heber Simmons, Jr. of Jackson, as Secretary-Treasurer.

ACD President Charles W. Fain, Jr. extended the greetings of the College and Regents and the best wishes to the Section for a very successful future. ACD Executive Director, Dr. Gordon H. Rovelstad, described some of the background of the Chartering of the Section and the structural relationship of the College and its Executive Office. Regent Robert C. Coker presented the Charge to the Section. This spelled out the goals and responsibilities of the Section as it becomes a functioning part of the national organization of the College. He presented the Charter to the Section, which was mounted in a leather bound folder for the permanent record of the Section.



Dignitaries present at the presentation of the new Mississippi Section Charter: Left to right ACD Executive Director Gordon H. Rovelstad; ACD Regent Robert C. Coker; ACD President Charles W. Fain, Jr.; Section Chairman Robert T. Ragan and Section Secretary-Treasurer Heber Simmons, Jr.

Florida

The Florida Section of the American College of Dentists held its annual breakfast meeting in conjunction with the Florida National Dental Congress, the official scientific session of the Florida Dental Association.

Guests present at the meeting were Dr. Charles Fain, Jr., President of the American College of Dentists, Dr. John Bomba, President of the American Dental Association, Dr. Gordon Rovelstad, Executive Director of the American College of Dentists, Dr. David J. Blue, the recipient of the Florida Section's C. W. Fain, Jr. Award for Professionalism presented to the outstanding student at the University of Florida College of Dentistry, and Dr. Robert Samp, our speaker. The guests were welcomed by sixty-seven fellows of the Florida Section.

The highlight of the meeting was the presentation, by Dr. C. W. Fain, of a plaque to Dr. Les Bell for his outstanding service to the Florida Section. This award, when presented again, shall be called the *Les Bell Service Award.*

Section Chairman Ray Klein presented contributions to Dr. Gordon Rovelstad for the American College of Dentists Foundation, and to Dr. Don Legler, Dean of the College of Dentistry at the University of Florida, for the Eminent Scholar Fund.

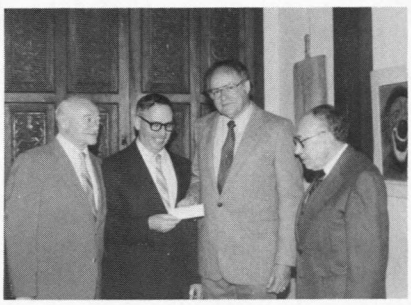
VIP's at the Florida Section Meeting: Left to right are ACD President Charles W. Fain, Jr.; ADA President John L. Bomba; Robert Samp, program speaker and Section Chairman H. Raymond Klein.

West Virginia

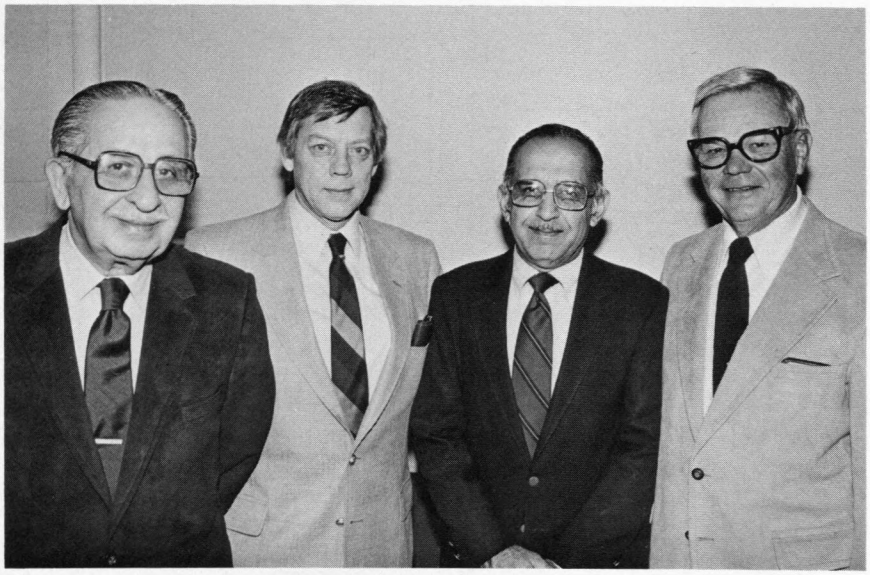
The Section Meeting was held during the Annual Session of the West Virginia Dental Association at the Greenbrier Hotel, White Sulphur Springs. Among those attending were ACD President Charles Fain, Jr., ACD Regent W. Robert Biddington, ACD Regent Joseph Cappuccio, ADA Sixth District Trustee Mike Overbey and ADA Vice President Joe Jones.

Especially recognized for extensive service and leadership in the West Virginia Section were three past chairmen who each had over twenty years of attendance: W. Robert Biddington, Carl A. Laughlin and John J. Herlihy.

