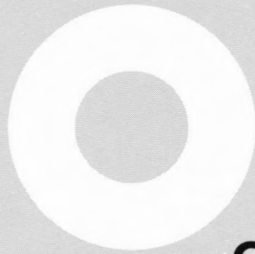
WINTER • 1991

The JOURNAL of the AMERICAN COLLEGE of DENTISTS



BJECTIVES of the AMERICAN COLLEGE of DENTISTS

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

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

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

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

(d) To encourage, stimulate and promote research;

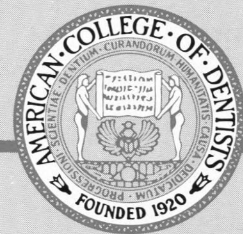
(e) To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

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

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

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

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



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The JOURNAL of the AMERICAN COLLEGE of DENTISTS

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Advertising By Dentists

FROM THE EDITOR'S DESK

Through most of the 20th century, advertising by health professionals in the United States has been practiced by only a few individual practitioners who chose not to belong to professional organizations that observed codes of ethics. Since the U.S. Supreme Court decided, almost fifteen years ago, that the public had the right to hear all of the information that was provided through advertising, the floodgates of advertising were opened.

In this issue of the JOURNAL, Boris W. Becker and Dennis O. Kaldenberg report on that controversial topic in an article entitled *Advertising and the Dental Profession: Retrospective and Prospective,* which explores legal issues, attitudes toward advertising and trends for the future of professional advertising.

When the Supreme Court made its historic Bates-Osteen decision in 1977, it was a liberal court's interpretation of the First Amendment, deciding that advertising was free speech. Yet, that decision was made by the narrowest of voting margins. Perhaps today's U.S. Supreme Court would have decided differently on this issue.

The Federal Trade Commission (FTC) immediately seized the opportunity to interpret that all health professions were trades and that the FTC, therefore, had the right and authority to regulate the health professions. *Restraint of Trade* is a primary offense to the FTC and professional codes of ethics, preventing advertising by

Keith P. Blair

health professionals, were declared by the FTC to be a restraint of trade. The FTC promptly went to court with a suit against the American Medical Association and the American Dental Association to remove restrictions on advertising from their codes of ethics, and the FTC won its case.

While the legalization of advertising has now become a fact of life, many physicians and dentists still consider that, while it is legal to advertise, that does not make it ethical or moral. Older dentists, who remember the "golden years" of high ethics, still cannot bring themselves to accept the advertising of dental services. Younger dentists and dental students, however, have more favorable attitudes, according to recent surveys.

One of dentistry's concerns is that, with the legalization of professional advertising, it is assumed that the public has the ability to distinguish between claims of specialties, superior services, relative costs and the value of services to be rendered. The public does not have that ability to distinguish advertising claims and this "information" may be very misleading to many readers of advertisements.

Another important concern is the loss of credibility and possible degradation to the image of the dental profession: when professionals conduct their practice more like tradesmen and entrepreneurs, making dentistry appear to be more like a trade, the public may recognize that dentistry more aptly fits the picture of a business or trade, rather than a profession. Dentistry has worked hard, since the early 1900's to shed the image of a trade and to achieve the status of a respected health profession. It would be tragic to see that status diminished again through advertising.

According to the authors, it is difficult to predict what effect advertising will have on the future of the health professions, but there probably will be a continuation of the status quo through the next decade. Advertising will undoubtedly remain a very debatable subject for some time to come.

Perhaps what seems to be a deprofessionalization, in the eyes of health professionals, may not be perceived that way by the public which apparently views the use of professional advertising merely as useful information.

Keith P. Blair

FORUM

LETTERS FROM READERS

Dental Licensure in the European Economic Community

The recent article by Drs. Freed and Block titled *Dental Licensure in the European Economic Community: Implications for the United States,* is certainly very persuasive in support of the principles of professional licensure by credentialing and reciprocity. The list of references is impressive. The appeal of "freedom of movement" is difficult to oppose; almost unAmerican.

Yet I find myself opposed to both reciprocity and credentialing for dental licensure in the United States. Am I simply a mossback, out of touch with the real world, motivated simply by self-interest rather than the public good? Or are there underlying, generally unspoken problems that must be addressed if this issue of licensure is to be re-examined?

In the best of all worlds, if the principle of dental school accreditation and its application was pure, and if all accredited dental schools were pure in conferring doctorate degrees only to those students who demonstrate the clinical competency and high ethical standards which the public expects from health professionals, i.e., the best of all worlds, I would lead the charge for licensure reciprocity and credentialing.

However, I suggest to you and your readers that we are not dealing here with the best of all worlds.

The Commission on Dental Accreditation (CODA) has provided a remarkable service to dental education and the profession in establishing and administering standards for dental education. CODA is responsive to societal needs and to scientific advances and is to be commended. However, it is generally acknowledged, though never publicly, that accreditation standards are not always applied equally. Dental schools which are recognized to have serious problems and do not meet accreditation standards are never denied accreditation. Instead, such schools are put on notice and given the opportunity to make necessary improvements to respective programs. Fair enough. Unfortunately, even if the program in question does not make the improvements, it does not have its accreditation removed.

Politically, perhaps it cannot be otherwise. The fallout from students and alumni and the costs attendant to the loss of accreditation are great; given these realities, the accreditation system may work as well as it can, but it is not pure. It is clearly subject to other considerations which dilute its high standards.

The second problem which must be addressed is the quality of the dental school graduate. The aforementioned accreditation system sets standards for the educational *process*; it does not set standards for the *outcomes*. Outcomes, i.e., clinical and ethical competencies, are measured by testing, in most instances, through state or regional board examinations. I suppose that if this were the best of all worlds, all dental school graduates would meet minimal (does anyone else resent that word as much as I do?) standards, but, though it may be unspoken, we know that it is not true. The system is not pure.

Additionally, it may well be that other considerations also enter into the equation as to whether a particular student is allowed to graduate. The threat of litigation sometimes serves to keep students in dental school programs. I sympathize with school administrators who have to wrestle with their conscience regarding their responsibility to programs and to the public. The system generally works well because of the dedication of dental educators, but it is not pure.

In summary, let us not fool ourselves; let us be totally honest about our professional responsibility, which is to serve the public and the profession, and acknowledge that the system of regional or state licensure examinations does benefit the public. At the same time we should all work to improve both the accreditation system and educational outcomes, so they are less subject to political and other considerations that keep this from being the best of all worlds.

Richard A. Lewis
Long Beach, California

Dr. Lewis's interest and comments on this subject are much appreciated. However, the article by Drs. Freed and Block, which appeared in the Summer 1991 issue of the JOURNAL did not advocate reciprocity or licensure by credentialing. Rather it was a factual report on new policies that have recently been developed within the European Economic Community (EEC). It is important that U.S. Health Groups are aware that these EEC governments have made plans for health care delivery systems irrespective of the wishes of EEC Health Organizations that must implement these plans. There are factions in the U.S. that would highly recommend the EEC plan as a model for this country to follow. It is imperative that U.S. Health organizations become involved and to take part in any contemplated changes in the health care delivery system in this country so that the health interests of the public are best served and protected. Ed.

1991 GIES AWARD TO ROBERT J. NELSEN

Citation Presented By Regent Charles V. Farrell

The William John Gies Award was established by the American College of Dentists in 1939 in order to recognize Fellows of the College for outstanding service to dentistry and its allied fields. This award personifies professionalism in its finest form and represents the highest honor that the College can confer upon its members.

The William John Gies Award for 1991 is being presented to Dr. Robert J. Nelsen. It is Dr. Nelsen's invention of the high speed turbine contra-angle dental handpiece that has revolutionized dentistry worldwide.

Bob Nelson was born in Chisholm, MN, and went to school in Minnesota, completing his dental education there in 1940. He entered private practice in Wahpeton, ND, upon graduation but soon volunteered for military service. Incidentally, Dr. Nelsen is licensed by examination to practice dentistry in six states. He entered the Navy in 1941. While on duty at the Navy Medical Supply Depot in Brooklyn, NY, he met another Naval Dental Officer, Captain George C. Paffenbarger. A mutual friendship was born.

Dr. Nelsen left the Navy in 1946 after attaining the rank of Commander. He was appointed Executive Director of the Department of Dental Materials at the University of Washington's School of Dentistry in Seattle in 1947.

While he was at the University of Washington his early research on the Panoramic X-ray was initiated. Also, while at the University, Dr. Nelsen brought into dentistry the universally used Front Surface Dental Mirror.

Dr. Nelsen left the University of Washington in 1950 to become Research Associate for the American Dental Association at the National Bureau of Standards. Here he published the first paper on "Fluid Exchange at the Margins of Dental Restorations" and initiated the work that was to lead to the present

Robert J. Nelson

Panoramic X-ray equipment.

While at the Bureau of Standards, Dr. Nelsen invented the turbine-driven dental contra-angle handpiece. The original unit is now at the Smithsonian Institution having been presented on October 5, 1965, twenty-six years ago.

No patent was taken out on that handpiece. Instead, the manufacturers of handpieces in the U.S.A. and dentists in Washington, D.C. were invited to the Dental Research Section of the National Bureau of Standards to see the shop model of the turbine contra-angle handpiece in action. From this demonstration several dentists had handpieces made for them by a Virginia machinist, the enthusiasm spread, refinements took place, including changing from a hydraulic turbine to an air turbine, and today every dental office enjoys the benefit of this invention.

Dr. Nelsen left the National Bureau of Standards in 1956 and entered into general practice in Rockville, MD, serving part time as a Clinical Associate Professor in Operative Dentistry at Georgetown University. In 1965, however, he was persuaded to come to the National Institute of Dental Research to serve as Chief, Collaborative Dental Research Office, and Chief of the Material Sciences and Special Clinical Status Program. It was in this position that he became involved in the early studies directed toward the development of adhesive dental filling materials.

He left the Research Institute in 1969 to accept the position of Secretary, then Executive Director, American College of Dentists, a position he held until 1981 when he retired.

It was during his tenure with the College that the first self-assessment examination was offered to an entire profession, and also, was the time when Project Library distributed hundreds of packets of dental information to libraries throughout the country. Dr. Nelsen also co-authored, with the late Dr. Lon Morrey, the DENTAL SCIENCE HANDBOOK, written for disciplines other than dentistry to meet the growing interest in dental science by non-dentists.

Bob Nelsen has had several distinguished careers. The products of his expertise have touched everyone who practices dentistry today. His legacy to the College has been of the highest standards. He has been awarded the Distinguished Alumni Award, University of Minnesota; Honorary Doctor of Science, Georgetown University; Certificate of Achievement from Johns Hopkins University; Hollenbeck Award of the American Academy of Operative Dentistry; the Jarvie-Burket Award, Dental Society of New York; the Callahan Award of the Ohio State Dental Society; and the Alfred Fones Award of the Connecticut State Dental Association.

Dr. Nelsen and his wife, Alice, reside in Cape Carteret, North Carolina, and are the parents of six children.

As an educator, author, administrator, husband, father, grandfather, and great grandfather, he is one of dentistry's greatest.

President Doerr, it is my honor and privilege to present to you Robert J. Nelsen for the William John Gies Award of the American College of Dentists. Δ

1991 HONORARY FELLOWSHIP TO JACK I. NICHOLLS

Citation Presented By Regent Juliann S. Bluitt

The American College of Dentists confers Honorary Fellowship upon persons who are not members of the dental profession but have contributed in an outstanding manner to the advancement of the profession and to its service to the public. These contributions may have been made in education, research, administration, public service, public health, medicine, and many others.

Dr. Jack I. Nicholls is Professor of Restorative Dentistry at the University of Washington School of Dentistry in Seattle.

He began his academic career as an Instructor in Civil Engineering at the University of British Columbia in 1957. He then moved to Purdue University in 1960 where he served as an Instructor in Civil Engineering. In 1965, he returned to the University of Washington where he has remained, attaining the rank of Professor in 1979. He became a member of the Faculty of Restorative Dentistry in the School of Dentistry in 1973.

The uniqueness of Dr. Nicholl's appointment in the School of Dentistry is his background in civil engineering. The application of engineering skills to the broad spectrum of dental materials testing and dental restorations has added substantially to present-day knowledge.

Dr. Nicholls served as an Engineering Cadet with the New Zealand government from 1949 to 1953. He spent several summers in structural engineering and consulting offices actively engaged in structural design. He has coordinated both the Civil and Structural Refresher Series for professional licensing in the State of Washington. Licensed as an Engineer in the State of Washington, he has served as a Consultant to the Great Northern Railroad concerning bridge damage; the Heath Tecna Corporation concerning analysis and design of a plastic container for air cargo; the City of Seattle for analysis of curved concrete structures for the proposed Bay Freeway; and the Okanogan County for analysis and design of a bridge under ice loading, and many others.

Jack I. Nicholls

The University of Washington School of Dentistry has been the beneficiary of Dr. Nicholl's research and teaching. He has been honored by the students with the Outstanding Instructor Award for the past eight years. He is currently active in research on the tensile and shear bonding of resin cements to the veneering resins, in vitro measurements of abrasion loss of the posterior resin restoratives, tensile and shear strengths of the dentin bonding agents to the human tooth structure, depth of cure and time effects of the new dental lights, and fatigue loading of restored teeth using dentin bonding agents. The courses he is teaching include undergraduate, graduate, and dental hygiene courses involving dental materials, physical properties of restorative materials, research design, data evaluation and report writing and biostatistics.

Jack Nicholls has published widely in professional journals as well as textbooks and syllabus and teaching modules. He is currently Consultant to the Journal of Operative Dentistry and Editor of the International Journal of Prosthodontics.

His professional honors include the Xi Epison, Tau Beta Pi, Honorary member of the Seattle-King County Dental Association, Honorary member of the Washington State Dental Association, and Honorary member of Omicron Kappa Upsilon. He was presented the Schweitzer Research Award of the Greater New York Academy of Prosthodontics in 1989.

Jack Nicholl's scholarship and research abilities have served dentistry for over seventeen years. His numerous publications and scientific papers before dental societies have been significant contributions to the advancement of dentistry. He is very energetic in his pursuit of dental information and shares his findings freely.

