

the
journal
of the

**AMERICAN
COLLEGE
OF DENTISTS**

JULY 1978

VOLUME 45

NUMBER 3

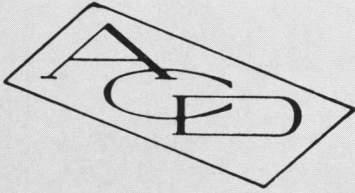
Mutual Accountability
Dentistry as a Learned Profession
Access to Dental Care
Social and Psychological Barriers



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,
7316 Wisconsin Avenue, Bethesda, Maryland 20014.



NEWS AND COMMENT

BOARD OF REGENTS ACTIONS

At its spring meeting in Bethesda, Maryland, the Board of Regents of the College took the following actions:

—Approved a motion establishing the qualifications and procedure for the selection of a replacement for the Executive Director upon his retirement.

—Received the report of the Commission on Delivery of Care and directed the Commission to narrow its focus to examine and report back on the causes and effects of increasing the number of specialists on the profession, the public and the delivery of dental care.

—Approved a motion to revitalize and improve the Mini-SACED program.

—Appointed a Bylaws committee of the Board, consisting of Regents Kennedy, Mattox and Zielinski, with president-elect Hills as chairman. The report of the Bylaws committee of the College was referred to the new committee for a more detailed review, with specific recommendations.

—Adopted a motion that the Board prepare a statement on the position of the College on advertising and participation in proprietary journalism and education, and requested recommendations from the Conduct committee.

—Accepted the reports of the Regents on Section Activities.

—Approved the name change of the Minnesota Section to the Upper Midwest Section.

—Received the report of the Publications Advisory Committee. Regents are to write section secretaries to have Section reporters named as contributing editors to the Journal.

—Voted to develop an Oral History program, and selected the history of dental journalism as the first project.

PROJECT LIBRARY SOLD OUT

The response of the Fellows of the College to participate in the Project Library program has been so great that all packages have been sold. New packages of informational books and pamphlets on dentistry as a career are presently being assembled and should be again available for purchase and distribution to school libraries in the near future.

SECTION NEWS

Maryland Section

The Maryland Section met at the Ramada Inn, Baltimore in March and received its new charter from our Regent, Balfour D. Mattox, who gave the Charge to the Section, that all Fellows pursue on a state level, the purposes, objectives and ideals of the American College of Dentists.

Following a social hour and dinner and the primary purpose of the meeting, its rechartering program, Mr. Ordelle Braase, a former defensive end of the Baltimore Colts, spoke.

American College of Dentists Day at the Dental School of the University of Maryland will be held November 1, 1978. The Section is proud of this annual event and of the cooperation we have received from this institution.



Regent Balfour Mattox (right) presents the new chapter to Maryland Section chairman William Schunick (left) and Rechartering committee chairman H. Berton McCauley.

New Jersey Section

The New Jersey Section met in January at the Ramada Inn, Clark, N.J. with chairman David Alterman presiding.

Bill Pruden introduced the speaker of the evening, Ralph Kaslick, dean of the Fairleigh Dickinson School of Dentistry. Dr. Kaslick gave a most interesting dissertation on dental education and its present status and future outlook.

At the April meeting, the rechartering of the Section took place. Regent Balfour D. Mattox was present and presented the new charter with a brief but interesting message. Editor Bob Kaplan was also present and contributed some timely remarks. A general discussion followed on ways and means of improving Section functions.

Officers for the coming year were installed. They are: Ralph Terrace - chairman; Philip Schwartz - vice chairman; and Joseph Mayner - secretary-treasurer.

New England Section

The rechartering ceremony of the New England Section took place in Boston, during the Yankee Dental Conference in January. Executive Director Robert J. Nelsen was present and addressed the assembled Fellows.



Left to right, front row: L. Walter Brown, past chairman; Wendell Fitts, chairman; Orrin Greenberg, chairman, Rechartering committee; John Horack, Jr., vice chairman. Back row: Robert J. Nelsen, executive director of the College; Sumner H. Willens, secretary-treasurer.

Nebraska Section

The annual meeting of the Nebraska Section was held at the Holiday Inn, Kearney, Nebraska on April 29, 1978 with chairman Dick Tighe presiding.

