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AMERICAN COLLEGE OF DENTISTS

APRIL, 1979 VOLUME 46 NUMBER 2

Thomas W. Evans

Assessing Communication

Implications of Group Behavior

Dental Auxiliaries and Dental Practice

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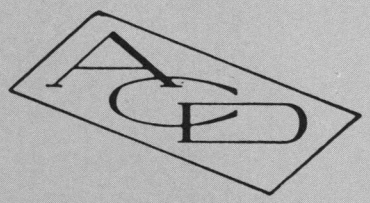

NEWS AND COMMENT

SECTION NEWS

New England Section

A meeting of the New England Section was held on January 12, 1979 at the Sheraton-Boston Hotel, in conjunction with the 4th Yankee Dental Conference. There were 90 in attendance.

James Kershaw presided and conducted the meeting. Among the many guests were I. Lawrence Kerr, president elect of the A.D.A., John Houlihan, Trustee of the A.D.A. and Ralph Tarullo, president of the Massachusetts Dental Society. Two new Fellows, Robert Hunter and John Kenison, were introduced. L. D. Pankey was introduced as the guest speaker and brought us up to date on the Pankey philosophy.

Chairman Fitts presided at the business meeting. Orrin Greenberg reported on the letter he had written to the deans of the New England Dental schools concerning the presentation of $100.00 to graduating seniors in each school. It moved and voted that students receiving the prizes should also receive a two year subscription to the College Journal. Dr. Fitts then turned over the gavel to our new Chairman, John Horack. A motion was made to thank Dr. Fitts for a job well done.

Metropolitan Washington Section

The winter meeting of the Section was held on Wednesday, January 31, 1979, at the National Naval Medical Center in Bethesda under the chairmanship of Robert W. Elliot Jr. Special recognition was made to new fellows Morris Cohen, Harold Martin, and Raymond Murakami, to Past President Henry Swanson and to Executive Director Robert Nelsen.

The Section voted to contribute five hundred dollars to the American College of Dentists Foundation. Many students were present as guests to view the awards presented to the junior dental students who best exemplified professionalism in their respective schools. The recipients of these awards were Beverly Granger from Howard

University and Craig A. Van Dongen from Georgetown University. Following these presentations vice-chairman Jeanne Sinkford introduced Dr. Harry Bruce, Executive Director of the American Association of Dental Schools and a Fellow of the College who spoke on the subject "Critique on the Council of State Governments Draft Dental Practice Act", a timely and provocative subject.

Left to right: Regent Balfour D. Mattox, Craig A. Van Dongen, Section Chairman Robert W. Elliot, David Beaudreau, dean of Georgetown University Dental School, Beverly Granger and Jeanne Sinkford, dean of Howard University Dental School.

New York Section

The annual banquet of the New York Section of the American College of Dentists was held on November 26th, 1978 under the chairmanship of Irving Naidorf. This meeting was held in conjunction with the Greater New York Dental Meeting and was attended by 88 Fellows and guests.

Gerard McGuirk, our Regent, brought greetings from the national office. Andrew Cannistraci, the immediate past chairman, received certificates of appreciation and merit for his service to the section. In addition, Henry Nahoum presented Dr. Cannistraci with a gift.

Mr. Jonathan Roberts, a student at Columbia's School of Dental and Oral Surgery and Mr. Walter Psoter, a student at New York University

(Continued on page 139)

the JOURNAL of the AMERICAN COLLEGE of DENTISTS

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A QUARTERLY PRESENTING IDEAS IN DENTISTRY

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CONTENTS

Regent Charles W. Fain, Jr.

Charles W. Fain, Jr. a pedodontist of Daytona Beach, Florida was named to the Board of Regents of the College at its recent annual meeting. Born and educated in Daytona Beach, he attended the Citadel, Charleston, South Carolina, and the University of Georgia. His dental degree was earned at Emory University College of Dentistry, in Atlanta, Georgia.

Following graduation he served as a Lieutenant in the Dental Corps of the United States Navy. He saw active service in the Pacific Theatre and Korea, and was awarded two Bronze Star Medals and seven battle stars.

Dr. Fain has a long history of activity in a number of dental organizations. He is a past president of the Florida Dental Association, the Central District Dental Society, the Volusia County Dental Society, the Southeastern Society of Pedodontics and the Florida Society of Dentistry for Children. He is a life member of Delta Sigma Delta dental fraternity and holds membership in the Florida Academy of Dental Practice Administration. He is a member of the Dental Advisory Committee of the University of Florida College of Dentistry, and former coordinator of the Foundation Pedodontique of Haiti.

He is a Fellow of the American Academy of Pedodontics, the Royal Society of Health and the International College of Dentists. He is associate professor in the Department of Community Dentistry of the University of Florida, Gainsville, and visiting lecturer in pediatric dentistry at Emory University School of Dentistry.

In civic life, Dr. Fain is a member and past chairman of the Board of Directors of Heritage Federal Savings and Loan Association, past president of the Daytona Beach Rotary Club, the Children's Musuem of Daytona Beach and the Volusia County Easter Seal Society. He is past chairman of the East Volusia Chapter of the American Red Cross and a member of the Board of Counselors of Bethune-Cookman College, Daytona Beach.

In 1969 he received the Thomas B. Hinman Award for Leadership in Dental Progress. In 1972, 1973 and again in 1978 he received the Florida Society of Dentistry for Children Award of Excellence for outstanding contributions in the field of Pedodontics. Last year, the American Society of Dentistry for Children presented him with its Award of Excellence.

Dr. Fain and his wife Gail are the parents of two daughters.

Contributing Editors Appointed

The Board of Regents has authorized the Editor of the Journal to appoint a number of Contributing Editors. These individuals will be responsible for submitting Section News, News of Fellows and other information suitable for publication in the Journal.

Contributing Editors for this issue are Bernard A. Yanowitz of Washington, D.C., Sumner H. Willens of Lynn, Massachusetts and Henry I. Nahoum of New York. Their contributions are gratefully acknowledged.

Correction

In the list of new Fellows printed in the January Journal, the name of Raymond S. Murakami of Washington, D.C. was inadvertently omitted. Our sincere apologies to Dr. Murakami.

The CSG Model Dental Practice Act—Another Blow to Professionalism

The Council on State Governments Task Force has recently released its Suggested Dental Practice Act, and the final document bears a close resemblance to the one which raised the hackles of the profession at the Anaheim meeting last fall. At that time, a large number of dental organizations presented their views in an open hearing and much of the testimony was in opposition to various portions of the proposed act. (See page 84 of this issue for the College's position.)

Apparently the individuals comprising the Task Force had pretty well made up their minds about the report they were going to issue and were not overly influenced by dental opinion, for the final report contains most of the recommendations that the profession found objectionable.

The door would be open for dental laboratory technicians to work under the "direct, indirect or general supervision of the dentist". "General" supervision does not require the dentist to be present when the procedures are performed. Is this what the Council on State Governments means by "protecting the health and safety of the consuming public"?

The suggested act would allow a non-dentist to own a dental practice. This would turn a practice into a commerical enterprise, making professionalism and dedicated care subservient to the profit motive. The College has always believed that the needs of the patient should take priority over all else. Is this possible if a practice is operated like a grocery store? Is health care really a commodity, like some of our planners believe?

The College has stated its position. We trust that the Fellows in their various Sections will be vigilant against efforts which may be initiated to modify existing dental practice acts in ways that would weaken professional behavior and interfere with the traditional dentist-patient relationship.

R.I.K.

A Salute to the Texas Section

In a recent issue of the Texas Dental Journal, Editor William F. Wathen applauded the continuing education efforts of the Texas Section. We are pleased to reprint with permission his complimentary remarks, for they describe an activity which is completely in keeping with the objectives of the American College of Dentists. Other Sections might wish to replicate the Texas initiative.

A LANDMARK CONTINUING EDUCATION

meeting was held in San Antonio last fall at the dental school. The Texas Section of the American College of Dentists sponsored a tuition-free all-day continuing education program entitled "Practical Dentistry Today", which was attended by over three hundred dentists.

As a contribution to dentistry, the Texas Section members of the ACD assumed the expenses of bringing this program to Texas dentists. All the clinicians were Fellows of the American College who contributed their time and efforts on behalf of the college.

You have read in this column before about the negative feelings your editor has when confronted with various whiz kids asking and getting a thousand or more dollars a day plus expenses in return for one type hype or another. It bears repeating that one of the honored heights of a profession is to teach others. In days past it was considered honor enough in itself to be asked to share one's expertise with his peers.

Someone discovered that there was a buck to be made in continuing education courses, and the race was on. Many smaller societies have been priced out of the continuing education market, and others have had to develop huge meetings with dozens of exhibitors to defray the costs of bringing in well-known clinicians.

The ACD course was a landmark in several ways:

1). It was shown that a good, solid, professional, dignified meeting can be sponsored without exorbitant costs.

2). It was shown that large numbers will support such a meeting.

3). It was shown that often we don't need to look past our own in-state resources to find excellent clinicians who are willing to share their knowledge with us.

In these days of "bigger is better" it is good to see that smaller will work too. The Texas Section of the American College is to be admired for this creative stroke. Let us hope it becomes an annual affair, with good support from us all.

Establishing Priorities in Program Activities of the American Dental Association

The changing nature of the professions and their environments demands careful consideration of the effects of these changes on the programming requirements of all professional organizations. It is essentially through the programs of the American Dental Association that dentistry accommodates, resists or submits to change within and about the profession. Not often enough is the direction of change designed and managed by programs of the Association. Without a doubt, it is the extracts of these programs which regulate the metabolism of dentistry and determine its very survival as a profession.

It is my opinion that there is sufficient talent and dedication within the profession itself to appoint a blue ribbon committee which can review the structure and function of all ADA programs and make recommendations for program renovation necessary to contend with the present circumstances within and about dentistry. Objective self-assessment by such a committee already attuned to professional perspectives will be more effective than a stereotyped report by hired external evaluators.

Such analysis must begin in the light of agreed definitions of dentistry as a profession followed by statements of its relations to dental health, dental disease and dental care. This would likely be the most difficult task of the committee but very important for the following reasons.

1. The definition of professional and profession must be stated, for these give substance to the purpose and objectives of the association and to the structure and function of its programs.
2. The role of the dentist, in my view, is to contend with the dental diseases and their effects. Dental health is the responsibility of the individual properly guided by the public education system and the public health establishment.
3. Individuals cannot refuse to use means to avoid dental diseases and then collectively hold the profession responsible for the consequences of accumulated self-neglect.

4. The public health establishment and the public education system are derelict in bringing the primary school population to proper knowledge and motivation in avoidance of disease.

5. The dental profession should be the responsible entity in the delivery of dental care, and this responsibility should include the concomitant authority in the delivery modes of care. Further, dentistry is the essential custodian of truth in dental science and art.

6. Within each valid profession there are four PRIMARY SYSTEMS by which its vitality is preserved and its purpose attained. There are:

Research - the development of new knowledge.

Education - the distribution of knowledge, skills and judgments to the emerging and practicing profession.

Journalism and Communication - relates to the custody and distribution of information and the exchange of dialogue directed to the establishment of truth.

Delivery of Care - the application of knowledge, skills and judgments in the management of disease and its effects.

7. There exist SECONDARY SYSTEMS within and about the profession which participate, contribute, intrude or interfere in the functions of the profession and thus, indirectly, in the programs of the American Dental Association. Some of these secondary systems have great voice in professional affairs, and in program design and direction. Their influence should be assessed by the programs review committee and recommendations made regarding the manner and extent of their future participation. These secondary systems are:

1. The organized profession of local, component, state and district groups culminating in the American Dental Association.

2. The professional dental specialties, those officially recognized and those not officially recognized and their organizations.

3. The auxiliaries, laboratories, hygienists and assistants, and their organizations.

4. The dental trades and the dental manufacturers and their organizations.

5. The knowledge industries of professional educators, researchers and their organizations.

6. The third-party insurance groups, professionally sponsored, and commercial-industrial insurance enterprises.

7. Fourth-party franchised delivery systems selling service through retail outlet stores; e.g., Sears Roebuck - Montgomery Ward.

8. Governmental agencies which are into all facets of dentistry, research, education, journalism, delivery, insurance, program planning, public health.

9. The credentialing agencies of state boards specialty boards, and peer review boards.

10. Merchandisers, direct providers to the public of brushes, floss, paste, denture adhesives, etc.

11. The proprietary opportunists who publish give-away magazines and promote travel bureau sponsored commercial education.

12. Foundations which support and sponsor renovators bent on redesign of the social order including the role of the professions.

13. Consumerists whose credentials are their facility for self-ordination.

These secondary systems have complex alignments to the profession. Commercial and political interests have become woven into its fabric. The cacophony of their self-interests has caused the profession to become disoriented. They have diluted the authority of the profession.

It is well at this time that the American Dental Association take careful measure of its programs. It can do this best by:

1. Appointment of a blue ribbon committee on programs review.

2. Charge the committee to develop statements defining the profession and the professional and their roles and responsibilities regarding dental disease, dental health and dental care.

3. In the light of those statements, request the review of present association programs and recommendations of the changes necessary to the present circumstances in and about dentistry.

4. Require that the substance of the report be given full coverage and complete visibility to the entire profession.

ROBERT J. NELSEN

The foregoing perceptive statement was prepared by Doctor Nelsen in response to a request from Doctor John M. Coady, Acting Executive Director of the American Dental Association for comment on establishing priorities in ADA program activities. We think it constitutes an excellent blueprint for future action.