Dr. Nicholls and his wife reside in Seattle.

Mr. President, it is an honor for me to present Jack I. Nicholls for honorary fellowship in the American College of Dentists. △

1991 AWARD OF MERIT TO JOHN J. NEVIN

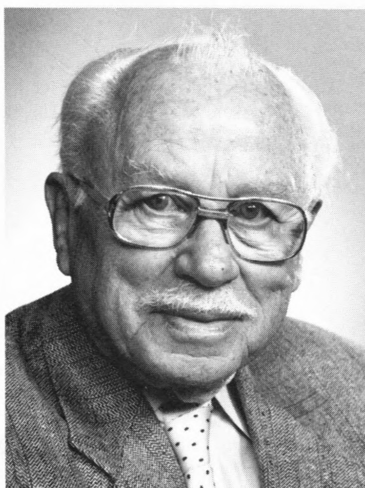
Citation Presented By Regent Ruth S. Friedman

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

Mr. John J. Nevin has been selected for the Award of Merit for 1991. He is President of Nevin Laboratories which manufacture laboratory cabinetry and medical examination tables.

Mr. Nevin, Jack, as he prefers being called, joined Coe Laboratories as Advertising Manager. At that time, Coe manufactured and distributed dental golds and the products of Austenal, the inventors of Vitallium. While at Coe, he became interested in practice management and edited a publication devoted to practice management, patient education, and applied psychology.

After several years, he was offered an unusual opportunity at Ticonium, then a newcomer to the dental industry. There he was offered the position of Advertising and Sales Manager and continued his interest in practice management, social trends and their implications. In the 1940's he was invited to join the Dentist Supply Company which was then conducting a research project with Dr. Milus M. House of Whittier, California. Jack and a group of research workers assisted Dr. House in completing his development of the Bioform Teeth. Jack was the writer in the group. He was commissioned to prepare the technical and promotional material required for the introduction of these new teeth. After two years with Dr. House, he was transferred to New York to succeed Dr. George Wood Clapp, then advertising manager for Dentsply.



John J. Nevin

In 1951, Jack was invited to return to Coe Laboratories as Executive Vice President. He continued in this capacity and a few years later he acquired ownership of the company. Under his direction, Coe's line of products was greatly expanded and sold throughout most of the world.

A few years ago, Coe Laboratories was acquired by Imperial Chemical Industries of Great Britain. Imperial Chemical Industries subsequently sold the company to G. C. International of Tokyo, Japan, in 1990.

Jack is an Honorary member of the American Dental Association, the Federation Dentaire Internationale, and the International Association for Dental Research. He is a fellow of the American Fund for Dental Health and a member of the British Dental Health Foundation. In 1976, he was elected to membership in the honorary dental society Alpha Epsilon Upsilon.

His principal hobby is and has been dentistry and the collection of dental artifacts and writing.

Jack built Coe Laboratories from a small unknown dental company into a firm of international reputation.

Jack's contributions to the profession have been of significance. Forty-five years ago, he launched CAL Magazine when there were comparatively few dental journals. Jack's articles on social trends made his name a familiar and respected one to members of the dental profession. He has written three textbooks, and presented eight major papers to Dental Societies and has published 133 magazine articles. He is also the industry's most frequent speaker to dental organizations. For several years, he has served as a consultant to the American Dental Association and several state societies. For this leadership and concern for dentistry, Jack was given an honorary ADA membership.

In 1985, during the Annual Session, Jack established, through the American Fund for Dental Health (AFDH), the Nevin Lecture. The focus of the lecture series is practice administration. Jack has also contributed a large collection of dental art and sculpture to the AFDH which is used to acknowledge unusual contributions to the AFDH.

Jack is now in his 80th year. This year, he retired as Chairman of the Board from Coe Laboratories, Inc.

Mr. President, it is an honor for me to present Mr. John J. "Jack" Nevin to you for the Award of Merit of the American College of Dentists. △

STUDENT PARTICIPATION IN A STATE LICENSURE EXAMINATION

Billy J. Powell*
Robert W. Comer**

Dental educators recognize the responsibility to prepare students to obtain a license to practice dentistry. Pudwill defines licensure as "the process by which an agency of government grants permission to an individual to engage in a given occupation. . . ."[1] Many schools provide an orientation by conducting simulated board or comprehensive clinical examinations.[2] The simulation of the licensure examination cannot, however, duplicate the actual conditions and proceedings of the exercise. We believe that employing students as staff during the exam expedites the evaluation process and provides students with a macroscopic orientation to the examination.

Recently the examining board in our state changed the format of the licensure examination to reduce possible bias. The candidates' clinical activities are monitored by one group of examiners. They are separated from other examiners who, in pairs, evaluate the dental procedures. This independent grading scheme provides a "blind" appraisal of the candidates' performance. These changes have necessitated increased staff who are familiar with the dental clinics.

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OBJECTIVES

This past year the Board of Dental Examiners agreed to allow junior students to serve as patient escorts (P.E.'s) during the administration of the test. The objectives of the faculty coordinator and the examiners were the following:

1. To expedite the transfer of patients between the treatment and the evaluation areas.
2. To familiarize students with the procedures and activities of the licensure examination prior to appearing as candidates.
3. To evaluate the effectiveness of employing students as patient escorts.

APPROACH

Annually dental school deans and dental examiners meet to discuss professional issues that concern both constituencies. Both groups agree that efforts should be made "to improve the quantity and quality of communication between licensing and education communities."[3] In an attempt to do this, the School of Dentistry has appointed two faculty members to coordinate all licensing examination preparations and associated activities occurring within the school. The introduction of the patient escort (P.E.) program has proved to be a successful method of improving the working relationship between the academic dentists and the examiners.

The liaison faculty developed the patient escort program after consulting with examining board members. Because of a shortage of volunteer personnel to work the week-ends, the Board permitted dental students to work as the P.E.'s. The student P.E.'s were used for the June 1990 Board.

Forty-eight third year students were asked to volunteer to work the three days of the clinical examination. Ten students volunteered. Of these, nine students were employed. Prior to the examination, the P.E.'s received a brief orientation and a written job description. Their primary duty was to escort the patient to the evaluation area and return the patient to the treatment cubicle.

PATIENT ESCORT RESPONSIBILITIES

Patient escorts worked under the supervision of the State Board Examiners. They were stationed in strategic locations until specifically requested to enter the patient treatment area. The patient escorts were not allowed to assist any candidate in treating patients or in preparing the operatory.

The patient escort's primary duty was to escort the patient from the assigned operatory to the patient evaluation area. After evaluation, a second escort returned the patient to the treatment area. One escort was assigned to each row of twelve applicants to guide the patients to the evaluation area. The applicants were instructed to collect certain materials/instruments to send with

the patient to the evaluation area. The escort assured that the appropriate instruments, radiographs and papers were sent with the patients.

The applicants communicated with the evaluators using a special communication form. The P.E.'s delivered the communication slips. The two benefits were that the applicants conserved time and avoided breaking the sterile field. All communications were reviewed by the monitor before the patient was escorted to the evaluation area.

Additional escorts were stationed at the exit of the evaluation clinic to guide the patients to the correct operatory. The patients returned from the evaluation area with messages from the examiners. Escorts transferred this note to the row monitor. The monitor then reviewed the evaluator's note with the applicant.

In summary, the P.E.'s were instructed to maintain professional decorum, stay alert, and respond to the directions of the examiners.

EVALUATION

Each of the groups of people involved in the examination process were surveyed to evaluate their perception of the patient escort system. Questionnaires were mailed to the state board members and to the licensure candidates from the School of Dentistry. The junior students who were patient escorts were surveyed immediately after the examination.

Dental Examiners' Responses

A questionnaire was mailed to eleven examiners. All eleven responded within two weeks. Each board member reported that they had the opportunity to interact with one or more of the P.E.'s. Ten of the examiners rated the P.E.'s job performance as outstanding and one rated the performance as adequate. They indicated that the escorts were attentive, appeared professional, and were available when needed. Subjective comments and suggestions were requested from the examiners. Three of the respondents included letters in addition to the evaluation. Comments of interest included the following:

- "The escorts were respectful, dignified, diligent and responsible professionals, just what we want in dentistry,"
- "P.E.'s were time savers for the Board and the patients,"
- "Students who did not participate might feel at a disadvantage when they take the exam."

The examiners indicated that not only were they impressed with the system but also with the quality of students. They reported that the exercise was a positive experience for all those involved.

Licensure Candidates' Appraisal

The licensure candidates from our school were surveyed after the Board. Forty-four surveys were mailed. Thirty three were returned for analysis. The candidates responded to four statements on a five-point Likert scale. A response of 5 indicates strong agreement. The results are presented in Table 1. The consensus is that the P.E.'s facilitated the examination process. All but one of the candidates indicated that serving as an escort would have been a profitable experience before taking the examination.

Table 1. Licensure Candidates' Evaluation of the Student Escort Service

Statement	Response*
1. The P.E.'s facilitated the transfer of patients between the examining and treatment areas.	4.94
2. The P.E.'s assisted in getting the floor monitor to see me.	4.27
3. The P.E.'s had a positive impact on the examination process.	4.55
4. I would have profited from serving as a P.E. as a student.	4.70

(n = 33, N = 44)

*Likert Scale: 5 = strongly agree, 1 = strongly disagree.

Subjective comments were positive. They included the following:

- "Escorts were a definite plus! All maintained a . . . supportive demeanor,"
- "I certainly wish I could have had the experience of serving as a patient escort,"
- "Student escorts made me feel more comfortable. . . ."
- "Student escorts were excellent, and to see familiar faces was soothing."

Other comments were similarly supportive.

Patient Escorts' Evaluations

Immediately following the board examination the nine students who

served as P.E.'s were surveyed concerning their experience. The students unanimously agreed that they would recommend that other students participate as escorts. They all felt that they learned how the board was conducted, the importance of organization, and the importance of proper patient selection. Specific responses are presented in Table 2. Table 3 lists the duties performed by the students. In most instances the students performed all prescribed duties.

The subjective comments from the escorts were also generally favorable. One person suggested that. . ."all students should participate in this program."

OUTCOME

Significant outcomes resulted from the experience. The P.E.'s were allowed to be involved in a high stress exercise before appearing as candidates. As a result the examiners and state board candidates expect a reduction of the fear of the unknown. Evaluation results also indicate that the P.E.'s formal and informal interactions with state board members helped them appreciate the serious commitment and efforts of the examiners. Finally, the employment of P.E.'s familiar with the facilities reduced the lag time for patient transport and evaluation. The perception of the examiners is that the average time and the maximum time were greatly reduced for the escort/evaluation cycles.

Table 2. Evaluation by Patient Escorts

Statement	Response*
1. The experience was valuable.	5.0
2. I improved my understanding of the examination process.	4.8
3. Serving as a P.E. will help me prepare for the exam.	4.4

(n = 9, N = 9)

*Likert Scale: 1 = strongly disagree, 5 = strongly agree.

Table 3. Number of Students Who Performed Various Duties

Duty	Number
1. Transferred communication forms to monitor.	9
2. Escorted patients to evaluation area.	9
3. Verified that applicant sent appropriate materials.	9
4. Noted exit times on procedure cards.	9
5. Escorted patients back from the evaluation area.	8
6. Transferred evaluations notes to monitors	8
7. Alerted a monitor when candidates requested an evaluation.	9
8. Answered applicant and patient questions.	9
9. Taped radiographs to the procedure evaluation card.	8

CONCLUSION

The approach of involving students in the examination process should remove barriers between examiners and some future candidates. The key to participation as a P.E. is that the students have responsibility for expediting the process but are not accountable for affecting the outcome. Therefore they can participate in a low stress situation that provides a valuable learning opportunity.

The program should be useful for state boards who have blind grading systems and who depend on dental school staff to coordinate the preparation and staffing of the examination.

The use of patient escorts for clinical examinations has proven to be a win-win-win situation. The dental examiners rated the effectiveness very highly; the board applicants were unanimous in their positive evaluation of the patient escorts' performance; and the patient escorts reported that the experience was informative and instrumental in removing some of the fear of the unknown from the examination.

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HARVEY J. BURKHART
A WORLD LEADER IN DENTISTRY

Malvin E. Ring*

Harvey J. Burkhart, the first director of the Eastman Dental Center in Rochester, New York, was chosen for this job because of his brilliant record as leader of many dental organizations, including the then National Dental Association. He supervised the setting up of similar Eastman clinics in many cities in Europe, and was honored by many foreign governments. As one of the few living members of the Federation Dentaire Internationale after World War Two, he was called upon by world dentistry to help revive that organization after the war's devastation. This accomplishment remains his greatest legacy! In addition, he remains one of the most honored members of the profession that dentistry has ever known.

It is generally agreed among dental historians that the greatest of all World Dental Congresses was the one held in St. Louis, Missouri, in 1904. This was the fourth time an international meeting had been held, and it brought together the outstanding teachers and clinicians in world dentistry. Among these was Dr. Harvey J. Burkhart, a practitioner in what was then the small village of Batavia, in western New York state. Although he did not come from a major metropolitan world center, his devoted activity in behalf of dentistry led to his being one of the organizers of this Congress, and he was chosen the Congress' President because of his demonstrated superb leadership. This was only one of the many roles he played on the world dental stage and his contributions to dentistry were so many that he is one of the most honored and decorated members that the profession has known.

Harvey Jacob Burkhart was born in Cleveland, Ohio, on August 14, 1864, to Jacob and Biena Burkhart. His father was a cooper, and the family was of modest means. His early education was in the Cleveland public schools and later he attended the Dansville Seminary in Dansville, New York. That school was chosen because his brother, Dr. A.P. Burkhart, was a practicing dentist in the village. When Harvey completed his studies at the Seminary, he entered his brother's office and studied with him as a preceptoral student for several years. This did not, however, satisfy his need for learning, so he enrolled at The Baltimore College of Dental Surgery (later the Dental School, University of Maryland) and in 1890 was graduated *cum laude* at the top of his class and was the class valedictorian.