A short business meeting was held following a very pleasant social hour and dinner. The new officers for 1978-1979 are: Donald A. Igel, chairman; Jim Hull, vice chairman and Jim Weesner, secretary-treasurer.

New York Section

The New York Section of the American College of Dentists held its spring meeting at the New York University Club in March, under the chairmanship of Andrew Cannistraci. Sixty fellows attended.

The business meeting was devoted to the election of the executive committee and to a discussion of an increase in dues for the New York section. The new by-laws were accepted as presented by a committee chaired by George O'Grady.

The following officers were elected:

Irving J. Naidorf - chairman, Joseph A. Gibson, Jr. - vice-chairman, Henry I. Nahoum - secretary-treasurer, George O'Grady - historian, Andrew Cannistraci - past chairman.

Dr. Warren M. Levin was the guest speaker. His topic was "Nutrition as it Relates to Dentistry." He included a discussion of chelation in arteriosclerosis.

Texas Section

The annual meeting was held in May in New Orleans at the Fairmount Hotel in conjunction with the Louisiana Dental Association Tri-State Centennial Meeting. The business session and election of officers took place during the morning. The Louisiana Section was the host group at a luncheon.

At the annual convocation of the American College of Dentists, in Miami, Fellowships were bestowed on the following dentists from Texas: William Clitheroe of Houston, Cliff Condit of Houston, Paul Johnson of Lubbock, Robert Klein of San Antonio, Loy Reid, of Corpus Christi and Parmer Richardson of Dallas.

We congratulate these fine men and welcome them into our membership. Also L. M. Kennedy was installed as our Regent of Regency 6. Congratulations, also to L. M. We know we will be represented well by him.

(continued on page 189)

the JOURNAL of the AMERICAN COLLEGE of DENTISTS

A QUARTERLY PRESENTING IDEAS IN DENTISTRY

ROBERT I. KAPLAN, *Editor*

One South Forge Lane

Cherry Hill, New Jersey 08002

ROBERT J. NELSEN, *Business Manager*

Journal of the American College of Dentists

7316 Wisconsin Ave.

Bethesda, Maryland 20014

July 1978

Volume 45—Number 3

Editorial Board—ARNOL R. NEELY, *Chairman*

WILLIAM C. DRAFFIN

BALFOUR D. MATTOX

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 1978 by the American College of Dentists, Inc.

All expressions of opinion and statements of supposed fact are published on the authority of the writer over whose signature they appear and are not to be regarded as expressing the views of the American College of Dentists, unless such statements or opinions have been adopted by the American College of Dentists, Inc.

Correspondence relating to the JOURNAL should be addressed to the Editor, One South Forge Lane, Cherry Hill, New Jersey 08002. Changes of address and subscription requests should be addressed to the Business Manager, JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, 7316 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 Den 45:129-192, July 1978.

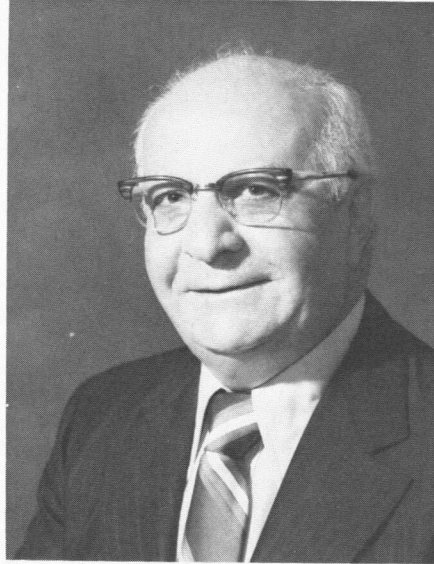
CONTENTS

NEWS AND COMMENT	129
REGENT LEON H. ASHJIAN	135
EDITORIAL	
THE UNPROTECTION OF THE PUBLIC	136
ANNUAL MEETING NOTICE	138
MUTUAL ACCOUNTABILITY: BARRIERS TO ITS IMPLEMENTATION IN DENTAL COLLEGES	
<i>Richard M. Jacobs, D.D.S., Ph.D.</i>	139
DENTISTRY AND ESSENTIAL CHARACTERISTICS OF A LEARNED PROFESSION	
<i>Ewald B. Nyquist</i>	152
BARRIERS TO ACCESS TO DENTAL CARE: AN ECONOMIC EXAMINATION	
<i>Donald R. House, Ph.D.</i>	160
SOCIAL AND PSYCHOLOGICAL BARRIERS TO DENTAL CARE: CONSIDERATION OF THE NEAR-POVERTY INCOME INDIVIDUAL	
<i>Helen C. Gift, Ph.D.</i>	170
GUIDELINES FOR A GENERAL PRACTICE DENTAL RESIDENCY	
<i>Thomas W. Brehm, D.D.S.</i>	184
BOOK REVIEWS	187