Testimony before the Council on State Governments by the American College of Dentists

Mr. Chairman, members of the Council, I am Doctor Charles F. McDermott, a general practitioner from Pittsburgh, Pennsylvania, and immediate past president of the American College of Dentists.

Our organization represents 4,800 dentists who are leaders in the profession, having been honored by election to Fellowship in the College on the basis of their achievements and services to the dental profession and the community.

We have requested the opportunity of appearing today because of certain concerns we have regarding the provisions of the suggested model dental practice act.

In the introductory letter sent with the proposal the statement is made that, "This legislation is premised upon the belief that assuring public health and safety is the basis - and the extent - of the state's power to regulate the health professions. The legislation provides for the protection of the public without imposing arbitrary limitations on the ability of the dental profession to meet the challenge of dispensing its services to as many people as possible." After careful study of the document, we fail to see how permitting unlicensed auxiliaries or laboratory technicians to render dental health services without adequate educational preparation can be construed as protecting the public. If the dentist is expected to be responsible for the overall quality of patient treatment provided, how is this possible under "general supervision", which is stated as meaning that the dentist need not be present when the procedures are performed, and such procedures may be performed at a place other than the dentist's usual place of practice.

Presented in Anaheim, California, October 24, 1978 during the annual session of the American Dental Association.

We strongly believe that, rather than protecting the health of the public, enactment of this legislation will make the public vulnerable to a lower quality of care. We believe that no one but the dentist or the dental hygienist, working under the direct supervision of the dentist, is educationally qualified for intra-oral services. If it is the desire of this Council to bring the benefits of dental care to as many people as possible, we cannot agree that allowing unskilled auxiliaries and technicians to provide these services is the answer. We do not agree that there is a serious manpower shortage in dentistry that requires a second level of care to be established. We do not agree with the implication that the people of this country are being neglected or poorly served by the dental profession.

We believe that adoption of this legislation would preempt the traditional role of the dentist with no assurance that the changes suggested would improve the status of dental health care presently provided the public.

Listen to this quotation from an individual who knew what he was talking about:

"Dental technicians have a natural and commendable ambition to improve their status. But realities should not be ignored. Can a technician, however competent he may be, serve the patient with that degree of health-care and health responsibility that the modern dentist applies to each diagnosis and treatment? I believe that from the standpoint of the public welfare there is only one answer to this question? No technician, regardless of the highest manual skill and the very best personal intentions, should be permitted to give any kind of dental health care for which he has not been prepared by adequate education.

"It is obvious that a co-operative technician may give all the laboratory help a dentist desires. But when a technician is permitted to consult the patient, take impressions, fit restorations, etc., he is - in the view of the patient - the equal or superior to the dentist, and the uninformed patient wonders why it would not be better to go directly to the technician, and reduce the costs. These ideas are growing among laymen, and are being stated in hearings before committees of legislatures."

Gentlemen, do these words sound familiar to you? It may interest you to learn that these statements were expressed, not last week or last year, but over thirty-eight years ago by a man whose name and whose words still shine as a beacon for the profession—the late Doctor William John Gies.

Dr. Gies was a biochemist, not a dentist, but his teaching at Columbia University brought him into contact with many dentists, and his studies of the socio-economics of dental practice over a thirty year period made him an accepted and highly respected authority. He lived at a time when commercialism was rampant in the dental profession and in dental journalism, when dental education was at a low ebb, dominated in a large measure by proprietary schools. He more than anyone else, by his studies, writing, and lecturing, was responsible for upgrading all of these, and his influence has existed until the present day. Would that he were alive now, for we are sure that he would find the same things objectionable today as in his own day. He exerted an enduring impression on the American College of Dentists, and we choose to regard ourselves as his spiritual heirs, fighting still against any proposal that would lower the quality of dental care to the public by our profession.

The American College of Dentists also has reservations about the establishment of a Health Occupations Council, as described in another proposal for the enactment of a Health Occupations Policy Coordinating Act. This Council would be composed of health professionals and consumers, and would have broad powers to define roles and responsibilities in the provision of health services. It would be given the power to review and coordinate licensing board regulations, establish discipline and enforcement procedures, and resolve questions regarding scope of practice. It would have the power to grant waivers to existing practice acts to allow pilot projects to determine whether or not certain skills can safely be delegated to auxiliaries and new manpower groups.

If these proposals are ever enacted into law, we would have, in effect, a superboard which would take away the powers of the existing state board, place it in a subservient position, interpose another bureaucratic layer between the legislative and the profession and pass regulations which could be inimical to the delivery of dental care.

Time does not permit us to list all of the objections we could offer to these suggested pieces of legislation. You have been made aware, we are certain, of the many instances where its provisions are in conflict with the laws of the various states which were designed for the protection of the public. Let us merely state in conclusion, that adoption into law of the proposals, by any state legislature, would set dentistry back fifty years and bring about immeasurable harm to the public we serve.

Thomas W. Evans
His Life and Influence on the Development of Dentistry as a Learned Profession

The First Thomas W. Evans Lecture

MALCOLM WALLACE CARR, D.D.S., F.D.S.R.C.S.(Eng.)

We assemble at this International Franco-American Congress to present the closing events of the year long Centennial Celebration of the founding of the School of Dental Medicine of the University of Pennsylvania, and, to commemorate Thomas W. Evans in recognition of his attainments as a dentist, his significant contributions to advancement of the art and science of dentistry as an agency of health service, and, his abiding faith in the future of dentistry as a learned profession.

The Thomas W. Evans Lecture was instituted by the Dean of the Faculty of the School of Dental Medicine of the University of Pennsylvania, to be delivered as an annual discourse on a subject related to the art or science of dentistry, and in tribute to the life and services of Doctor Evans.

Celebrations are traditionally joyous festive occasions observing the anniversary of a certain event, or of events, considered worthy of remembrance. Thus, through the magic of numbers, a year, a lustrum, a decade or a century, serve as a remembering time, a time of reflection, occasioning the ritual of inspection, analysis, and evaluation of past events and the effect of past events on the future course of history, and, perhaps also consideration of what remains of a man once thought great.

Plato's theory was that all learning is remembering.

Delivered at the International Franco-American Congress, Paris, France, in the Grand Amphitheatre of the Sorbonne, University of Paris, June 22, 1978.

Such a philosophical exercise becomes an intellectual stimulation which affords opportunity to realize the true value of past events, and the achievements of the great men of the past for the ultimate benefit of mankind.

"It is therefore pleasant as well as profitable to turn, on fit occasions, to the study of the past, to the origin of our art, to the principles and the necessities that called it into being, to the struggles of our ancestry. We are thereby better able to understand our own position, to know how far we have advanced, to whom we owe our progress, the labor still before us, and, the place we ourselves are likely to occupy in the estimation of those who are to follow us." (John Watson)

It is singular and befitting that this event, which honors Doctor Evans, be held in Paris, the city where he first came as a young American dentist and remained for fifty years in the practice of dentistry, until his death. It was here where he established one of the most extraordinary reputations of attainment of the era. It may well be considered also that this Congress is an expression of the enduring alliance of friendship that exists between America and France which was forged two hundred years ago by Benjamin Franklin, another gentleman from Philadelphia and the founder of the University of Pennsylvania.

When contemplating in retrospect the life and work of a man, consideration of the related unadorned facts appears to be a convenient point of departure.

An assessment of the extraordinary life and work of Thomas W. Evans portrays a life fundamentally dedicated to the advancement of dentistry as a learned profession, which he so well exemplified by his cultural and intellectual attainments. Any assessment portrays also a life remarkable for widely diversified activities and interests in research, writing and publication, in military medicine and hygiene, in international diplomacy, in philanthropic and humanitarian services, and as a patron of the arts and literature.

Others have written extensively, and without doubt will continue to write of Doctor Evans' extraordinary career, of his accomplishments, and of his talents. He found a unique and enduring place for himself which gave him opportunity for the exercise and development of his manifold natural abilities.

Thomas W. Evans was born in Philadelphia, Pennsylvania, December 23, 1823, a descendant of a family of Welsh Quakers. He received a common school education and, at the age of fourteen, became an apprentice to a gold and silver-smith in Philadelphia whose business included also the manufacture of instruments used by dentists. This employment brought young Evans into contact with

THOMAS W. EVANS
1823-1897

leading dentists of that period and created his desire to enter the profession of dentistry.

In that era a person desiring to study dentistry was required only to serve an apprenticeship of two years with an established practitioner and upon certification by the dentist that the student was proficient in dentistry was permitted to practice. In 1841, Evans became an apprentice-student in the office of Doctor John DeHaven White, remained two years, and acquired the certification of proficiency and the right to practice.

He also attended lectures at the Jefferson Medical College in Philadelphia during the college years of 1844-45, where his knowledge of surgery was certified. In later years, however, Doctor Evans was awarded an honorary degree of Doctor of Dental Surgery from the Baltimore College of Dental Surgery (1850) and from the Philadelphia College of Dental Surgery (1853); an honorary degree of Doctor of Medicine from Washington University in Baltimore (1853); and an honorary degree of Doctor of Philosophy by Lafayette College.

Doctor Evans practiced a short time in Baltimore, Maryland, and later in Lancaster, Pennsylvania where he established a reputation as an expert in the use of gold as a filling material in teeth. He presented a demonstration of his new technic at the annual exhibition of the Franklin Insitutute in Philadelphia and was awarded "First Premium" recognition for the merit of his work.

Doctor John Y. Clark, a retired Philadelphia physician living in Paris, then home on a visit, was much impressed with Doctor Evans' demonstration and after several interviews it was arranged that Doctor Evans (then recently married) and Mrs. Evans accompany him when he returned to Paris, Doctor Clark promising to use his influence so that young Evans would experience no difficulty in becoming established.

Doctor Evans arrived in Paris, twenty four years of age, November 1847, and became associated with Doctor C. Starr Brewster, an American Dentist practicing there. Three years later he established an office for himself located at 15 rue de la Paix and entered upon a professional career which was to continue for fifty years.

His arrival in Paris coincided with the end of the period of the Restoration and the inaugration of the Second Republic (1848-52) with Louis Napoléon, nephew of Napoléon I (Bonaparte), as Prince-President. The Second Empire (1852-70) was soon to follow when Louis Napoléon was crowned Emperor Napoléon III.

Doctor Evans' initial introduction to the Prince-President of the Second Republic came in 1849, when the Prince sent a message to Doctor Brewster that he desired him to come to the Elysée Palace as he

had need for his services. Doctor Brewster, being ill at the time recommended that Doctor Evans, who was then associated with him make the professional call in his stead. Doctor Evans describes that important day in the following words: "He received me most kindly without the least intimation that he had expected to see someone else, so that I soon felt entirely at my ease. I found that a slight operation was necessary, which, when made, gave him great relief. On my leaving, the Prince thanked me most cordially, commending me for having great 'gentleness' of my manner of operating and expressed the wish to see me the next day. I saw him again professionally and from that time to the day of his death, I visited him often, for the relations between us were now not entirely professional having soon become friendly and even confidential." Thus, the ties of an enduring friendship were woven.

When the Prince became Emperor Napoléon III of the Second Empire in 1852, he officially appointed his friend, Doctor Evans, Surgeon-Dentist to the Imperial Court, with equal status as the Physicians of the Court.

Although the contrast was great from the simple life of his childhood in middle class rural Philadelphia and the rigid religous doctrine of the Quaker faith, he adapted readily to the sophisticated etiquette of the Imperial French Court, the formal receptions, the ceremony of the Court and the wealthy international social milieu.

He was always correctly dressed and well groomed with special attention to his thick hair and sideburns. He was popular with the regular frequenters of the Court and was often referred to as the "American Dentist" and "Handsom Tom", distinctions which he thoroughly enjoyed because he never forgot that he was first an American and always proud to be a dentist. He rapidly became one of the most influential and respected men of the era and soon established a world-wide reputation.

Doctor Evans' appointment to the Imperial Court of France and the social prestige thereby gained, offered rare opportunities. Soon he was to receive the appointment of "Surgeon Dentist" to most of the Courts of Europe where on many occasions he was frequently a welcome guest.

The friendship with Napoléon III established earlier continued to strengthen and Doctor Evans became a close and trusted confidant of both the Emperor and the Emperess Eugénie.

This relationship with the Imperial Court was the endure until the Franco-Prussian war, when at Sedan, the defeat of the Army of Napoléon III, and the Emperor a prisoner, brought about the fall of the Second Empire (1870). News of the disaster soon reached Paris. Mobs

were driven to a frenzy of rebellion, the Senate was dissovled, and the city was in the hands of the revolutionists, who gathered in front of the Tuileries with shouts of "a bas l' Empire" and "Vive la Republique".

The Empress Eugénie at home in the Palace, quickly realized her life was in danger by the mob already pushing against the gates. She fled from the Palace and escaped by a public cab accompanied by her friend Madame Lebreton who suggested they go to the American Embassy. the Empress replied, "No we will go to the home of Doctor Evans, he is an American and the one friend I can completely trust. I am sure he will not hesitate to render us every assistance we may require."

The Empress explained later to Doctor Evans she had been compelled to leave the Tuileries without warning, without luggage and with only the clothing with which she was attired, and came to him with the lady who accompanied her for protection and assistance with full confidence of his devotion to the Emperor and to her family.