On May 1, 1890 he opened an office for the practice of dentistry in Batavia, New York, a village about 40 miles east of Buffalo and some fifty miles northwest of Dansville. Six months later, on November 5, 1890 he married Jane Hingston, and a son, Richard Hingston Burkhart, was born to them. From the day he settled in Batavia, Dr. Burkhart became an active participant in community affairs. He was elected President of the local Board of Trade, of the local Business Men's Association, of the Board of Education—a post he held for fourteen years—and then was chosen mayor of the village, a position to which he was reelected four times. His standing in the community was so high, that when Batavia became a city, in 1915, Dr. Burkhart was named its first mayor.

Dr. Burkhart's other community and civic activities in Batavia included a leading position in the local Republican party and directorship of several banks and corporations. He was an active member of the Oddfellows and the Order of Maccabees—in both of which he passed through the principal chairs—and he was a 32nd degree Mason. He also was a member of the Rotary Club. He joined the local Episcopal church and was a member of the vestry.

Several years after they were married his wife died, and Dr. Burkhart married Mrs. Lou Mercereau Davenport, a widow with two small children, a son, Kenneth and a daughter, Dorothy. He was a loving and caring step-father to the children and this marriage lasted until his death some forty years later. His son, Richard, also became a dentist and served as a Captain in the Dental Corps in France during the First World War. His sergeant was Ralph S.

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Figure 1. Portrait of Dr. Harvey J. Burkhart.

Figure 2. The newly completed Rochester Dental Dispensary in 1916.

Voorhees, Jr. and, because of their close association, at the conclusion of the war, Voorhees went on to study dentistry. After graduating Voorhees married Dorothy Davenport, Dr. Harvey Burkhart's stepdaughter. This author was fortunate to have had a long, close, personal association with Dr. Voorhees which provided much of the material for this article. (In addition, the author lived most of his life in Batavia which has given him access to considerable personal information about Harvey Burkhart.)

HARVEY BURKHART AND ORGANIZED DENTISTRY

Dr. Burkhart's activities in organized dentistry and on behalf of the profession were exceptionally impressive. Only three years after beginning his practice, he was chosen President of the 8th District (N.Y.) Dental Society. He then served as President of the Dental Society of the State of New York from 1896 to 1897 and, in 1898, was chosen President of the National Dental Association, which in 1922 was renamed the American Dental Association. Upon the completion of his term, he was elected a Trustee of the Association, a position he was to hold until his death. His exemplary leadership brought him international recognition. On August 29, 1904, at its opening session in St. Louis, Missouri, he was named President of the aforementioned 4th International Dental Congress.

Dr. Burkhart's dental activities were not limited to those. He also served as the President of the New York State Board of Dental Examiners, as the Chairman of the Dental Council of the New York State Department of Health and as a member of the state's Bureau of Narcotic Control.

When a group of far-seeing and highly motivated dentists met to establish the *American College of Dentists* in 1920, Harvey Burkhart was on the committee of organization and was named to the first Board of Directors of the organiza-

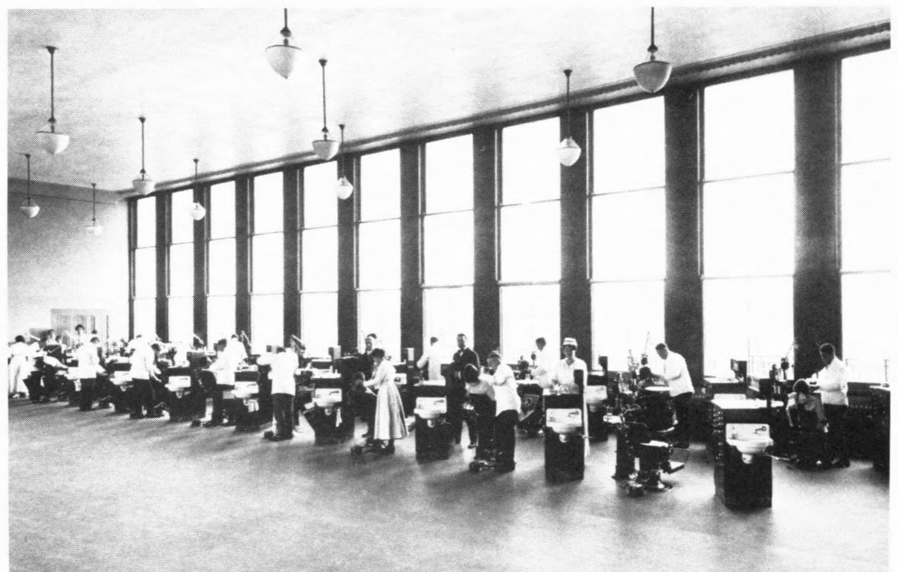

Figure 3. Interior of the Rochester Dental Dispensary soon after its opening.

Figure 4. Professional and clerical staff, and the first class of dental hygiene students, at the Rochester Dental Dispensary, February, 1917. Dr. Burkhart is in the center of the first row.

tion. He was elected Vice-President of the College in 1942 and remained a highly esteemed and dedicated member all his life.

GEORGE EASTMAN AND THE DENTAL CENTER

In 1901, the Rochester Dental Society established one of the first free dental clinics, not only in New York State, but in the world. Members of the Dental Society contributed their time on a rotating basis and several prominent industrialists of the city helped to fund it, among them Henry Lomb of the Bausch and Lomb Company which is located in Rochester. It was originally intended that the clinic serve not only disadvantaged children, but poor adults as well.(1)

George Eastman, founder and owner of the Eastman Kodak Company, the principal employer in the city of Rochester, was very impressed by the operation of this clinic. He had a strong feeling for the need for preventive dental care for all children and, in 1909, made his first contribution to the group in support of its work in the public schools. When the continued operation of the clinic was threatened by a lack of money, Eastman made a proposition to several other leading business men of the city. He would establish and fund a clinic on three conditions: 1) that treatment be rendered in a central location, 2) that the city make an annual contribution of $12,000 to support a dental health and prophylaxis program in the schools and 3) that ten local citizens contribute $1,000 a year for five years. These conditions were gladly accepted by a number of philanthropic business men and in 1915 the corporation known as the Rochester Dental Dispensary was established.

The person most responsible for interesting George Eastman in the idea of a central dental clinic was William Bausch, whose partner, Henry Lomb, had died several years earlier. Bausch, who was to be named President of the Clinic's Board of Trustees, was successful in convincing not ten, but fifteen, others to contribute the $1,000 a year. Eastman, on his part, was totally convinced of the correctness of his choice of philanthropy. In 1928 he wrote to a friend, Cyrus Curtis in Philadelphia "My experience with the Dispensary here . . . has convinced me that money spent in giving children of the poor, good

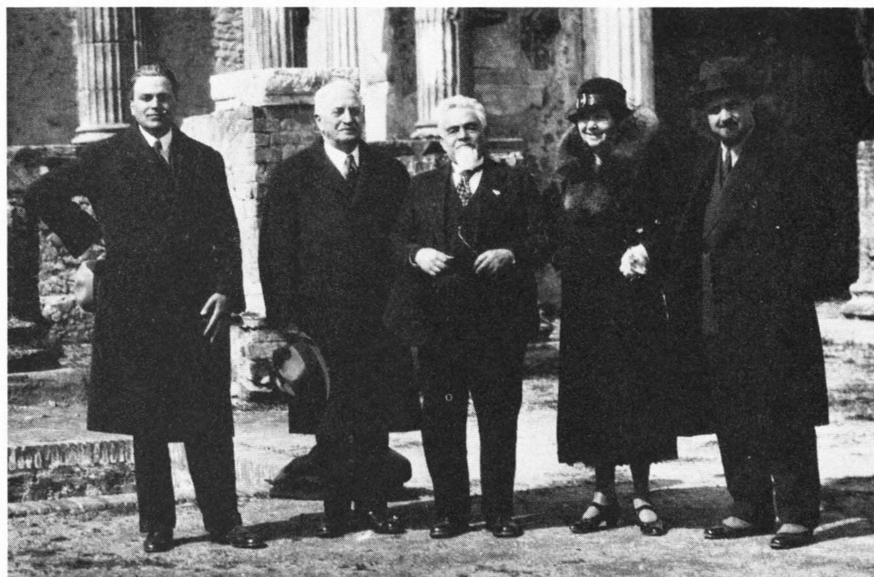

Figure 5. Dr. and Mrs. Burkhart in Rome in 1932, while supervising construction of the Eastman Clinic in that city. The bearded man to Dr. Burkhart's left is the renowned dental historian, Dr. Vincenzo Guerini, who represented the Italian dental profession.

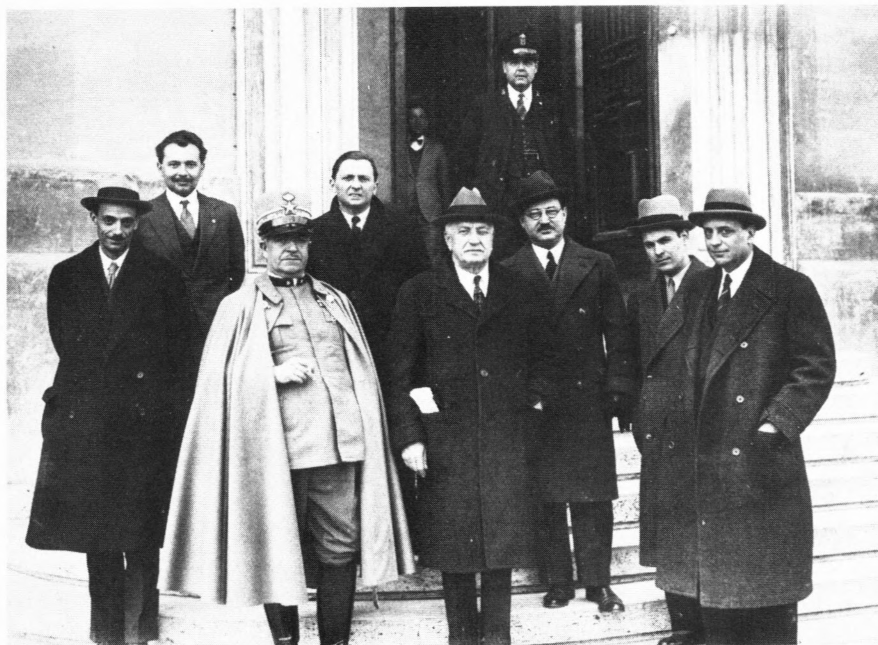

Figure 6. Dr. Burkhart and Italian government and dental profession dignitaries in front of the Eastman Clinic in Rome.

teeth, earns greater results per dollar spent in health, happiness and efficiency than if spent in any other way." (2)

A director of the Dispensary was needed and Eastman found the perfect answer in Harvey Burkhart. Although Eastman didn't want to pressure the Board in its selection of a director, he was very happy when Burkhart was chosen, for he wrote to William Bausch "I understand the committee has selected Dr. Burkhart and I believe they have made the best possible choice. Under his direction and the guidance of the board, I believe that the Dispensary will fulfill all of our most sanguine aspirations." (3)

In 1915, Dr. Burkhart sold his practice to Dr. Guy Patterson, and began a daily commute to Rochester, 35 miles from Batavia. He made the hour-long trip on the New York Central Railroad twice a day for over a year. Then, in 1916, with fond memories of the city in which he had achieved such a fine reputation, he picked up stakes and moved to Rochester.

Although the building of the clinic was well underway by the time Burkhart was chosen, he was intimately involved in the setting of policies and of staffing the Dispensary. George Eastman had financed the entire project at a cost of $400,000—no mean sum for those days—and formal dedication took place on October 15, 1917.

The opening of the clinic was hailed by the dental profession of this country and abroad. *The Journal of the National Dental Association* (later to become the *Journal of the American Dental Association*) editorialized:

> "Rochester is to be congratulated upon having a municipal administration and public spirited citizens, who have recognized that to preserve health is a moral and religious duty, for health is the basis of social virtues. Few things are more important to the community than the health of its children . . . Any municipality that dedicates such an institution as the Rochester Dental Dispensary is creating an environment . . . that will contribute to the development of the physical, mental, moral and spiritual welfare of its future citizenship.

Figure 7. Dr. Burkhart (far left), Queen Astrid and King Leopold of Belgium at opening day ceremonies of the Eastman Clinic in Brussels, 1935.

Figure 8. Dr. Burkhart showing Queen Astrid of Belgium the equipment at the Brussels clinic on the day of its dedication, 1935.

The name of George Eastman stands as the foremost citizen of Rochester, and the dedication of the Rochester Dental Dispensary is the culmination of what he has done for that city. However, the whole dental world pays tribute to the donor of this great institution." (4)

Some of the greatest luminaries of the dental profession spoke at the dedicatory ceremonies including Dr. Truman W. Brophy, President of the Federation Dentaire Internationale, Dr. Lafayette L. Barber, President of the National Dental Association and, of course, Dr. Burkhart.

GEORGE EASTMAN'S DENTAL PHILANTHROPIES

At the time the Dispensary was organized, Eastman had said that if, at the end of five years, he was pleased with the work of the institution, he would endow it with a sum of $750,000. So well satisfied was he, that before the end of three years, he contributed not only the $750,000 but an additional $250,000! In 1920 he again donated 1,000 shares of Kodak common stock, and this was followed by a million dollar bequest after his death.

The Rochester Dispensary was so successful in meeting its goals that its role was greatly expanded. Because of the pioneering work of Alfred C. Fones who introduced the dental hygienist into dental practice, many states passed legislation establishing the profession of dental hygiene. In New York enabling legislation was passed in 1916, due mostly to the persistent efforts of Dr. Burkhart. (5) A program for the training of dental hygienists was set up at the Rochester Dispensary. Dr. Burkhart formally dedicated the school on October 16, 1916 and he was installed as the first Principal of the new school. (6) It graduated its first class on June 14, 1917.