Regent Leon H. Ashjian

Leon H. Ashjian, a general practitioner of Los Angeles, California has been named to a full term on the Board of Regents. He received his early education in Beirut, Lebanon, while his father, a congregational minister, was serving as a missionary in the Near East. He earned his dental degree at the University of Southern California.

He is a past-president of the Los Angeles County Dental Society, serving on many of its committees. He was chairman of a number of councils of the Southern California Dental Association, and served also as a delegate to



the American Dental Association. He was a member of the ADA Council on Laboratory Relations for six years, the last two as chairman. He is a former chairman and board member of the California Dental Service Corporation and a founding member of the Dental Foundation of California.

Dr. Ashjian served for five years in the U. S. Army Dental Corps during World War II and was Executive Officer and chief of dental and maxillofacial surgery of the 187th General Hospital in the European Theatre of Operations. Currently he is a Colonel in the Air Force Dental Corps Reserve.

He is a life member of Optimist International and past-president of the La Brea-Wilshire Optimist Club, past president and area governor of the Executive Toastmasters Club, an active member of the Wilshire United Methodist Church, and a Mason. Dr. Ashjian has been a guest lecturer on ethics, patient relations and professionalism at the dental schools of the University of Southern California, University of California at Los Angeles and Loma Linda University. He is past grand master of the Los Angeles graduate chapter of Delta Sigma Delta fraternity. He has received a number of awards of merit for outstanding services to the Southern California Dental Society.

Editorial

The Unprotection of the Public

State Boards of Dentistry were established years ago to regulate dental practice and to protect the welfare of the public. Thereafter, dental organizations developed Codes of Ethics to govern the conduct of their members. One of the proscriptions, which has been given both legal and ethical standing, was the rule forbidding dentists to advertise, under penalty of disciplinary measures. These laws and ethical codes were influential in elevating dentistry from its commercial and technological origin to the status of one of the leading health professions. Times have changed however, and the belief exists among certain groups today that the public no longer needs such protection; that advertising should be permitted freely.

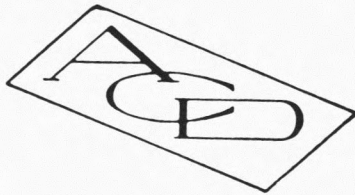
Last summer, in a decision handed down by the United States Supreme Court in the case of *Bates and O'Steen versus the State Bar of Arizona*, lawyers were granted permission to advertise their fees and services. However, the justices in their wisdom, made the statement that, "Because of the possibility that the difference among professions might bring different constitutional considerations into play, we specifically reserved judgement as to other professions."

While most other professions chose to wait for specific rulings, the American Dental Association, believing that the ultimate decision would be the same for dentists as for lawyers, capitulated quickly. At its last meeting, the House of Delegates of the ADA adopted a resolution that its constituent and component societies should immediately cease initiation of any disciplinary proceedings against any members who only advertise in the public press availability of their services and the fees they would charge for routine dental procedures. In so doing, the ADA weakened, if not invalidated its long standing Code of Ethics, leading to similar action by State and Local Societies. As a consequence, we are beginning to see a number of dentists starting to advertise not only in newspapers but on radio and television. Large sums of money are being spent, and there can be no doubt about who will ultimately pay for such solicitation.

The new ruling cries out for interpretation. Who is to say what are routine services? The Supreme Court says that advertising should not be misleading or flamboyant. What kind of ad is considered flamboyant and what is not? Who is to monitor advertising offices to prevent misrepresentation of services? In New Jersey, the State Board of Dentistry, which for years was strict in its attitude against advertising, has been instructed by the Attorney General to reverse its position completely and develop a set of guidelines for advertising. In our rush to allow such license to exist, professionalism in dentistry is being set back fifty years. We are about to enter a new era of hucksterism. How can we justify such conduct in view of our obligation to protect the health and welfare of the public?