With no hesitation, Doctor Evans quickly made arrangements for the Empress and Madame Lebreton, whom he and his physician friend Doctor Crane would accompany, to leave by his carriage at daylight the next morning for Deauville where Mrs. Evans was staying, and from Deauville arrange a boat to take them across the Channel to England. The party arrived at Deauville in the afternoon of the following day, scarcely sleeping or eating the whole way. A boat was secured, the party went aboard at midnight, sailed early the next morning, and arrived later in the day at Hastings. This accomplished, Doctor Evans journeyed to Wilhelmshöhe, Germany to report to the captive Napoléon that the Empress was safe.

There are few more dramatic events in history than the escape of the Empress Eugénie from the Tuileries, her instinctive turning in the hour of her greatest need to Doctor Evans as the one friend whom she could completely trust, and then, the hazardous trip by carriage from Paris to Deauville using a relay of both drivers and horses, passing successfully through frenzied mobs and guarded barricades, using both deception and bribery with masterly adroitness to shield the Empress from recognition, all of which Doctor Evans had meticulously planned and successfully executed.

During the Civil War in America, Doctor Evans, already highly esteemed by the Emperor, was sent as his personal emissary on a confidential diplomatic mission to Washington to determine the probable outcome of the war, because the Emperor was being urged to join England in recognizing the Confederacy. Doctor Evans conferred directly with President Lincoln, General Grant and other officials of the government and the army. He then personally toured the battle-

fields, where he received every indication and confidence that the war would soon end in final victory for the Union Army. He returned to Paris and informed the Emperor that the end of the war was not far away with victory expected for the North. Doctor Evans said later he often heard the Emperor mention that he was well pleased with the service he had performed and more than satisfied that he had not acted precipitately during the early days of the war as he felt that the friendship with America was most important to France.

Notwithstanding Doctor Evans' responsibilities to the Imperial French Court, and the other Courts of Europe, and his preoccupation with the various affairs of Court, he devoted assidious attention to his practice. His exceptional skill, his extraordinary physicial energy and his charm of manner brought him unparalleled success in his profession, which had profound influence upon the social status of the dentist and to some extent upon the future course of the dental profession.

Doctor Evans was keenly interested in scientific investigation and by experimentation developed an amalagam consisting of a compound of pure tin, cadmium and mercury to be employed as a "soft filling material". However, when the compound was rejected by the profession, Evans, with professional honesty and ethical conduct, withdrew support of his amalagam and demanded its discontinuance.

He successfully developed vulcanized rubber as a base plate material, conducted early experiments with "a contrivance in the shape of an articulator" and developed a treatment procedure for "regulating teeth" for which he was highly complimented. He introduced and successfully demonstrated to the medical and dental profession of Europe the use of nitrous oxide as a general anesthetic. He had an investigative interest in pathology and preserved many pathologic specimens.

His technical skill and resourcefulness was especially demonstrated when he was called in consultation by the physician of Crown Prince Frederick, heir to the throne of Germany who was suffering from "cancer of the throat" and breathing had become difficult. Doctor Evans fashioned a tracheotomy cannula which he made from French silver coins. When the cannula was inserted it gave the patient immediate relief and without doubt prolonged his life.

Doctor Evans' many contributions to the literature defines his widely diversified interests and activities. He contributed frequently to *The Dental News Letter, The Dental Cosmos, The American Journal of Dental Science,* in the United States, and to *The Lancet* in England. He made known American methods of technology and translated either

from English into French or from French to English monographs of scientific interest to both the dental and medical professions.

He was a pioneer in the humanitarian effort to care for the sick and the wounded as the result of combat in war. He visited the battlefields of Europe especially during the Crimean War (1854-56). His recommendations resulted in a reorganization of military field hospitals and the medical service of the French Army.

During his visit to America at the time of the Civil War, when he made trips of inspection to the battlefields he was deeply impressed with the conditions he observed concerning the need for proper care and treatment of the wounded. In 1868, he published *A History and Description of an Ambulance Wagon, Constructed in Accordance with Plan by the Author.* In 1873, he published *A History of the American Ambulance Established in Paris During the Siege of 1870-71, together with the Details of its Methods and its Work* and a voluminous *Report on Instruments and Apparatus of Medicine, Surgery and Hygiene; Surgical Dentistry, and the Materials which it Employs; Anatomical preparations; Ambulance Tents and Carriages, and, the Military Sanitary Institutions in Europe.* He published in 1884, a book entitled *The Fall of the Second Empire.* He established the first American newspaper in Paris, *The American Register,* which continued for more than thirty years. The files of the *Register* were particularly valuable in illuminating the activities and interests of the growing American colony.

His literary efforts include also a lengthy introduction to the *Memoirs of Heinrich Heine* the German poet.

Doctor Evans' substantial wealth derived not only from the unparalleled success of his private practice but was greatly enhanced by his investments in real estate. During the period of his confidential freindship with Napoléon III, he was acquainted with the Emperor's plan to beautify Paris by extending certain Avenues into broad and beautiful boulevards, and creating new parks, and indeed, was advised of the opportunity to acquire property at this early stage of planning. Doctor Evans purchased undeveloped property in the neighborhood where the new boulevards were to be developed, profitably disposing of them upon completion.

Doctor Evans retained property on the now called Avenue Foch, where he built a mansion of exquisite proportions as beautiful as any palace of its size in Europe, which became the social center of Paris.

Doctor Evans' philanthropies were numerous and varied. He contributed to many charities, he freely supported the Lafayette Home for Girls, and with Mrs. Evans helped many American girls secure a

home and employment in Paris. He was greatly interested in education at all levels and in the advancement of teaching. He was personally responsible for the early training of teenage boys and arranged for the education of his nephews and for adopted children.

Doctor Evans often spoke of education and particularly of the need to reconsider the philosophy of dental education in order that dentistry may become one of the learned professions. He spoke of raising the standards and quality of dental education in the training of the dental student and of advancement in the art of teaching by a better trained faculty who would inspire the youth in the performance of his chosen profession. He was aware of the value of training in the basic sciences related to both practice and research, and of the advantage of the humanities and cultural training as one of the requisites of a learned profession. He was cognizant of the importance of environment and of the need for modern buildings as a stimulant to learning, and of the need for special laboratory and clinic facilities for the training of the student. He stressed the value of excellence. Although he gave no intimation at the time of how this was to be achieved, he mentioned only that it was his desire to have his fortune contribute to the advancement of his profession. The standards by which he lived and succeeded perhaps are best portrayed by excerpts in his own words included in various personal correspondence to his parents:

"With a firm determination to accomplish certain things I determined at an early age to make a high reputation, to gain celebrity, position and fortune not from any selfish motive or personal aggrandizement further than is justifiable, my desire has been to build up a name and family. I may say to found a dynasty, that I should be no less proud of than Napoléon was of his, because mine should be, as his was, founded upon industry, activity and having for its object to benefit mankind."

"I have in all things since my childhood followed my own best judgement with a determination of doing what is right".

"If I was a bootblack I would try to excel in it, try to do it better than others around me and I would succeed in consequence. I have worked as no man has worked for the past twelve years. I have lived feeling that every minute is precious, that something is to be accomplished."

Thomas W. Evans died at his home in Paris the night of November 14, 1897 following an attack of angina pectoris. He was 74 years of age and survived the death of his wife by only a month.

Doctor Evans was the first American dentist to achieve an international reputation; he also was one of the first of his countrymen

to wear the Cross of the Legion of Honor. At the time of the presentation, the Emperor opened a small case, removed the famous decoration and pinned it upon him saying "We want you to go home a Knight", and he added, "I hope your friends in America will understand how much you are appreciated by us".

In addition to the Legion of Honor, Doctor Evans had conferred upon him fifty six decorations of orders and honors by various monarchs in Europe.

The belief about Thomas W. Evans is that, born without 'advantages' but with high intelligence and great dexterity of hands, by application and hard endeavour, and, with charm of manner and a deep sense of compassion, he made himself into the man who in his person embodied both virtue and wisdom.

The provision of Doctor Evans' will relating to his desire to have his fortune contribute to the advancement of his "beloved" profession were, "to devise and bequeath all the rest, residue and remainder of my estate—unto the Thomas W. Evans Museum and Institute Society", a corporation to receive and transfer property.

The duties resting upon the trustees of the corporation were specific, "to use the property situated at the corner of Spruce and Fortieth Streets in Philadelphia where is the property where my dear father and mother lived and died and where I myself was much a boy."

"Said corporation shall erect sufficient and suitable buildings fireproof and burglar proof of artisitic and refined beauty to be called, "The Thomas W. Evans Museum and Dental Institute."

"As to the Dental Institute, I desire it to be conducted in a way similar *in regine* as such institutions of learning are conducted. . .and not inferior to any already established."

The property designated in the will of Doctor Evans was situated near the western boundary of the University of Pennsylvania and is now within the campus of the University.

THE SCHOOL OF DENTAL MEDICINE UNIVERSITY OF PENNSYLVANIA

The School of Dental Medicine of the University of Pennsylvania, celebrating this year its Centennial, was founded in 1878, as the Dental Department of the Medical Department of the University of Pennsylvania, with a faculty of six professorships in the disciplines of Anatomy, Physiology, Chemistry, Materia Medica Pharmacy and Therapeutics, and, Mechanical Dentistry and Metallurgy, Operative Dentistry, Dental Histology and Dental Pathology, all professorships

holding the same chairs with equal status in the Medical Department. This alliance of dentistry with medicine in the training of the dental student was the foundation of recognizing dentistry as the full service equivalent of an oral specialty of medicine in the interest of public health although dentistry would continue as a separately organized and autonomous profession. Furthermore, the affiliation of dentistry within the University system of education, together in later years with the increasing requirements for preprofessional education in the liberal arts influenced greatly the recognition of dentistry as one of the learned professions.

The Dental School of the University of Pennsylvania has occupied four buildings during its one hundred year history. The first year of its existence it occupied rooms in the basement of Medical Hall (later called Logan Hall). At the beginning of the second regular session, the school moved to another building known as the Hare Laboratory, which afforded improved space. The third building was built especially for the Dental School and later occupied by the School of Fine Arts.

The corner stone of the present building was laid in 1913, completed in less than three years and officially dedicated February 22, 1915 as the "Thomas W. Evans Museum Dental Institute School of Dentistry University of Pennsylvania", in honor and in memory of the man who desired his fortune to be used for the advancement of dental education in his native land. The building that Doctor Evans had envisioned and provided for in his will, was constructed in accord with his specific wishes. The beauty of the building derived from the Tudor influence of Collegiate Gothic architecture and in keeping with other buildings on the campus. The great library on the second floor reaching to the top of the third story with its large Gothic windows, the lecture halls, the main operating clinic and the laboratories were unsurpassed in any building of its kind in the world.

The Evans Museum occupied the east wing of the building on the ground floor and provided a spacious area for the extraordinary collection of paintings and bronze and marble statues, notably those of Lafayette, the Emperor Napoléon III, the Emperess Eugénie, and the Prince Imperial. A unique possession of the Museum was the extensive collection of Bibles, in all languages of all ages. The many personal mementos represented eloquent testimony to the esteem with which he was held by the royal families of Europe. The collection included his decorations and gifts and pictures from the Grand Duke of Russia, King Edward of England, members of the royal houses of France and Holland, Empress Augusta of Germany, Crown Prince Frederick and the Emperor of Japan. One show case exhibited his court uniform and sword. Perhaps the most singular possession of the museum which

attracted special attention was Doctor Evans' carriage used on the historic event to drive the Empress from Paris to Deauville. The press and the profession hailed the event of the dedication of the building as the "greatest in dental histroy."

Great as the advantages thus gained by this magnificent new building, the personnel of the faculty is by far the most essential part of any educational institution. With this conviction, the dean of the faculty, Doctor Edward Cameron Kirk did not rest until he had added to the faculty, Doctor Hopewell-Smith, Doctor Gildersleeve and Doctor Prinz. Thereby an already exceptional staff of teachers was further enriched by these three gifted professors who were acknowledged leaders in dental histology and dental pathology, in bacteriology, and in dental Materia Medica and therapeutics. The Evans Institute soon became a world famous institution.

FUTURE OF DENTAL EDUCATION IN THE UNITED STATES

The remainder of this century will no doubt see many innovations in dental education in the United States. There is a strong indication that very few new dental schools will be started, since the present evidence suggests that more than enough dentists are being trained, but the maldistribution problem of health professionals continues. Dental education will continue tc prepare the graduate in the years ahead who will be more dependent on auxiliaries than his or her predecessor. The development of the team approach, with a dentist, dental assistants and dental hygienists working together will also accompany the increase in group practices which will involve more than one dentist, or possibly general dentists and specialists practicing together. In addition to the proliferation of group practices, we can expect auxiliaries to continue to perform procedures now being carried out by dentists. As a result of the introduction of additional skills into the dental hygiene curriculum the profession can expect to have the dental hygienist treating more of the periodontal problems that afflict our society.

As the mode of dental practice continues to change so will the curriculum of many dental schools in the United States. Doctor D. Walter Cohen, Dean of the School of Dental Medicine of the University of Pennsylvania, has envisioned a change in the philosophy of dental education to meet the needs of the future and has already planned to have the faculty assume the responsibility for patient care so that the clinical experiences of the dental student will involve treating patients

in collaboration with members of the faculty. In this way, a master clinician will be able to demonstrate to the neophyte, and thus the preceptorial method of clinical education will become more evident in dental education. The grouping of students from the first through the fourth year into a clinical setting, working closely with general practice residents and faculty, should provide a continuum of patient care.