Soon thereafter, post-graduate education for young dental graduates was introduced into the dispensary's curriculum with the establishment of general practice internships, followed by the setting up of specialty training programs in orthodontics, periodontics, prosthodontics and oral surgery. In 1941 the name of the institution was changed to the Eastman Dental Dispensary, in honor of its

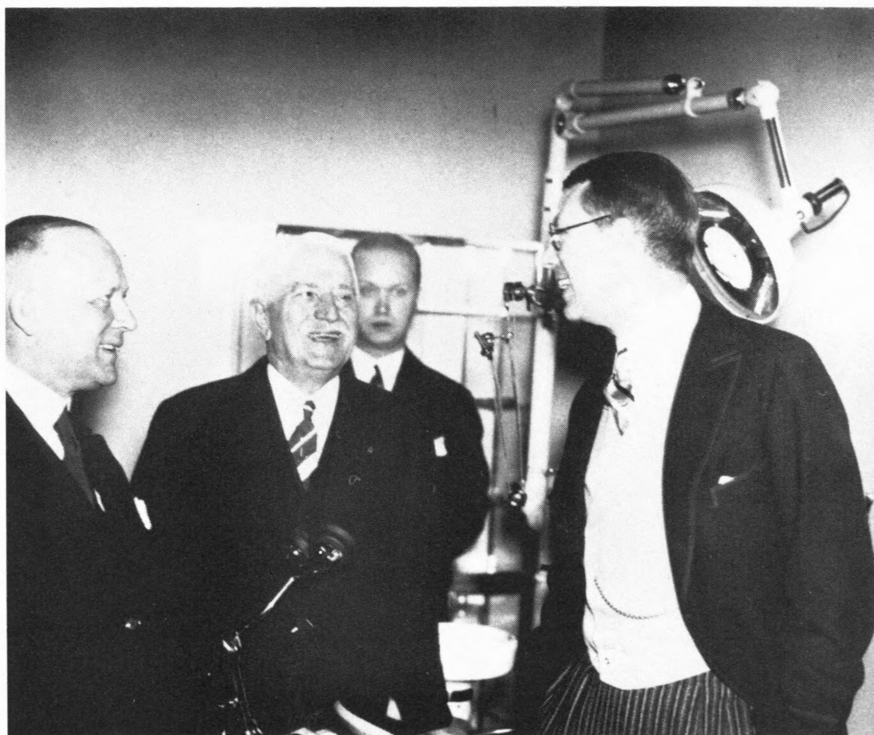

Figure 9. Dr. Burkhart (center) enjoying a private joke with the Crown Prince of Sweden on the day of dedication of the Eastman Clinic in Stockholm, 1937.

Figure 10. Dr. Burkhart observing a Swedish dentist treating a child at the Eastman Clinic in Stockholm, 1937.

founder, but the name was changed again to the Eastman Dental Center in 1965 to reflect the diversity of the dispensary's role in dentistry.

So successful was the Center's functioning that George Eastman decided to open similar clinics in a number of major European cities and asked Dr. Burkhart to completely oversee the establishment of these other clinics. In 1930, the Eastman Dental Hospital was opened in London, followed by the Instituto Superiore di Odontoiatria 'George Eastman' in Rome, (1933); the Institut Dentaire G. Eastman in Brussels, (1935); the Eastmaninstitutet in Stockholm (1936); and the Institut d'Hygien Dentaire et de Stomatologie in Paris, (1937.) Harvey Burkhart dedicated each new clinic as it opened and continued as supervisor of their operations.

DR. BURKHART'S MANY HONORS

In 1920 the University of Rochester bestowed an LL.D. degree on Dr. Burkhart for his part in interesting George Eastman and the Rockefeller family in founding the University of Rochester School of Medicine and Dentistry. Although the original plans to develop a full dental school did not materialize, graduate programs to provide advanced training for dentists in the biomedical sciences, and Departments of Dental Research and of Clinical Dentistry, were established and continue to this day.

More honors followed. Dr. Burkhart received the Jarvie Fellowship Medal, the highest honor bestowed by the Dental Society of the State of New York. (After his death, the name of the award was changed to the Jarvie-Burkhart Medal.) The Ohio State Dental Society, in 1937, awarded him the Callahan Gold Medal. In 1935, on the occasion of the dedication of the Eastman clinic in Brussels, the Federation Dentaire Internationale awarded him the Jessen gold medal and prize. This prize, established by Dr. Ernest Jessen, founder of the first dental clinic in Strasbourg, France in 1888, is awarded periodically to the person or institution which has rendered the most service in the field of oral hygiene for children. In 1941 Dr. Burkhart was

the recipient of the Pierre Fauchard Medal of the Fauchard Academy.

In 1940, on the occasion of the 100th anniversary of the Baltimore College of Dental Surgery, the first dental school in the world, he was awarded the Doctor of Science degree on the same stage where he had received his D.D.S. fifty years before.

He also received numerous foreign awards. Italy named him an Officer of the Order of Cavalier in 1929; Sweden designated him Commander of the Royal Order of Vasa; King Leopold III of Belgium decorated him with the Order of Leopold II; France made him a Commander of the Legion of Honor; and, in 1937, he was presented with the Order of the Municipality of Stockholm, Sweden. In addition he was made an honorary member of the Swedish and Polish dental societies.

DR. BURKHART AND THE REBIRTH OF THE F.D.I.

One of Harvey Burkhart's most important challenges came when he was nearly 80 years old. At that time the Federation Dentaire Internationale was in a semi-moribund state as a result of the Second World War and the consequent enmities and mistrusts of one nation for another. One of the few persons left in the world with experience in leading the organization was Dr. Burkhart, and he was prevailed upon by dentists of many lands to help convene a new World Dental Congress and wake the F.D.I. from its five year "sleep." (7) Although he was by now somewhat enfeebled, he willingly undertook the task, and his influence resulted in reconstitution of the Federation. Unfortunately, he didn't live to see this project come to fruition in 1947.

On September 22, 1946 he was driving his auto in downtown Rochester, his beloved wife at his side, when he was suddenly stricken with a heart attack and died instantly. He was 82 years old.

Although many testimonial dinners were tendered him during his lifetime, numerous organizations have memorialized him after his passing. During the 110th annual meeting of the American Dental Association in 1969, the Pierre Fauchard Academy held its first Memorial Lecture at the Waldorf Astoria hotel to honor his memory; the annual Jarvie-Burkhart Medal serves as well, to hold high our remembrance of him.

Shortly before his death the Rochester Museum of Arts and Sciences named Dr. Burkhart a Fellow in the field of Dental Surgery and Administration. The citation reads in part:

> *Harvey J. Burkhart, though your service to mankind had been international in scope, your reputation is not merely international. You are deeply loved and revered in your home town. You are full of years and honors, but we are glad to hail you as our candidate for many years of both . . .*
>
> *You have been a member of every representative society of your field and president of many. Your sound business sense and administrative skill has been sought by institutions, State and National . . . You have shaken hands with kings and queens, presidents and Archbishops . . . You have set an example of industry for all those who would help mankind to share in the benefits of science and who would make goodwill the basis of diplomacy and progress. (8)*

These words have rung true ever since. Dr. Burkhart's death, 45 years ago, has in no way diminished his standing, or the importance he holds in the Pantheon of dental greats. Δ

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NEW FELLOWSHIPS CONFERRED

Fellowships in the American College of Dentists were conferred upon the following dentists at the Annual Convocation in Seattle, Washington on October 4, 1991

JOHN R. AGAR
Silver Spring, Maryland

GERALD ALBERT
Montreal, Quebec

EDWARD P. ALLEN
Dallas, Texas

GARY W. ALLEN
Fairfax, Virginia

WILLIAM F. AMMONS, JR.
Seattle, Washington

RONALD S. ANCO
Etobicoke, Ontario

MAXWELL H. ANDERSON
Redmond, Washington

HERBERT N. APPEL
New York, New York

F. GEORGE APPLETON
Fort Worth, Texas

FRED D. ARCHER
Buffalo, New York

KENNETH W. ASCHHEIM
New York, New York

TIPTON J. ASHER
Plano, Texas

MARVIN L. BAER
Annapolis, Maryland

ROBERT C. BAKER
Winnipeg, Manitoba

ELIZABETH S. BARR
Westminster, Colorado

BERTHA BARRIGA
Seattle, Washington

BRUCE L. BARROW
Billings, Montana

EUGENE J. BASS
Cherry Hill, New Jersey

RICHARD A. BEATTY
Jersey Shore, Pennsylvania

RICHARD L. BEHAN
Hagerstown, Maryland

SHERYL A. BELTRANE
San Antonio, Texas

NAOMI L. BEMENT
Los Angeles, California

DANIEL J. BERGER
Jasper, Indiana

JULIUS R. BERGER
Brooklyn, New York

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East Boston, Massachusetts

ANGELO L. BILIONIS
Springfield, Massachusetts

WILLIAM F. BIRD
Glen Ellen, California

LEE A. BLASEK
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ALAN A. BOGHOSIAN
Chicago, Illinois

ROBERT A BORAZ
Leawood, Kansas

J. ROY BOURGOYNE
Memphis, Tennessee

WILLIAM F. BOWLES, III
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ELLSWORTH T. BOWSER
Pittsburgh, Pennsylvania

WILLIAM A. BOYNTON
Phoenix, Arizona

DENNIS J. BRANDSTETTER
Hopkins, Minnesota

THOMAS W. BRAUN
Pittsburgh, Pennsylvania

JAMES W. BREAZEAL
Memphis, Tennessee

R. CRAIG BRIDGEMAN
Boone, North Carolina

BERNARD A. BROWN
Cary, North Carolina

FORREST D. BROWN
Durango, Colorado

WILLIAM PAUL BROWN
Palo Alto, California

HUGH H. BRUNER, JR.
Overland Park, Kansas

JOHN F. BRUNO
Springfield, Virginia

L ROSS BUNTYN
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DIMITRI G. GANIM
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CHANDURPAL P. GEHANI
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JOSEPH R. GENTILE
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ADVERTISING AND THE

RETROSPECTIVE AND PROSPECTIVE

Boris W. Becker*
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"Advertising" has become a very controversial topic—not just among dentists, but among all professionals. That controversy focuses on three questions. First, what are the legal issues surrounding dental advertising, and how are these issues being resolved? Second, what are the attitudes towards advertising among practicing dentists, and how are these attitudes changing? Finally, how many dental practitioners actually are advertising, and what are those advertising dentists doing? The purpose of this paper is neither to praise nor to excoriate advertising but, with reference to the law and to published research, to provide dental practitioners with a broader understanding of this topic.

Mention the word "advertising" together with "dentistry"—or the name of any other profession—and controversy is sure to follow. That controversy often will focus on three questions. First, what are the *legal issues* surrounding advertising by professionals, and in particular by dentists, and how are those issues being resolved? Second, what are the *attitudes* of individual dentists towards professional advertising, and are those attitudes changing? Finally, *what is actually going on*, how many dentists are advertising and what kinds of media are those dentists using? The intent of this paper is neither to advocate nor to attack advertising by dentists. Rather, the purpose here is to describe the current situation with respect to each of these controversial issues, and to identify some important—and unanswered—questions about trends in the future.

Dental Advertising—Legal or Not?

The professions have been regulated in the United States as far back as 1639, when Virginia enacted a law setting maximum fees for physicians' services.[1] Advertising by health services providers was not proscribed at first; indeed, the first full-time dentist in the Colonies, Robert Wolfendale, was engaging in advertising in 1766.[2] Romans[3] cites a number of early examples, including a lengthy advertisement by Dr. John Baker in the Maryland Gazette of 1 September 1774.

By 1800, one of the two principal regulatory influences for the professions, the State licensing agency, had come into being and almost all states required licensing of physicians. By 1850, however, the impact of Jacksonian democracy had been felt; few regulations remained and virtually anyone could pose as a physician or dentist. Towards the end of the century, however, the second of the major regulatory influences emerged: self-regulation by professional associations. The Society of Surgeon Dentists of the City and State of New York, founded in 1834, had attempted to discourage all advertising by dentists but failed to survive long enough to have any impact. The American Dental Association (ADA) was formed in 1859, and by 1866 had adopted a Code of Ethics, Article III, Section 3 of which prohibited both advertising and personal solicitation.[3] The Code was revised many times but remained essentially the same until very recently. Other professional associations also adopted rules against advertising, the American Bar Association in 1908[4] and the American Institute of Certified Public Accountants in 1922.[5]

But advertising did continue, in spite of any Codes of Ethics. Earl Rudolph Parker perhaps the most famous "advertising dentist" of all time, gained renown as "Painless Parker."[2] In the face of an apparent interdict, advertising was able to survive owing to two causes. First, Codes of Ethics were enforceable only on members of the association and one was not required to join the association to be a practitioner. Second, while by the year 1903 all states had dental practice acts which were enforceable against all dentists, they varied substantially as to restrictiveness.

To varying degrees, the joint effort of the ADA and its constituent and component societies,[6] together with actions by the State licensing boards, served to minimize advertising by dentists until fateful court decisions in the mid-1970's. Beginning in that decade, an attack against the outright bans on advertising by professionals was launched on two fronts.

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DENTAL PROFESSION

Free Speech and Advertising by Professionals

The first front consisted of private actions by individual advertisers and their allies, based on Free Speech protection under the 1st and 14th Amendments to the Constitution. Legal precedent culminating in Valentine v Chrestensen[7] suggested that First Amendment protection of speech did not include commercial speech, which presumably served no public purpose. But in Virginia State Board of Pharmacy v. Virginia Citizens Consumer Council,[8] the Supreme Court for the first time ruled that commercial speech, in this case the advertising of drug prices by pharmacists, could qualify as a "protected" form of expression. Shortly thereafter, the court extended the same protection to certain attorney advertising in Bates v. State Bar of Arizona.[9] The Court concluded that, while commercial speech could be regulated, it could not be banned outright. These and subsequent free speech cases control when anti-advertising rules are enforceable by the State, or an agency empowered to act for the State.

Anti-Trust and Advertising by Professionals

Even though State licensing boards could not enforce blanket bans on advertising, professional associations could "restrain competition" in various ways—until Goldfarb v Virginia State Bar.[10] That case focused on what the Court determined to be illegal price fixing by the Fairfax County Bar Association. Goldfarb was followed shortly by National Society of Professional Engineers v United States,[11] in which a section in the professional Code of Ethics, banning competitive bidding, was found to be illegal. These were not "Free Speech" cases, as in the previous section, but were cases initiated by the Federal Trade Commission, under its responsibility to act against restraints of trade. The Supreme Court had decided that antitrust laws did apply to the "learned professions" and their associations, and that they were engaged in "commerce" as defined by the law.