It goes without saying that the whole matter of advertising and self-aggrandizement is repugnant to the American College of Dentists. We believe that the time has come for the College, its Sections and its Fellows to speak out, individually and collectively. We need to make our voices heard throughout the profession, and the public needs to be informed that it is losing the protection that state laws and ethical codes once provided.

R.I.K.



Annual Meeting and Convocation in Anaheim, California

The 1978 Annual Meeting and Convocation of the American College of Dentists will take place at the Inn at the Park, Anaheim, California on Friday and Saturday, October 20 and 21, 1978.

Registration will begin on Friday, and a meeting of Section representatives is scheduled for Friday evening.

The orientation lecture for new Fellows will be given by Regent L. M. Kennedy on Saturday morning, October 21, after breakfast. Attendance is mandatory for all candidates.

The morning session will consist of a business meeting, followed by a symposium on the topic

Factors Affecting Professional Orientation in the Delivery of Oral Health Care

This program will explore the pressures that are exerted upon students in entering dental school, while in school, and upon going into practice.

Vice president Gordon H. Rovelstad will preside and the panellists will be:

W. Arthur George - Associate Dean, University of Pittsburgh Dental School

Don F. Allen - Dean, University of Florida Dental School

William Vann - Pedodontist and doctoral candidate in Educational Psychology, University of North Carolina School of Dentistry

Carlton H. Williams - Past president, American Dental Association

Luncheon will feature a humorist, and the convocation program will follow. The convocation speaker will be Dr. Porter L. Fortune, Jr., Chancellor of the University of Mississippi.

Mutual Accountability: Barriers to its Implementation in Dental Colleges

RICHARD M. JACOBS, D.D.S., Ph.D.

Academic institutions, as other formal organizations, employ various forms of control to elicit compliance with their behavioral goals, means and norms.¹ In most cases control is exercised through an evaluation/reward system which rewards adherence to the prescribed standards, and places sanctions on conspicuous deviation from those standards.¹ In essence, the formal right to exercise control is synonymous with institutional authority, without which no social organization can function orderly.² The structure of control usually found in dental colleges is based upon a formal hierarchy of authority within the framework of which, at each level, superiors evaluate subordinates and differentially distribute among them sanctions and rewards. This reflects a pattern of a unilateral control from above.²

A SYSTEM OF MUTUAL ACCOUNTABILITY BASED UPON RELIABLE PERFORMANCE EVALUATION DATA

During the past decade, certain societal trends, such as the growth of student consumerism, and a strong national clamor for accountability based upon reliable performance evaluation data, have produced a drastic departure from a system of essentially downward, unilateral control from above within educational institutions. The most conspicuous evidence of those trends has been a growing reliance upon formal feedback from students for assessing faculty's teaching effectiveness. These upward-directed student ratings represent a form of control exercised by a lower echelon—the students—over a higher echelon—the faculty. Under those new circumstances, the faculty, while continuing to exercise control over students, have become subject to some control by students. This is an example of a mutual accountability.

Dr. Jacobs is professor of orthodontics at the University of Iowa College of Dentistry, Iowa City, Iowa.

The prevailing trends have not only altered the faculty/student power equation, but have produced some reorientation of controls at the higher levels of academic hierarchy as well. In the process, a growing number of academic administrators are being subjected to a variety of accountability measures involving their superiors as well as their subordinates.^{3,4} The ongoing evolution of the power relationship within academic organizations seems to have been inspired by the underlying notion that institutional authority, that is, the formal right to exercise control, becomes legitimized by being itself subject to appropriate controls from above *and* below. According to that principle, executive accountability is viewed as the price which must be paid for the exercise of executive discretion.⁵

In response to those societal trends some dental schools have been departing from the traditional hierarchical system of unilateral organizational control from above, and have been experimenting with a system of expanded controls converging from horizontal sources (peers), from above, and from below.² As previously pointed out, the exercise of upward and lateral controls is synonymous with providing feedbacks in form of performance ratings. Many institutions are currently using those forms of control for evaluating faculty performance and for making decisions in regards to faculty retention and promotion. Other dental schools have begun to employ that approach to evaluate administrators. Leeper⁶ described as follows how that process works at the executive levels at the University of Nebraska College of Dentistry:

Each department chairman annually distributes a form for his/her own evaluation to all other departmental faculty. These are completed and returned anonymously to the chairman, who shares the results with the dean. The same form is issued by the assistant dean, associate dean and dean for their evaluation by the departmental chairmen.