The exemplary talents of the various clinical teachers will be closely observed by all students and should contribute to the synthesis of a highly competent general dentist who can meet the oral health needs of society. The increasing tendency to initiate departments of oral biology in dental schools should not only strengthen the correlation of the clinical and the basic sciences in oral health areas but should also promote more interdisciplinary research activities. One looks to more clinical research projects being conducted within university laboratories, with the leadership in dental medicine being assumed by the profession rather than by external influence. Fundamental research programs should elucidate some of the underlying mechanisms involved in dental caries and periodontal diseases. A strong biologic foundation is essential in the training of the general practioner of the future.

The preclinical training of the dental student is currently undergoing marked improvement. The student is learning to perform these procedures in an environment that is almost identical to the actual real-life situation. Working in a sit-down manner with auxiliaries serving as chair-side assistants, a student performs these procedures on a phantom head which will be replaced in the future by a live subject. In this way the current gap that exists between the preclinical and the clinical settings will be decreased.

One may expect a much closer interaction between the pre-dental faculty and curriculum with dental school faculty. These interactions may see certain basic science courses now presented in dental school offered as part of the predental curriculum. Educational experiments of this type may also result in the reduction of the total education time from eight to seven years allowing an eighth year for a general practice residency for each dental graduate. A core pre-health education curriculum will no doubt be developed at several universities which should make the sharp definitions between the pre-dental program and the dental school less well defined.

The next two decades offer great opportunities for the advancement of dental education, and for the discipline of dental medicine as a learned science.

It is not in the nature of things for any one man to make a sudden violent discovery. Science goes step by step and every man depends on the work of his predecessors, to know what others have known, to have the capacity of mastering the work of others and building upon it.

We have a heritage of knowlege from our predecessors and have developed not a new science, but a new vision of an old science which will continue to undergo change for improvement. We must be ever alert however, to intrusion of external influence that would in any way endanger the high principles of science of a learned profession.

The future clearly lies in the pursuit of knowledge in an educational system of advanced special learning that will provide a faculty of scholarly teachers of high principles who will inspire others to continue in the tradition of the past but with vision of future accomplishment.

Socrates summarized, "that the moral of the whole thing is this, that we should do all we can to partake of virtue and wisdom in this life."

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Dr. Malcolm W. Carr of New York City, the author of this paper is a prominent oral surgeon, author, teacher and lecturer. A graduate of the University of Pennsylvania, he practiced his speciality for nearly half a century, until retirement in 1970. He has received numerous honors and awards, and is a past president of the American College of Dentists.

The teaching of communication skills in schools of dentistry has developed rather rapidly during the past few years. Numerous courses have been presented with varied criteria used in the assessment of outcomes. This has made comparisons across courses very difficult, if not impossible. Additionally, follow-up evaluation of skills in the clinic environment has been lacking. This paper describes the development and use of rating scales in evaluating communication skills. An appropriate model for evaluation is suggested including pre, post and follow-up assessment of the students' communication skills. It is concluded that rating scales in the hands of trained practitioners is a reliable and valid method for evaluating interpersonal functioning.

Development and Use of Rating Scales in Assessing Communication

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The importance of communication skills to the practicing dentist has long been recognized. More recently, dental schools have begun to present courses designed to train dental students to communicate more effectively. In some cases, the success of a course has been judged on a self related attitudinal dimension consisting of "favorable student responses."[1] In other instances, course success has been based on the evaluations of judges concerning qualities of nondirectiveness, empathy, warmth, and acceptance.[2,3] Various courses have used different approaches to measure success, thus, relative comparisons of program effectiveness has been impossible. A set of objective, reliable, and valid criteria would facilitate such comparisons. In addition, by permitting more objective measurement of a student's progress toward achieving acceptable levels of communication, these criteria should improve the effectiveness of the training by providing the student concrete goals for which to strive.

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Preliminary assessment of discrimination and communication skills of entering freshman dental students reveal that the average functioning on both dimensions is less than the minimal levels needed.[3,4] Other research has shown that dental students become less patient-centered as they move through the dental curriculum.[5] Therefore, instruments are needed to assess these skills early in dental training for instructional planning. In addition, post-testing to determine instructional effectiveness and follow-up testing to determine the maintenance of the skills is crucial for education of the dentist.

The purpose of this article is to discuss the potential uses of rating scales in assessing communication skills, increase the awareness of assessment techniques among dental faculty, and demonstrate how the professional with training might develop an appropriate evaluation system.

DEFINITION

The two major skills needed by dentists in interpersonal functioning are discrimination and communication. Carkhuff[6] has defined discrimination as the ability to see the various components of a problem or situation, and to have insight and an accurate perception of the situation. Gazda[7] defines discrimination as the act of perceiving. The discrimination scale developed by Carkhuff[6] and further refined by Gazda[7] measures the ability of the student to discriminate those responses that are helpful to the patient from those responses that may be harmful. In discrimination training, the student is exposed to a variety of dentist-patient interactions, either written or audio/video taped, and taught the skill of identifying responses that are helpful and harmful to the patient.

Communication is defined by Carkhuff[6] as the ability to act in a facilitative helping way in social situations, thereby, verbally and non-verbally indicating to the other person that you perceive the pain, distress, or happiness that they are experiencing. Discrimination is a passive act which requires differentiating responses; communication requires an overt verbal or non-verbal response which shows the patient you are attempting to understand. Instruments and rating scales have been developed to assess these two dimensions of interpersonal functioning.[6,7,8] These scales can be administered by written instruments or audio/video tapes to determine the level of interpersonal responding in a pre-post and follow-up design. Written instruments are appropriate for assessing certain communication

sub-skills, such as empathy and respect, but have limitations in assessing the non-verbal aspects of communication, such as warmth.

RATING SCALES

Kerlinger[9] defines a rating scale as a psychologically meaningful instrument that requires the rater or observer to assign the rated object to categories on a numbered continuum. Due to their ease of construction and administration, rating scales should be used with some degree of caution. For example, Kerlinger[9] and Thorndike and Hagen[10] point to a lack of validity due to the many biases that may influence the ratings. These biases include a lack of opportunity to observe the person rated, covertness of the trait being rated, and ambiguity of meaning of dimensions being rated.[10] These factors may result in: (1) generosity error, or a tendency to assign high rations to most traits, (2) halo error, or rating in terms of overall general impressions without differentiating specific aspects, or (3) error of severity where sme individuals have the tendency to rate all individuals too low on all characteristics.[9]

Although the above are potential disadvantages of the use of rating scales in assessing communication, Guilford[11] has summarized their value for research and training. Rating scales (1) require less time than other methods, (2) are interesting and easy for observers to use, (3) have a wide range of application and (4) can be used to assess a variety of characteristics.

RELIABILITY OF COMMUNICATION SCALES

The reliability of rating scales has been summarized by Symonds.[12] He concluded that the reliability coefficients of ratings given by two independent raters for conventional type rating scales is approximately .55. However, reliability coefficients of raters utilizing the scales developed by Carkhuff and Gazda have been moderately high, .70 to .95.[7,8] It appears that the higher reliability coefficients of these scales resulted from the precise definitions given to each scale point. Each point is anchored by descriptions of the behaviors expected of the student in order to receive a given scale rating. Therefore, some of the general weaknesses of rating scales, such as covertness of trait being measured, ambiguity, and lack of observation have been addressed in the use of the rating scales[6] being discussed.

VALIDITY OF COMMUNICATION SCALES

Considering all the potential weaknesses of rating scales, the validity of such instruments may be questioned. In fact, with many rating scales there are no criteria on which to test the validity of the ratings. However, in the case of communication skills training, ratings have been validated with such criteria as depth of patient exploration,[13] gain in achievement,[14] physical and intellectual functioning of students,[15] verbal conditioning,[16] length of encounter with the patient,[17] and the patient's perception of the dentist's sensitivity and altruism.[3] Therefore, research in other areas and more recently evidence in dentistry[3] supports the validity of the rating scales in measuring the constructs used in communication skills training.

RATING SCALES IN ASSESSING DISCRIMINATION AND COMMUNICATION

The rating scales applied in communication skills training use a four point continuum.[7] These scales measure the overall general level of psychological functioning and helping capabilities of respondents. In addition, sub-scales have been developed for assessing the individual qualities of empathy, respect, warmth, and concreteness. These qualities have been judged to be important attributes of the general skills of discrimination and communication.[6,7] For rating purposes, the Gazda scales designate level 3 as a minimally adequate level of effective functioning for the trained professional.

When the rating scales are used for rating competency in interpersonal functioning, each point on the scale is described in detail for each skill, e.g., empathy, respect, warmth, and concreteness,[6,7] Thus, the trained professional who becomes familiar with the criteria for each scale knows clearly what it means for someone to be functioning at 1.0 level or a 4.0 level on the empathy scale. Gazda[7] also has described a global scale that can be utilized in assessing overall interpersonal functioning. As each skill is taught, the other sub-scales can be used separately.

An example of an overall rating scale used by the authors is presented below. This scale varies from 1-4 with one being the lowest rating assigned to a response and four being the highest rating. In addition, the rater may desire to split the middle and assign ratings of 1.5, 2.5, etc. based upon definitions at each level. Basically, this scale is used to measure the skills of empathy, respect and warmth. Gazda's

Global scale[7] was used as a model for developing this one, although several modifications were made.

1.0	2.0	3.0	4.0
Ignore feelings. Inaccurate discrimination of content. Shows disrespect. Non-verbal attending lacking.	Attempts to understand. Partial feeling discrimination. Prescribes. Advice giving. Avoidance of involvement. Few non-verbal behaviors.	Feeling and content discriminated accurately and reflected. Patient freedom. Involved. Most non-verbal behaviors present.	Underlying feelings discriminated and communicated accurately. More than a reflection. Actually involved. All non-verbal behavior present. Direction indicated.

When rating the responses of a student to a patient statement, the responses are assigned a number from 1-4. The following is an example of a patient statement, followed by four responses which vary in levels of helpfulness. These are rated by the global scale described above.

Patient to dentist: "I've been afraid of coming to see the dentist for years. It really goes back to my childhood experiences. I had a difficult time getting used to those injections."

Possible dentist responses:

"Why should that bother you?" Everyone has to see the dentist sometime—when they get a toothache."

Discussion: This is a very poor response and would be rated a 1.0 on the scale because it ignores the patient's feelings and concerns and actually belittles the patient.

"You have been here before and it didn't seem to bother you that much. Just relax and it won't hurt."

Discussion: This again is an inadequate response and would receive a rating of 2.0 because it gives premature advice and fails to accurately discriminate the feelings of the patient.

"It's scary coming to see me for treatment and especially so if there's an injection involved."

Discussion: This is a minimally helpful statement and would be rated as 3.0. It discriminates the feelings of the patient correctly and is accurate in meaning and content.

"It's frightening coming to see me for treatment because of some earlier experiences and getting accustomed to the injections. They do feel unpleasant initially, perhaps this brings back some memories?"

Discussion: This response would be rated a 4.0, showing a high level of feeling discrimination and understanding. Also, the dentist is attempting to get the patient to explore his feelings in greater depth.

DEVELOPMENT OF INSTRUMENTS

The best procedure for developing stimulus statements for both the discrimination and communication instruments is by active observation and recording of patient and dentist interviews. In this way, the patients' problems and concerns can be observed and recorded verbatim. By recording several interviews, it is possible to identify verbal statements that cross several affective areas, for example, the fearful patient, angry-hostile patient, depressed patient, and the happy patient. Following categorization of statements according to the affective area, the best statements are then selected as stimuli to which the students may respond. If possible, two or more judges should select the final patient statements used in instrument construction.

For the discrimination instrument, four possible dentist responses are written to each patient statement, each one varying in level of helpfulness from 1-4. Again, a minimum of two judges, each previously trained in communication skills, should independently rate all responses and correlate their results to determine the reliability of the professional key that is to be used in scoring the students' ratings of the responses. An example of one item on a discrimination instrument would be as follows (correct rating appear in parenthesis):

Patient to dentist: "I hate to come in here. I always get upset over the pain. I sometimes think about turning around and going back home."

Possible dentist responses:

(2.0) 1. "It's hard to come here sometimes, isn't it?"

(1.0) 2. "As busy as I have been, I wish a few people would go home."

(4.0) 3. "You're sometimes frightened that I might hurt you in some way, so much so that it is causing you to have some thoughts about getting out of here?"

(3.0) 4. "Coming here causes you to feel concerned and uptight because I might hurt you in treatment. Going back home has entered your mind."

It is the student's task to assign ratings based on the global scale to each of these responses.

For both the discrimination and communication instruments, there should be approximately eight statements on each of the pre, post, and

follow-up instruments so that a variety of feeling expressions can be provided. Therefore, eight typical patient comments covering several affective areas are presented to the student during each evaluation phase. They may be presented to the students in either written or audio/video format. In either case, student responses are written down for evaluation. The pre, post, and follow-up instruments should be correlated for the different feeling discriminations required of the student. For example, if stimulus statement 1 on the pre-test is a patient frustrated over the services received, then post test stimulus statement 1 should also be a patient who is frustrated. This provides consistency in the discrimination required of the student from one test occasion to the next, thus, decreasing the variability of scores that may be related to the test stimuli themselves.

