the journal of the

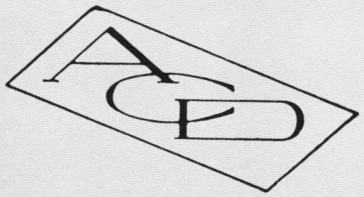
AMERICAN COLLEGE OF DENTISTS

APRIL, 1980 VOLUME 47 NUMBER 2

MEMBER PUBLICATION
AMERICAN ASSOCIATION OF DENTAL EDITORS

THE JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS
is published quarterly — In January, April, July, and October — at
Crescent & Mulberry Streets, Harrisburg, Pennsylvania 17104
Second class postage paid at Washington, D.C. and additional points.

Send Change of Address and Form 3579 to the American College of Dentists,
7315 Wisconsin Avenue, Bethesda, Maryland 20014.



NEWS AND COMMENT

SECTION NEWS

Texas Section

A Fellowship breakfast was held on March 1st during the Greater Houston Dental Meeting at the Shamrock Hilton. John Houlihan, president-elect of the American Dental Association was the guest speaker. Fifty Fellows and ten guests attended.

President Bill Ritchey conducted the meeting and president-elect Jim Addison delivered the invocation. Following breakfast, a short meeting of the Executive committee was held.

Plans are being made for the annual business meeting to be held on May 10th in San Antonio during the annual meeting of the Texas Dental Association. The speaker will be the Texas Commissioner of Agriculture, Mr. Reagan Brown who is known for his humorous viewpoints.

New Jersey Section

The Winter meeting of the New Jersey Section was held on January 17 at the Ramada Inn, Clark, N.J. Chairman Ralph Frates presided. The after-dinner speaker was Dr. Harry J. Robinson, eminent scientist and researcher, now vice-president for Medical Affairs of the Allied Chemical Co., who spoke on the pharmacodynamics of prostaglandins.

The Spring meeting will be a ladies-night dinner-dance, to be held on April 17 at the Ramada Inn, New Brunswick. The speaker will be Hirsch L. Silverman, Ph.D., distinguished scholar, scientist and lecturer.

Florida Section

The Florida Section held its First Annual Scientific Session on December 1 and 2 in Orlando. There were twenty-three Fellows present to hear Dr. L. D. Pankey speak on "A Philosophy of Dentistry". We anticipate that this small but enthusiastic group will be the forerunner of a fine annual meeting of the Section in December.

President Gordon Rovelstad was with us and spoke on the activities and progress of the College.

Carolinas Section

The Carolinas section of the American College of Dentists met the first weekend in February, 1980, at the Mid-Pines Inn, Southern Pines, North Carolina, for its annual meeting.

Ninety members and a number of wives, were present for the banquet on Saturday night. The dinner speaker was Dr. Albert Edwards from the First Presbyterian Church of Raleigh, N. C., who kept the group entertained and inspired with his presentation.

The professional meeting on Sunday morning was most enlightening. Our speaker was Dr. John R. Jacoway, DDS, Ph.D., from the University of North Carolina School of Dentistry in Chapel Hill, N. C. Doctor Jacoway is with the Department of Oral Pathology and has many years of training and experience both in general and oral pathology. His subject, the recognition and treatment of oral lesions, was well received.

Present for these sessions were Gordon H. Rovelstad, president of the College, and William C. Draffin, president-elect. Their discussions embraced affairs of the College and its direction on a national level.

Officers for the coming year are:

James A. Harrell, Sr., Elkin, N. C.,—Chairman

Charles W. Horton, High Point, N. C.,—vice-chairman

Franklin B. Hines, Jr., Columbia, S. C.,—secretary-treasurer.

The next annual winter meeting will be held in Charleston on Saturday, January 31, and Sunday, February 1, 1981, at the Mills-Hyatt House.

New officers of the Carolinas Section. (Left) James A. Harrell, Sr., chairman and (Right) Charles W. Horton, vice-chairman.

the JOURNAL of the AMERICAN COLLEGE of DENTISTS

(ISSN 0002-7979)

A QUARTERLY PRESENTING IDEAS IN DENTISTRY

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APRIL 1980

VOLUME 47—Number 2

THE JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS is published quarterly—in January, April, July, and October—by the American College of Dentists, Inc., McFarland Co., Harrisburg, Pennsylvania • Subscription $12.50 a year; $13.50 overseas; single copies $4.00 • Second class postage paid at Harrisburg, Pa. and additional points • Copyright 1980 by the American College of Dentists, Inc.

Correspondence relating to the JOURNAL should be addressed to the Editor, 122 Society Hill Lane, Cherry Hill, New Jersey 08003. Changes of address and subscription requests should be addressed to the Business Manager, JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, 7315 Wisconsin Avenue, Bethesda, Maryland 20014. Reprint requests should be directed to the author.

The JOURNAL is a publication member of the American Association of Dental Editors.

For bibliographic references the JOURNAL title is abbreviated J Am Col Dent and should be followed by the volume number, page, month, and year. The reference for this issue is J Am Col Dent 47:65–124, Apr. 1980.

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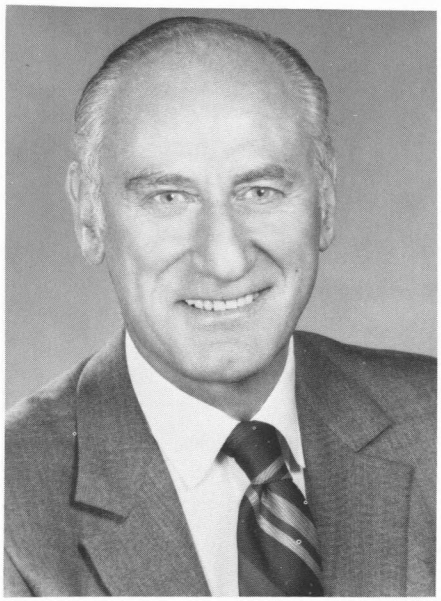
Regent Robert A. Cupples



Robert A. Cupples, a general practitioner of San Jose, California, was recently elected to the Board of Regents of the College. A graduate of the University of California College of Dentistry. He has had a long and active career of service to many dental organizations.

He is a past president of the Santa Clara County Dental Society. In the California Dental Association he served on numerous committees, the House of Delegates and Board of Directors before his election to the presidency. He was a member of the Board of Directors of the California Dental Service for eight years and served for many years as a delegate to the American Dental Association and a member of its Judicial Council before being elected to the ADA Board of Trustees from the 13th Trustee District.

Dr. Cupples has been a member of the Board of Directors of the American Dental Health Foundation and was one of the ADA official representatives to the General Assembly of the Federation Dentaire Internationale at its meetings in Munich, London and Athens.

He has served on the Board of Directors of the Delta Dental Service and was treasurer and member of the Executive Committee. He is a Captain in the U.S. Naval Reserve and member of Psi Omega Dental fraternity. He also holds membership in the Commonwealth Club of San Francisco, the San Jose Lions Club, the San Jose Country Club, the Sainte Claire Club of San Jose and the Masonic order.

Dr. Cupples was honored with the Distinguished Citizen Award from the City of San Jose and by the dedication of the 1969 meeting of the California Dental Association in his honor. He and his wife Jane have one son, a dentist practicing in San Jose, and a married daughter.

A Clear Message to the FTC

The Federal Trade Commission, usurping the regulatory powers of the respective states, has decreed that professional organizations may no longer prohibit truthful advertising by members. State boards of dentistry and state legislators are now trying to develop appropriate advertising regulations. In the absence of acceptable guidelines in all states, we are being treated to the spectacle of large block ads in newspapers and the yellow pages of telephone directories, that promise MODERN PAIN CONTROL DENTISTRY (a fancy way of saying "painless"). FINE QUALITY WORK and REASONABLE FEES, and other phrases aimed at soliciting patronage.

Since the American Dental Association and the FTC agreed to a settlement of their differences and the ADA changed its Principles of Ethics to allow advertising that was not "false or misleading in any material respect", a small but significant group of dentists has sought a competitive advantage over their fellow practitioners through use of the various advertising media. In the absence of national criteria, and because of the slowness of some states in responding to the need for controls, we may well see more and more questionable advertisements, ads that promise more than their authors can provide.

Lately the FTC has pulled in its horns somewhat and taken a less adversary, more conciliatory position. The recent McClure-Melcher amendment to the Federal Trade Commission Act of 1920, an amendment supported by the American Dental Association, which would have suspended funding for FTC regulatory activities regarding professions, lost in the Senate by a very narrow margin. The message to the FTC however, has come through loud and clear and we can expect now that the Commission will proceed carefully against such groups.

Although the amendment lost, the U.S. Senate has become aware of the need for further scrutiny of FTC rule-making authority and alleged jurisdiction over non-profit professional organizations. Senator Wendell H. Ford (D-Ky), chairman of the Senate Subcommittee on the Consumer will hold hearings on these issues in the spring. Senator Ford has received assurances from Michael Pertschuk, Chairman of the FTC, that the Commission would suspend any proposed rule-making proceedings against the dental profession until these hearings have been held.

These actions should temporarily halt any further moves by the FTC toward promotion of denturism and the independent practice of dental

hygiene, but there is no need for complacence. The regulatory powers of the FTC still need to be more carefully circumscribed.

The sad part about the whole business is that dental students, observing what is taking place in the profession which they will soon enter, are beginning to believe that they are going to have to advertise their services if they expect to compete with their colleagues. We look forward to the day when the commercialism inherent in advertising, the huckstering, the down-grading of the highly personalized provision of dental care which aims to reduce it to the status of a commodity, is a thing of the past, and dentistry will once again be practiced on a truly professional level. Advertising is no indication of competence.

R.I.K.

JURIST ON DENTIST ADS

It is ironic that the "Painless Parkers" of another era were outlawed by the same government that now has reinstituted advertising.

In a Supreme Court decision on "Bait Advertising," Charles Evans Hughes wrote, "Inducing patronage by representation of painless dentistry, professional superiority, free examinations and guaranteed dental work was as a general rule the practice of the charlatan and the quack to entice the public."

—LEO TAFT, D.D.S., in the New York State Dental Journal.

The following paper was delivered by Dr. Willard C. Fleming, former dean of the College of Dentistry of the University of California as his presidential address to the 1952 Convocation of the College in St. Louis. We believe his words are as pertinent today as they were twenty eight years ago.

The Marks of an Educated Person

WILLARD C. FLEMING, D.D.S.

One of our modern prophets, H. G. Wells, has said, "Civilization is a race between education and chaos." The truth of this statement is becoming more and more apparent as the relations between men and between nations becomes more and more strained. Modern "stepped-up" methods of transportation and communications have resulted in a conflict of ideas and prejudices of people who have not yet been prepared by educational processes to understand fully the world around them. I cannot be as pessimistic as many who feel that our material and mechanical advances have been so great that the educational and cultural aspects of our civilization have been left hopelessly behind in this race against chaos.

There is good evidence that the relations between men and between nations are becoming more a matter of *understanding* each other than a matter of *international laws* or *force.* Negotiation, arbitration, mediation, and compromise are in far greater use than ever before. The old order of might makes right is giving way to efforts to understand the other fellow's point of view, or to "educate" him to understand ours.

Medicine and dentistry have long recognized the need for programs to educate the public to the value of procedures which the profession considers necessary to health. We can legislate for health laws only after an educational program has made the value of such laws apparent to the people. Think of the prejudices and ignorance that had to be cleared away before the procedures concerned with vaccination and typhoid became workable. Our fluoridation programs are effective only in informed communities.

In a like sense, the medical and dental professions had to prepare their members to understand the needs and the problems of the people. This broadening of the minds of the members of the profession

is accomplished not by command but by education. Out preprofessional college years are designed largely for this purpose: the development within our profession of an educated membership.