It is quite evident that an effective utilization of converging feedbacks at multiple levels of organizational ladder, reflected by the system of mutual accountability employed in Nebraska, is predicated upon a set of skills and attitudes which are seldom used at institutions relying mostly upon unilateral controls from above. Within a framework of "from top to bottom" accountability⁴ the following performance evaluation operations depend upon the presence of appropriate skills and attitudes:

The faculty should be able to receive and benefit from feedback obtained from students and then, share such feedback with their departmental chairman. In turn, departmental chairman should be

able to interpret students' ratings and use them together with other appropriate information as a data base for evaluating the faculty. Then, faculty members should also be able to give meaningful, upward feedback reflecting their perception of departmental chairmen's performance. In turn, departmental chairmen should be able to utilize this feedback and share it with their dean who, in turn, should be capable of interpreting faculty perceptions and employing them, together with other pertinent information, as a data base for evaluating the performance of his departmental executives, and so on.²

In summary, an implementation of a "from top to bottom" institutional accountability based upon converging performance ratings calls for the following prerequisite skills and attitudes:

1. Skills-and-attitudes needed for receiving feedbacks about one's own performance from the lower echelon of organizational ladder, and/or one's colleagues, for self-improvement.
2. Skills and attitudes essential for rating the performance of one's immediate superior, or one's colleagues, that is, skills and attitudes necessary for providing an upward-oriented or lateral feedback, and;
3. Skills-and-attitudes requisite for utilizing the received feedback as a data base for evaluating performance of one's immediate subordinates.

In that context, it is important to recognize that receiving and giving feedback is an emotion-laden activity which may imply superiority, inferiority, dominance, submission, guidance, help, criticism, reprimand . . . (and) something about the manliness and virility of the individuals involved.⁷ Because of that, although receiving and giving feedback can be facilitated by an acquisition of appropriate skills, the usefulness and the effectiveness of feedback is primarily a function of attitudes.⁸

It is the expression of attitudes and a reflection of a self-perceived role model that cause some rank-and-file faculty to feel threatened by the process of rating their performance by students. That reaction generally is reinforced by the prevailing belief that students are not capable of accurately assessing the coverage of material or the long-range significance of their learning experiences. Many faculty members equally dislike being rated by their peers because they fear that such feedback is frequently tainted by latent political considerations as well as rank differentials. In many instances, being evaluated by one's immediate superior appears to be the least objectionable.²

Most rank-and-file faculty feel even more apprehensive about providing upwards-directed feedback than they are about receiving feed-

back.⁹ Not only are they, as a rule, most reluctant to initiate a process of rating their chairmen's performance, but, when asked to provide a formal feedback, they tend to screen or distort unfavorable commentaries to avoid criticizing their superior. This is a reflection of a self-protective behavior which is quite prevalent among dental faculty. The critical thing is that the resulting propensity to conceal disagreements, withhold adverse observations and feign loyalty is incompatible with providing meaningful upward feedback.

At the next level of the hierarchical ladder, the receiving and the utilization of faculty feedback by departmental executives may similarly be hampered and warped by their own status-quo and ego-defense orientation. It is quite apparent that some departmental chairmen tend to regard the process of rating their performance by their faculty as an improper interference with their executive discretion. Others might view such feedback as merely a necessary but purely cosmetic human relations ploy aimed at improving faculty morale and reducing resistance to formal authority. Still others may feel uneasy about the impact that those accountability measures might have on their ability to control their academic staff. Finally, some departmental executives may wonder whether faculty ratings might impair their relations with their dean and, in the process, destroy the relative permanency of their administrative positions.

permanency of their administrative positions.