An example of a typical item found on a communication instrument follows:

> Child to dentist: "I was just wondering if you were going to give me a shot today, since you didn't during my last visit."
> Your response_____
> _____
> _____

The student's written response would then be rated 1 to 4 using the global scale.

USE OF PRE, POST, AND FOLLOW-UP TEST DATA

A complete assessment program might include a written pre-test on discrimination and communication, a video taped 5 minute interview with a patient to be rated on both a global communication scale, as well as the sub-scales of empathy, respect, warmth and concreteness. Following this assessment, instructional plans would be developed for all students taking into consideration the individual differences within the group. Following an instructional period, students would be post tested by the same procedures.

One might ask the question of why not use the written indicator alone? Antonuzzo and Kratochvil[18] have found a close relationship between discrimination and communication scores of verbal or recorded presentations, and the written expressions of patient responses. However, index scores for written responses were more depressed than the scores achieved using recorded responses. Carkhuff[6] has stated that indices of communication which approximate real-life experiences should be used where possible, thus providing the rater more data to use in making judgements. He

concludes, however, that for obtaining quick and reasonable indications with large groups, written forms may be used as an adequate indicator.

The initial or pre-assessment provides data for both the instructor and the student to use in course planning. For example, in a large group of students, some will achieve discrimination and communication scores that are near adequate, while others will require much time and effort to learn the skills that will enable them to bring their scores up to acceptable levels. This information will aid the instructor in establishing student groups for instructional purposes, as well as for planning the depth needed in presenting concepts and principles. Also, the pre-test information will demonstrate to the student the necessity for learning the skills and help identify specific needs and learning direction.

Post-test data will assess the effectiveness of the instructional unit in accomplishing learning objectives. These results may be compared with the pre-test to determine the overall growth of the group. Also, students will be able to compare pre and post test results, thus assessing their own accomplishments.

Approaching graduation, follow-up assessments could be obtained using the procedures previously described. This would permit an overall evaluation of the impact of dental education on the interpersonal functioning of the student. These data could be compared to the pre and post test results gathered during the formal training priod in order to identify areas in the curriculum, either didactic or clinical, needing reinforcement to prevent regression in the acquired communication skills. Lastly, assessment identifies and reinforces the skills being taught. Thereby increasing student learning.

SUMMARY

Although many dental schools are providing training in communication skills to students, multiple criteria are being utilized to assess course effectiveness. The need exists for a shared set of criteria to be used in evaluation. It appears that global rating scales used by trained instructors would be a reliable and valid method of evaluating outcomes. The instruments can be developed readily and interrater reliability established without difficulty. Previous research has established the validity of these instruments and correlated the skills that they measure with desired patient outcomes. In addition, the use of a pre, post, and follow-up design provides both the faculty and students information that can be used in setting goals, determining instructional procedures, and assessing progress.

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(Continued on page 140)

The tasks to be performed and the interactions which occur among the personnel in a dental office can influence the productivity of the dental practice. In this paper, several aspects of group behavior related to the tasks and interactions are examined in relation to productivity. It is suggested that delegation of duties, social activities among the office staff, and the working relationship between the dentist and staff personnel should be closely scrutinized by the dentist.

Implications of Group Behavior in the Dental Office

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For the practicing dentist, an increasing emphasis has been placed on the behavioral aspects of interacting with other people. One area which is relevant to the operation and management of a dental practice is small group behavior. For definitional purposes, a small group is usually defined as an organization of two or more people with a maximum size of 15 or 20. From this definition it is obvious that most dental practices are small groups. The purpose of this paper is to review several propositions concerning group behavior and show how they relate to the operation of a dental practice, provide examples of how to implement these concepts and discuss the consequent implications.

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FUNCTIONS FULFILLED BY GROUPS

Studies of group behavior by Etzioni[1], Thompson[2], Davis[3], Blau and Scott[4] have shown that most groups engage in both formal and informal activities or functions. The formal functions are the tasks assigned to the group and for which it is officially held responsible. In very general terms, providing the highest possible quality of patient care in the most efficient and productive manner would be the formal task in a dental practice. The informal activities are those not directly related to the accomplishment of the formal task, but which serve to satisfy individual needs. In a dental office, the informal activities would be related to the social activities which might occur among the staff. Individual group members have a variety of needs related to both formal and informal functions which can be partially or totally fulfilled by other members of the group. Schein[5] has stated that groups can provide:

1. A feeling of belongingness and a satisfaction of the need for affiliation.
   In a dental office, friendships among the office personnel may lead to the feeling that an individual is an integral and important component of a successful practice.
2. A means of developing a sense of identity and maintaining self-esteem.
   The role of a dental auxiliary may contribute to helping an individual achieve a feeling of who they are and their place in the community.
3. A means of establishing and testing reality.
   By developing consensus among group members, uncertain parts of the social and work environment can be made "real" and stable, as when several auxiliaries agree that the dentist is a slave-driver.
4. A means of increasing security and a sense of power in coping with a common and powerful enemy or threat.
   Through banding together, the auxiliaries in a dental office may off set some of the power which they feel the dentist has over them as individuals.
5. A means of getting some job done that needs to be done.
   Group members may collect needed information, help out when someone is sick or tired, or orient new members of the organization with regard to policies and procedures. It is obvious that the personnel in a dental office may fulfill these functions on a day-to-day basis.

The functions listed above are only a few of the many functions that can be fulfilled by being a member of a group. However, this brief discussion highlights the impact of group membership on the lives of the individuals who comprise any small group.

In addition to focusing on the consequences of group membership, several other aspects of group behavior are relevant to the activities in a dental office. The discussion which follows focuses on a series of propositions proposed by Collins and Guetzkow[6] which are applicable to the behaviors and activities which occur in small groups.

PROPOSITIONS ABOUT GROUP AND INDIVIDUAL PERFORMANCE

When several individuals work together to complete a task, their activities will overlap and/or make a division of labor possible.

This proposition summarizes one of the fundamental principles under-lying the employment of auxiliary personnel in a dental practice. The dentist can perform the same tasks as the auxiliaries, but greater productivity and efficiency can be achieved by a division of labor. In order to achieve efficiency, those tasks which an assistant can perform should be delegated even though the dentist may be able to perform them more quickly. When an assistant is being utilized, the dentist is freed to perform those tasks which an auxiliary is not qualified to do such as cutting cavity preparations. If the dentist ignores the principle of division of labor, the talents of the staff personnel may not be fully utilized.

The accuracy and quality of the final group product will be increased through the elimination of inferior individual contributions.

This proposition points out the necessity for quality control in a dental practice. The dentist is legally responsible for any work performed by auxiliary personnel. Therefore, he or she is responsible for the quality of work and it cannot be assumed that procedures carried out by assistants will be of superior quality. This proposition implies that quality will be improved in a group by having several people inspect the quality of the work performed, but the dentist is ultimately responsible for quality in a dental office. If a hygienist does not remove all calculus, the dentist should discover this when examining the patient and correct the situation.

When an individual works with other people, a variety of social motives arise which are not present when an individual works alone.

When an individual works alone the influence of social motives arising from interaction with other individuals is at a minimum, but the presence of other people increases the relevance of social motives. The relevance of this proposition is that the presence of other persons in a dental office creates new implications and expectations for each of the people who work in the office. If a new auxiliary is hired, the other personnel may expect their duties to change and another person must be integrated into the formal and informal groups. Adding a hygienist to a dental practice which has not previously employed a hygienist may result in additional duties for a dental assistant who is assigned to assist the hygienist.

The presence of other individuals will frequently increase individual productivity, although the effect may be temporary.

The assumption underlying this proposition is that high productivity will be socially rewarded. The dentist controls the social rewards in a dental practice and can make an effort to insure that assistants do receive social rewards. These rewards, which quite often are in the form of praise for a job well done or acknowledgement of accomplishments, will help satisfy the needs for and lead to a heightened sense of belongingness and self-esteem. If the dentist does not compliment the auxiliary personnel for achieving high levels of productivity, the level of output may decline because the auxiliaries perceive the dentist as not being appreciative of their efforts.

The presence of other individuals can constitute a distraction and result in lowered productivity.

This is most likely to occur when sustained attention to a task is necessary. The other individuals compete with the task to be performed for attention. In a dental office, the dentist must assume responsibility for keeping the assistants' attention focused on the tasks to be performed. In a social group in which friendships have developed, individuals may find it more enjoyable to participate in informal group activities than to perform their assigned tasks. The dentist should be alert to this happening and guide the activities of the assistants so that necessary tasks are completed. If a dental assistant continually interrupts the hygienist during a prophylaxis, the time needed to complete the procedure may be unnecessarily long due to the interruptions which may be unrelated to the task to be performed.

Group members working together may achieve more than the most superior members are capable of achieving working alone.

This proposition summarizes the factors involved in the previous propositions. The implication for the dentist is that no matter how fast or efficient he or she may be, more will be accomplished and productivity will be increased if duties which assistants are qualified to perform are delegated to them.

SUMMARY: GROUP AND INDIVIDUAL PERFORMANCE

Collins and Guetzkow postulated that three factors differentiate the productivity of group members versus an individual working alone: resources, social motivation and social influence.

A group will possess more resources, which, in a dental practice usually involves expertise in providing patient care, and therefore, should be able to provide higher quality and more efficient services than can be provided by the dentist working alone. The complexity of the task and the climate of interpersonal relationships existing in the group will determine whether these extra resources will inhibit productivity or result in an assembly effect bonus. An assembly effect occurs when the group working together is able to complete a task which could not have been accomplished by an individual working alone. In a dental practice, there are virtually no tasks which the dentist cannot complete by working alone. Division of labor, however, is usually possible in a dental office and this division makes possible the potentially greater use of resources in a dental practice. If the dentist under-utilizes the resources which can be provided by auxiliary personnel, the possible gains in productivity and efficiency will not be realized.

When an individual works with other people, new motivational implications arise for each group member. Many of the goals and rewards sought by an individual are attainable only when working with others. The auxiliaries in a dental office may hold expectations about the interactions which will occur among the group members. They may find these interactions quite enjoyable and look forward to continued contact with their fellow employees because it is socially rewarding. If the auxiliaries value productivity and efficiency, the other members of the group will reward this type of behavior thereby increasing productivity and efficiency. However, the presence of other people may constitute a distraction which interferes with the completion of the assigned tasks. The dentist should be alert to this happening and take steps to eliminate it if necessary.

Once a member of a group has learned something which can be of use to the rest of the group, other group members can benefit from these efforts. Several generalizations can be made about the way in which other group members may use the information acquired by one individual. A contribution is most likely to be accepted if it is supported by available evidence, understood by the other group members, and agrees with past experience. Group members are most likely to be influenced by a person with expertise related to the subject being considered. In most instances, the dentist would be expected to have expertise related to any problem which might occur in the office. The social influences which the dentist could exert based on superior knowledge should improve the quality and quantity of production achieved by the office staff.

PROPOSITIONS ABOUT GROUP PRODUCTIVITY, INTERPERSONAL RELATIONS AND THE TASK TO BE PERFORMED

The complexity of the task to be completed may inhibit the productivity of individual members.

It is usually the case that difficult tasks lower productivity, but the same may be true of relatively simple tasks. The reason for the first part of this statement is obvious, but the second part requires clarification. Whereas a difficult task may have a positive motivational effect because it holds the interest of the people involved, group members may have little motivation to complete a relatively simple task because they find it dull and boring. In a dental practice, seeing recall patients may become dull and repetitive, while performing more difficult procedures such as crown and bridge work is more demanding, but it may be more stimulating to the members of the group. What can the dentist do about the simple tasks? One solution may be to delegate these tasks to the least qualified individual capable of doing them. For example, an expanded duty dental assistant may find instructing patients in plaque control boring compared to the more demanding job of inserting an amalgam restoration, but presenting oral hygiene instructions may not be so uninteresting to a former patient who has benefitted from learning proper hygiene techniques and who has attained a high level of oral health as a result. Therefore, it may be advantageous to delegate the teaching of oral hygiene to a non-dental assistant rather than a highly trained dental assistant.

The behavior of other group members may inhibit individual productivity and assembly effect bonuses.

Many of the problems created by the presence of other people have no relationship to the job to be done. The primary cause of lower productivity may be the poor relationships which exist among group members. If the members of a group are antagonistic towards each other, much of individual's effort may be directed toward maintaining their own status while belittling the contributions of other people. In a dental office, conflict between a hygienist and a dental assistant may result in lower productivity; this decline is not related to task complexity, but to poor interpersonal relations among the staff. The dentist should always be alert to the development of conflicts among the auxiliary personnel and act quickly to solve the problem.

SUMMARY: PRODUCTIVITY, INTERPERSONAL RELATIONS AND THE NATURE OF THE TASK

The two preceeding propositions specify obstacles which limit the productivity of group members. These obstacles are related to the complexity of the task and the behavior of other group members. Very complex tasks, such as periodontal surgery, may result in lowered productivity because of the difficulty involved. Conversely, simple and repetitive tasks, such as instructing patients in proper oral hygiene techniques, may also result in lowered productivity because people lose interest in them. However, this problem may be circumvented by delegating simple tasks to the least qualified auxiliary thereby helping to sustain motivation. Lack of harmonious working relationships among the staff may be disruptive to the efficient operation of the dental office and the dentist should take measures to eliminate this type of atmosphere among the auxiliary personnel.