We use phrases such as "educated membership" or refer to someone as an "educated man" pretty loosely, and seldom stop to ask, "Just who is an educated person?" or, better yet, "What are the marks of an educated person?" What is it that distinguishes the educated from the non-educated? First of all, the ranks of educated people are not necessarily filled only by people with formal schooling. The educated person does not have to possess a wealth of factual information. He does not have to be a learned man as we think of a sage or a professor, but the educated person has to acquire either in school or in work the right habits of learning, or better yet, the right habits of thinking, which in turn mark him as an educated person.

I am not belittling higher education, as I am a firm believer in formal schooling beyond the high school level. What I am trying to do is to emphasize that the educated mind can develop with or without the benefit of formal schooling. Experience has shown, however, that the average person benefits from the discipline of schooling far more than if left to his own devices. As most of us are average, it goes without saying that we should plan to continue our formal education.

One of the characteristics or marks of an educated person is the ability to keep an open mind on every question until all the evidence is in. If a man learns either in school or at work to keep his mind open to new facts, even though they are at variance with his opinions; if he is willing to change his mind even at the cost of personal pride; if he is willing to examine all sides of every question and review without prejudice the evidence against his own opinion; if he is willing to withhold judgement until all the evidence is in; if he can do all of these things, then that person may be considered as having acquired one of the main characteristics of an educated person. This man is free from superstition and dogmatism. He is no longer a *group thinker.* He has developed the power to handle and control facts. He is his own *independent thinker.*

Another mark of an educated person is his willingness to accept new ideas for examination and testing. He never laughs at a new idea no matter how ridiculous it may appear. Our history is replete with examples of people who laughed at new ideas: the idea that the world is round; that a sailboat can run into the wind; the idea of being able to talk over a wire; or in their opinion, funnier still, the idea of talking at great distances through the air. The laughter of these people has been drowned by the cheers that accompanied the achievement of these

impossibilities. Let us remember that practically everything man has imagined, he has been able to accomplish: to fly like a bird; to travel twenty thousand leagues under the sea; to communicate across great distances. Even Dick Tracy's wristwatch-radio is an accomplished fact. One exception to date is inter-planetary travel. Who can deny that this will not be accomplished and probably in the lifetime of some of us?

The ability to work and cooperate with others is another mark of an educated person. Human beings are gregarious; they prefer to live in groups and at the same time maintain a certain degree of independence. One might say that we have some of the characteristics of both sheep and cats. It is this sort of dual personality which makes humans what we are. If all of us were sheep, we would mill around forever, going no place in particular. If all of us were cats, we would live independently of each other and remain just cats. It is the educated person who recognizes this dual personality of the human race, and realizes that we must work together and at the same time maintain enough independence of spirit to provide the leadership necessary to continue to progress and develop. The educated person realizes when he sits at the council table to solve this problem or that problem which may arise between groups of people or between individuals, that he should not feel that he is there to win a victory for his side or his idea, but that he is there to solve a problem. Unfortunately, in the past many of our problems involving human relations have not had the benefit of this attitude. One needs only to look at the problems arising out of the relations of management and labor to see an example of this.

Another mark of an educated person is his freedom from prejudice. Many of us interpret this as relating only to racial prejudice, but the problem is much broader than the matter of race, since religious and minority groups of all kinds are also subject to discrimination. This is a conflict between prejudice and tolerance. It is a conflict that is not confined to this country but is world-wide. From time immemorial men have had great difficulty in living with other men who have a different color, a different language, a different method of worship, and more lately, a different philosophy of economy and politics. The educated person has learned that, essentially, people are the same the world over. He knows that they have the same hopes, ambitions, fears and affections, regardless of race, color or creed, and that they react in much the same way to ridicule, to insecurity, to praise. We will continue to have these problems of prejudice with us for a long time. They will not be solved by legislation or fair practice acts, except in so far as these keep us aware of the problem. The real solution will come

through education. Prejudice is vulnerable to education, and to education only; the two are not compatible. There is no room for prejudice in the mind of an educated person.

There are other marks of an educated person, such as his ability to enjoy his leisure, his freedom from boredom, etc. However, the four we have discussed: openmindedness; willingness to experiment with and test new ideas; cooperativeness; and freedom from prejudice, are in my opinion, the essential characteristics.

The dental profession can express satisfaction with the achievement of the first three of these characteristics: namely, openmindedness, experimentation, and cooperativeness. The last characteristic, freedom from prejudice, has not been wholly achieved. True enough, as individuals and as a profession we have made some progress, but the whole step has not yet been taken.

The American College of Dentists is a selected group of the dental profession. Its membership is, and should be, an educated group, educated in the broadest sense of the word. Our members are selected largely from the leaders of our schools, local, state and national societies. The College itself has an enviable record as a catalyzer within the profession and as an organization that has taken the lead in the solution of many of our social and professional programs.

As one studies the trends in the times and the trends in the American way of life and the world-wide reaffirmation of the principles of freedom and equality, it is not in keeping with our best tradition that we remain on the sidelines and let the rest of the world go by. It is in keeping with our tradition that, without precipitant action, we study and develop ways and means to broaden the base of our membership and take the final step that will allow us to achieve fully all of the marks of an educated person.

Confronting Dilemmas in Dentistry
Strategies for Success

JAY M. YANOFF, Ed.D.
RAYMOND ANGER, M.B.A.

There is a big difference between what people say and what they do, what they believe and what they do, and what they want to do and actually do. This may sound like confusion and jargon, however, in each of these there is a conflict between one's thoughts and actions. Many philosophers[8] discuss this conflict while psychologists and behavioral scientists[11] try to alleviate this discrepancy. Behavioral scientists believe that when one is faced with any dilemma, there is a need to resolve the conflict. This is true for internal as well as external issues including those between what we believe and how we act. The self has a strong desire for reduction of tension created by any conflict situation and thus seeks a way to live with itself.[3] Dentistry and dentists today face many such discrepancies which, on a day-by-day basis, force each professional to come to many resolutions. Some are tension reducing, others remain as conflicts. We believe that some of these issues need to be addressed or they may remain ever present as internal dissonance creating continuous pressures on the profession. This paper will examine a few and give some strategies for resolution.

It is very easy for behavioral scientists (outsiders), to be critical of the dental profession or any profession. That is not the purpose of this paper. Rather, it is an effort to be constructive. Therefore, the reader should be aware that the issues raised in this article are ones which are considered to be resolvable. It is not suggested that there is one right answer nor that the answers will be easy to find; they will vary greatly based upon each person's individual differences and special circumstances.

There are also many perspectives from which one can look at any

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issue. Each reader is requested to take some time while reading the article and consider each issue by itself and ask the following questions: 1) How do you feel about it? 2) What do you say about that issue to others? 3) How do you behave towards that issue? 4) Are you satisfied with your outlook in regard to the issue? and 5) Are your beliefs and behaviors congruent or in conflict? If you can answer the above questions and feel satisfied when confronting these issues in dentistry, then this article will have been successful. Thus the real value of this paper will be to help you, the reader examine your thinking and feelings, and give you some suggestions for resolving dilemmas.

Listed below are several issues which you are asked to consider. Try to use the questions raised above to examine how you are confronting or ignoring these dental problems.

DILEMMAS FACING DENTISTRY

Dilemma I. *Ensuring the quality of care to patients.*

Every dentist must be concerned about the quality of care to his/her patients. Are the most up to date procedures being utilized in my practice? Am I presently at the top of my field in performing the best of dental care? How does the quality of my care compare to those of my peers? It has been shown that patients rarely ask about the quality of care received from their dentists. However, recently, dentists have been faced with more and more legal situations in which the quality of their care is being questioned.[11] This has required increased professional liability insurance at higher cost to the practitioner causing greater insecurity on the part of patients, forcing them to examine the levels of competency of their dentist. How do we know for sure the dentist's level of competence? The dilemma is how one can ensure the quality of care to patients while at the same time protecting the rights of the dentist.

It is our belief that many dentists are over-confident. They are reluctant to accept peer review. They are threatened by auxiliaries who are able to perform reversable procedures and therefore experienced enough to evaluate the quality of dental care. If an outsider does not come in to perform an evaluation, then by what standards can any dentist ensure the quality of care to his patients? One could assume that all dentists provide the highest quality of care needed by patients, however, one cannot be sure. It is only with peer evaluation that the quality of care can be guaranteed to patients. Should there be a review for relicensure? Who will do the evaluating? At what cost, time, and concern for the practitioner? The dilemma is between either the

present system in which every practitioner evaluates himself regarding his treatment as opposed to an outside evaluation. A review of treatment will create a natural defensiveness on the part of every practitioner. As this becomes threatening to one's ability to practice and earn a living from dentistry, one can then ask, how does the profession ensure the quality of care to patients?

Dilemma II. *Maintaining dental skills.*

At the same time that one is concerned about ensuring the quality of dental care, he will also want to maintain the dental skills needed to practice in our changing world. It has been estimated that man's knowledge has doubled in the past 10 years, and that his knowledge will double again in the next five years. This is particularly true in terms of the sciences. How can the dentist who is presently practicing maintain the knowledge and skills needed to deliver the most up to date dental care to his patients? At present, continuing education is one process that has been utilized to help update practitioners. There are, however, a great many questions about the effect of continuing education on changing behaviors. For example, those who give continuing education courses maintain that people will select courses based upon the location, the meal, day of the week, and the length of course, rather than the quality of the presentor or the subject matter. In some places, individuals have come in, had their continuing education cards punched and left without taking the course or listening to the clinician at all. Some practitioners have attempted to get continuing education credit without participating in and receiving the skills and knowledge the course would offer. This would suggest that some individuals are not really trying to maintain their dental skills.

Post-graduate courses are taught at many major universities, however, these courses are sometimes cancelled for lack of participants. Those who do attend however, seem to be the same individuals who need it least, who are most committed to continuing education and are most familiar with the latest procedures and practices.

How many journals must practitioners read to keep up to date on current dental knowledge, studies and findings? Although this is one commonly accepted method of maintaining information about the latest advances in the field, practitioners will often claim that there is not sufficient time to read all the current literature. Thus, the outsider must ask then how one is to maintain his dental skills? Another question by the behavioral scientist is how does the profession get rid of its "dead wood"? This is of particular concern in a discipline that demands the highest quality of patient care. Does the profession give

its members permission to practice for life, irrespective of the dental skills and the quality with which they perform them? If this is so, the profession will continue to face this dilemma.

Dilemma III. *Providing the most dental care for the least cost to patients.*

It is difficult in these inflationary times for the patient to believe that the dentist is in fact trying to provide service to the most people at the least costs. The patient only sees the ever-increasing cost of dental care without realizing that the dentist's fixed costs are also increasing. The following statement was made in a recent advertisement within the American Journal of Public Health,[1] "Graduate dental hygienists, at the Forsyth Dental Center were trained to administer local anesthesia and drill and fill decayed teeth. The experiment yielded information of the competence of the hygienists, patient acceptance, the efficiency of various patterns of practice, and the potential economic effects of delivering care in this way. The results will stir controversy, but they cannot be ignored by anyone concerned with dental health care." An outsider would contend that the dental profession has been protective about its domain. For example, what can a hygienist do? What can an expanded function auxiliary do? What can an assistant do? In various studies it has been shown that an expanded function auxiliary and hygienist could provide equally sound elements of treatment which would increase the quality of care of patients while reducing the cost (i.e., inserting restorations, administering local anesthesia, teaching prevention).[5] Many states restrict the services that auxiliaries may perform. Where permitted, the biggest question is whether the dentist can get enough patients to justify the auxiliary performing these services. If dental costs were reduced, it can be hypothesized that more patients would come to visit the dentist and thus justify the even greater use of auxiliaries. If it really wants to provide the most dental care at the least cost to patients, there is little question that the dental profession must deal with the dilemma of permitting other individuals beside the dentist to provide direct care to patients.