A little later and more to the point, the Federal Trade Commission (FTC) took action against both the American Medical Association (AMA)[12] and the ADA.[13] The FTC action was taken, in part, because of the complete prohibition against advertising in the Codes of Ethics of both organizations (Section 12 of the ADA Code). While the AMA case was being fully litigated, the ADA signed a consent order, in which the ADA agreed: 1) not to impose sanctions against any dentist who advertised, and 2) to abide by any FTC order, that was upheld by the courts, in the AMA case. In November 1979, the House of Delegates of the ADA did revise the Principles of Ethics to conform to the consent order. The AMA's appeals failed and the FTC decision was affirmed in Federal Court[14] and then *reaffirmed by an equally divided (4-4) Supreme Court*.[15] The FTC order against the AMA was finalized in 1982,[16] and the ADA then entered into the same final agreement on 7 February 1983.[17] As of February 1983, neither the ADA or AMA, nor their component or constituent bodies, could impose or attempt to impose an outright ban against advertising.

Subsequent to the actions against the A.M.A. and A.D.A., a number of administrative proceedings by the F.T.C. have reflected the outcome of those adjudications. A county medical association in Florida,[18] signed a consent order, agreeing to drop restrictions on truthful advertising. A similar case in Colorado, involving a ban on all dental advertising,[19] was settled by a consent order as well. More recently, a prohibition against advertising of price discounts by dentists in Louisiana[20] has been struck down by the F.T.C., as has a blanket ban on advertising by podiatrists in Wyoming.[21]

The legalization of advertising by professionals, which has proceeded apace in the U.S., has not been extended universally. Restrictive advertising laws are common in Canada, where freedom of expression under the "Charter of Rights and Freedoms" does not, in general, apply to commercial expression. In a recent Canadian case, the courts held that a provincial optometric association may prohibit advertising of fees. The courts did allow for a little flexibility, however, finding that attorneys cannot be prohibited from *all* contact with the media. It is important also to note that Canada's "Competition Act," as amended in 1977, explicitly excludes the professions,[22] thus preventing challenges from that direction. While dental advertising did become legal in England during the 1980's, it has not been widely used by practitioners, largely owing to the belief that new business is obtained by personal contact or recommendation.[23]

Legality of Dentist Advertising—Prospective

Advertising by professionals now enjoys protection from total prohibition by government agencies as protected speech, and from total prohibitions by professional associations under the anti-trust laws. As to the former, the Central Hudson[24] doctrine is relevant: If any regulation of commercial speech is necessary, it should be no more extensive than necessary to serve the government interest. But while there may not be an outright ban on advertising, the outer boundaries of exactly what may be prohibited are unclear. As this paper is being written, attorneys in Florida are being barred from using dramatizations, jingles or celebrity spokespersons in their advertising.[25] Whether this action taken by the State Supreme Court, effective as of 1 January 1991, will be appealed—and the outcome of a possible appeal—remains to be seen. Additionally, the impact on commercial free speech of the Posadas[26] decision, in which the Supreme Court allowed Puerto Rico to prohibit advertising for casino gambling, remains entirely unclear. What, then, are some of the boundary issues, particularly those which may affect dentists?

First, can professionals make specialty claims, and if so of what kind? The FTC recently launched an investigation into this question, the ADA promptly responded, and there presently appears to be no violation of law in the ADA code[27] with respect to practice announcement.[28] The dental practice acts of various states, however, may vary in the extent to which they allow non-certified dentists to announce in their advertising "periodontal services" or "orthodontia performed." These differences from state to state create possibility for litigation; dentists who adopt advertising practices from colleagues in other states where regulations are more liberal may find themselves in violation of the law of their own state. In a very recent and perhaps important post-Posadas commercial free speech decision, the Supreme Court disagreed with the finding of the Illinois Supreme Court that advertising of specialties by attorneys could be banned by the State Bar.[29] This case involved an attorney who in his letterhead had identified himself as certified by the National Trial Lawyers Association, even though the State of Illinois does not itself "certify" specialists.

Second, can professionals make personal solicitations? This important issue has been adjudicated in the case of attorneys—who apparently can be barred by agents of the state from personal solicitation,[30] but not from targeted use of direct mail.[31] The importance of the Ohralik case should not be overemphasized or misconstrued, however, as the Supreme Court did not conclude that all in-person solicitation could be banned, but only that the timing, place and manner of the solicitation used by Ohralik (in person, at the hospital) could be banned.

Third, in an era of telemarketing, what then of telephone solicitation of likely clients, whether for attorneys, physicians or dentists, by a specialist telemarketing firm?[1] Will that be viewed by the courts as an extension of Ohralik, in which personal solicitation was deemed to be unduly persuasive (and quite successful in that instance), or more like a direct mail solicitation? While it is unlikely that the legality of advertising by professionals will be diminished, there remain numerous fine points, some of which have been manifested in the maneuvers to modify Codes of Ethics so as to fit them within the bounds of enforceability.[32] But advertising by professionals is influenced by things other than the law; there are mores and norms of professional and commercial behavior, such as "self" regulation. It is to these forces that we now turn.

Dental Advertising—Attitudes Enduring or Changing?

Much has been written over the last decade of "de-professionalization," a tendency which has been intensified by a number of influences, including "demystification" of the health professions, increased bureaucratization, particularly of health care delivery, and greater intervention, such as that referred to in the previous section, by government at all levels.[33,34,35] We should, at the outset, therefore, distinguish hostility towards advertising from a generalized hostility towards the efforts of "outsiders," be they "maverick" individual practitioners or government agencies, to determine policy for the profession. While the issues of professional autonomy and self-regulation are far broader than the specific topic of advertising by professionals, and clearly beyond the scope of this paper, it must be mentioned that the nexus of professional control has been undergoing profound change.

Evidence from Public Statements and the Dental Literature

An interesting piece by a highly respected leader in the profession appeared in the Journal of the American Dental Association (JADA) in 1964, years before the advertising/professionalism controversies would reach their present intensity. In an address to a student honors assembly at the School of Dentistry of the University of Washington, Willard C. Fleming, Dean of the School of Dentistry at the University of California, San Francisco, identified "The Attributes of a Profession and its Members".[36] While identifying and explicating various characteristics of a profession, he makes a point of asking the question, "Have you ever wondered why we dislike and bar from our organizations those who advertise."[36] This statement is interesting first because it seemingly was a gratuitous aside in Fleming's long speech, but received substantial attention. Second, Fleming raised one of the issues commonly used in subsequent attacks on professional advertising—that either advocacy or use of such advertising assumes that "the public can distinguish the claims of superior services, relative costs, and the value of services to be rendered."[36] Dean Fleming clearly believed that individual lay people would not be able to make those distinctions. Romans'[3] review of the history of dental advertising, cited earlier, closed with a reference to Fleming's address and a vehement attack on the "canny" individual who violates ethical principles, if not the law, by engaging in advertising.

The criticisms have, if anything, become more prevalent and vocal in recent years. They have appeared in the journals of state associations[37] and in national professional publications. The common thread throughout those articles is the conflict between dentistry as a "trade and (as a) profession in the healing arts".[38] Weber[39] opens his paper by telling the reader that he is "concerned and deeply troubled by what is happening to our dental profession." Barry[40] shares the concern that "aggressive advertising," reflecting a more business-oriented perspective on dentistry, is resulting in a "degradation of professionalism." Shapira[41] tells readers that "the language of professionalism . . . will bring far greater rewards to the dental practice than a discount flyer sent to the community." The nature of the criticisms is clear: Advertising has little impact on the demand of dental "consumers," while having a profound impact on the image that the profession projects to the public and to itself. But not all the voices heard recently are negative. A very recent article by Kardos,[42] an apparently younger dentist, attempts to explain why "Advertising Isn't Always Nonprofessional." Like most papers which support, or even exhort, the use of advertising, Kardos' appeared in the trade rather than the professional press of dentistry. A rare opinion piece appeared recently in *JADA*, in which Hodish[43] countered some of the traditional criticisms of dental advertising and suggested both economic and social (health) benefits. Nonetheless, it is clear that statements by those in leadership positions in the profession historically have been, and to a large extent remain, hostile to advertising. However, this is all merely anecdotal; let us now turn to formal surveys that have attempted to more accurately gauge the attitudes of dentists towards advertising.

Attitude Surveys

Practitioner attitudes toward advertising typically are assessed using survey research methods. Researchers have used such a variety of methods—as to sampling frameworks, data collection and questionnaire construction—that the results of different surveys seldom are strictly comparable.[44] Thus, all findings should be taken with the proverbial grain of salt, while a common pattern of findings across replications should be viewed as credible evidence.

The seminal empirical work on the attitudes of dentists, as well as that of other professionals, towards advertising is the Darling and Hackett paper of 1978.[45] That was the first of several surveys and reports by Darling and various associates,[46,47,48] in which they charted changing attitudes of professionals towards advertising. Darling's multidimensional surveys, which cannot be discussed here in extensive detail, measured perceptions of and attitudes towards: 1) advertising in general; 2) effects of advertising on fees; 3) effects of advertising on services; and 4) effects of advertising on public issues. The upshot of these studies seems clear—attitudes of all professionals toward advertising have become more favorable over the period of the three surveys.

Swerdlow and Staples[49] somewhat earlier had found attitudes of dentists in Iowa to be negative; the majority of respondents agreed that advertising would have neither a positive effect on quality nor would it reduce fees. A majority also agreed with statements that advertising would neither help the public make better decisions nor increase the demand for dental services. Shapiro and Majewski[50] found dentists in Lowell, Massachusetts to be very hostile to listing fees in ads. The respondents also disagreed overwhelmingly with statements that advertising by dentists will "permit patients to make intelligent choices," "increase the quality of dental treatment," and "improve the image (prestige) of the profession." In a closely related study, the same authors[51] had found that senior dental students at Tufts, while certainly not positive, had attitudes towards advertising in most instances significantly less negative than dental school faculty.

Two other studies should be mentioned, at least in passing. The results of King's study of 1983 are suspect, owing to the small sample size (N=14).[52] Cunningham and Logan's study of Iowa dentists[53] used as a sampling frame those who had graduated five years previously, guaranteeing an obvious bias toward younger practitioners.

A more recent survey by Kenney and King[54] has brought into question Darling's conclusion that attitudes of professionals are becoming more positive; using questions similar to those of Darling, they found attitudes of physicians to be substantially more negative in 1987 than recent data reported by Darling. An even later paper by Becker, Kaldenberg, and Hartman,[55] based on a survey of dentists in Oregon and utilizing Darling's questionnaire items, found attitudes toward advertising to be nowhere near as positive as suggested by Darling. Becker *et al.* found that disagreement with the statement "Dentists should be allowed to advertise without restriction" was greater than it had been in both the 1981 and 1986 Darling surveys. The agreement with the statement that "the advertising of fees would adversely affect the public image of dentistry," was greater than even in Darling's earliest survey of 1976. The only item for which Becker *et al.* found a more positive attitude was "Advertising my services would be personally beneficial to me," which continued the positive trend identified by Darling.

Dentists, Other Professionals, and Consumers

Comparison of attitudes toward advertising across professions is even more difficult than within a single profession, and is meaningful only when done within the setting of a single comparative study. Darling's[45] earliest survey, conducted in 1976, found that attitudes across all professions towards advertising essentially were negative; but attitudes were more negative among dentists and physicians than among accountants and attorneys. That is unsurprising, as accounting and law were traditionally more "business-like" professions. Darling's 1981[46,47] replication, however, found that the positive change in attitudes had been greater among dentists than among the other three professional groups, and that the differences in attitudes between the four groups had lessened. The 1986 replication[48] found the "positive" trend to have continued. Bullard and Snizek's[56] experimentally-based research, on the other hand, found dentists to express attitudes toward advertising more negative than accountants, but less negative than attorneys.

In a recent review of 16 studies, Hite and Fraser found that consumers consistently "disagree that professional advertising will damage the credibility, image or dignity of professionals, confuse or deceive consumers, or benefit quacks and incompetents."[57] The professionals themselves, however, believed that such outcomes were likely. Additionally, consumers tended to agree that "professional advertising will increase awareness of the differences between professionals, reduce prices, increase quality levels, and help consumers make more intelligent choices."[57] In this case, the professionals did not believe that such outcomes were likely. Hite, Bellizzi and Andrus[58] compared results from two surveys, one a national, probability sample of consumers, the other of dentists. They found that, on 26 of the 29 questions, consumers expressed significantly more positive attitudes toward advertising by dentists than did the dentists themselves. This finding has been extremely consistent over time, across professions and across methods: The attitudes of consumers are far more positive towards professional advertising than are the attitudes of the professionals themselves.[59]

Correlates of Dentists' Attitudes

One variable which is uniform in its effect, not only across studies but even across professions, is age. Shimp and Dyer, as early as 1978, had hypothesized a negative relationship between length of time since receiving the law degree and attitude towards advertising.[60] While focusing on behavioral intentions, rather than purely on attitudes, that hypothesis was supported by the research of Stem, Laudadio and Israel.[61] Shapiro and Majewski's[51] comparison of dental school faculty and students found the (obviously) younger student to have more favorable attitudes. Bullard and Snizek[56] also found a negative correlation between years in practice and attitudes towards advertising, for dentists, attorneys and accountants. Hite, Bellizzi and Andrus[58] found that younger dentists responded significantly more positively than did older dentists on 12 of 29 attitude questions.

Becker *et al*[55] found a significant negative relationship between number of years in practice and agreement with the statements "dentists should be allowed to advertise without restriction," and "advertising my services would be beneficial to me personally. A significant positive relationship was found between number of years in practice and agreement with the statement "advertising fees would adversely affect the image of dentistry." Additionally, the same authors found that specialists were significantly more negative with respect to the three questions than were general practitioners. Finally, and unsurprisingly, they found that those who used advertising had attitudes significantly more favorable than those who did not.