PROPOSITIONS ABOUT SOURCES OF POWER IN GROUPS

Direct control of the reward system is a source of power.

A reward is something which is valued by a person and increaes the probability of behavior after rewards are received. If a dentist rewards an auxiliary with a salary increase for outstanding performance, it is likely that this level of performance will be maintained. A person has power over another person or group of persons if the person can modify the behavior of the other person or group of persons. This proposition implies that someone who has control over the reward system will be able to influence the behavior of other group members.

It is obvious that in a dental office the dentist controls the formal reward system, that is, the awarding or withholding of salary increases; therefore, the dentist has power over the other individuals working in the office.

> *The greater the personal attraction of other group members to a single individual, the greater the power of that individual.*

This proposition states that if a member of a group is liked by other members of the group, he or she will have power over these people. In a dental office, the dentist will have power over the staff because he or she controls the formal reward system, but this power will be greater if in addition to controlling the formal reward system, the dentist is liked by the auxiliary personnel. If a person other than the dentist who works in the office is well liked by members of the staff, this person will have power over the group.

> *The greater the interpersonal attraction among the members of a group, the greater the power of the "group" over the individual members.*

This proposition implies that cohesive groups will have greater power over individual members of the group than will noncohesive groups. The greater power of cohesive groups is due to the fact that little diversity of opinion exists among the group members and that continued contact with liked persons is socially rewarding. The bonds that develop among group members make it difficult for one person to oppose the wishes and desires of the group. If group cohesiveness develops among the auxiliary personnel in a dental office, it will be more difficult for the dentist to exert power over this type of group than among individuals who have not developed strong group ties.

> *The use of punishment will be a source of power when the behavior which will result in punishment is clearly specified and when compliance can be observed.*

Even though one person can punish another person, this does not necessarily mean that the behavior of the other person will be influenced. If punishment is to be effective, a person must understand what can be done to avoid being punished. One means of specifying acceptable behavior in a dental practice is to prepare a manual of office procedures to be followed which clearly delineates between acceptable and nonacceptable behavior. The dentist is in a unique position to observe compliance with office policies and procedures

because he or she is in constant contact with the other people working in the office. For example, if a dental assistant is not following proper sterilization techniques, the dentist should tell the assistant how sterilization should be performed and then observe whether or not the assistant follows the instructions. If the assistant ignores the dentist's directive, more severe measures such as a reprimand may be necessary to change the assistant's behavior. The dentist should assume responsibility for modifying nonacceptable behavior since he or she is the employer and controls the formal reward-punishment system.

The use of punishment-based power may cause the person exercising this power to be disliked and will limit the effectiveness of power based on interpersonal attraction.

Several of the propositions in this section assert that interpersonal attraction or the good feelings which exist among a group is a source of power. This proposition suggests that punishment-based power will decrease the amount of power which exists on the basis of interpersonal attraction because people will not like the person who punishes them. The loss of interpersonal liking destroys this basis of power. It is implied that power cannot be exerted both on the basis of interpersonal attraction and the threat of punishment because they tend to be mutually exclusive. This proposition also implies that if the dentist wants to be liked by the other people who work in the office he or she will not exercise punishment-based power. The dentist cannot reprimand an assistant for violating office rules and expect to be liked by that person. However, in some situations it may not be possible to bring about compliance without employing the threat of punishment. If a harmonious relationship exists between the dentist and the office staff, the dentist will be able to exert power because the staff wil respond on the basis of friendship. Conversely, if an antagonistic relationship exists between the dentist and the office personnel, the threat of punishment may be the only effective means of exercising power. For this reason, it is important that the dentist accurately assess the relationship which exists between himself or herself and the auxiliary personnel.

Formal designation as a leader, supervisor, or boss will be a source of power.

The dentist is clearly the boss in the office and on this basis will have power. This fact may be obvious, but it should be remembered that the dentist may simply tell other members of the group how things will be done. The auxiliaries may object to this heavy-handed approach to

managing the office, but the dentist can exercise this kind of power. In order to enhance the status of a hygienist with the other office personnel and with patients, the dentist may formally designate this person as being responsible for the prevention program of the practice. This would tend to increase the power of the hygienist because he or she would clearly be expected to function as a leader in achieving the goals of the prevention program.

SUMMARY: SOURCES OF POWER IN GROUPS

The propositions in this section are all related to the concept of power which has been defined as the ability of an individual to change the behavior of another person or group of persons. Control of the reward system, interpersonal liking or feelings of friendliness, and the position a person occupies in the organizational structure are all sources of power. Rewards may be of two kinds: those associated with the job to be done (formal rewards) usually involve financial rewards in the form of a salary which is controlled by the dentist in a dental practice and those controlled by the group (social rewards) which are the result of a person's interaction with the other group members. Interpersonal liking is a source of power because a person has more power over other group members if they like the person. If a person occupies a position of formal authority, such as being the owner of a dental practice, this person has power by virtue of the position.

SUMMATION

The preceding discussion has focused on several aspects of group behavior which relate to the operation of a dental practice. It has been suggested that group membership can provide a sense of security for an individual and may lead to enhanced feelings of self-confidence and self-esteem. In addition, several propostions realted to group behavior were reviewed. It was hypothesized that:

1. A group of people working together may be able to accomplish more than could be accomplished by the individual members working alone; the productivity of a dental practice will be increased as the individuals work together to achieve a common goal.
2. The behavior of other individuals may lower group productivity if their behavior is disruptive; in a dental office, social activities among the staff may result in lowered productivity if the dentist permits these activities to interfere with providing patient care.

3. Postion in the group (e.g., boss, leader) and a friendly relationship with other group members is a source of power; the dentist will have maximum power if he or she is liked by the auxiliary personnel.

CONCLUSIONS

Dentists should: (1) delegate, if possible, to auxiliaries those tasks that can be accomplished by these individuals; (2) limit social activities among the staff so that these activities do not interfere with providing patient care; and (3) attempt to develop a friendly working relationship with the auxiliary personnel.

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Dental Auxiliaries and Dental Practice Acts—Some Potential Problems

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> Only a person licensed or otherwise authorized to practice under this article shall practice dentistry or use the title "dentist".[1]
>
> —New York State Dental Practice Act

On that proud day many years ago when we were graduated from dental school each of us probably thought that we were dentists. In reality, we were recipients of academic degrees which attested to our successful completion of the academic course of training leading to a Doctorate of Dental Surgery or Dental Medicine. We became eligible for all the rights and privileges (whatever they are?) listed on our imposing university diploma. But, in fact, we were not dentists! The title "dentist" is technically a legally defined status which requires the successful completion of a licensing examination after graduation from a qualified academic institution.

This seeming legalistic exercise in semantics is the governing force which ensures the protection of the public from the unqualified charlatan, and establishes and ensures the legal basis of the dental profession. The codifying of state dental practice acts and the establishment of examining boards during the latter half of the nineteenth century marked the end of the era of the itinerant tooth drawers and apprenticeship form of dental education. It marked the beginning of the professionalization of dentistry.

Once successfully past the burden of the state board examination, practitioners seldom again consider the dental practice act, except for

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those few who have run afoul of some particular provision. But suddenly, what was once a necessary measure to ensure the protection of the public and a benign guardian of the dental practitioner's sphere of influence, has become but another element which threatens to significantly alter (and, according to some, destroy) the future of the profession.

Modification of state practice acts, particularly permitting the delegation of increasing numbers of duties to various auxiliaries and the potential future legalization of denturists, has cast the spotlight upon the legislative acts that were once the concerns of a few board examiners and an occasional lawyer.

The bewildering changes in the practice acts and their ultimate effects upon the practice of dentistry, unfortunately, are all too often unknown or misunderstood by the dentist. For example, in a national study on the awareness of expanded duty dental practice acts by dentists, large numbers (in some categories, more than a majority of respondents) of state association officers and individual practitioners were unaware of the type and proper extent of duties that could be delegated to dental hygienists and dental assistants.[2] (see Table I)

The confusion regarding the provisions of the state dental practice acts is not only the result of the many new provisions introduced, but may well be the effect of the ambiguity of terminology and mechanisms used in the practice acts to characterize and assign functions to auxiliary personnel. In general, the methods used to assign functions may be divided into either *open provision* or *listing techniques.*

In the open provision orientation, there is a broad and flexible definition of the scope of allowed auxiliary tasks. The dentist can delegate any functions within the competence of the auxiliaries, limited only the prohibitions specified in a list or by general restriction against delegating tasks which require "the knowledge and skill of the dentist."[3]

TABLE I. Percent of state dental association presidents and secretaries from 21 states and individual practitioners from Pennsylvania and New Jersey who were aware of their respective dental practice act provisions for delegation of duties by dental hygienists and dental assistant categories. [Adapted from Hiltunen and Castano[2]]

	Dental Association Officers	Individual Practitioners	
		Pennsylvania	New Jersey
Dental Hygienists	78.5%	45%	45%
Dental Assistants	86%	49%	68%

For example, under the Pennsylvania State Dental Law, the duties of a dental assistant are defined by the state board in relation to the procedures allocated by law to the dental hygienist. In other words, the dentist may delegate to "competent auxiliary personnel" (not further defined) procedures for which the dentist exercises direct supervision and full responsibility, except those procedures which require professional judgment and skill.[4]

The listing approach to auxiliary duties is a more rigid and restrictive orientation. It consists of an itemization or tabulation of the specific duties and tasks that the hygienist or assistant may perform. In such instances, auxiliaries may perform only those functions listed and no others.

For example, under the New York State Education Law,[5] the specific listing of the services that may be performed by a licensed hygienist include:

Under personal supervision of a licensed dentist; (i.e. the dentist is physically present in the office, school, or public institution, personally diagnoses the condition to be treated, and personally authorizes and evaluates the work of the dental hygienist):

1. placing or removing rubber dam
2. remove sutures
3. place matrix band
4. any application of topical medication not related to a complete dental prophylaxis
5. taking impressions for study casts
6. placing and removing temporary restorations (intracoronal only)

Under the general supervision of a licensed dentist; (i.e. the dentist is available for consultation, diagnosis, and evaluation, and has authorized the dental hygienist to perform the services, and exercises that degree of supervision appropriate to the circumstances):

1. removing calcareous deposits, accretions, and stains
2. applying topical agents indicated for a complete dental prophylaxis
3. remove cement
4. providing patient education
5. placing and exposing x-ray films
6. performing topical fluoride applications and topical anesthetic applications
7. polish teeth
8. taking medical history
9. charting caries

There is no further specification or general listing of the duties for a dental assistant or hygienist, except under the Public Health Law on the practice of x-ray technology wherein "a person acting as a dental assistant under the supervision of a licensed dentist" may operate "equipment for the sole purpose of routine oral radiographs. . ." provided said "x-ray beam at the patient's face is limited to not more than three inches."[6] There are other statements permitting the use of "panoramic radiographic equipment" with specific limitations on radiation dosages.

Thus, under the strict listing approach used in New York State, the dental hygienist may perform *only those duties that are assigned under the law,* while the dental assistant may perform any function not assigned to other professionals. In fact, should a dental assistant perform any duties that are listed or assigned to other professionals (with the exception of the general exemption for all "dental auxiliaries" to expose intraoral and panorex radiographs), then the assistant may be found guilty in a court of law of practicing the particular profession without a license.[7] The supervising or directing dentist, in addition, may himself be found guilty of aiding in the illegal practice of a profession by an unlicensed individual and thereby subjecting himself to a fine and the suspension or even revocation of his license.

But even this listing of specific categories of services may be ambiguous. When do assistants transcend the vague barrier and perform duties that legally are assigned to licensed hygienists and thus place themselves and the responsible practitioners in legal jeopardy? For example, consider the service categories, "providing patient education" and "taking medical history." Would an assistant be in violation of the law if (s)he explained the advantages of brushing one's teeth or eating a proper diet and limiting between-meal snacks? May (s)he give a patient a printed medical history questionnaire for completion or even ask a specified series of questions stipulated by the dentist for all new patients? At what point is (s)he carrying out normal duties for an assistant which improve the practitioner's efficiency?

Despite a seeming straightforward listing of duties assigned to licensed dental hygienists, similar complications can also arise for the hygienist. Development of acid-etching techniques offer the profession "relatively easy" procedures for occlusal sealants for the prevention of decay. May hygienists apply these new sealants under the "any application of topical medication not related to a complete dental prophylaxis" category? This particular issue was resolved in New York State by classifying occlusal sealants as restorations, thereby reserving the procedure for the dentist.[8] (As of this writing, this

issue is being reconsidered by the State Board of Dentistry.)

Thus, by specific listings, open provisions, specific definitions, and the like, the dental profession and state legislative bodies have attempted to deal with the complex issue of the assignment of duties to various auxiliary personnel.

Yet periodically one reads about instances where dental auxiliaries are asked by supervising dentists to perform tasks beyond the prescribed legal boundaries.[9] Whether by inadvertent error, complete lack of knowledge, or conscious disregard for legalities, it may well be that many auxiliaries have been assigned improper duties by supervising practitioners.

Any effort made to determine the extent to which dental auxiliaries are performing duties improperly assigned could be fraught with legal complications; (e.g. if one received information from a particular individual that (s)he was performing illegal services and (s)he didn't report it to the proper authorities, would one be contributing to the continuance of the illegal act and thereby personally be liable for prosecution?).