The profession as a whole is concerned about the prevention of oral disease. However, the dental practitioner earns money from disease rather than prevention. The greater the disease, the more money the dentist will earn. The dilemma then becomes, does one help patients in prevention of disease or does one only deal with the treatment of the problem? We believe that if one is truly a professional, he must practice prevention rather than simply cure. This necessitates taking time to educate and motivate patients, which can be and is usually done by auxiliaries and hygienists and not directly by the dentist. If

one wants to provide the most dental care for the least cost to patients, he must begin to examine options within the practice or this will continue to remain a dilemma.

Dilemma IV. *More dental care for more people.*

Coupled with wanting the most dental care for the least cost to patients, increased dental care for more people is likewise a dilemma. Dentists have maintained territorial rights. They have done this in several ways. When a new dentist has worked within a practice, he has often times been asked to sign an agreement that he would not practice within a certain distance if he were to leave the practice. Also, when new dentists have wanted to come into an area, the dentists in that area often discouraged them from doing so. The same thing has been true when areas have been designated as underserved. There have been objections raised by dental societies so that National Health Service Corps dentists could not be placed in such areas. This maneuvering has meant that instead of more dental care being provided for more people, the cost has been maintained with fewer people having access to dental care. The local dentists invariably state that they could handle more patients. This is probably so, and therefore there is no simple solution to this dilemma.

Dentists have not always been particularly effective in working with community groups. For more dental care to be provided to a greater number of people, the community must be the focus of the energy. Dentists need to become concerned about fluoride treatment in all communities, education beginning in the early school years, parent education and training of other health professionals in ways of identifying oral disease. The dilemma is whether the profession itself is interested in more dental care for more people or rather is it concerned about maintaining each individual practitioner's highest level of income. We recognize that altruism has its limits.

Dilemma V. *Poor and handicapped people need dental care.*

Many in the profession have indicated that there is a need for the poor and handicapped to receive direct dental care.[6] Excuses have included, "Let others do it," "I'm too busy," "Let new dentists do it," "I don't handle welfare cases," "I have to pay my bills." It is our belief that the poor have a right to dental care, the same as any other individual. It is our belief that these underserved populations are excellent prospects for new dentists just entering the profession. This group represents, in our belief, approximately 60% of the total population not presently getting dental care, and there is increasing pressure being placed upon all practitioners to meet their needs. The dilemma is of

course between what one believes and what one actually does. Never have we heard a practitioner state that he would not give care to the poor or the handicapped. However, in terms of practice, is this reality? Dental practitioners in the future, in order to meet these demands, will have to examine their facilities in terms of special aids for the handicapped. Practices will have to look at the most cost-efficient methods for providing care in order to satisfy the need of the poor. The Access program being developed by the American Dental Association represents a giant step in this direction.

Dilemma VI. *Seeing dentistry as a profession.*

The real issue here is whether the practitioner sees dentistry as a profession or as a business. Typically when talking to practitioners about their problems, it is rare that they discuss issues of professionalism but rather deal with issues in practice management. Their concerns relate to insurance programs, management of people, advertising, cash flow, etc. When discussing the future of dentistry with dental students, although they talk about it as a profession, the most common concerns relate to the business aspects. Studies have shown that when dental students in the freshmen year are asked about their goals, they generally are humanitarian and "other" oriented.[10] However, when students reach the senior year, they are now much more mercenary and "self" oriented. The question facing every practitioner is, "Am I seen as a business man?" "What does it mean to be a professional?" "In terms of my code of conduct, am I a care-giver or am I a taker, as business is often seen by the community?" Dentists face a real dilemma here. They typically want to be seen as professional. However, the realities indicate that their major concerns are really related to the business aspects of the practice. This is the area where the individual believes he faces the greatest problems. It therefore becomes a continual dilemma for the practitioner as to how he is seen by others and how he feels about himself.

Dilemma VII. *Meeting cash flow.*

This relates very much to seeing dentistry as a profession as opposed to business. The reality is that one needs money to run the office. There are phone bills, salaries need to be paid, rent is due, and income is needed by the practitioner. The practice must show a profit. If not, working capital will soon be depleted. Thus, the practitioner is faced with the dilemma of generating capital in order to maintain a profit margin above the break even point.

There is little question that as more patients come into the practice, it takes a larger office staff. Fees for service are not ordinarily paid by the patient before treatment is begun. Insurance forms need to be completed and submitted. Insurance companies are sometimes slow in paying the practitioner. There is a vital need for a cash flow within the practice in order to meet the day-to-day needs of operating that practice. The patients, on the other hand, while having insurance, do not feel that they should put out money in advance to meet their dental needs. This dilemma creates a great deal of friction between the practitioner and the patient. The dentist must decide how to maintain the needed cash flow while at the same time maintaining his image as a professional. Obviously, when the practitioner has a "cash only" practice, with payment as treatment is rendered, this will insure that the dentist receives his fees and there is little bad debt. However, this may create a great deal of difficulty for many patients, particularly the poor, and those on insurance plans. Dentistry on credit vs. the need for proper cash flow creates a major dilemma for the dentist.

Dilemma VIII. *The Dentist as leader of people.*

Most dentists feel that they possess the necessary skills in patient management. However, when it comes to managing office personnel, dentists often claim that this is their biggest problem.[11] At present, there are TEAM (Training in Expanded Auxiliary Management) programs throughout the country, teaching dentists to work with and manage their auxiliaries.[12] Dental education is no longer simply learning to drill and fill teeth, but must include instruction in leadership of the individuals within the practice.[13] There is no simple, single mode which teaches the dentist how to work with his personnel. At one time, managers were taught to use a particular style of leadership which would work in most situations. Today, it is important for the dentist to examine the multiple, dynamic effects of group processes within the practice,[7] (i.e., roles, norms, values, power, authority, expectations, etc.). If one does not understand the complexity of problems, then one cannot avoid them. In many cases, practitioners have used a style of crisis management, a style which only emerges when there is a crisis. We are suggesting that one utilize an anticipatory style. In this way, the dentist as the leader of the practice determines the direction he wants to go based upon a range of variables and makes the choice intelligently. This would be used in a life cycle of management. The practitioner would first examine the degree of maturity of himself, the maturity of his practice, and the maturity of the individuals on his office staff in order to determine which is the best leadership style to use at

any point in time.[4] In this way, he might choose to use a more direct style of leadership when the practice is just beginning. However, as the practice begins to mature, and the staff has gained a great deal of expertise and independence, the practitioner might want to utilize a more participatory style of management. What worked in the early stages of the practice might not work at the later stages. The dilemma here is the continuous fine line that the dentist must walk. The leader must tailor his role to the maturity of the staff and the practice. If the dentist is anticipatory and sensitive, his leadership style will be effective, however, if he is not, conflict will be unavoidable.

Dilemma IX. *The rights of patients.*

Dentists are held to be legally and ethically accountable for their services, more so today than ever before. Patients want and have the right to know what forms of treatment are available to them; that is, options need to be presented to them rather than the dentist indicating the treatment he chooses to use. Patients have the right to be given an explanation of the risks of treatment. For example, when radiation is used for diagnostic purposes, consent forms will need to be used in the future. A patient has the right to safety. Likewise, a patient has a right to choose or refuse treatment. Only when the practitioner gives these options to the patient in advance is that individual in control of the decision. Thus, the patient has a right to be heard before treatment is to proceed. The patient also has the right to know the cost of the dentistry to be performed. Finally, it is the patient's right to grievance procedures for either treatment or the cost of that treatment.

It is the dentist's responsibility to ensure that the practice is run consistant with the highest of ethical principles. In the past, the dentist has basically assumed the responsibility of the practice totally as his decision-making process. No longer can this be the case. The dilemma facing all practitioners is the appropriate methodology by which each patient is included totally in the decision-making process regarding himself and the dentistry to be performed on him, while at the same time protecting the dentist's natural self interest.

DEALING WITH DILEMMAS

We suggested at the beginning of this article that you ask some specific questions as you confront each dilemma. There are several ways you could have dealt with each. Some are productive and others are not. Let us share five alternatives for dealing with dilemmas between what one believes and how he behaves.

If you use the productive ones, you probably feel resolution. If not, the dilemma remains.

1) *Ostrich Approach*—This approach is basically one of denial and avoidance, commonly used when an individual refuses to recognize and thus, ignores, the dilemma. "If I do not recognize the problem, then it must not be there." This is similar to placing a filling in a decayed tooth. The problem can be avoided for the present, but watch out in the future. To use this approach will only lead to the problem having to be faced later on.
2) *Attack*—Some people will claim that the best defense is a good offense. In dealing with a problematic issue, they choose to avoid the issue itself and attack the other person or a different issue. In this way, the real issue becomes clouded and confused. Obviously, attack does not help to reduce the tension of the situation but rather increases the anxiety, raises new issues and leads to continual conflict. This is not resolution management, but increased conflict management.
3) *Ism*—Some individuals feel that they are totally not in control and are mastered by chance or destiny; they are externally controlled. They explain this situation with the statement, "That's just the way things are." They recognize the problem, but do not know how to go about solving. The ism means that is just the way it is and the person uses a laissez faire approach to the dilemma ("what will be will be").
4) *Shifting Responsibility*—In this strategy, the individual decides that it is better to shift the decision process to others, calling upon outside consultants to solve a problem. Such a strategy is productive as long as the decision of the group is one that ultimately will be acceptable to the individual facing the dilemma. One problem with shifting responsibility is that the owner of the problem gives up control and has to live with others' solutions, some of which may not be appropriate for the troubled individual.
5) *Problem Solving*—In this strategy, the individual recognizes the problem and "owns it," recognizing that he is part of the problem. The following steps are then suggested by Gordon.[3]
   a) *Identifying and defining the problem*—This is a critical step in problem solving. First, the statement of the problem should be expressed in a way that does not communicate blame or judgement. Using "I-messages" is always the most effective way for stating a problem. Secondly, after you have stated your feelings, try to verbalize the other side of the conflict. If you do not know what that is, ask someone. Go slowly, since

frequently, it will take a while to get the problem or conflict defined accurately. Do not be in a hurry to get to Step (b). Be sure you understand the other point of view, and be sure you state yours accurately and congruently. Frequently, a problem will get redefined as it is discussed, with the initial statement of the problem turning out to be superficial. It is critical to not define the problem as a conflict between competing solutions, but rather define it in terms of conflicting needs and then generate your solutions. Lastly, make certain that you are looking for a solution that will meet both sets of needs, one that will be acceptable to both parties, one where neither side is to lose.

b) *Generating alternate solutions*—This is the creative part of problem-solving. It is frequently hard to come up with a good solution right away. Initial solutions are seldom adequate, but they may stimulate better ones. We suggest non-evaluative brainstorming, generating as many solutions as possible. Do not evaluate or discuss any particular one. Discourage evaluation until a number of possible solutions are proposed. Remember you are trying to generate good solutions, not just any solution. If things bog down, state the problem again. Sometimes this will start the wheels turning. Generally, it will become apparent when to move into (c) after you have come up with a number of reasonably feasible solutions or when one solution appears to be far superior to the others.

c) *Evaluating the alternate solutions*—This is the stage of problem-solving where you must take special care to be honest. You will need to do a lot of critical thinking. Are there flaws in any of the possible solutions? Any reason why a solution might not work? Will it be too hard to implement or carry out? Is it fair? In evaluating the solutions already generated, you may think of a brand-new one, better than any of others. Or you will hit on a modification that improves an earlier idea. If you fail to test solutions at this stage, you will increase the chance of ending up with a poor solution, or one that will not be carried our earnestly.

d) *Decision-making*—A committment to one solution is essential. Usually when all the facts are exposed, one clearly superior solution stands out. Do not make the mistake of trying to persuade or push a solution. When it appears that perhaps you are close to a decision, state the solution in writing, to make certain you understand what you are about to decide.

e) *Implementing the solution*—It is, of course, one thing to arrive

at a creative solution, another to carry it out. Immediately after a solution has been agreed upon, it is generally necessary to talk about implementation. WHO does WHAT by WHEN? The most constructive attitude is one of complete trust that everyone will carry out the decision, rather than to raise the question of what is to be done if someone does not. If anyone fails to carry out his or her end of the agreement, confront with "I-messages".

f) *Follow-up evaluation of the solution*—If you discover weaknesses in the solution, the problem should be returned for more problem-solving. Decisions are always open for revision, but you should not unilaterally modify a decision. Modifications have to be mutually agreed upon by all parties involved. Sometimes you will discover that you have overcommitted yourself. In your enthusiasm you may have agreed to do too much or to do the impossible. Be sure to keep the door open for revision should this happen.