Collegiate deans may be equally apprehensive about receiving from the faculty a formal and systematic feedback about their chairmen's performance. Some deans may fear that unfavorable faculty ratings might tie their hands and, at times, compel them to make politically inexpedient personnel decisions vis a vis otherwise loyal department heads. Most importantly, however, deans as well as the top echelons of university administration share a vested interest in maintaining intact the principle of executive authority. For that reason, when departmental authority shows signs of becoming destabilized, they nearly automatically close ranks behind their departmental chairmen.

So far, I have identified certain problems associated with the giving and receiving feedback without distortion. Equally important for the implementation of a system of mutual accountability based upon reliable performance evaluation data is the ability of the evaluator/administrator to properly interpret feedback data and, on that basis, to formulate a reasonably accurate judgement about evaluatees' performance. A number of prominent dental educators have expressed serious concern about that aspect of the evaluation process in dental colleges. This is how DiBiaggio¹⁰ discusses that issue:

... unlike many other university disciplines, assignment of additional administrative responsibilities has long been seen as a means of recognizing excellence among the dental faculty. This policy has resulted in the appointment of department chairman who possesses limited administrative capabilities but who have achieved recognized stature within their discipline. These individuals, placed in a position where evaluation of departmental faculty is necessary, find themselves unable to separate personal considerations from objective assessment. This situation is further complicated by a system which compensates departmental chairman at a higher level than that at which the faculty within their departments are compensated, even when these faculty may have more experience and higher academic rank. Search committees appointed to select administrators often predicate their decisions upon professional reputations and limited personal encounters rather than on the candidates' abilities to manage problems, such as determining faculty excellence. The dean often does not have the time to analyze the qualifications of the recommended candidate or candidates, nor does he wish to circumvent the committee's authority. Therefore, he blissfully hopes that they are correct in their judgement and appoints their candidate, often with devastating results.

According to DiBiaggio¹⁰, in order to avoid these potentially devastating problems, Administrative officers, whether they be department chairmen or deans, should be selected on the basis of management skills, and ideally should have received some training in personnel matters, including evaluation. This view is shared by Mackenzie¹¹ who observes that the administrator doing the evaluation must be trained to effectively interpret the information thus collected.

Although implementation of those recommendations may not fully overcome the problem of limited administrative and evaluative capabilities of at least some currently serving department chairmen, presumably, those deficits could be attenuated by an appropriate in-service training program. In fact, Mackenzie does suggest that group training by an expert in personnel management might help administrators overcome weaknesses in reporting the results of the evaluation.¹¹

It should be noted, however, that management skills of academic administrators are not easily ascertained. In industry, executive effectiveness usually is measured in the context of the economic market and the profits generated by a given production unit. Obviously, that

approach is not applicable to academic environment, since colleges, unlike industry, do not sell their outputs directly in an economic market.¹²

Since profits cannot be used as proxy measures of executive performance in academe, we should at least be developing criteria of satisfactory administrative performance and be providing our chairmen with periodic feedback with regard to their performance. This could be expected to improve the quality of departmental management and go a long way toward altering the currently prevailing state of affairs within the framework of which a demand for departmental evaluation is usually generated by a crisis situation, and the process itself is used to force the resignation of an ineffective, but usually well entrenched, executive officer.

INSTITUTIONAL CLIMATE BARRIERS TO SUCCESSFUL IMPLEMENTATION OF A SYSTEM OF MUTUAL ACCOUNTABILITY

In the process of our discussion, I have identified the capacity to receive and give feedback as well as the ability to properly interpret it as the prerequisite skill/attitudes for successful implementation of a system of mutual accountability based upon reliable performance evaluation data. Conversely, it could be argued that whenever those skill/attitudes are deficient, an expended accountability system is destined to fail before it even begins.

In light of that, a question should be raised as to whether the identified skill/attitude prerequisites should be viewed as personal attributes found at various echelons of the academic hierarchy independent of the institutional environment, or whether those prerequisite skill/attitudes are more likely to be found at some institutions than at others. In other words, we should attempt to ascertain whether the discussed personal, behavioral deficits, found both among rank-and-file faculty and academic administrators, are traceable to an organizational climate. Clearly, existence of such a functional interrelationship between behavioral and organizational variables could have a far-reaching, practical implication.