In addition, is the equally sensitive question of whether any determination of improper delegation of duties would be misconstrued as being an effort to attack the view of the organized dental profession in a state against the need for expanded duty auxiliaries. One might be viewed as arguing that practitioners were circumventing the law and, in fact, delegating expanded duties to "illegal expanded duty auxiliaries", while claiming that there was no need for expansion of duties.

Unable to totally resolve these and many other issues, our department set forth on a study to determine the types of duties that are delegated to dental auxiliaries by supervising practitioners. Our hypothesis was that few improper functions were being carried out, or at least would be so reported by dental assistants and hygienists. We salved our consciences by ensuring complete anonymity of the respondents—thus we would be unable to attest to any improper acts in a court of law. We further bolstered our views that changes in the practice act in our home state (New York) were not being prevented by the improper use of auxiliaries, since studies by other investigators repeatedly have shown that practitioners who have been trained to use and have worked with expanded duty auxiliaries are more favorably disposed to continue this working relation.[10] Surely, if practitioners in the State of New York were extensively employing auxiliaries in illegal expanded functions, there would be major pressure to modify the dental practice act.

THE STUDY

In 1974, a major change in the State Education Law significantly affected the scope of the practice of dental hygiene in the State of New York. Based upon discussions with instructors from several auxiliary training programs, it was felt that the more recent graduates had received specific commentaries on these practice changes and would be more aware of the newly defined scope of dental assistant and dental hygiene activities.

Accordingly, in 1977 a single page check-off questionnaire was sent to all dental assistants and hygienists who had been graduated in 1975 and 1976 from five dental assistant training programs and a university dental hygiene program, all in New York State. The questionnaires, with stamped return envelopes, were sent to the address of record on file at each of the training programs. No specific identification of

TABLE II. Dental hygienist and assistant respondents by primary place of employment.

	Dental Hygienists		Dental Assistants	
	Number	Percent	Number	Percent
General Practice	61	79%	46*	71%
Endodontist	..	..	1	1.5
Oral Surgeon	..	..	1	1.5
Orthodontist	1	1	6	9
Pedodontist	4	6	1	1.5
Periodontist	4	5	5	7
Prosthodontist	1	1	3	5.5
Clinic Situation	6	8	1	1.5
Not Specified	..	..	1	1.5
SUBTOTAL	77	100%	65	100%
Have not been employed in the field of dentistry	2	..	10	..
TOTAL RESPONDENTS**	79		75	

*One respondent indicated employment in the State of Arizona. While data from this questionnaire are not included in the remaining charts, commentary is included under the dental assistant section.

**The term "respondents" henceforth throughout this report shall refer to all respondents who were or are employed in the field of dentistry in New York State (i.e. 77 dental hygienists and 64 dental assistants).

individual questionnaires was attempted other than color coding the questionnaires to distinguish between dental assistant and dental hygienist respondents. There was no follow-up of non-respondents.

A total of 400 questionnaires were mailed out; 127 to dental hygienists and 273 to dental assistants. Five dental hygienist and 17 dental assistant questionnaires were returned as undeliverable. A total of 79 (65 percent) of the dental hygienists and 75 (29 percent) of the dental assistants responded to our correspondence.* As expected, most hygienists and assistants (79 percent and 71 percent respectively) reported their primary employment with a general practitioner.* (See Table II for report of employment)

THE FINDINGS

A. *DENTAL HYGIENISTS*—Hygienists reported performing each of the specified categories of services listed in the questionnaire. However, only 16 of the 40 categories in the questionnaire are listed in the New York State Dental Hygiene Practice Regulations under the "personal" or "general" supervision categories as being within the proper sphere of the dental hygienist.** (See Tables III and IV for an overall reporting of the incidence of performed duties by all respondent dental hygienists and the specification of these duties within the practice act) In addition, hygienist respondents added several categories of services that they performed that were not specified in the questionnaire or in the practice regulations; including:

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*In most studies, one is concerned whether the respondents are somehow a representative sample of the general population under review. Attention is directed both to the percent of respondents and whether the respondents reflect the particular known or assumed characteristics of the population under study. The present study was intended as a pilot study for a possible state-wide study to determine (1) the extent of potential response; (2) whether auxiliaries could be reached by past mailing address from educational institutions; and (3) whether auxiliaries would report the performance of duties which might be beyond those permitted under the state practice regulations. Thus, the data are presented for almost 150 auxiliaries, not as a representative sample, but a general indication of the activities carried out in almost 150 practices in the State of New York.

*Data reported under various specialist categories are based upon the statements by respondents. These indications, therefore, may not be congruent with listing requirements as established by the American Dental Association. Thus, some reported services in the assistance of specialist practitioners do not seem congruent with the types of services that one might expect for an individual who totally limits a practice.

**One category, the taking of pulse and blood pressure, is a questionable entity, since it is not specified in the practice regulations, yet sphygmomanometers are sold in retail stores for the general public. A second item, developing x-rays, may be assumed to be within the hygienist's purview, since it is performed as a laboratory procedure in the absence of the patient.

TABLE III. Incidence of performance of dental services by 77 dental hygienist respondents as listed in the New York State Dental Hygiene Regulations that may be performed under the personal supervision and under the general supervision of a dentist, by the particular dental service.

	Permitted Under Personal Supervision of Dentist
Place and remove temporary restorations	38
Remove sutures	29
Impressions for study casts	54
Place rubber dam	8
Remove rubber dam	9
Place matrix bands	10
	Permitted Under General Supervision of Dentist
Take medical history	65
Chart caries without dentist	62
Polish teeth	77
Place and expose bitewing and periapical x-rays	77
*Develop x-rays	73
Patient education	77
Remove excess cement	61
Apply topical agents for prophylaxis	65
Place topical fluoride	70
Place topical anesthetic	60
Remove hard deposits and stains from teeth	75

*While not specified within Dental Hygiene Regulations, it may be assumed to be within the purview of hygienists since it is performed as a laboratory procedure in the absence of the patient.

1. making temporary crowns
2. taking wax bites for dentures
3. taking bite registrations
4. fitting and cementing orthodontic bands
5. tracing and measuring cephalometrics
6. placing wire arches
7. taking impressions for orthodontic appliances
8. constructing temporary bridges
9. composite restorations
10. place final restorations in endodontically treated teeth

The performance of "non-listed" duties by dental hygienists was indicated by respondents who are employed by general practitioners and each of the various categories of specialists. (See Table IV) In fact,

TABLE IV. Incidence of dental services not listed in the New York State Dental Hygiene regulations reported as performed by 77 dental hygienist respondents employed by general practitioners and various specialists by the particular dental service categories.

	General Practitioner	Orthodontist	Pedodontist	Periodontist	Prosthodontist	General Clinic	Total
Number of respondents	61	1	4	3	1	6	77
Expose cephalometric x-rays	10	..	2	..	..	2	14
Cement temporary crowns	32	..	2	3	..	3	40
Recement temporary bridges	27	..	1	3	1	22	34
*Take pulse and blood pressure	25	..	..	2	1	2	30
Apply cavity liners and bases	10	..	..	..	..	1	11
Place periodontal dressings	9	..	..	3	..	2	14
Remove periodontal dressings	15	..	..	4	..	2	21
Check orthodontic bands for looseness	18	1	2	..	..	1	22
Place sealants	19	..	..	1	..	1	21
Remove matrix bands	8	..	..	..	..	1	9
Condense amalgams	8	..	1	..	..	2	11
Carve amalgams	4	..	1	..	..	1	6
Polish amalgams with finishing burs	28	..	3	..	1	2	34
Place sutures	3	..	..	..	..	..	3
Recement loose bands	6	1	1	..	..	1	9
Take impressions of prepared teeth	11	..	..	..	..	..	11
Adjust dentures for sore spots	5	..	..	..	..	..	5
Minor occlusal adjustments	8	..	1	..	..	..	9
Cementation of crowns	11	..	..	1	..	1	13
Cementation of inlays	6	..	..	..	..	1	7
Minor gingivectomies	4	..	..	..	..	..	4
Remove arch wires	5	1	1	..	..	1	8
Take final impressions for partial and/or full dentures	5	..	..	..	..	1	6

*Not listed in Dental Hygiene Regulations, yet being performed by the general public.

60 (78 percent) of the hygienist respondents employed in the various practice situations reported performing services not listed in the New York State Dental Hygiene Practice Regulations.

Despite the directions in the questionnaire for completing the form, it could be suggested that there may have been confusion regarding

TABLE V. Incidence of performance of dental health services under general supervision of a dentist which are specified in the Dental Hygiene Regulations to be performed under personal supervision as reported by 77 dental hygienist respondents employed by general practitioners and various specialists by the particular dental service categories.

	General Practitioner	Orthodontist	Pedodontist	Periodontist	Prosthodontist	General Clinic	Total
Number of respondents	61	1	4	3	1	6	77
Place and remove temporary restorations	18	..	..	1	1	2	22
Remove sutures	11	..	..	1	..	..	12
Impressions for study casts	24	..	2	3	..	2	31
Place rubber dam	..	..	..	..	..	1	1
Remove rubber dam	2	..	..	..	..	..	2
Place matrix bands	2	..	..	..	..	1	3

the proper column to check off for each health service category (i.e., personal vs. general supervision*). Thus, the emphasis on the non-listed duties is critical since these duties may not be performed by a hygienist under any circumstances. If one were to consider that the personal and general supervision differentiations are properly reported by the respondents, then indeed the finding that 78 percent of the respondents performed non-listed services would be an underestimate of the duties which were both improperly and illegally performed. (See Table V for the reported incidence of the performance of health services under the general supervision of a dentist, which, according to New York State regulations, must be performed under the personal supervision of a dental practitioner)

*It should be noted that the wording for the definitions in the questionnaire was taken directly from the Dental Hygiene Practice Regulations.

B. *DENTAL ASSISTANTS*—Dental assistant respondents indicated performing each of the specified categories of services listed in the questionnaire. Other than the approved procedure of "placing and exposing bitewing and periapical x-rays," the laboratory type procedure of "developing x-rays" and the questionable categories of "taking pulse and blood pressure" and "taking medical history," all listed categories in the questionnaire, are either within the areas that may be performed by a dental hygienist or are reserved to the dentist. (See Tables VI and VII for an overall reporting of the incidence of performed duties by all dental assistant respondents) In addition, dental assistant respondents added several categories of services that they performed that were not specified in the questionnaire, including:

1. taking wax bites
2. irrigating root canals
3. fitting bands for orthodontic appliances
4. placing arch wires
5. tying arch wires
6. bonding brackets
7. administering general anesthesia
8. adjusting bite plates and retainers
9. placing sealants
10. repairing fractured crowns in the mouth with sealants
11. taking bite registrations

TABLE VI. Incidence of performance of dental services actually or "possibly" permitted under the supervision of a dentist, as reported by 64 dental assistant respondents employed by general practitioners and various specialists by the particular service categories.

	General Practitioner	Endodontist	Oral Surgeon	Orthodontist	Pedodontist	Periodontist	Prosthodontist	General Clinic	Not Specified	Total
Number of respondents	44	1	1	6	1	5	3	1	1	64
Take medical history	37	1	1	2	1	3	3	1	..	49
Place and expose bitewing and periapical x-rays	38	..	1	5	1	4	3	1	1	54
Develop x-rays	45	1	1	5	1	4	3	1	1	62
Take pulse and blood pressure	13	..	..	1	..	4	..	1	..	19

The performance of many categories of duties by dental assistants which would place them in violation of the dental hygiene and dental practice regulations was indicated by respondents who are employed by general practitioners and each of the various categories of specialists. (See Table VII) In fact, 62 (97 percent) of the dental assistant respondents employed in the various practice situations reported performing services which may well place themselves and their employers in violation of the dental practice act. One respondent added the commentary that, "The procedures listed above are by far illegal in New York State." Despite this awareness, she did, in fact, check off that she performed several of them!

It should be noted that any concern regarding the proper completion of the columns in the questionnaire (i.e., personal and general supervision) would essentially be meaningless for dental assistant respondents. Since there are no statutes which specify the duties (other than those for x-ray procedures) for the dental assistant, the recording in either column would indicate non-compliance with existing New York State regulations. Nevertheless, it is of interest to note that many assistants reported performing many of the service categories, both under the personal and general supervision of practitioners. (See Table VIII)

Finally, one respondent indicated that she currently is employed as a dental assistant in the State of Arizona. Her responses were reviewed with the office of the Arizona State Board of Dental Examiners. Despite Arizona State regulations which permit the delegation of a wider range of duties to dental assistants, the respondent reported performing two procedures—taking impressions for study casts and impressions of prepared teeth—which are not permitted under the Arizona State Dental Practice Act.

DISCUSSION

Virtually all the responding assistants and over 78 percent of the dental hygienist respondents reported performing duties which placed them, and their employers, in conflict with the New York State practice statutes. We were concerned that this reported high rate of illegal activity could be an indication that respondents checked off service categories for which they provided assistance to the dentist instead of actually personally performing them, or that the assistants and hygienists were simply reporting duties they felt they were qualified to provide. However, a review of the individual questionnaires would seem to indicate that the reported performance was probably a reasonable approximation of the practice situation. For example:

TABLE VII. Incidence of performance of dental services which may not be performed by a dental assistant, as reported by 64 dental assistant respondents employed by general practitioners and various specialists by the particular service categories.