Gordon[3] states, "Remember: Your best tools for effective problem-solving will always be:

1) Active listening
2) Clear and honest sending
3) Respect for the needs of others
4) Trust
5) Being open to new data
6) Persistence
7) Firmness in your unwillingness to have it fail."

SUMMARY

There are many dilemmas facing dentistry today. Each person can choose to deal with the problem or ignore it. To do the latter, eventually leads to dissonance and continued problems. We suggest that each be confronted directly using a constructive problem solving model. If this is done, we conclude that there is hope for future resolutions.

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American Dentistry and the Public Interest

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We are living in a health conscious nation. Americans of all walks of life are demanding good health as they never have before. This concern with good health and the demand for it, has become part of the American heritage. There is one area of health of great importance which has received less attention, has been less publicized, less dramatized than many of the others. Perhaps, this is so because this disease is not so spectacular as some. It is seldom a killer. Yet, its cost to those who have it, is often high, in terms of its effect on total health, on personality development and the expense of eradicating the damage it does. It afflicts more than ninety-five percent of Americans at some time in their lives and rightly has been called "every man's disease." It is dental disease!

It would follow that the most urgent social problem of the dental profession is the developement of satisfactory procedures by which the benefits of adequate preventive, protective, restorative and surgical dental health care could be made available to everyone. Some of the problems which have confronted dentistry have been an apparent lack of desire and reluctance to seek dental care by a large percent of the population, an insufficient number and maldistribution of dentists throughout the country and an adequate system of required payment for the individual beneficiary of such services.

In taking a closer look into the acceptance and reward for universal dental service, there is not the public apathy today. Dental disease is not regarded as some superficial or transitory condition. It is not a question of seeking relief, but rather a realization of a personal desire to either prevent or arrest the ravages of dental disease. Dental care is voluntary and selective. However, the problem of a large percent of the public's ability to pay the necessary costs of dental health care looms continuously on the horizon.

American dentists have always bound themselves to the commitment of their profession with respect to society. The proliferation of dental societies, establishment of and upgrading of dental schools, the

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Presented as the J. Ben Robinson Memorial Lecture to the University of Maryland graduating class of 1979 sponsored by the Maryland Section, American College of Dentists, May 29, 1979. Dr. Asbell is a graduate in the class of 1938.

tremendous expansion of dental literature attests to the concern for, not only self-improvement and professional development, but responsibility to the public. This has become patently manifest starting with the period following World War I.

During the 1920s and 1930s special emphasis was placed upon presenting the responsiblity of dental health care to the public. Once the public was made aware of manifold benefits of dental health, it became clear that the need for, and the means to, provide dental care had to be determined. One of the factors was an introspective appraisal of the dental profession itself. This was done by a comprehensive study conducted with the support of the Carnegie Foundation. As part of the study, a survey was undertaken by William J. Gies (1872-1956) of Columbia University. As a result the Foundation published his *Dental Education in the United States and Canada: A Report To The Carnegie Foundation For the Advancement of Teaching: Bulletin 19.* The issuance of this Report in 1926 completely revolutionized dentistry, not only in the area of dental education, but confirmed that dentistry was an important branch of health service. It clearly demonstrated that the practice of dentistry could not be considered a specialty of medicine but rather a special division of health service equal to medicine.

In the words of J. Ben Robinson: "I know that proposals to put dental education under the administrative authority of conventional medical education, signally failed. I know that they failed because dentistry's separation from conventional medicine is natural and logical. And because its aims and purposes are so important, its educational requirements are so exacting, its special functions are so varied and intricate, conventional medical education can find neither room nor time to produce competent dental practitioners. Dentistry, in reality, is a specialty of comprehensive health practice."

The American Dental Association implementing its concern for the community as well as for the individual, appointed in 1930 a Committee on the Cost of Dental Care and offered its assistance to work with the National Committee on the Cost of Medical Care in surveying the cost of dental services and the facilities serving the public. In 1934 the American Dental Association established another agency, the Committee on Dental Economics whose function was to crystalize and implement policies of the Association. As a result of this Committee's activities, several important facts emerged: there was a wide divergence of dentist distribution throughout the country, there was less *demand* revealed than there was *need* and dental services cost more than the average citizen could afford.

In response to this challenge, the reaction of the dental profession

was mixed. A survey conducted by the American College of Dentists in 1934 approved the concept of health insurance in principle as a means of dental cost payment, whereas a report of an independent organization indicated there was opposition to health insurance in several areas; namely insurance plans would not attract the right kind of practitioner, the closed panel system would deny the patient free choice of dentists, lack of any great economic incentive and treatment would be perfunctory. Clearly what the members of the dental profession demanded were that the Association participate in the development of a national health program maintaining *professional control* over type and quality of treatment, freedom of choice of dentist by all and preserving the integrity of dentistry.

After World War II the dental profession continued its opposition to a compulsory health insurance scheme, but explored proposals extending dental care to more people. These proposals were developed through various programs: intensification of dental research, introduction of fluoridation of public water supplies, strengthening dental educational programs, promoting dental health programs—particularly in state departments of health, expanding dental services in hospitals and clinics and promoting the inclusion of dental services in industry and union-sponsored health programs.

Thus, the education of the number and quality of dentists and auxiliary personnel continues to be one of the more tangible evidences of the concern of dentistry. When one considers the phenomenon of population explosion, the rapid growth of urban and suburban communities—calling for more dentists, it becomes a sociological problem as well as a professional one. The leaders of dentistry are concerned with the development of modern concepts of training the generalist, the specialist, and auxiliary personnel. Hence, dentistry finds itself directly involved in the new social outlook which has converted health from privilege of the few to an entitlement of all.

A generation ago dentists were in such critical demand that one could hardly miss being successful in practice. Dentists were successful from the standpoint of acceptance by communities into which they chose to settle. Adequate number of patients were available; financial success was practically guaranteed. But they failed to provide for the dental needs of the *total* population; it was a practice of the few. At that time, Homer C. Brown, Past President of the A.D.A. cautioned: "Unless some practical readjustments are formulated and promoted by organized dentistry, some of the other interests outside of dentistry, will assume the initiative in promoting a type of service that will probably prove a decided handicap to the dental profession and lower the standards of service to the public. Organized dentistry

should recognize the situation and assume the initiative in formulating a conservative and yet progressive dental health program for the public."

At present, there has come about a dramatic change in the system of dental health care delivery. With the increased scope of dentistry, the continuing unhealthy economic problems of inflation, and the increased demands for dental services, the dental profession is plagued by threats from organized labor, governmental agencies, congressional personalities, community-based civic and social organizations to accept nationalized delivery systems in the practice of dentistry.

In a leading New York newspaper there appeared an editorial this month entitled, "Conscription for Doctors." In it a U. S. Senator has proposed that the health care industry composed of doctors and auxiliary personnel should come under the total control of the Federal Government. The editorial states: "we find it interesting that this plan for economic dictatorship of a selected group of Americans wins such hearty approval from other groups that jealously defend their own economic perogatives. Such groups are identified as the United Automobile Workers and the A F of L, C I O. The editorial continues, "we hear no cries of protest from the American Civil Liberties Union or civil rights groups....if one were to assume that health care is somewhat different from other important goods and services, what reason is there to believe that nationalization will improve its availability or lower its cost?" Lessons may be learned from the experiences of Canada and Great Britain..... "the human element so crucial to medical practice and so grossly neglected in technocratic schemes is subverted by political considerations...in short the proposed plan seeks to eliminate any necessity for Americans to make an economic choice when they utilize health services."

The following is a statement of Alfred F. Dougherty, Director, Bureau of Competition, Federal Trade Commission as publicized by the National Health Publishing Company:

> While the health care field has been "shielded from the application of antitrust principles" until recently, the situation has changed and "there definitely are aspects in which we at the Bureau of Competition believe that antitrust enforcement can contribute significantly to dealing with economic problems of health care markets." The Bureau is "committed to a long-term and varied effort to preserve and increase competition" in the health field.

Milton Friedman, the Nobel Prize laureate for Economics in 1976 in his book entitled *Capitalism and Freedom* (page 258) wrote the following with reference to medical licensure. I have taken the liberty

of substituting the word "dental" wherever the word "medical" appears since it has parallel significance:

> I am myself persuaded that licensure has reduced both the quantity and quality of dental practice, that it has reduced the opportunities available to people who would like to be dentists, forcing them to pursue occupations they regard as less attractive; that it has forced the public to pay more for less satisfactory dental service, and that it has retarded technological development both in dentistry itself and in the organization of dental practice. I conclude that licensure should be eliminated as a requirement for the practice of dentistry.

Is Friedman right? It has long been recognized that one of the fundamental characteristics of a profession is the right to self-regulation. The practice of dentistry, like the practice of other health professions, is subject to laws which reflect the judgment and experience of the profession and which, in the final analysis, are predicated upon the interest of the people whom the profession is dedicated to serve. There is an abundance of evidence that the combination of professional and legal determinations has served the health interests of the American people very well.

I don't believe as does the Editor of the Journal of the American Dental Association that we dentists have become *providers,* that our patients have become *consumers;* that dentistry has become a *cottage industry.*

I don't believe with the same editor that "health care will become the nation's largest *industry.* And that it is to be hoped that the professions will be stimulated to prepare for such an eventuality."

I don't believe that fear has crept into our profession.

I don't believe with our critics that claim we have become impotent and are thus unable to manage the affairs of dentistry.

I don't believe that the public is the best arbiter of the criteria for dental health. Unfortunately, there have always been the doubters, the defeatists, the do-nothings in our midst.

What do I believe?

I believe that dentistry has achieved the status of an autonomous health service profession because of a long period of craftsmanship, scientific, mechanical and clinical expertise.

I believe that dentistry's primary objective is to provide for the preservation of dental health through the conservation of oral structures and the maintenance of dental function.

I believe that the dental profession of my generation has failed its heritage and tradition. It has lost sight of the historical insights of the growth and development of dentistry. The lack of historical perspec-

tive has blinded us to the lasting purposes and goals that have been certified by years of experience.

Perhaps, the value of the past in terms of meaning for the present is not always apparent. Meanings and practices may have passed mindlessly from generation to generation and we see them safely tucked away in musty museums and safe archives. We have failed to realize that these museums and archives are our guideposts for the future.

Perhaps, historic awareness is a prime casualty in our time of rapid change. It is this historic awareness that prevents misunderstanding, chaos, cynicism. If we would only recognize our capacities in remembering and creating our heritage, there would be no room for the demagogues, false prophets and the like, to determine our future.

It is my sincere conviction that tradition is a living, growing experience. We must find the meaning of the past by bringing it to bear on ever-emerging events and issues. Our survival as a profession depends upon continually re-examining our history and finding relevant and significant ideals to meet the crises of today. There must be a passionate commitment to preserve the wisdom found in past experience by testing it against ongoing events.

I believe—

That dentistry, does not work in isolation, but in scientific harmony with all health disciplines;

That dentistry, finds itself in the scientific pursuit of the problems of health and disease;

That dentistry, finding hope and inspiration in its tradition and history will find the leadership in the coming generation that will establish viable programs for the delivery of dental health care.

That dentistry, shall remain a health service that is dignified, admired and respected in this land of the free enterprise system. Future generations—

will re-establish the concepts of professionalism,

will not abrogate the high ideals of our calling,

will cling to freedom—freedom on professional activity in scientific achievement, and in freedom of spirit in the American tradition,

will recognize that the welfare of those they serve is primary over all other considerations,

that improving human relations is a way of increasing understanding and enjoyment of life,

that dentistry is part of the humanitarian fabric of America.