What We Know and What We Don't

It is very clear, irrespective of the views expressed by professionals and by their organizations, that consumers believe that advertising will provide them useful information, while doing little if any damage to the image of the professional or the profession. Until the studies of Kenney and King and Becker *et al.*, it was "known" that attitudes towards advertising among professionals in general and dentists in particular were becoming more positive. But that is no longer clear; either there were problems in the methods used by Darling *et al.* or the tide has turned again and the "blush is off the rose." A possible interpretation is that attitudes turned more positive after the initial modest efforts following legalization, in the belief (hope?) that advertising could be both "professional discreet" and effective. Many practitioners may have become disenchanted in both regards. Right now we simply do not know, and will not know unless other surveys point us in the correct direction.

The fact that both younger practitioners, across all professions, and general practitioners (GP's) in dentistry have more favorable attitudes toward advertising is potentially illuminating. Economic self-interest argues that both groups should be relatively more favorable towards advertising—the younger dentists owing to the need to build a practice from scratch, and the GP owing to the specialists' greater reliance on referrals. But there is another argument which cannot be dismissed—perhaps younger dentists, having grown up in a different era, have values different from those of older practitioners. That is, owing to their greater exposure to the electronic media from childhood, they may feel less hostility towards advertising themselves.

Unfortunately, it is impossible to distinguish the "economic" argument from the age-cohort or "values" argument on the basis of data at one point in time. What will provide definitive answers? Observations on whether those younger dentists, who are now relatively favorable toward advertising, become less so as (if?) they become more established in their practices. If that is the case, then the economic argument prevails. If the younger dentists continue in their favorable impression of advertising even in the face of economic successes, and if they are joined by succeeding generations of "pro-advertising" dentists, then the die will have been cast. Monitoring the values and attitudes of dental school students, in the manner of Shapiro and Majewski[51] may be a useful guide in this regard. But, let us now turn to what dentists actually do, not their attitudes but their actual behavior with respect to advertising.

Not What I Say, But What I Do

It is a curious anomaly that, while much is known about the attitudes of dentists towards advertising, very little is known of their actual behavior. This gap may be attributable in large part to the much greater difficulty in obtaining the latter information. Almost

all of the few reports that have been published so far have appeared in the trade press, rather than in more scholarly publications. In one of the earliest reports after legalization, Milone et al.[62] estimated that between 12 and 30 per cent of dentists were using advertising in 1982. Marsh[63] estimated that 25 per cent of dentists used advertising in 1986.

Dental Management has published over the past several years the results of practitioner surveys which have attempted to identify, among other things, utilization of advertising. According to those data, the percentage of dentists *not* using "external marketing" was 58 per cent in 1986,[64] 56 per cent in 1988,[65] 56 per cent in 1989[66] and 51 per cent in 1990.[67]

The 1989 data actually were cited in the text of the article as "56 per cent *did* use advertising;" but given the obvious trend, one must assume that the coding categories for that survey question were erroneously transposed and erroneously reported. The *Dental Management* surveys, while reflecting low response rates and of unknown possible biases, do portray a consistent, albeit very small, trend towards a larger proportion of dentists using advertising. The reports also commented that the average gross income of practices that did not use advertising was marginally higher than that of practices that did use advertising. The discrepancy was attributed to the greater tendency of younger dentists, with presumably newer and less productive practices, to be more likely to use advertising.

A report in *Dental Practice Outlook,*[68] based on ADA Practice Surveys, also shows an increasing tendency for dentists to use advertising. Those data show the following trends: 1983–44%; 1984–48%; 1985–55%; 1986–58%; 1987–59%. These proportions clearly are higher than in the *Dental Management* surveys, but also point in the direction of gradual, perhaps levelling, penetration of advertising among dental practitioners. *Dental Practice Outlook* also provided average annual expenditure data on advertising, for those dentists who did use advertising: 1983–$2,352; 1985–$2,898; 1986–$2,889; 1987–$3,516. This study commented that specialists rely more heavily on referrals than do GP's, and that younger dentists are less likely to get referrals than older practitioners. Additionally, rural practitioners get more patients by referral. Thus, one may infer from the *Dental Practice Outlook* report that (while no actual data were presented) GP's, practitioners in city and suburbs, and younger dentists in general were all more likely to use advertising.

Only one broad study of dentist advertising has appeared in the scholarly literature. Becker and Kaldenberg,[69] report the findings of a survey based on a systematic, probability sample of dentists licensed to practice in the state of Oregon. Becker and Kaldenberg found that 50.6% of all dentists licensed to practice in Oregon reported advertising expenditures for 1987. Factoring out the 25 respondents who were not in private practice resulted in identifying that 53.9% of private practitioners had spent money on advertising in 1987. The average advertising expenditure, for all those practitioners who used advertising, was $3,069. Both the use of advertising and the dollar amount expended reported by Becker and Kaldenberg are close to the figures reported in *Dental Practice Outlook*. The similarity is amazingly close in the case of the dollar expenditures, especially considering the different sampling frames and questionnaires, which must lead one to have substantial confidence in the validity of the two estimates. Becker and Kaldenberg compared responses across types of practices and practitioners and found that advertising was significantly more likely to be used by: 1) general practitioners (54%) than specialists (35%); females (90%) than males (50%); 3) suburban (70%) more than city or rural (49%); 4) younger practitioners than older; and 5) lowest and highest (gross) income practitioners more than middle income offices.

These statistical findings correspond closely to the suggestions in the *Dental Practice Outlook* article. The greater likelihood of female practitioners reporting having used advertising is undoubtedly related to their being both younger and of lower income than their male counterparts. In their comparison of the level of advertising expenditures by the same practice and practitioner characteristics, Becker and Kaldenberg found that while the lowest income dentists were very likely to advertise (65%), 82% of them spent less than $500 on advertising in 1987. The highest income dentists also reported a high likelihood of advertising (77.8%), but 64% of them spent $500 or more on advertising; indeed, there is a reasonably linear

relationship between practice gross income and the likelihood of spending over $500 on advertising.

Media Usage

While the Becker and Kaldenberg study, together with the *Dental Practice Outlook* report, do provide a consistent baseline on advertising usage and expenditures by dentists, no such information exists with respect to the media used for dentist advertising. In a very early study, which remains the only serious work to date, Leggett and Wallace[70] found that 144 dentists, or 6.75 of all dentists licensed in Louisiana, used newspaper advertising over the period July 1981 to March 1982. Even more striking, a mere 6 dentists (number, not per cent) accounted for 40% of all dentist newspaper advertising during that period of time.

As to other professions, Rizzo[71] found that physicians in large group practices were more likely to use all media, and significantly more likely to use radio or television—largely owing to possible economies of scale. Additionally, those physicians who used broadcast media were likely to be users of the more conventional print media. Hite and Schultz[72] found accounting firms more likely to advertise in newspapers (58%) to use advertising specialties (52%) and direct mail (50%). Conversely, accounting firms were least likely to use outdoor (0%), television (3.4%) and radio (18.1%). Traynor's earlier[73] study of accountants found that, of those who had used advertising, 52% had used newspapers, 26% direct mail, and 21% magazines; only 5% had reported the use of radio and 5% of television.

Diagnosis and Prognosis

The proportion of dentists using some form of advertising has been growing, but at a decreasing rate, and appears to be levelling off at the mid to high 50 per cent level. One can predict with some degree of assurance that this trend will continue, but subject to an important qualification. If young dentists are more likely to advertise, and have relatively favorable attitudes towards advertising, how will that affect the future? The answer is similar to that in the previous section on attitudes. If the increased likelihood of younger dentists advertising is purely economic, then they may become less interested in advertising as their practices, and consequent incomes, mature. Conversely, if the increased likelihood reflects different values—a greater acceptance of advertising in general—the gradual trend will be extended indefinitely. In the "economic" scenario, the proportion of dentists using advertising may be very close to an equilibrium. In the "values" scenario, the proportion of dentists using advertising will increase, as older dentists are replaced by younger age cohorts. Which is more likely? Some of both perhaps—but only time will tell. What is very unlikely is that the proportion of dental practitioners who use advertising will significantly decline.

Based on the findings presented in *Dental Practice Outlook*, and corroborated by Becker and Kaldenberg, average advertising expenditures per advertising dentist probably have risen from about $3,300 in 1987 to around $4,000 by 1991. As to the media used by dentists, or the media that will be used by them in the future, we know very little. Based on data available for other professions, and certainly supported by anecdotal reports, dentists probably are much more likely to use print than electronic media. Print media probably are viewed as more "professional" and do not require the level of sophistication or level of expenditure required by the electronic media. Only the largest practices, particularly groups, are likely to use the electronic media.

Finally, a possible inference or extrapolation is that three kinds of practices are most likely to use media advertising. First is the new, struggling practitioner, or the practitioner newly arrived in a particular market—who enjoys few referrals from colleagues or word-of-mouth from patients. Second is the high advertising, high volume general practice—the McDonald's of dentistry, doing very large numbers of relatively simple procedures. Third, in contrast to most specialists, is the cosmetic dentist—attracting a certain segment of the patient market to a few, but relatively high cost, procedures.

Some Concluding Thoughts

As the inimitable Yogi Berra is reported to have said, "Making predictions is tough, particularly of the future." Will the current attitudes towards and usage of media advertising by dentists increase or decrease in coming years, and how may those decisions be affected by the legal environment?

The legal environment may be reasonably predictable, especially with regards to a Supreme Court that has lost the staunchest sup-

porter of commercial free speech, Justice Brennan. Additionally, the Court has taken a generally more "conservative," perhaps statist, bent in recent years, and one may speculate that further extension of any free speech doctrines is unlikely in the near future. Of course, a more conservative Court will have the same impact on interpretation of anti-trust laws and appeals of F.T.C. decisions. But this is not to say that the clock will be rolled back, that anti-competitive Codes will be reinstated and licensing boards will be allowed to prohibit advertising by their licensees. Rather, the most likely outcome is a continuation of the status quo, rather than increased liberalization.

In the same sense, as time goes on, the attitudes of dental practitioners towards advertising are likely to become less polarized. As the profession becomes accustomed to advertising, it may become more clear that advertising will neither guarantee the success of the dentists who use it, nor destroy the respect for the dental profession on the part of both the lay public and members of the profession itself.

Advertising probably will not be vigorously employed by a larger proportion of dentists than use it today, but it gradually will be used by a larger proportion of all dentists in private practice—although in most cases used moderately. Certainly there will be practices which depend heavily on advertising, particularly large groups whose success will depend critically on enjoying possible economies of scale.

So, the forecast is neither very dramatic nor startling. But by understanding changes in the recent past, we can better understand the outlook for the near future. Δ

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DECEASED FELLOWS

November 1, 1990–September 15, 1991

*ABELOFF, ABRAHAM J.
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*ARMSTRONG, PAUL J. SR.
Lexington, Kentucky

*BAER, HYMAN
West Orange, New Jersey

*BAKER, ERNEST G.
Oakland, California

*BASH, PERCY W.
Niagara Falls, New York

*BELL, WELDEN E.
Dallas, Texas

BENNETT, GRAHAM
Greenville, South Carolina

*BOONE, TOOF A., SR.
Macon, Georgia

BOREN, WILBUR C.
Princeton, Indiana

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Tulsa, Oklahoma

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Houston, Texas

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Portland, Oregon

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Granada Hills, California

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Naples, Florida

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[M]KUMPULA, JOHN
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[M]Merit Awardee.
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*LANDIS, CHARLES F.
Chattanooga, Tennessee

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Gies Award for Outstanding Editorial Published in 1990

Of Purer Science and Holier Laws

Donald F. Bowers*

Charles Kingsley, the 19th century English clergyman, poet and novelist, gave promise of a "fuller day of purer science and holier laws." "Science frees us in many ways," he wrote, "from the bodily terror which the savage feels. But she replaces that, in the minds of many, by a moral terror which is far more overwhelming." Kingsley's visions apply to the future of the 150-year-old profession of dentistry and presage an essential challenge of the next few decades, the relationship between science and ethics and the role of each.

Last year, 400 clinicians and scientists, reviewers for the *Journal of the American Dental Association,* were polled to determine the ten most significant events and issues that dentistry faced during the year. Eight of the ten items were scientific or technological matters, including AIDS and infection control, a recombinant DNA probe test for bacteria linked to periodontal disease, dental implants and controversies surrounding the diagnosis and treatment of temporomandibular joint disorders. Each is vested with complex ethical considerations—real and potential.

Until a few years ago, sessions of the reference committee on scientific affairs at the ADA House of Delegates typically lasted a few minutes over one or two housekeeping issues and was attended, at best, by a handful of delegates. Recently, it has become one of the key reference sessions, dealing with many priority resolutions. It is often standing room only.

Few would disagree with a prediction that the future of dentistry lies largely in research. If the trends of the past thirty years continue, we will see an explosion of new methods of diagnosing and treating oral and dental diseases. We can also expect to see a further decrease in the prevalence of dental caries and a significant decline for periodontal disease.

Likewise, most informed, forwardlooking health professionals see on the horizon serious challenges in the financing and delivery of health care for an aging population, thanks, in part, to medical research's successes in increasing the life span of all, including the unhealthy. Tomorrow's patients will bring increasingly to the dental office a complexity of problems related to chronic and degenerative diseases. A recent study has indicated that Alzheimer's disease has affected twice the number of older citizens as previously believed.

Future dentists must have a better understanding of the elements of ethical decision making. In an aging, consumer-oriented society, where third- and fourth-parties will be involved in the patient's affairs, including financial matters, ethical concerns relating to patient care will arise more frequently. Often these issues will not wait for the profession's leadership to provide the practitioner with a proper solution. The dentist will be required to make on-the-spot decisions related to situations not covered in the *Principles of Ethics and Code of Professional Conduct*.

Dentists of the future must have an understanding of scientific methodology to be able to sort out valid therapy from the superstitious. Whenever old ideas are challenged by new scientific discoveries, one can expect unscientific ideas to surface as well. The development of new high-technologies can invite their unscientific application to patient care by clinicians ignorant of scientific methodology. A highly sophisticated form of quackery can result.