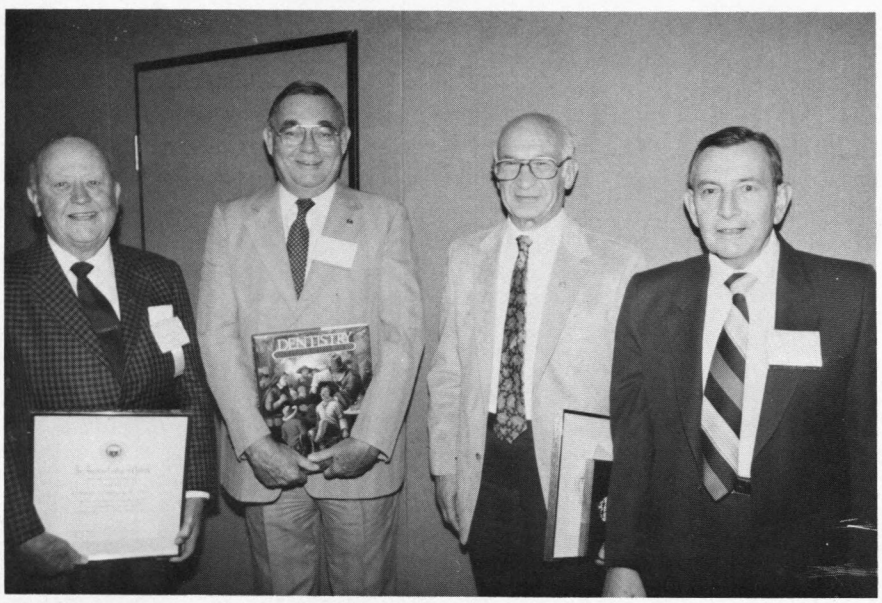
James Caveney, Chairman of the Recruitment of Quality Students Committee (and currently president of the West Virginia Dental Association), reported plans in which the Section would sponsor a conference of over thirty dental leaders in West Virginia to promote the initiation of the ADA's *SELECT* program. His theme for this program is, "Ideas in action—I'm waiting to be asked," using a poster saying "Aim where the action is."



The Northern California Section officers present a check to the American College of Dentists Foundation. Regent Albert Wasserman accepts for the Foundation. Others pictured are, left to right Clifford F. Loader, former Section Chairman; Section Secretary-Treasurer Arthur M. LaVere and Chairman Edwin J. Hyman, right.



Dignitaries at the Wisconsin Section Meeting: Left to right Harry J. Blumenfeld, ADA Trustee Gerald A. Larson, Section Vice-Chairman Prem S. Sharma and Chairman Ralph Lassa.



The Western New York Section selected Edward F. Mimmack, left, as the WNY Honor Man of the Year. Others pictured are, left to right, ACD President Charles W. Fain, Jr; former Chairman Milton Jacobson and Malvin E. Ring who presented President Fain with the first copy of his recent book entitled "Dentistry: An Illustrated History."

Wisconsin

The Wisconsin Section of the American College of Dentists recently hosted a seminar to which ACD fellows and spouses were invited along with an open invitation to any dentist interested in attending. A luncheon was followed by a talk from Dr. Gerald A. Larson, ADA 9th District trustee, which was followed by the seminar entitled "Know Your Emotional Needs—Ingredients for a Successful Relationship". The seminar, presented by Dr. Doug Meske, a Psychotherapist, was found to be of great interest by the dentists, spouses and dental students present.

Western New York

The Section Meeting was held in Buffalo with ACD President Charles Fain, Jr., ACD Executive Director Gordon H. Rovelstad and ACD Regent Sumner Willens in attendance. The officers were given a tour of the new dental school under construction at the State University of New York at Buffalo by Dean William Feagans on the day before the Section Meeting.

Each officer addressed the gathering of over 40 members and their spouses. ADA 2nd District Trustee Wilfred Springer also spoke to the group.

Dr. Edward Mimmack was honored as the Section's "Honor Man of the Year."

The afternoon session was highlighted with a presentation by Dr. Lowell Levine of New York City, a forensic dentist, who helped identify the remains of Nazi Josef Mengele. His speech was a most detailed and comprehensive overview of how the positive identification was brought about.

Oklahoma Section Chairman Earl Collard presents an Outstanding Student Award from the Section to Scott Holmgren of Oral Roberts University, while Mrs. Holmgren looks on.

Dean Robert G. Hansen of Oklahoma University Dental School, left, is pictured with student Leon Cerniway, right and Mrs. Cerniway. Cerniway also received the Oklahoma Section's Outstanding Student Award.

Regent Robert C. Coker presents the Louisiana Section's Outstanding Senior Award to Janice Green Mazurek at the Louisiana State University School of Dentistry.

JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS INSTRUCTIONS FOR CONTRIBUTORS

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, and statements of opinion pertinent to dentistry. Papers do not necessarily represent the views of the Editor or the American College of Dentists.

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The title page should contain: The title of the paper, suggested short titles; the author's names, degrees, professional affiliations, addresses, and phone numbers in a list of four to six key words. All correspondence from the editorial office will be directed to the primary author who shall be named on the title page.

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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 Chronicle of Higher Education, 9:24, February 3, 1975.

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