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APRIL 1980

Survival and Growth of a Private Dental School

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One private dental school is, in my opinion, effectively coping with the problems of survival and growth which are particularly associated with the kind of institution it represents, the result being that it is in a sound state of fiscal and programmatic health. Achieving this enviable position has not been easy, however, and I believe that a brief description of the school's experience is worth sharing with our colleagues in dentistry because I think that it might contribute to their understanding of the problems faced by dental education today. In these days of the shrinking dollar, a perceived oversupply of dentists by many in the profession, and the need to maintain high quality educational programs, many dental schools in the United States are facing unprecedented difficulties as they attempt to meet their obligations in a responsible manner, thus an outline of how these forces are impacting on the school for which I have some responsibility as dean should be instructive for others.

The College of Dentistry at New York University is a private school which receives about 25 percent of its annual operating revenue from public sources, at both the state and federal levels. As such, it is a heavily tuition-dependent institution, thus placing it in the relatively vulnerable position of being subject to the forces of the market place (relative to its tuition level) and the shifting priorities of elected representatives in the state house and the nation's capital (relative to its level of governmental subsidy).

Add to this the need to respond to the accrediting agency's requirement several years ago that our physical facilities needed to be improved and the factors which led to a three calendar-year program from a previously existing four academic-year program, and you have the ingredients which made for a very interesting and challenging administrative period fro this particular school of dentistry.

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The first major achievement of the past several years was the breakthrough associated with the funding for a new clinical and basic science facility and its subsequent construction and completion, with occupancy having taken place in the summer of 1978. This building, which was designed for a student body enrolled in a four-year program in which each class would be of about the same size as that enrolled in the three-year program, provides the much-needed physical plant, in combination with existing facilities, called for by the Commission on Accreditation.

The second important occurrence of recent years was the decision by the Faculty and Administration of the College to return to the four-year predoctoral curriculum and the plan to implement it in September, 1978—a point in time coinciding with the occupancy of the new facilities.

It was at this stage that the forces referred to in the opening paragraph of this article came together with a vengeance and a solution was found which, I believe, laid the foundation for the positive growth of this institution. To begin with, the increased costs of administering the College caused by inflation and the need to manage a new, expensive, physical plant were of such magnitude that it was obvious that we would have to receive increased governmental subsidies, increase tuition drastically, or operate on a financial deficit. Since a deficit budget, particularly a chronic one, was not acceptable to the University because of the effect it would have on the other schools and colleges, the solution had to be found through the other two avenues, with some additional help coming from a stepped up development (private donations) program, income-producing activities, and cost containment.

An important decision was made at this juncture which constituted the keystone around which all other decisions since then have revolved and which, in my opinion, enabled the College to succeed in related areas. That decision was the one to admit the last of the three-year classes (Class of 1981) and the first of the four-year classes (Class of 1982) simultaneously in September, 1978. This meant that we had approximately 400 first year students in 1978/79, since each class consisted of about 200 students. The size of our entering class was *not* increased to 400, as some people unfamiliar with the school have thought. It simply meant that two of our classes had an identical starting date and, more importantly, it permitted the enlargement of our student body to take place in 1978 rather than waiting three years until a fourth class enrolled in the four year program would arrive in the fall of 1981. The impact in terms of revenue was profound, since the tuition, additional capitation support and associated income from

about 200 additional students was realized immediately. It did *not* produce additional graduates each year, but it did provide for an immediate conversion to the four-year program.

There were obviously many important ramifications of this action, including the admission of two qualified first-year classes, the design of a new curriculum, the scheduling of the two classes in a manner which would not diminish the educational experience, and the necessary enlargement of the faculty. Those matters were all addressed thoroughly, with full awareness of the University, the State Education Department, and the Commission on Accreditation. It is my opinion, based on our experience to date with the two classes, that we are succeeding at a level which exceeds the expectations that we had when the effort began and demonstrating in a viable way the effectiveness of the extensive planning which took place.

This significant action had the very positive effect of demonstrating to those who were in a position to help that the College was determined to help itself as much as possible and one result was a more sympathetic State Legislature and Executive Branch at a time when we were seeking an increase in the level of state support for private dental education. There were other, very important, arguments for this increase and they were all brought to bear, with the result that a significant increase in state support was obtained, effective in academic year 1979/80. Thus, the second part of the solution was found.

The third, and final, part of the solution was an increase in tuition which exceeded President Carter's guidelines, but which was at least within reach of our students and enabled us to continue to attract highly qualified applicants.

That, in brief, is the story and I believe it serves to illustrate how powerful forces can affect an institution which is not protected by the existence of an assured annual revenue with a built-in adjustment factor related to cost-of-living. I have not discussed the issue of manpower production, except to point out that this school is not graduating larger classes as a result of this conversion to the four-year program. It seems to me that any decision relating to changes in class size would have to take into account a serious study of the area served by the school and the impact of such a change on the school itself.

It is my hope that this tale will be of some assistance to my colleagues in dentistry as they try to understand the problems of our schools of dentistry during these troubled times. I know that many of my fellow deans could relate experiences at their institutions which are at least equally revealing.

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Changes Which Affect The Future of Dentistry

RICHARD J. REYNOLDS, D.D.S.

The changes which are influencing the future of dentistry can best be viewed against the backdrop of the historical perspective.

Prior to the establishment of educational standards and laws regulating the practice of dentistry, the public was all too often subjected to painful abuse at the hands of ill-trained, incompetent, unscrupulous and uncontrolled practitioners. It was natural and inevitable under these primitive conditions for the public to demand some measure of control over both the dental profession and the medical profession. As a result, by the beginning of the 1800's, professional licensing was well established and a trend was set in motion for continued refinement of the regulations governing practice by the professional associations with the legal support of the states. However, human nature being what it is, opposition began to develop. Brought into serious question was the validity of the restrictions and the unconstitutional infringement of the right of an individual to pursue a trade or profession. Beginning about 1820, state laws governing professional practice began to be repealed out of existence or amended to the point that they were ineffective. By 1850 there were almost no regulations governing professional practice and predictably, a sharp decline in professional standards and image ensued, and a slow down in progress. As a result, it was realized that states had to re-enact legislation regulating the professions and to re-establish educational standards. By 1900, practically all states had licensing laws with a large measure of built-in professional self-government provided for within the laws, and a definite professional role in the licensing and regulatory process. Basically this is the framework within which present day professional licensure operates, and there is a rather stable working relationship between state governments and

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Presented at the University of Tennessee Center for the Health Sciences, Interfaith Center, October 16, 1979. Dr. Reynolds is vice president of the American College of Dentists.

the professional associations. History has a way of repeating itself and there is once again growing criticism and opposition to the concept of dental licensure.

A part of our democratic heritage has been opposition to restrictions of our privileges and freedoms unless there is convincing proof that such restrictions are necessary to the public interest. Today it seems that many persons, some within the dental profession, are far more concerned about their individual rights than about the public welfare or for that matter the welfare of the profession. There is agitation for change in dental licensure directed specifically at State Boards by members of the dental profession and by state and federal government agencies—but with no substantial outcry on the part of the general public or demonstrated interest exhibited by the state legislatures. There are those who would like to see State Boards abolished, and graduates of approved educational institutions allowed to go directly into practice.

After seven years on the Tennessee Board of Dentistry and five years with the Southern Regional Testing Agency comprising the Boards of Tennessee, Kentucky, Virginia and Arkansas, I am more than ever convinced that licensing laws are indeed necessary for the protection of the public health and welfare, for the maintenance and raising of standards of practice and to prevent those graduates who were not sufficiently motivated and who were not able to demonstrate minimal competency from preying on an unsuspecting public. Even with controls as rigid as they are, there are regrettably, instances where patients have justifiable complaints in terms of mismanagement and poor quality of service. Such incidents hurt dentistry's image and it is imperative that they be kept to a minimum.

Let me emphasize that I have no concerns regarding the future of dentistry from a technological point of view. There is constant progress in the research and development of dental materials, instruments, techniques, and sophisticated electronic diagnostic equipment. A couple of years ago I was privileged to visit and inspect dental facilities in England, Hungary, Russia, Poland and Yugoslavia. I came away with an overwhelming sense of pride in American dentistry. The Iron Curtain nations, under rigid political control are, dentally speaking, at least 30-40 years behind the United States. This pre-eminence we enjoy has been the result of a highly developed sense of order and organization within our profession which has led to the sharing of knowledge and the enjoyment of certain rights and responsibilities within our profession and the community. Americans generally retain a respect for their old moral habits and political forms because those

habits and forms express their understanding of order. No order is perfect because man is imperfect—but order is the pattern by which we live and conduct ourselves with purpose and meaning. Laws arise out of a social order—they are the general rules which permit the proper functioning of our society. Currently, the traditional values of the dental profession are being assailed and uprooted with cataclysmic force and unprecedented speed. I should like to direct your attention to instances that call into question the survival of the professional systems brought about by legal, social, professional and political changes.

There are legal changes involving the constitutionality and legality of laws controlling advertising by professionals and the applicability of the anti-trust laws to dentistry and the other learned professions.

There are social changes as consumers demand that the dental profession become more sensitive to what the public's dental health needs are perceived to be. Health consumers want more input into quality assurance and a more widespread accessibility to dental care. Sunset laws are readily comprehended by dentists who serve on State Boards, but it is imperative that the intent of government and industry has had a salutary effect on scientific investigation and publication in America. As a consequence, the United States has occupied a position of pre-eminence among the nations of the world, in terms of professional journalism. Unfortunately, of late there has been a growing indifference and lack of respect, for the achievements of our scientific community. This change in attitude on the part of government agencies, the executive branch, and antipathy among some members of Congress is perplexing indeed. Journals are of paramount importance to science inasmuch as scientific discovery benefits no one unless the information is disseminated. Scientific associations, because of their recognized value to society have been granted special privileges, i.e., the exempt status and low postal rates for the wide distribution and availability of their journals. Recently however, the Internal Revenue Service has served notice to about 90% of the physics and chemistry journals that it plans to revoke their tax-exempt status. The IRS has brought action against the American Medical Association and the settlement it seeks could severely impair the programs having to do with medical education, medical science, and quality control of medical care. The American Dental Association has also come under the scrutiny of the IRS. The FTC, in addition, is studying the AMA publications with the evident intention of handicapping the AMA in its dissemination of scientific information. The new rate structure proposed by the Postal Service will make it difficult

for many scientific publications to survive. Journals are already burdened with the ever increasing cost of paper and printing. How long many of these publications will manage to survive these insidious attacks is a matter of conjecture.

Finally, what impact are these events having on dental education? The 1978-1979 Annual Survey of Dental Educational Institutions report points out that there is a continuing decrease in the number of applicants to dental schools, only a slight increase in dental school enrollment and graduates and steadily declining federal funds for dental education, and a continuing increase in tuition costs. Currently, schools are beginning to feel the effect of the shrinking applicant pool. Several schools that rejected applicants with low grade-point averages and Dental Admission Test scores have ceased to do so. This of course, is a concern to many who are sensitive to the future quality of the dental profession.

The ability of the dental profession to monitor changes and respond with progressive policies is essential to its survival and will determine its future as a profession. The changes confronting the professions are the result of malicious usurpation of authority by over-zealous governmental agencies. It would appear that our chief hope for a return to order lies in a recognition by Congress that the changes being proposed are not in the public interest. Let us draw a distinction between change and progress. Change is a state of affairs—it is real. Progress, on the other hand, is subject to question and dependent upon one's point of view. The improvement or lack of improvement of the dental health of the people of this national will determine the propriety of the suggested changes and, in the final analysis, will be the true yardstick of our progress.