For example, should the described skill/attitude deficits indeed be traceable to an organizational climate rather than being a reflection of the personal attributes of its members, certain institutions could not expect to develop a meaningful system of accountability, unless that unfavorable climate were changed. Similarly, in such institutions, in-service training programs for faculty and administrators, as suggested by Keith et al⁶ and MacKenzie⁹, would not be addressing the real

causes of evaluation distortions, but merely be dealing with their symptoms, that is, the symptoms of an unfavorable organizational setting.

It is significant that the social scientists who have developed various indices of organizational climate¹³⁻¹⁷ postulate that there is a strong correlation between the pattern of individual behavior and organizational authority structure. That is why, organizational characteristics of dental colleges should be viewed as major determinants of attitudes prevailing within those institutions. It is for that very reason, that dental schools mandated to adopt university-wide standards of mutual accountability based upon reliable performance evaluation data ought to make sure that those changes are compatible with their organizational authority structure.

It would be safe to speculate that an organizational climate which is least likely to foster attitudes deemed necessary for an effective implementation of a system of mutual accountability will be found in colleges with a rigidly stratified organizational hierarchy. Such stratification is usually associated with a system of strictly unilateral controls from above which tend to impose a substantial organizational constraint upon their members. According to an index of Organizational Climate reflecting collective perceptions of professors from 42 U.S. universities, the following major determinants of behavior are likely to be discernible in academic institutions dominated by an organizational constraint¹⁸:

1. Concern with bureaucratic structure
2. Respect for authority
3. Dedication to utility
4. Concern for order
5. Concern for institutional image
6. Manipulative techniques of control
7. Punitive administrative style

Let us now examine the likely modes of expression of each one of the above listed behavioral determinants in a dental school setting dominated by organizational constraint:

1. *Concern with Bureaucratic Structure* reflects a commitment to a formal hierarchical chain of command in the context of which some officials exercise authority over others. At academic institutions dominated by organizational constraint administrative positions are appointive, not elective. In dental schools, those are not term appointments, but appointments with unspecified tenures. Although, as a rule, faculty input is sought in the process of selection of academic administrators, faculty

role in determining the retention and, most importantly, nonretention of those administrators is only minimal.¹⁹ As a result, those are frequently life-time appointments, and this tends to make the bureaucratic status differentiation within dental colleges relatively fixed.

2. *Respect for Authority* implies recognition and approbation of the differentiation of positions with respect to rank, status and power. A significant behavioral by-product of the Respect for Authority is Field Dependence which denotes a heavy reliance on internal, that is, departmental or collegiate sources for definition of attitudes, judgements, sentiments, and view of oneself.²⁰ It has been shown that field dependent faculty are prone to be guided by positions attributed to the authority figure,²¹ such as their departmental chairman or deans. As behavior determinants, both the Respect for Authority and the Field Dependence contribute to the previously discussed tendency to distort lateral and upward feedbacks in order to avoid disagreeing with those who represent authority.
3. *Dedication to Utility* denotes the primacy of organizational needs, as opposed to human needs, and an emphasis upon service. Utility-orientation invariably contributes to excessive academic workloads and therefore is seldom consistent with the scholarship-orientation embraced by the faculties of the major universities. Subjecting dental faculties, under those circumstances, to university-wide retention, promotion and tenure-granting standards puts them, in many cases, in an irreconcilable position. This undermines the credibility of those standards and places in question their applicability to dental education.
4. *Concern for Order* places a premium on complacent team work. By the same token, intradepartmental controversy, an open expression of disagreement, and other forms of intellectual turmoil are frowned upon. As a behavioral determinant, Concern for Order evokes a propensity to conceal disagreements.
5. *Concern for Institutional Image* usually is reflected by careful management of information flow and placing of emphasis on accomplishments while downplaying failures. In the final analysis, this tends to shield ineptitude and to perpetuate complacency. As a behavioral determinant, Concern for Institutional Image has a chilling effect on one's willingness to bring into the open organizational shortcomings.

6. *Manipulative Techniques of Control* are a manifestation of the iron law of oligarchy. According to that law even the most idealistic leaders eventually develop a vested interest in their positions and therefore attempt to protect them by orchestrating activities of the institutional committees or by rewarding people for "keeping their noses clean". As a determinant of behavior, the use of Manipulative Techniques of Control elicits conformity and a tendency to feign loyalty.
7. *Punitive Administrative Style*, another manifestation of the iron law of oligarchy, relies upon the use of coercive rather than manipulative techniques of control. In other words, administrators choose to use sanctions and/or withdrawal of rewards against those who threaten the security of their positions. This elicits risk-avoidance, and holding back-type of defensive behavior among the subordinates.