Therefore, the concept of science in dental education must have a broader scope in the predoctoral curriculum than its current role as a requirement to memorize an extensive set of facts about human biology, most of which are perceived to have little relevance to clinical dentistry. The recent growth of predoctoral student research programs is a step in the right direction.

Basic human biology must be included in the dental school curriculum for reasons that transcend passing Part I of the National Board Examination. It must serve as a basis for developing skills in physical diagnosis and a solid clinical understanding of pharmacology and current medical therapy. These skills and knowledge will be critical for the safe and effective care of tomorrow's patients but must be acquired without compromising the quality of surgical and restorative services.

If dentistry is to continue as a legitimate and valuable health profession over the next century and a half, it must begin to prepare now for a "fuller day of purer science and holier laws." Preparation begins with a vision of what lies ahead beyond the next few months. Dentistry could be on the threshold of its golden age. △

*Donald F. Bowers, DDS, Editor, Focus on Ohio Dentistry Newsletter. This editorial appeared in the January 1990 issue.

The three Gies Award Winning Editorials on pages 36-37-38 have been selected by the Editorial Award Judging Committee of the William J. Gies Foundation as the outstanding editorials published in 1990. Presentation of Awards was made at the Annual Meeting of the American Association of Dental Editors on October 3, 1991 in Seattle, Washington.

Gies Honorable Mention Award for 1990 Editorials

Cat's in the Cradle

Charles H. Perle*

My father is a dentist. So are my brother, an uncle and two cousins. It seemed that if you were a male Perle, following in your father's footsteps was expected. We took it for granted while still children that someday we would be dentists. In my view, the only mistake my father made was to tell his most artistic child, my sister, that being a dentist wasn't a good vocation for a female. He was simply reflecting the thinking of the day.

At various times, my decision to study and practice dentistry has given me pause for reflection. The changes in dentistry since my father's time have been enormous. His was a time of predominantly solo practitioners, often with one primary treatment room and one lesser equipped room. Typically, there may have been a solo employee, often the spouse. Some dental offices were multi-flight walk-ups where a successful ascension became a health history—if they made it up to the office, they received treatment. It was a time of long hours and multiple work days. The techniques and equipment were nearly rudimentary by modern standards. Outside interference was relatively non-existent. And, problems between patient and dentist were appropriately resolved within the office.

If my father practiced today, would his outlook be the same? Would his doubts be similar to mine? Would he suffer the frustrations of daily practice? Would he, like me, end some of his days wondering if there is a better way? We all know the problems—skyrocketing overhead, auxiliary shortage, medical waste regulations, the endless litany. Is there a better way? Did I make the right choice?

Then I remember visiting my father at work. I saw not just the dentist, but the man. I saw him comfort someone in pain, watched him make children laugh, saw him treat elderly patients with kindness and respect. Those are the aspects of dentistry—and of my father—that have made the biggest impression on me. My father didn't dwell on the problems associated with his practice. I don't recall ever hearing him complain. What he cared most about, what motivated him, was patient care and I was awestruck by his compassion.

But what of my sons? Am I presenting the same role model to them that my father presented to me? What are they seeing? My father worked long hours but he was a relaxed family man. My brother and I recall that my father would come home looking "fresh as a daisy" after putting in a 12-hour day. My image of him was that he had an effortless professional pattern. No stress or problem was severe enough to bring home. On the other hand, my doubts and frustrations show. I take the pressures home. And because I do, my sons may be acquiring a biased image of dentistry. Could it be possible that my father merely gave the *impression* that dentistry was an easy way to make a living? Just because I don't remember him complaining probably doesn't mean that he didn't question, at some point, his career choice.

With all of the doubts, frustrations and problems we face every day, I wonder—was my childhood desire a mistake? Did I want to be a dentist because I wanted to grow up to be just like my father? Probably, because he created the appropriate image. My role model did a super job on his family, friends and patients.

I also remember him telling me that he would be supportive no matter what career path I chose. He told me that dentistry would bring me "lots of hard work and a good life." When I realistically and unemotionally evaluate my career choice, it is crystal clear—my father was right!

I had the privilege of practicing with him during the last years of his career. Thanks, Pop! Keep enjoying life—you deserve it! △

*Charles H. Perle, DMD, Editor, Journal of the New Jersey Dental Association. This editorial appeared in the Winter 1990 issue.

Gies Honorable Mention Award for 1990 Editorials

The "Hypocritic" Oath

Daniel M. Laskin*

Since the time of Hippocrates those who enter the healing professions have traditionally assumed the moral responsibility of providing care for persons who are ill, regardless of the economic implications. Not that doctors are unconcerned about earning a reasonable livelihood, but their primary motivations for entering the healing profession are interest in the field and the desire to help people.

Because they provide services to the public, doctors qualify for the label of public servant. In the past, this has always been looked upon as an honorable designation—one that was accepted with a certain degree of pride. More recently, however, this term has come to have negative connotations in the minds of some persons. They maintain that serving the public can have two different meanings and that it is the incorrect interpretation of the label "public servant" that has led to the increased governmental interference with the practice of medicine and dentistry.

According to these individuals, an acceptable definition of a public servant, as applied to a doctor, is one who voluntarily provides a specific service to those who want it, on mutually agreeable terms, and in exchange for money, goods, or other services. In this respect, the doctor would be no different from any business or trades person who also deals with the public. What they find unacceptable is the interpretation of public servant as denoting a slave and master relationship, with the doctor being a slave to the public. In actuality, neither definition characterizes the true situation.

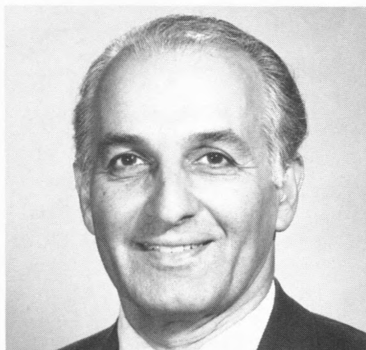
One of the characteristics of the healing professions is self-regulation. Because we feel an ethical as well as moral obligation to our patients, we voluntarily establish principles of ethics and codes of professional conduct to govern our interactions with the public. The American Dental Association standards state that our primary professional obligation shall be to serve the public, and that we also have an obligation to provide care for those in need. If we cannot subscribe to these standards, we should not be in the profession. As Harvard ethicist J.J. Emanuel has so succinctly stated, "Dentists and physicians have chosen to enter a moral practice and have committed themselves to caring for other people. Dentists aren't like businessmen who can restrict their practices. Those of us in the caring professions have an obligation derived from the fact that, in assuming our occupation, we basically have committed ourselves to help. We have not primarily committed ourselves to making money, or to any other ideal, but to caring for other people. That's what it means to be a dentist. The commitment to care for people comes first."

It has been said that the public has a right to health care. That does not mean it has to be free or government supported in all instances. We do, however, have an obligation to see that such care is provided for those who cannot afford to pay for it, just as we have an obligation to provide food and shelter for the less fortunate. It would be a sad state of affairs if we were unwilling to accept this moral responsibility. At the same time, this does not obligate us to accept total governmental regulation.

Public service is a voluntary effort. The government may regulate the services for which it pays but, other than for licensure as a means of protecting the public, it does not regulate how we practice and whom else we treat. Principles of ethics, morality, and public service are not incompatible with economic benefit, nor does their acceptance imply an acquiescence to governmental control. These are separate issues. Those who cannot see the difference obviously swear to a different oath.

*Daniel M. Laskin, DDS, Editor, Journal of Oral and Maxillofacial Surgery. This editorial appeared in the April 1990 issue.

Bahram Javid was named Chairperson of the Oral and Maxillofacial Surgery Department at the University of the Pacific School of Dentistry in San Francisco. He is a Diplomate of the American Board of Oral and Maxillofacial Surgery. Dr. Javid received the Teacher of the Year award from the University of California at San Francisco where he also serves as a clinical instructor.



Bahram Javid

Jerome B. Miller of Oklahoma City was recently elected President of the American Academy of Pediatric Dentistry. Dr. Miller has served as a trustee and editor of the Journal of the Oklahoma Dental Association.

Jerome B. Miller

Emile T. Fisher

Marion J. Edge was recently appointed Director of the Graduate Program in Prosthodontics at the University of Michigan School of Dentistry. Dr. Edge was formerly the Director of the U.S. Army Advance Specialty Education Program in Prosthodontics at Fort Gordon, Georgia.

Marion J. Edge

Robert E. Gaylord, formerly Professor and Chairman of the Department of Orthodontics at Baylor College of Dentistry, received the American Association of Orthodontists Albert H. Ketcham Memorial Award. Dr. Gaylord was also named the 1991 Dentist of the Year by the Dallas County Dental Society.

Robert E. Gaylord

Emile T. Fisher was installed as a Companion in the Order of Knights of Malta by the Hospitaller Order of St. John of Jerusalem. Dr. Fisher practices Periodontics in Atlanta, Georgia.

NEWS OF FELLOWS

Douglas V. Chaytor, Professor of Prosthodontics, Faculty of Dentistry, Dalhousie University in Halifax, Nova Scotia was recently installed President of the Carl O. Boucher Prosthodontic Conference in Columbus, Ohio.

Douglas V. Chaytor

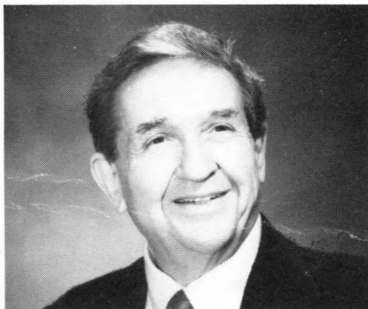
Clifton O. Dummett, Professor Emeritus, University of Southern California School of Dentistry, delivered the commencement address at the University of Florida College of Dentistry's 1991 Commencement and Graduation Ceremonies. Dr. Dummett also served as the 1991 Ralph Metcalfe Chair at Marquette University School of Dentistry.

Clifton O. Dummett

Richard A. Kozal of Justice, Illinois was honored by the Academie Nationale Chirurgie Dentaire by being presented a Gold Medal and being inducted an Honorary Member of the National Order of the French Dental Profession. Dr. Kozal is the Secretary/Treasurer of the Pierre Fauchard Academy.

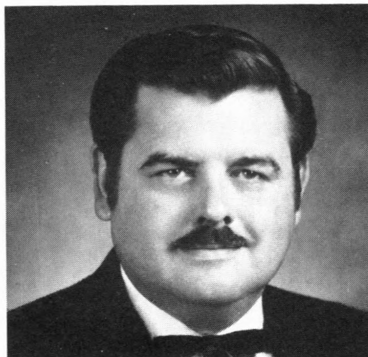
Dr. Eugene Saint-Eve, President of the Academie Nationale Chirurgie Dentaire photographed presenting the award to Dr. Kozal.

Benton Kutler of Omaha was recently elected President of the Nebraska division of the American Cancer Society. Dr. Kutler is a member of the Nebraska Dental Hall of Fame and the current Chairman of the Nebraska Section of the College.



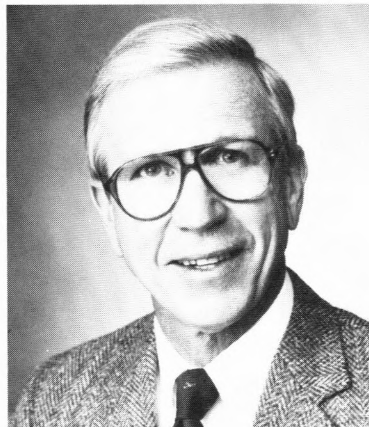
Benton Kutler

Roy H. Reger recently retired after completing 29 years of service with the Colorado Department of Health. Dr. Reger is a Past President of the Colorado Dental Association and served as the Editor of the Association's Journal for seven years. He is also a former Chairman of the ACD Colorado Section.



Roy H. Reger

James H. Pearce, Jr. was installed Fourteenth District Trustee of the American Dental Association in Seattle. Dr. Pearce is a Past President of the Colorado Dental Association and practices Endodontics in Denver.



James H. Pearce, Jr.

Errol L. Reese received the 1991 Distinguished Service Award of the Maryland State Dental Association. Dr. Reese is the President of the University of Maryland at Baltimore.

Errol L. Reese

Jeanne Craig Sinkford recently retired after having served as Dean of the Howard University College of Dentistry for sixteen years. Dr. Sinkford is the Secretary/Treasurer of the Metropolitan-Washington Section of the College.

Jeanne C. Sinkford

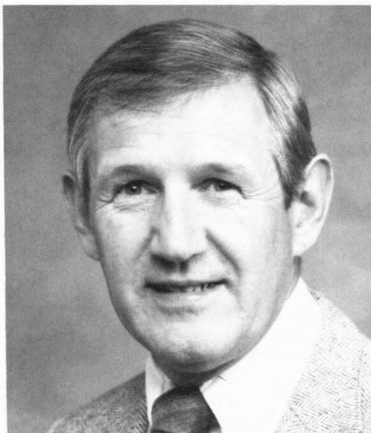
Arthur Van Stewart was recently the recipient of the University of Louisville's Distinguished Service Award. Dr. Van Stewart is a Professor in the Department of Growth and Special Care, University of Louisville School of Dentistry and was recognized for exemplary service to the University and to his Community.

Arthur Van Stewart

Thomas H. Baumann

Thomas H. Baumann of San Diego began a new career as a historian since he retired from general practice ten years ago. His most recent publishing was a 100 year history of the San Diego County Dental Society, copies of which have now been entered into the archives of the American Dental Association and the Library of Congress.

Robert "Gil" Triplett recently joined the Baylor College of Dentistry as Professor and Chairman of the Department of Oral and Maxillofacial Surgery and Assistant Dean for Hospital Affairs. Dr. Triplett served in the U.S. Navy for 21 years following which he was Professor and Director of Graduate Education, Department of Oral and Maxillofacial Surgery at the University of Texas Health Science Center at San Antonio.