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Service is the rent that we pay for our room on earth.
—Lord Halifax

Patient perceptions of the quality of dental care and involvement in a quality assurance program were studied at the Dental Demonstration Practice, University of North Carolina School of Dentistry. Patients expressed a high degree of satisfaction with current services but were considerably less positive about previous dentists. The dentist's awareness of discomfort and explanation of treatment were the most important factors that patients felt they could use in evaluating care. A series of questions dealt with the issue of quality assurance, particularly peer review. The consensus was that evaluation of a dentist's care will improve the quality of dentistry he provides. Patients were receptive to the idea of returning to their dentist's office for a separate appointment to have their restorations checked, but were less willing to pay for such an appointment. Mandatory continuing education requirements and peer clinical review exams of patients were the most widely supported methods for maintaining quality dentistry. Other mechanisms receiving less support were: relicensure of dentists every five years by written exam, an arbitration board composed of dentists and patients, and evaluation of the patient's dental record. Almost one-third of the sample believed that their dental records are private and should not be available to anyone other than their dentist. Less than one-fifth anticipated a negative response to the discovery of an inadequate dental restoration by peer review and its later replacement.

Patients' Attitudes Toward Quality Assurance in Dentistry

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Programs designed to monitor the quality of dental services have been seriously considered by the organized dental profession over the past decade. The advent of consumerism in dentistry and the development of the P.S.R.O. (Professional Service Review Organization) in medicine have stimulated interest in quality assurance programs for

dental services. The major existing review mechanisms for dentists are the National Board Dental Examinations and the licensing examinations given by state boards of dental examiners. These established testing programs serve as prerequisites to dental practice and are given at points in time prior to the onset of licensed clinical or community practice.

The first significant legislative step for professional accountability appeared in the Social Security amendments of 1972. Public Law 92-603 established the authority for Professional Standards Review Organizations (PSRO's) in each state to provide public accounting of cost and quality of care administered under Medicare and Medicaid. By the end of 1974, 46 states had established such review committees. Currently, although eligibility for membership on PSRO committees is limited to physicians, the Senate Finance Committee's report on the legislation expects the PSRO's to arrange with local dental societies for provision of peer review of dental services,[1,2] and guidelines stipulate that PSRO's remain autonomous from state societies.[3]

Some dental societies currently have functioning review committees operating in a variety of ways, some of which investigate patient and dentist complaints. Complaints may be investigated by post-operative screening, review of records (for adequate history, treatment plan and service record), and/or review of post-operative radiographs. Although such review serves a definite purpose, it would seem that the major emphasis of active review committees should be to prevent rather than react to complaints.

Whatever its form, peer review in dentistry is being heralded with much interest from consumer groups, but with some doubts and questions from the profession. Gertler has pointed out the threat of legal liability as a weakening factor in the active operation of peer review committees.[4] Simmons states that peer review will stifle innovation by its setting specific criteria for services, will jeopardize traditional doctor-patient relationships and patient record confidentiality and will reduce productivity by time lost and administrative costs.[5] Milgrom et al studied peer review versus self assessment by the treating dentist and found that self assessments were significantly more critical than peer reviews when scores were weighted for factors influencing the service lifetime of restorations.[6]

Dental service corporations, set up as non-profit organizations to provide prepaid dental care to consumers, are expected by consumer advocates to be publicly accountable.[7] The consumer input in these corporations varies widely but is focused on fee and quality control. Consumer advocates point to the principle of dental ethics which protects colleagues against criticism, ostensibly to guard the reputa-

tion of the profession, as a sure means of inhibiting quality control. The California Dental Service (CDS), has addressed this in its review of fees, processing procedures and benefit structures.[8] The CDS, now the largest dental insurer in the country, also uses a program of random patient post-operative treatment checks by dentist consultants in its utilization quality review system.

Quality assurance though, could take many forms. Responsibility might be left to the individual dentist to meet mandatory continuing education requirements or to renew his license every five years by passing a written examination. It might be controlled completely out of the individual dentist's jurisdiction by a board of dentists and consumers which would arbitrate and judge complaints from dentists and patients. Quality assurance might become the responsibility of local dental societies or other groups of dentists who perform post-treatment clinical examinations and review of patient records in their peers' offices. In fact, review processes such as these are currently being carried out in some publicly funded and institutional dental care settings. With growing numbers of third party dental insurance carriers and consumers advocating professional accountability, it is becoming evident to private dental practitioners that in order to avoid outside intervention in their practices, they must accept responsibility for regulation of care.

The project reported in this paper was carried out at the Dental Demonstration Practice at the University of North Carolina School of Dentistry which was one of nine quality assurance systems selected for study by the American Dental Association and HEW's Bureau of Quality Assurance as discussed in the July 1977 issue of the Journal of the American Dental Association.[9] In this practice, which is an operating group dental practice oriented towards health delivery research, a patient survey was undertaken prior to the patient's exposure to a quality assurance process (chart review and clinical peer evaluation and examination). Our study examines patient attitudes regarding dental quality assurance programs. A total of 162 patients between the ages of 15 and 77 were interviewed and their responses were coded and computer analyzed. The interview was administered to patients on a routine dental appointment. The questions elicited patient attitudes regarding the quality of their dental care and opinions relating to the best ways to insure that quality. This study is relevant since all respondents were aware that they might have their teeth and their dental charts examined by a reviewer. Thus, the reality of involvement in a quality review process was apparent to this group. The objective of the study was to evaluate their response to such involvement.

This is the first stage of a project which will follow this group through the peer review process and measure responses to the actual patient's experience of being examined and having their care evaluated. This research group has recently received support from the American Fund for Dental Health in conjunction with the W. K. Kellogg Foundation to participate in the National Dental Quality Assurance Program. In the search for a quality assurance model that is acceptable to the profession and consumer, this group will be evaluating the impact of instituting both chart review and clinical examinations in the private offices of dentists in North Carolina.

SAMPLE CHARACTERISTICS

Interpretation of the results of the survey depends upon knowing the nature of the patient population at the Dental Demonstration Practice. The most outstanding characteristics of those interviewed were their ages and level of education. Fifty percent of the patients were between the ages of 26 and 35 with the mean age being 32.8 years. The mean age of the population of North Carolina is 26.5 years.[10] Because the Dental Demonstration Practice is situated in a University community, the patient population is highly educated as compared to the average North Carolinian who has had only eleven years of education.[11] Ninety point six percent of our study population has a college education or better. The patient population is 60.9% female and 88.8% white. The economic character of this group is basically middle and upper income with 36.1% earning below $10,000 as compared to 66.2% of the North Carolina population.[12] Table one describes the dental health care habits of the sample as contrasted with findings from the 1972

TABLE 1: DENTAL BEHAVIORAL CHARACTERISTICS OF TWO POPULATIONS

	1972 NORC (N=1312)	Dental Demonstration (N=162)
Percent Seen by Dentist Within Last Year	55.6%	74.5%
Percent Not Seen by Dentist Within Last Three Years	25.0%	5.0%
Percent With All Teeth	19.0%	53.7%
Percent Edentulous	26.5%	0.0%

NORC Study of Dental Behavior,[13] which involved a representative sample of adult Americans (not only dental patients).

It is apparent that the larger part of the patient population of the Dental Demonstration Practice is young, white and highly educated. The concern of these people for a healthy mouth and teeth appears to be above average as evidenced by regular trips to the dentist and conscientious oral hygiene habits.

FINDINGS

The survey included questions dealing with the degree of personal satisfaction (or lack of it) that patients had experienced with dental care. Patients were asked to rate the quality of care provided by their last dentist prior to coming to this clinic; 38.7% of those polled had negative impressions about their dentist's abilities. When asked the same question about their dentist at the Dental Demonstration Practice only 2.5% gave a negative reply. Patients were asked to rate specific areas of service at the Dental Demonstration Practice (Table 2). They proved to be satisfied with overall quality of care, time involved in receiving treatment, ease of getting to the dentist's office

TABLE 2: DENTAL PATIENT SATISFACTION WITH CURRENT CARE

	Percent Satisfied or Very Satisfied	Percent Unsatisfied or Very Unsatisfied
Quality of Care	96.9%	3.1%
Waiting Time	95.6%	3.7%
Ease of Getting to Dentist From Home	86.2%	13.0%
Costs of Dental Care in the Practice	72.5%	27.5%
Follow-up Reminders for Appointments	89.6%	5.0%
Concern of Dentist for Overall Health	46.6%	7.5%
Information Available to Choose a Dentist	49.7%	25.5%
Dentist's Awareness of Discomfort	91.2%	5.0%
Dentist's Explanation of Treatment and Alternatives	89.3%	6.9%

from where they work or live, appointment reminders, the dentist's awareness of physical and mental discomfort, and the dentist's explanation of the problem and suggested alternatives for treatment. When asked how pleased they were with the dentist's concern for their overall health, not just their dental health, 46.6% were satisfied, with the remainder either expressing dissatisfaction (7.5%), or stating that they did not expect general health to be an area of concern for their dentist (46.0%). Seventy-two point five percent said that they were satisfied with costs in that they were similar to other dental offices; however, many commented that the cost of dentistry in general is too high.

Patients were asked if there were any way that they, as consumers, could know whether or not a dentist was giving them good care. Fifty-eight point four percent of the Dental Demonstration Practice sample answered yes; the comparable 1972 NORC response was 60.9%. The Dental Demonstration Practice results listed the presence or absence of discomfort and skill in patient management as being the major indicators as to the quality of a dentist's care. Results from this study were similar to 1972 NORC findings in that both studies indicate that less than half of those patients who feel they can evaluate their dentist's care utilize technical quality of service as a measure. Neither study showed that cost or waiting time were important factors in quality evaluation.

Patients were asked their opinions on several questions concerning peer review, the form it should take and the value of quality review to them. At the outset, 97.5% of those interviewed said that the quality of dentistry should be evaluated, though 31.9% stated that evaluation of their dental record by someone other than their own dentist would constitute an invasion of their privacy. Another way of carrying out an evaluation is by having the patient return for a special appointment during which the quality of their dental restorations could be checked. Eighty-five point seven percent responded favorably to coming for an evaluation appointment. All were asked, "Are you willing to pay a slight increase in fees to have your fillings and dental care evaluated?" Only one-half (50.3%) of those polled would be willing to pay for such an appointment, though 88.8% thought that regular evaluations would improve the quality of dentistry in general.

Clinical evaluations will uncover dental restorations that for one reason or another will need to be replaced. Patients' reactions to such findings will be very important to the future of peer review. We asked our patients what their response would be if a filling was found that needed to be replaced (at no charge). Forty-nine percent reacted by dismissing it as human error or said they would think nothing of it.

Nearly one-fourth (24.2%) of those answering would want to talk to the evaluators about the problem before deciding what step next to take. Upon hearing that a filling had been judged unsatisfactory, 11.8% would go to another dentist to have the filling replaced and an additional 5% "would have very negative feelings" toward their dentist. If the Dental Demonstration Practice population is typical in its responses, the concept and practice of peer review will be widely accepted. Patients will be willing to put up with the inconvenience of an extra trip to the dentist's office for the knowledge that their dentist is providing quality dentistry. If he consistently provides care of unacceptable quality the patient would be made aware of this and it remains a possibility that some patients might then choose to change dentists.

Patients were asked their opinions on the effectiveness of alternative methods of improving the quality of dentistry. Their responses are ranked in Table 3. Patients at the Dental Demonstration Practice responded most favorably to the ideas of posttreatment clinical evaluations and mandatory continuing education requirements for dentists. Many of those polled were surprised that the latter is not currently enforced.

TABLE 3: ALTERNATIVE METHODS OF QUALITY ASSURANCE

	Percent Favorable
Having the Patient Return for an Evaluation Appointment	78.9%
Mandatory Continuing Education Requirements	68.3%
Board of Dentists and Patients to Arbitrate and Judge Disputes	50.0%
Evaluation of the Patient's Dental Record	49.1%
Relicensure of Dentists Every Five Years by Written Examination	38.5%

SUMMARY AND DISCUSSION

Dental care is a phenomenon that is not readily evaluated by patient assessment of technical quality. Satisfaction is primarily a result of interpersonal interactions and impressions of office environment. Perceptions of the dentist are largely related to his or her skill in patient management and pain control. Quality assurance programs in dentistry will provide measures of technical quality and may make results of assessments of services available to patients. This prospective study examines how a population of patients participating in a practice

incorporating a quality review system (chart review and clinical examination), respond to potential evaluation.