	General Practitioner	Endodontist	Oral Surgeon	Orthodontist	Pedodontist	Periodontist	Prosthodontist	General Clinic	Not Specified	Total
Number of respondents	45	1	1	6	1	5	3	1	1	64
Chart caries without dentist	31	..	..	2	1	3	2	1	..	40
Polish teeth	22	..	..	4	1	2	1	1	2	33
Expose cephalometric x-rays	14	..	..	5	1	..	1	..	..	21
Patient education	35	1	..	4	1	5	3	1	1	51
Cement temporary crowns	22	..	..	1	1	3	1	..	1	29
Recement temporary bridges	19	1	..	2	..	3	1	..	1	27
Remove excess cement	26	..	..	4	..	3	2	..	1	36
Apply topical agents for prophylaxis	20	..	..	1	..	3	1	..	1	26
Apply cavity liners and bases	15	..	..	1	..	..	..	..	..	16
Place periodontal dressings	12	..	..	1	..	5	..	..	..	18
Remove periodontal dressings	12	..	..	1	..	5	..	..	..	18
Check orthodontic bands for looseness	11	..	..	5	..	..	..	..	..	16
Place and remove temporary restorations	12	..	..	1	..	1	2	..	..	16
Place topical fluoride	34	..	..	5	..	2	..	1	1	40
Place topical anesthetic	19	1	..	2	..	2	..	..	1	26
Place sealants	11	..	..	1	..	..	..	..	..	12
Remove sutures	16	1	..	1	..	5	..	..	..	23
Remove hard deposits and stains from teeth	15	..	..	2	..	2	..	..	..	19
Impressions for study casts	34	..	..	6	..	3	1	..	..	44
Place rubber dam	16	..	..	2	..	1	1	..	..	20

	General Practitioner	Endodontist	Oral Surgeon	Orthodontist	Pedodontist	Periodontist	Prosthodontist	General Clinic	Not Specified	Total
Remove rubber dam	16	1	..	3	..	1	1	..	..	22
Place matrix bands	14	..	..	1	..	..	..	..	..	15
Remove matrix bands	14	..	..	1	..	..	1	1	..	17
Condense amalgams	24	1	..	1	..	..	1	1	..	28
Carve amalgams	8	..	..	..	..	..	1	..	..	9
Polish amalgams with finishing burs	9	..	..	..	..	..	1	..	..	10
Place sutures	5	..	..	..	..	1	1	..	..	7
Recement loose bands	12	..	..	4	..	..	1	..	..	17
Take impressions of prepared teeth	17	..	..	4	..	..	1	1	..	23
Adjust dentures for sore spots	8	..	..	..	..	..	..	1	..	9
Minor occlusal adjustments	7	..	..	..	..	..	1	1	..	9
Cementation of crowns	11	..	..	..	..	..	2	1	..	14
Cementation of inlays	12	..	..	..	..	..	1	1	..	14
Minor gingivectomies	5	..	..	..	..	1	2	1	..	9
Remove arch wires	8	..	..	2	..	..	..	1	..	11
Take final impressions for partial and/or full dentures	15	..	..	..	..	..	1	1	..	17

1. Repeated statements on many of the questionnaires attesting to the respondent's knowledge that they assisted dentists in some duties while performing other services by themselves. One hygienist added, "In the case of sealants, the dentist always evaluates my work afterwards, but he doesn't stand over me for any procedures. For many of the procedures listed I assist (sic) the dentist, but do not do them myself". [Note: Sealants are not listed to be within the duties of dental hygienists.]
2. Many respondents selectively checked off categories which are somewhat similar in terms of the actual assisting duties (e.g. impressions for study casts vs. final impressions for partial and/or full dentures; condense vs. carve amalgams; cement

TABLE VIII. Incidence of performance of dental services under the personal and general supervision of dentists as reported by 64 dental assistant respondents by the particular service categories.

	Personal Supervision	General Supervision
*Take medical history	9	41
*Place and expose bitewing and periapical x-rays	13	42
*Develop x-rays	11	51
*Take pulse and blood pressure	7	11
Chart caries without dentist	27	13
Polish teeth	14	19
Expose cephalometric x-rays	6	15
Patient Education	13	38
Cement temporary crowns	16	13
Recement temporary bridges	17	10
Remove excess cement	13	23
Apply topical agents for prophylaxis	9	18
Apply cavity liners and bases	10	6
Place periodontal dressings	10	8
Remove periodontal dressings	8	10
Check orthodontic bands for looseness	3	13
Place and remove temporary restorations	10	6
Place topical fluoride	11	29
Place topical anesthetics	10	15
Place sealants	11	5
Remove sutures	11	12
Remove hard deposits and stains from teeth	8	11
Impressions for study casts	12	32
Place rubber dam	12	8
Remove rubber dam	10	12
Place matrix bands	10	5
Remove matrix bands	9	8
Condense amalgams	8	19
Carve amalgams	7	2
Polish amalgams with finishing burs	5	5
Place sutures	3	4
Recement loose bands	10	7
Take impression of prepared teeth	10	13
Adjust dentures for sore spots	5	4
Minor occlusal adjustments	7	2
Cementation of crown	10	4
Cementation of inlays	8	6
Minor gingivectomies	6	2
Remove arch wires	6	5
Take final impressions for partial and/or full dentures	10	7

*Actually or "possibly" permitted under the supervision of a dentist.

temporary crowns vs. recement temporary bridges; and place and expose bitewing and periapical x-rays vs. expose cephalometric x-ray).

3. Few respondents checked off some of the categories for which there has been particular demand by some advocates for expansion of duties (e.g. the placement of sealants by hygienists and the carving of amalgams and removing of matrix bands by dental assistants).

While we as dentists may be deeply concerned over the extent to which dental hygienists and assistants are performing duties beyond the scope of the practice regulations, the response by one of our dental hygiene instructor-consultants provided another perspective on these findings. She felt that her students had been trained and were qualified to perform many of the tasks beyond those listed in the state legislation to be within the purview of the hygienist. Her major concern was the incursion of dental assistants into those duty areas reserved for the dental hygienist.

In addition, we asked several dentists in private practice in the general vicinity of our institution about their general perception of the extent to which practitioners (in their geographic area) utilized the services of dental auxiliaries. All expressed little to no surprise with the results of the study, adding the commentary that they thought our findings may in fact be an underestimate of the extent to which these services may be performed by auxiliaries. One practitioner even volunteered the information that his assistants performed many of the duties which (according to the statutes) must be performed by a dentist. When confronted with the thought that such actions could lead to suspension or even revocation of his license, he questioned the ability of the licensing board to enforce such an action when the misuse of auxiliaries was in fact the rule rather than the exception. Here indeed lies the dilemma to be faced by the State Dental Board in any attempt to fulfill its responsibility to enforce the State Practice Acts.

The Board's predicament is not too unlike an attempt by a police officer to enforce a driving speed limit which is flouted by virtually every driver on a busy urban expressway during rush hour. He can ignore a "rule-book" enforcement of the law on the basis that any interference with the flow of traffic would in itself become dangerous, or that the speed limit itself was set unrealistically too low. On the other hand, he may intercede and enforce the law by handing out traffic tickets or even physically driving at a slower speed in the most rapidly moving lane, on the premise that the safety of individual drivers was being jeopardized, or even that energy conservation demands slower speeds.

CONCLUSIONS

A licensing board is confronted with the conflicting perspectives that legislation should, at the same time, (1) be congruent with the realities of the society for which it was designed, (2) provide for the safety and rights of individuals, and (3) provide leadership for the development of a society.

At a time of conflicting demands by government agencies, consumer groups, dental assistant and hygiene groups, denturists, even disparate groups within the dental profession, a licensing board may respond in a variety of manners. It may (1) request the state legislature to amend the practice act to reflect the realities of dental practice, (2) strictly enforce the current statutes with the view that, as currently established, they constitute the greatest safety for the individual and the general population, or (3) advocate extensive changes in the practice act which would not only reflect the realities of current practice, but would lead the dental community to some perceived future delivery system which, theoretically, could meet the needs of the general population.

Whichever direction is selected for action, some resolution to the delegation and performance of duties by various members of the dental service team is essential. If the apparent wholesale disregard by individual practitioners for the delegation of dental service functions to particular auxiliaries is as widespread in other jurisdictions as we found in our area, then is not the profession's attempt to officially and legally limit the activities of denturists and expanded duty auxiliaries a mockery of reality? Our profession is far more vulnerable to criticism from our adversaries if, individually, we illegally practice the very things to which we express collective opposition. There are, indeed, many problems regarding state dental practice acts which must be faced by our profession.

ADDENDUM

Subsequent to completion of the study and write-up of the foregoing report, the results of a short questionnaire sent to 150 members of ten state dental hygiene associations (48 percent response rate) was presented in the Journal of Dental Education.[1] McCloskey reported in a very brief communication that one hundred percent of the 72 respondents indicated that they performed at least one or more non-traditional functions (i.e. those functions not specified within the respective state practice acts) in their dental hygiene activities.

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School of Dental Medicine
State University of New York
Stony Brook, New York 11794

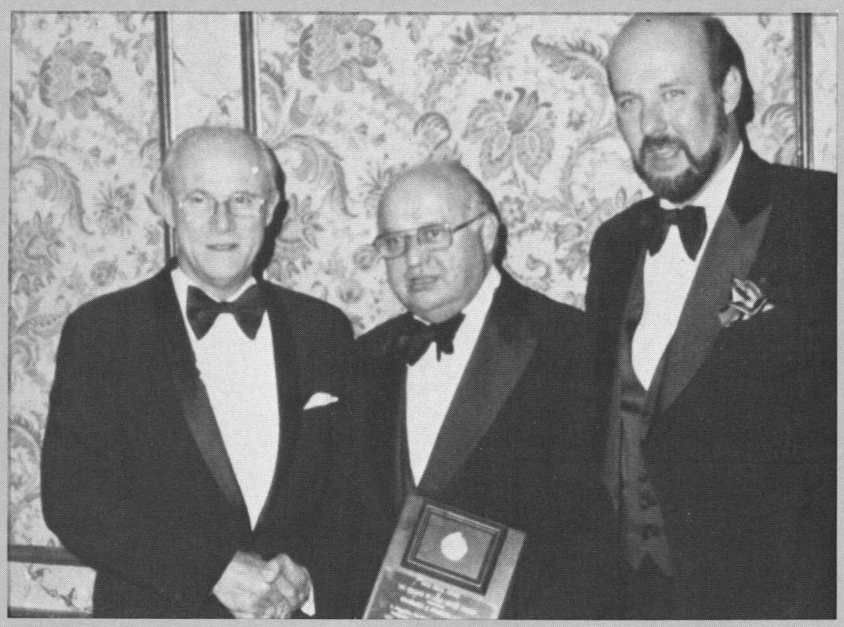
(Continued from page 74)

Dental Center received awards as the outstanding students in their respective schools. Mr. Roberts was escorted by former dean George L. O'Grady and Mr. Psoter was escorted by dean Richard Mumma.

Our guest speaker was Maurice Nadjari former special prosecutor for the State of New York. Mr. Nadjari described the events that led up to the need for the appointment of a New York State Special Prosecutor by Governor Nelson Rockefeller in 1972. For four years his relentless pursuit of corrupt public officials in the highest levels of government made him a controversial figure. Powerful political forces combined to force his removal as Special Prosecutor and his return to the private practice of law.

NEWS OF FELLOWS

Charles J. Voeker of St. Louis received the Gold Medal Award from the Greater St. Louis Dental Society on January 6, 1979. Dr. Voeker is the chairman of the St. Louis Section of the College and a former president of the Greater St. Louis Dental Society and its Foundation. The award is given in recognition of outstanding service to the dental society, community, state or nation, typifying the ideals of good citizenship.



(Left to Right) Wiliam S. Brandhorst, outgoing president of the Greater St. Louis Dental Society, Charles J. Voeker, and Joseph B. Uelk, president.

Herman Ivanhoe of Brooklyn, New York, president of American Dentists for Foreign Service recently received the honorary degree of Doctor of Laws from Chosun University, Korea in recognition of his services to its dental college.

Alice C. Kinninger of Chula Vista, California received the C. Gordon Watson Leadership in Dentistry Award for 1978 from the San Diego County Dental Society.

H. Berton McCauley of Baltimore, Maryland was the recipient of the Distinguished Service Award from the American Society of Dentistry for Children at its last meeting.

Milton B. Asbell, Cherry Hill, New Jersey orthodontist has been named Historian of the University of Pennsylvania School of Dental Medicine.

Carl Stoner, New London Connecticut peridodontist and member of the City Council was sworn in as mayor of New London recently.

John H. Heiser of Overland Park, Kansas, was re-elected Speaker of the House of Delegates at the annual meeting of the American Association of Oral and Maxillofacial Surgeons recently.

William R. Wallace of Worthington, Ohio, was installed as president of the American Association of Oral and Maxillofacial Surgeons at its 60th annual meeting.

Assessing Communication
(Continued from page 109)

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The Objectives of the American College of Dentists

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

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

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

(d) To encourage, stimulate and promote research;

(e) Through sound public health education, 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; and

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

(i) In order to give encouragement to individuals to further these objectives, and to recognize meritorious achievements and potentials for contributions in dental science, art, education, literature, human relations and other areas that contribute to the human welfare and the promotion of these objectives — by conferring Fellowship in the College on such persons properly selected to receive such honor.

Revision adopted November 9, 1970.

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