Robert "Gil" Triplett

SECTION ACTIVITIES

Four Canadian Sections Receive Charter

Impressive chartering ceremonies were held in Quebec City August 24, 25 for the newly formed Canadian Sections of Atlantic Provinces, British Columbia, Ontario and Quebec. Petitions for the formation of the four Sections were approved by the Board of Regents earlier and charters were presented in Quebec City to the Section officers by ACD President Robert E. Doerr and Executive Director Gordon H. Rovelstad.

Photographed following the Chartering ceremonies for the four Canadian Sections are from the left: Ontario Section Chairman E. J. Rajczak, Atlantic Provinces Section Chairman Michael J. Cripton, ACD President Robert E. Doerr, Quebec Section Chairman Earl M. Hershenfield, British Columbia Section Chairman Thomas E. Ramage and Executive Director Gordon H. Rovelstad.

Board of Regents Approves Petition for the Formation of the Western Canada Section

The Board of Regents, at its 1991 annual meeting in Seattle, approved a petition for the formation of the Section of Western Canada. The petition, submitted by George H. Peacock of Saskatoon, Saskatchewan, establishes the fifth Section in Canada and includes the Provinces of Alberta, Manitoba, and Saskatchewan.

British Columbia

The newly formed British Columbia Section recently held its first meeting in Vancouver. Discussions were held and plans made for future activities of the Section and the following Fellows were elected officers: Chairman Alfred L. Ogilvie, Vice Chairman Thomas E. Ramage, Secretary/Treasurer Marcia A. Boyd and Editor Paul B. Robertson.

Photographed at the British Columbia Section meeting are from the left: Alfred L. Ogilvie, Thomas E. Ramage, Marcia A. Boyd, Regency 8 Regent Charles V. Farrell and Paul B. Robertson.

Photographed at the British Columbia Section meeting are from the left: In the back row—Thomas E. Ramage, Norman C. Ferguson, Craig Naylor, William R. Scott, and George S. Beagrie. In the front row are from the left: Alfred L. Ogilvie, Marcia A. Boyd, Colin Price and Basil M. Plumb. In attendance but not photographed were Drs. Ludlow W. Beamish, Paul B. Robertson and John Diggins.

Indiana

The Indiana Section held its annual meeting in conjunction with the Indiana State Dental Association Meeting in Indianapolis. Eighty-eight guests attended the meeting which was chaired by Chairman Edward L. Fritz. ACD President Dr. Robert E. Doerr presented an address and the Section recognized a senior dental student with a cash award for exhibiting qualities of leadership and community service.

Photographed at the Indiana Section's Annual Meeting are from the left: Secretary/Treasurer Jack P. Mollenkopf, Chairman Benoni W. Asdell, ACD President Robert E. Doerr and Past Section Chairman B. Charles Kerkhove, Jr.

The 1991–92 Officers of the Indiana Section are from the left: Chairman Edward L. Fritz, Vice Chairman Varoujan A. Chalian, Past Chairman Benoni W. Asdell, Secretary/Treasurer Jack P. Mollenkopf and Vice Chairman Gilbert M. Eberhart.

European Section

A luncheon meeting of the European Section was held in Elsinore, Denmark on June 18, 1991. Attending were Gil Alcoforado, Vice-Chairman; Donald Derrick, Secretary-Treasurer; Juan Serrano, Secretary-Treasurer Elect; Norman Olsen, ACD Past President; ADA President Eugene Truono, Paul Feinmann, Aiden O'Reilly, Terje Wahr-Hansen, Bernard Grothaus, Helyn Luechauer, Jorgen Bjornvad, Antje Tallgren and Erling Johansen.

Dr. Johansen, Dean of Tufts University Dental School, gave the Harold Hillenbrand Memorial Lecture, sponsored by the Section, to the members of the American Dental Society of Europe.

Dr. Alcoforado read a letter of regret from Section Chairman Runo Cronstrom explaining his inability to attend the meeting. In his annual report, outgoing Secretary-Treasurer Donald Derrick drew attention to the need for complete confidentiality when nominating candidates for Fellowship. ACD Past President Norman Olsen inducted the new Secretary-Treasurer Juan Serrano and presented a Certificate of Appreciation to Dr. Derrick for being instrumental in organizing and developing the European Section.

ADA President Eugene J. Truono stressed the importance of the mentor role relationship between young dentists and senior colleagues, as a way to pass on the principles of professionalism and ethics.

The next annual meeting of the Section will take place June 23, 1992 in Vilamaura, Algarve, Portugal.

Georgia

The Georgia Section held its annual meeting in Hilton Head, South Carolina in conjunction with the annual meeting of the Georgia Dental Association. The Section voted to present $1000 to the College's Campaign for the '90s, $500 to the Georgia Dental Education Foundation and up to $700 to support the attendance of Fellow James Williams at the College's Ethics Workshop. ADA President Eugene Truono addressed the meeting and Fellow Hunter Rackley received the 25 year membership pin.

Georgia Section Vice Chairman Gerrit C. Hagman presented a check for $1000 for the Campaign for the '90s to ACD Regency 3 Regent A. J. McCaslin. Standing on the right is Georgia Section Secretary/Treasurer Larry C. Miller.

Photographed at the Georgia Section meeting are from the left: Drs. Johnny Maloney, I. Leon Aronson, President Georgia Dental Association and James B. Hall Secretary/Treasurer Georgia Dental Association.

Photographed at the Georgia Section's meeting are from the left: Paul D. Eleazer, Past President Georgia Dental Association, Theodore G. Levitas and Benjamin A. Blackburn.

Hunter R. Rackley was congratulated and received the 25 Year Fellowship Pin from Larry C. Miller.

Nebraska

The Nebraska Section held its two annual meetings during 1991, each attended by a large number of Fellows and guests. The spring meeting held in Omaha was addressed by ADA President Eugene J. Truono. The fall meeting held in Lincoln was addressed by ADA President Robert E. Doerr. Dr. Howard Yost was recognized with the presentation of the Distinguished Service Award. The following officers were elected and installed by President Doerr: Chairman Bryce Bonness, Chairman Elect Max Martin Jr. and Secretary/Treasurer Richard Brunmeier.

Photographed at the Spring meeting of the Nebraska Section are from the left: Section Chairman Benton Kutler, Secretary/Treasurer Max Martin, Jr., ADA President Eugene J. Truono and Past Chairman Earle Person, Jr.

Photographed at the Fall meeting of the Nebraska Section are from the left: Section Secretary/Treasurer Richard Brunmeier, Chairman Elect Max Martin, Jr., ACD President Robert E. Doerr and Immediate Past Chairman Ben Kutler.

Oklahoma

The Oklahoma Section held its meeting in Tulsa in conjunction with the Oklahoma Dental Association's annual meeting. ACD President Robert E. Doerr addressed the Fellows and discussed the activities and goals of the College. The Section honored Todd Johnson with an award for Academic Excellence and Lynn O'Leary and Michael Pledger for their participation in the Dental Student Recruitment project of the Section. Tribute was also paid to recently deceased Fellow Robert Hansen who was the founding Dean of the Oral Robert's University College of Dentistry. The following officers of the Section were installed: Chairman Dean Robertson, Vice Chairman Scott Waugh and Secretary/Treasurer James B. Roane.

Fellows of the Oklahoma Section photographed with ACD President Robert E. Doerr at the Section's meeting in Tulsa.

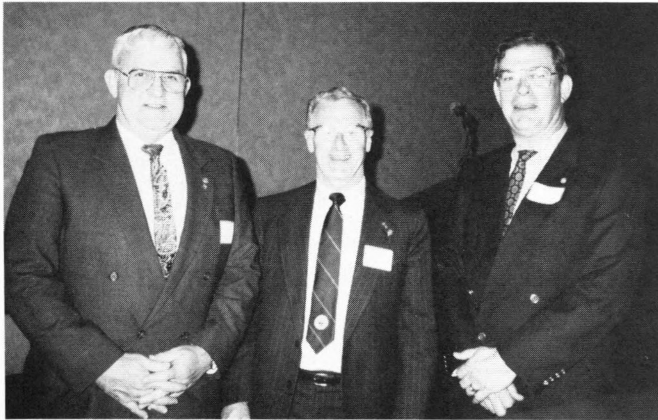
Louisiana

The Louisiana Section held its annual meeting recently during the New Orleans Dental Conference. The meeting was addressed by Dr. James A. Harrell, Sr., Chairman of the Campaign for the 90's. The Louisiana Section voted to present the Campaign for the 90's with a contribution of $500.

Photographed at the Louisiana Section's meeting are from the left: Campaign for the 90's Chairman James A. Harrell, Sr., Past ACD Regent and Treasurer Robert Coker, Section Chairman Roland Meffert, Past Chairman Ross DeNicola, Chairman Elect William Walsh and Secretary/Treasurer Charles Boozer.

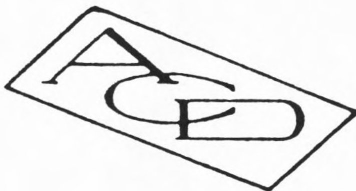
Washington

The Washington Section held it's first annual meeting recently in Seattle as a reconstituted Section. The Section presented the Ferrier Scholarship Award to two 3rd year students from the University of Washington Dental School for their excellence in the field of Operative Dentistry.



Photographed at the Washington Section's annual meeting are from the left: Section Chairman David J. Bales, ACD Regency 8 Regent Charles V. Farrell and Section Secretary/Treasurer Curtis F. Smith.

Photographed from the left are: Dr. Richard V. Tucker, third year dental students Kristen Gibson and Kenneth Lynn along with Section Chairman David J. Bales.



STATEMENT OF OWNERSHIP AND CIRCULATION

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The American College of Dentists is a non-profit organization with no capital stock and no known bondholders, mortgages or other security holders. The average number of readers of each issue produced during the past 12 months was 5,023 none sold through dealers and carriers, street vendors or counter sales; 4,515 copies distributed through mail subscriptions; 4,515 total paid circulation; 508 distributed as complimentary copies. For the Summer, 1991 issue the actual number of copies printed was 5,100; none sold through dealers, etc.; 4,541 distributed through mail subscriptions; 4,541 total paid circulation, 378 distributed as complimentary copies; 4,919 copies distributed in total. Statement filed with the U.S. Postal Service, September 19, 1991.

INFORMATION FOR AUTHORS

INTRODUCTION

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

EDITORIAL POLICY

The editorial staff reserves the right to edit all manuscripts to fit within the space available to edit for conciseness, clarity, and stylistic consistency. A copy of the edited manuscript will be sent to the author. All manuscripts are refereed anonymously. Only original articles that have not been published and are not being considered for publication elsewhere will be considered for publication in the Journal unless specifically requested otherwise by the Editor.

The primary author must ensure that the manuscript has been seen and approved by all co-authors. Initial receipt of all manuscripts submitted will be acknowledged and, at the conclusion of the review procedure, authors will be notified of (1) acceptance, (2) need for revision, or (3) rejection of their papers.

PREPARATION OF MANUSCRIPTS

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

All pages, including Title Page, Tables and Figure legends, should be numbered consecutively in the top right-hand corner. The first page should list title of manuscript with the first letters of the main words capitalized (do not use Part I, etc.), author's (or authors') initials and name(s) in capitals (no titles or degrees), complete professional address(es) (including ZIP or Postal Code), a short title of NOT more than 45 characters in block capitals, and, as a footnote, any change in corresponding author's address since the paper was submitted. With multiple authors, relate them to their respective institutions by superscript numbers. The first author is assumed to be the one to whom correspondence and reprint requests should be directed unless otherwise stated.

The second page should be an abstract of 250 words or less summarizing the information contained in the manuscript.

Authors should submit an original and four copies of the manuscript and three original sets of illustrations to: Dr. Keith P. Blair, Editor.

Dorland's Illustrated Dictionary will be used as the authority for anatomical nomenclature. The American Heritage Dictionary will be used as the authority for spelling nonmedical terms. The American English form of plurals will be used where two are provided. The Index Medicus and Index to Dental Literature serve as authorities for standard abbreviations.

CORRESPONDENCE

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

REFERENCES

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

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

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

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A form for reprints will be sent to the corresponding author after the manuscript has been accepted and edited. He/she then shall inform all other authors of the availability of reprints and combine all orders on the form provided. The authors shall state to whom and where reprint requests are to be sent. Additional copies and back issues of the Journal can be ordered from the Business Manager of the Journal.

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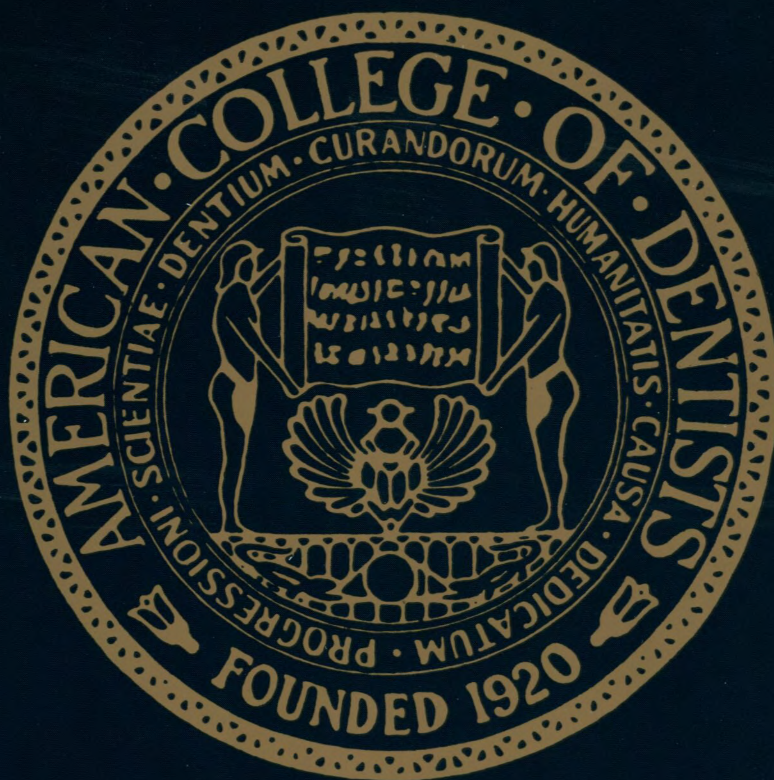

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