This sample appeared to believe that peer dental clinical evaluation and mandatory continuing education requirements will be the most effective means of improving and maintaining the quality of service. Boards to arbitrate patient complaints, chart reviews and relicensure by examination at five year intervals were seen as considerably less effective measures. A significant portion of the group also expressed concern that chart reviews might constitute violations of their privacy yet most were willing to be involved in such reviews along with posttreatment clinical examinations. The sample was split in its willingness to pay for quality evaluation.

The dental profession's response to direct peer review will depend on how the consumer responds to deficiencies that are uncovered. In a system that informs patients of inadequate dental restorations and encourages their replacement, patients will be called upon to formulate an understanding of why or how a deficiency occurred. It is encouraging that less than a fifth of the patients in this well educated and comparatively affluent practice, anticipated a negative response to such findings. Indeed, the possibility exists that patients will experience increased confidence in their dentists once quality assurance is established. In particular, one would expect offices which voluntarily institute peer review systems to be perceived as "having nothing to hide". Review processes are being carried out in some publicly funded and institutional dental care settings; however, the private dental office, where the bulk of dental care in the United States is delivered, is at present not actively involved in quality assurance programs.

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This study investigated the extent to which self-concept, as measured by the Gough Adjective Check List (ACL), in combination with DAT, overall college average (OCA) and college science grade point average (CDS) could predict academic achievement (QPA) for fifty-six male and twenty-eight female dental students. It also compared in an impressionistic manner the results of the correlations between these variables for male and female students. This research showed: 1) a significant association between the ACL scales of Order, Endurance and Dominance in predicting academic achievement for female students, and overall college average and the ACL scale of Dominance for the prediction of male academic achievement. 2) Self-concept as measured by the ACL test could be used to identify personality differences among male and female students in relationship to their dental academic performance.

Self-Concept and Cognitive Measures Among Male and Female Dental Students

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Dental Schools in the U.S. have many more applicants for freshman enrollment than they have openings; admission committees, consequently, are faced with a problem of competitive selection. In the past seven years, female applicants in dental schools have increased, which could modify the prediction criteria for student admission.[1,2] Starting in 1946 the Council on Dental Education of the American Dental Association helped in the selection process by developing the Dental Aptitude Test (DAT).[3] Although this test has been utilized in dental schools since 1950, nonetheless, studies by Peterson[4] and others[5,6,7] have shown that this test has variable success in predicting student performance in dental school.

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Unlike Dentistry, Engineering and Education have been increasingly cognizant of the evidence offered by researchers in personality variables and appear to be shifting their emphasis toward the employment of more of them in student selection as well as in the prediction of curriculum success.[8]

This investigation studied the relationships between self-concept and cognitive variables for both a male and a female dental student sample. Further it assessed the contribution of a mix of self-concept and cognitive measures to academic achievement for these students during dental training. It also compared in an impressionistic manner those cognitive and self-concept variables that were important for males with those that were important for females.

REVIEW OF THE LITERATURE

In the last 30 years aptitude and subject matter testing has been more widely used in professional school selection programs. These nation-wide testing programs were established by Dental, Medical and Law Schools to select incoming students. Numerous studies have been performed in order to help determine the "best" combination of predictor variables to aid in this selection process.[5,7,9,10,11,12,13,14,15,16]

The literature of the past twenty-five years reveals an extensive amount of research in the identification and prediction of characteristics of a "successful" dental student; however the typical investigation involved only male dental students. Peterson[4,17] reported no consistent agreement between the rank of students, their predental grades and their performance on the DAT. Layton[5] found that predental grades yielded significant Beta coefficients when predicting academic dental achievement, whereas, the DAT was not as highly related.

Tocchini et al[18] attempted to determine the best predictors of academic achievement in dental schools based on the four-year academic record of graduating dental students, college grades, DAT averages and biographical information. He found that grade point average in college, the academic part of the dental aptitude test and marital status were the best predictors for the final grade point average in dental school. The correlation coefficient between predicted grade point average and the dental school grade point average was .57. Hood[14] studied the relationship of twenty-two variables and Male Freshmen achievement in dental school. The predental grade point average had the highest correlation with the overall grade point average. The latter had a higher correlation with theory grades than with technique grades.

Manhold[7] made an eight year study of the efficacy of the DAT in predicting the performance of two dental classes, each over a four-year period. He suggested that the best predictors of dental student performance were the academic portion of the DAT and the student's level of accomplishment in basic sciences. Achievement in basic sciences was found to be highly predictive of clinical performance. The mechanical aptitude portion of the DAT, the overall college average and the college general science average were not predictive of preclinical or clinical accomplishment in dental school.

Fernandez,[12] using a sample of male dental students from three graduating classes in one school, tried to determine the predictive validity of the student admission criteria. He reported that carving dexterity was not significantly related to clinical achievement in two of the classes studied. Chen, Podshadeley and Schrock[19] factor analyzed a total of thirty-two variables including mental ability, past achievement, manual skill, personality and vocational interest all believed to be potentially useful in the selection of dental students. They wanted to determine their factor pattern in relation to the criterion variable-cumulative grade point average in dental school. Predental grade point average was found to be the most important single predictor of dental academic achievement.

A constant interest in improving dental education has broadened research in the psychological characteristics of dental students. Better education implies more understanding of needs, attitudes, and interests of the students. Research in the socio-psychological dimension of dental students included the work of several investigators that also utilized samples of male students. Robinson and Bellows[20] reported that success in the first two years of dental school was significantly associated with interest in the profession as measured by the Strong Vocational Interest Blank. The instrument predicted success in some of the technical courses but not in the more academic areas. Thompson,[21] using personality and vocational interest variables, found some low, but statistically significant relationship between these variables and grades in the theory and technique dental courses.

All of the above studies have utilized male students and few of them personality variables. This study attempted to explore the effects when personality variables are also used for one sample of male students and another of female students.

METHOD AND PROCEDURE

The subjects for this investigation consisted of 84 students enrolled in a School of Dentistry at a large private midwestern university. All 28 women in the school participated in the study. The remaining 56 were men, drawn at random, from the total male dental population. The 1 senior, 6 juniors, 10 sophomores and 11 freshmen female students were doubled in each year group in order to maintain a proportional representation.

Two psychometric instruments were used in connection with this investigation: the Dental Aptitude test (DAT) and the Adjective Check List (ACL).

I. Dental Aptitude Test

The DAT is a well known battery of tests developed by the ADA in 1946 and has been widely used for the past three decades as a instrument of determining admission to most dental schools. The long literature about the DAT is well known by most dental educational researchers. This test produces thirteen raw scores that are converted into standard scores. The latter are summarized as academic and manual scores. In the Fall of 1972, the Chalk Carving Test (reputedly measuring manual dexterity, following directions, and visualizing three dimensions) was replaced by the Perceptual Motor Ability Test, a paper and pencil test designed to measure skills similar to the Chalk Carving Test.[22] All the students in this study had, prior to enrollment in dental school, completed the Dental Aptitude Test.

II. Adjective Check List

The ACL was developed by Gough and Heilbrum[23] and is comprised of 300 adjectives commonly used in the self-description of a person. It can be completed in approximately fifteen minutes and generally arouses relatively little anxiety in the subjects. Each one of the 300 adjectives is considered as indicative or contraindicative of one or more of the 24 scales incorporated into the ACL. Seven personality scales were developed by Gough, whereas, fifteen need scales, a Defensiveness scale and a Counseling Readiness scale were developed by Heilbrum,[23] (Table 1). The ACL was administered to all the students in the sample, at the beginning of this investigation.

The cognitive variables used in this study were obtained from academic records of the student sample. These variables were: Overall College Grade Point Average (OCA), College Science Grade Point Average (CSA), Dental Aptitude Test Academic Average (DATA),

TABLE 1
SUMMARY OF THE DATA USED IN THE STATISTICAL ANALYSIS

VARIABLE	MALES (N=56) MEAN	MALES (N=56) STANDARD DEV	FEMALES (N=28) MEAN	FEMALES (N=28) STANDARD DEV
1 Total number of adjectives checked	47.35	8.13	53.85	9.98
2 Defensiveness	50.03	7.38	47.96	11.81
3 Number of favorable adjectives checked	46.94	12.65	54.35	9.17
4 Number of unfavorable adjectives checked	49.46	8.56	48.00	8.97
5 Self-Confidence	50.66	7.78	53.32	11.01
6 Self-Control	46.94	9.10	50.35	8.82
7 Lability	48.25	9.17	51.75	9.29
8 Personal Adjustment	47.01	9.53	47.21	11.63
9 Achievement	54.19	8.45	57.17	10.95
10 Dominance	54.26	9.94	56.03	11.33
11 Endurance	54.17	7.74	55.78	9.19
12 Order	54.82	9.56	54.50	9.21
13 Intraception	49.26	10.98	50.25	12.25
14 Nurturance	50.05	10.83	45.53	14.00
15 Affiliation	48.41	9.24	45.82	11.65
16 Heterosexuality	52.55	10.08	53.46	12.07
17 Exhibition	52.25	8.22	50.50	8.45
18 Autonomy	45.83	8.53	57.75	7.52
19 Aggression	52.42	10.53	53.32	10.33
20 Change	47.75	9.39	46.71	7.78
21 Succorance	56.71	9.42	59.71	9.29
22 Abasement	47.28	8.46	47.53	9.83
23 Deference	48.08	10.01	46.75	8.30
24 Counseling Readiness	47.05	9.78	56.00	10.57
OCA: Overall College Average	3.06	.30	3.22	.34
CSA: College Science Grade Point Average	3.00	.37	3.16	.44
DATA: Dental Aptitude Test Academic	4.39	1.24	4.53	1.29
DATM: Dental Aptitude Test Motor	4.57	1.26	4.46	1.10
QPA: Accumulative Quality Point Average	2.90	.44	3.00	.47

Dental Aptitude Test Manual Average (DATM), and Cumulative Quality Point Average (QPA) as a measure of dental school achievement.

A simple correlation was done between the ACL scales and the cognitive variables to determine whether there was any relationship between them. The ACL scales and all cognitive variables except QPA were regressed upon the latter in order to study the contribution of personality variables as predictors of scholastic achievement. Separate analyses were made for males and females. An alpha of .05 was used in determining statistical significance.[25]

RESULTS

The correlations and multiple stepwise regression analyses were performed using the Statistical Package for the Social Sciences (Xerox) Hern 4.01. The summary of the data utilized for the analyses are presented in Table 1.

The simple correlations among the self concept and cognitive variables for both the female and male groups are presented in Tables 2A and 2B respectively. For the female group, significant correlations were obtained between DATA and ACL^{24} (Counseling Readiness); DATM and ACL^{7} (Liability); and QPA and ACL^{12} (Order). The only significant correlation between the cognitive variables was obtained between OCA and CSA.

For the male group a larger number of significant correlations were found than for their female counterparts. *OCA* was significantly correlated to ACL_8 (Personal Adjustment), ACL_{17} (Exhibition), DATA, CSA and QPA. *CSA* correlated with ACL_{22} (Abasement), DATA and QPA. *DATA* correlated with more of the ACL scales than any of the other cognitive variables showing significant relationship with ACL_4 (Number of Unfavorable Adjectives Checked), ACL_6 (Self-Control), ACL_8 (Personal Adjustment), ACL_{14} (Nurturance), ACL_{18} (Autonomy), and ACL_{19} (Aggression). It also correlated with OCA CSA, DATM and QPA. *DATM* correlated with ACL_8 (Personal Adjustment), ACL_{14} (Nurturance), ACL_{19} (Aggression) ACL_{24} (Counseling Readiness) and DATA. *QPA* produced significant correlation with ACL_{10} (Dominance), ACL_{17} (Exhibition) and ACL_{24} (Counseling Readiness), along with significant associations with OCA, CSA and DATA.

Summary data of the results of the multiple stepwise regression analyses for the female and male groups are presented in Tables 3A and 3B, respectively. Inspection of these tables reveal that combinations of the variables used in this study could predict scholastic

TABLE 2A
SINGLE CORRELATIONS OF SELF CONCEPT AND COGNITIVE VARIABLES FOR FEMALE DENTAL STUDENTS (N=28)

ACL	OCA	CSA	DATA	DATM	QPA
1	.08	-.03	.12	.13	.16
2	-.01	-.09	-.07	-.17	.11
3	-.09	-.00	-.10	-.13	-.17
4	-.18	-.19	.07	.28	-.17
5	.07	-.02	-.01	.03	.18
6	.34	.34	-.03	-.26	.05
7	.00	.19	.22	.47	-.14
8	.27	.21	-.10	-.09	.16
9	.20	-.02	.13	.00	.17
10	.10	-.13	.00	-.15	.21
11	.24	.12	-.01	-.04	.15
12	.25	.20	.17	-.12	.59
13	.14	.26	.10	.05	.06
14	-.11	-.01	-.03	-.03	-.12
15	-.08	-.11	-.03	-.17	.20
16	.04	.02	-.06	-.13	.16
17	-.20	-.22	-.31	-.03	-.09
18	-.13	-.07	.10	-.11	.05
19	-.10	-.22	-.05	.05	-.02
20	.01	.04	.15	.31	-.28
21	.07	-.02	.17	.33	-.13
22	.02	.04	-.02	.20	-.23
23	.14	.18	-.17	-.16	-.04
24	.23	.04	.44	.36	.21
OCA		.86	.21	-.02	.29
CSA			.17	.08	.24
DATA				.36	.33
DATM					-.25
QPA					.00

Sig. r at the .01 level = .47
Sig. 4 at the .05 level = .37

TABLE 2B
SINGLE CORRELATIONS OF SELF CONCEPT AND COGNITIVE VARIABLES FOR MALE DENTAL STUDENTS (N=56)

ACL	OCA	CSA	DATA	DATM	QPA
1	.09	.17	.23	.08	.00
2	-.11	-.04	-.14	-.11	-.14
3	.05	.02	-.22	-.16	-.09
4	.12	.09	.33	.25	.24
5	-.09	-.09	.12	-.09	-.15
6	-.04	-.04	-.30	-.21	.02
7	-.11	-.10	-.08	-.18	-.13
8	-.26	-.23	-.34	-.26	-.12
9	.09	-.00	.03	.03	-.07
10	-.12	-.24	-.04	-.08	-.27
11	.10	.08	.09	-.01	.05
12	.09	.15	.05	.02	.05
13	-.01	.12	-.11	-.21	-.11
14	-.20	-.13	-.39	-.34	-.24
15	-.16	-.16	-.25	-.25	-.05
16	-.17	-.15	-.21	-.20	-.24
17	-.28	-.24	-.08	.00	-.28
18	.03	-.03	.38	.23	.06
19	.06	.01	.42	.29	.08
20	.02	.05	-.01	.11	-.13
21	-.01	.15	.24	.19	.12
22	.23	.30	.04	-.02	.20
23	.11	.20	-.22	-.14	.22
24	.20	.23	.22	.26	.24
OCA		.80	.29	.15	.53
CSA			.26	.17	.46
DATA				.35	.32
DATM					.09
QPA					.00

Sig. r at the .01 level = .34
Sig. r at the .05 level = .26

TABLE 3A
RESULT OF THE MULTIPLE STEPWISE REGRESSION ANALYSIS FOR FEMALE DENTAL STUDENTS (N=28)

PREDICTOR COMBINATION	R	F	SE
ACL_{12}	.589	13.831**	.394
ACL_{12}, ACL_{11}	.708	7.723**	.341
ACL_{12}, ACL_{11}, ACL_{10}	.745	3.450*	.338
ACL_{12}, ACL_{11}, ACL_{10}, OCA	.773	2.455	.328

**Entrance of the variable was significant at the .01 level
*Entrance of the variable was significant at the .05 level

TABLE 3B
RESULT OF THE MULTIPLE STEPWISE REGRESSION ANALYSIS FOR MALE DENTAL STUDENTS (N=56)

PREDICTOR COMBINATION	R	F	SE
OCA	.525	19.184**	.385
OCA, ACL_{10}	.566	3.426*	.376
OCA, ACL_{10}, DATA	.590	2.341	.372

**Entrance of the variable was significant at the .01 level
*Entrance of the variable was significant at the .05 level

achievement in the dental curriculum admitting the limited sample size. For the female group, the obtained Multiple R was .745, using a three variable predictor equation. The self-concept measure ACL_{12} (Order) was the strongest single predictor in the derived equation to estimate female dental QPA. In addition ACL_{11} (Endurance) contributed significantly ($p=.01$) to the prediction scheme. ACL_{10} (Dominance) also entered the prediction equation as the .05 level whereas, OCA, did not show a significant contribution to explained variance.

For the male group, the obtained Multiple R was .566, using a two variable predictor equation. Overall College Average (OCA) was the best single predictor ($p=.01$) in this scheme, and ACL_{10} (Dominance) was the only other variable to significantly ($p=.05$) contribute to the prediction for the male group dental QPA.

DISCUSSION

This study suggests that women in dental education have a strong need for order as it relates to scholastic achievement. They seem to demonstrate a special emphasis upon organization, neatness and planning in their training activities; as a group, they seem to be methodical and rational in their approach to problem solving and give the appearance of dependability and sincerity in their behavior, although, perhaps, at some cost of their own individuality and spontaneity. Their strong needs for endurance also seem suggestive of their industriousness, perseverance and seriousness in task achievements; whereas, their dominance needs point up their aggressiveness and resourcefulness. As a group, they seem confident of their abilities and with a capability of acting in a rather direct and forthright manner. Overall College Average, although typically the reported "best" single cognitive variable in predicting dental achievement, did not significantly enter the prediction scheme for the female group, even though it was the next variable to enter the hierarchal arrangement. For the male group, however, OCA was the best single predictor for academic achievement in dental school and in combination with the ACL need for Dominance scale made up the two variable predictor equation. With their strong need for dominance, the male group, as was the case for the female group, seemed to show an aura of self-confidence of ability; to seek and sustain leadership roles in groups or to be influential and controlling in their relationships with others and with a good bit of perseverance in their behavior, all of which seemed to contribute to their scholastic achievements.

The results of this study demonstrated again that Overall College Average is the best single predictor for academic achievement in dental school for male students and in agreement with previous studies[5,6,14] using males only. However, for females, such a cognitive variable did not appear as a significant contributor to the prediction of their dental scholastic achievement when used in combination with non-cognitive variables associated with the ACL. It was also found that the Dental Aptitude Test for the samples of this study was not a good predictor for scholastic dental achievement. This result is in agreement with previous studies of prediction for dental school success[5,14,19] and does not support early studies of the validity of the DAT in predicting success of dental applicants.[4,17,26]

The difference in the regression analyses between female and male dental students might be accounted for in part by the defensive response tendency that the males as a group displayed to the more

personal aspects and the sound implications of the personality testing. Yet, the importance of personality trait self-concept differences between male and female dental students is indicated. Further research in this area, of course, is called for to help determine the importance of such behavior and personality traits in the admission/selection procedures for dental students. Selection studies have been done with students in other academic fields and they have demonstrated the importance of self-concept in curricular decision-making.[8,24]

SUMMARY AND CONCLUSIONS

The major purpose of this investigation was to ascertain the extent to which a mix of self-concept measures and cognitive variables predict academic achievement for dental students. Correlations between these variables and a impressionistic comparison of results for male and female students were also done.

The subjects for this study were 84 students in school during the 1974–75 academic year who were divided on the basis of sex. The ACL was administered to each subject. The cognitive variables DATA, DATM, OCA, CSA and QPA scores were obtained from the school records of the subjects.

The results of the multiple stepwise regression analyses showed a significant association between measured self-concept scales of Order, Endurance and Dominance in predicting QPA for female dental students, and OCA and Dominance as the significant predictor variables for the male dental students.

The analysis of the results showed that the ACL as a measure of self-concept can be used to point up personality differences among dental students in relationship to their dental school achievements. In fact, for the female group, all the significant predictor variables in the regression analysis were of these noncognitive kinds, whereas, for the male group, the traditional cognitive variable, OCA in combination with the self-concept measure Dominance appeared as reliable predictors for academic dental achievement.

This investigation also confirms the need for research in the use of affective and psychomotor characteristics in predicting male-female dental students success, beyond the more conventional, cognitive measures that have been popular in most prediction schemes in the past.

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Metropolitan Washington Section

The Metropolitan Washington Section held its winter meeting on Wednesday, January 23, 1980, at the Bethesda Naval Officers Club with Chairman Irving M. Rothstein presiding. Ninety five members and guests were present. Henry Heim gave the invocation and Robert Elliot led the Pledge of Allegiance. The various committee reports included the total of 41 package libraries donated last year and an explanation by Israel Shulman of the requirements for the Gies Award, the Award of Merit, and Honorary Fellowship.

The Junior Student Professional Awards were presented to David M. Causa of Georgetown University and to Robin R. Daniel of Howard University. Dr. Travaglini then introduced Dr. Alfred Henderson, a thoracic surgeon and medical and dental historian, who gave an outstanding talk on the history of Dr. Charles Augustus Land, a noted pioneer in dentistry.

NEWS OF FELLOWS

Dale F. Redig, executive director of the California Dental Association, was elected to a two-year term as president of the American Fund for Dental Health at its annual meeting held recently in New Orleans. He succeeds **Lloyd J. Phillips,** who served two terms in the office.

D. Walter Cohen, dean of the University of Pennsylvania School of Dental Medicine, and **Ralph R. Lopez** of Santa Fe, New Mexico have been appointed to the National Advisory Dental Research Council of the National Institutes of Health.

Malvin E. Ring of Batavia, New York was the 1979 recipient of the Hayden-Harris Award of the American Academy of the History of Dentistry. The award, bestowed annually on that person who has made significant contributions to the furtherance of the study of dental history, is named for the founders of the first dental school in the world. Dr. Ring, in addition to having been the editor of the Bulletin of the History of Dentistry for the past eleven years, has had over fifty articles published in scholarly journals.

Edward S. Mack, San Francisco pedodontist has been invited to be a guest lecturer at the Royal College of Dentists in Copenhagen, Denmark for the next year.

Richard D. Mumma, Jr., dean of the New York University College of Dentistry was awarded a certificate of honor recently by the General Alumni Association of Temple University.

Jacob H. Oxman of Short Hills, N.J. was honored recently by the College of Medicine and Dentistry of New Jersey "in recognition of tireless and energetic leadership, and in grateful appreciation of his devoted efforts in furthering the development of medical and dental education and health care delivery in the State of New Jersey."

Joseph H. Hagan was presented the Gold Medal Award of the Greater St. Louis Dental Society "in recognition and appreciation of his outstanding service and dedication to the dental profession."

Jack Harris of Houston, Texas was named 1980 Dentist of the Year by the Texas Academy of General Dentistry.

William J. Kemp of Haskell, Texas was named Alumnus of the Year by the Kansas City Dental School.

Sam Rogers of Houston was elected Speaker of the House of Delegates by the Academy of General Dentistry.

Don Brunson of Bay City, Texas, member of the Texas State Board of Dental Examiners, has been appointed to the ADA Board of Accreditation.

Contributing Editors

Contributing editors for this issue are Robert E. Lamb of Dallas, Texas, Philip Schwartz of Livingston, N.J., Lee Eggnatz of Hollywood, Florida, Henry A. Goodall of Columbia, South Carolina and Bernard Yanowitz of Washington, D.C.

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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