The above outlined behavior determinants may be discernible at various levels of intensity at dental schools pervaded by the spirit of organizational constraint. In the final analysis, they produce a propensity toward self-protective behaviors which lead to motivational breakdowns in the control cycles. That is why the presence of a pervading organizational constraint is not compatible with an effective system of mutual accountability. Moreover, one can safely assume that within a constraining organizational setting which make candor and initiative perilous, the described ego-protective behaviors are not likely to be erased by an in-service group training.

EXCESSIVE-AND-FIXED STATUS DIFFERENTIATION: THE ULTIMATE BARRIER TO IMPLEMENTATION OF A SYSTEM OF MUTUAL ACCOUNTABILITY

On the basis of our discussion it would appear that prior to the implementation of a system of mutual accountability those organizational barriers or constraints which constitute the real cause of motivational breakdowns within organizational control cycles must be removed. In order to accomplish that, we ought to identify those organizational characteristics within dental colleges which contribute to generating a constraining climate, and then, take appropriate action to dismantle those obstacles. In my opinion, the principal source of a constraining institutional climate found in some dental schools is an excessive and fixed status differentiation existing between various echelons of organizational structure, but particularly, between the rank-and-file dental faculty and the departmental executives.

It is important to recognize that in dental colleges, executive positions have traditionally been associated with status, discretionary powers and financial advantages rarely enjoyed by executives in other academic disciplines.^{1,9,22} Moreover, in dentistry - unlike in most other academic disciplines - the tenure of executive appointments is open-ended. Perhaps because of those attractive privileges or, perhaps, because of an inherent personal lust for power, dental administrators, in general, view their executive positions as a thing to be desired and protected. Perhaps for the same reasons, rank-and-file dental faculty who aspire to climb the ladder of academic success view an eventual appointment to executive position as their ultimate career goal. All that is a reflection of a "Glorification of the Executive" syndrome which pervades the organizational system of many dental colleges. Here is how Gilligan²³ characterizes such a system:

... the system is efficient, but what it does most efficiently is multiply the power and effect of ineptitude. Since it prizes team work, loyalty, toughness, and skill in flattery, it automatically disprizes the qualities that diminish ineptitude - skill, courage, capacity, sensitivity, and independence of judgement ... What happens when The Old Man makes a bone-headed decision, as he most certainly will? If you are a good team player you don't argue, you buckle down to enforcing it. What happens if an underling is found to be grossly incompetent? Well, if he is loyal you can't fire him; that would make the team look bad to outsiders. What happens if something goes wrong? You pass the blame as far down the line as possible because it is axiomatic that higher ranking people can't be blamed for anything.

The behavioral consequences of a value system which tends to sanctify executive positions can be summarized as follows:

1. There is a strong predisposition among the dental administrators not to descend from executive positions they hold. To protect their privileged status some executives may resort to manipulative or coercive techniques which, in turn, elicits defensive behavior mechanisms among the faculty.
2. Most rank-and-file faculty aspire - overtly or latently - eventually to ascend to an executive position. Within a climate permeated by organizational constraint the ascendance drive is accompanied by a feeling of insecurity which the aspiring faculty mitigate by various forms of avoidance behaviors. All that is designed to reduce a chance of failure and to enhance a probability of success.

As the ultimate consequence of that value system, those who successfully cross the threshold of executive power tend to cling to their positions for life and, as a rule, show no desire to return to faculty ranks. This freezes up the hierarchical separation between the rank-and-file faculty and the academic executives, and generates an organizational climate permeated by a combination of vested interests and self-protective behaviors. Clearly, perpetuation of such a rigid organizational stratification does not seem to be justified. In fact, for the good of dental education, that anachronistic system should be dismantled. This could simply be accomplished by:

1. Making the prospects of an ascent to an executive position less attractive, and;
2. Making the prospects of descent from an executive position less traumatic.

A combination of those two measures could be expected to foster an up-and-down, two-way flow of people between various echelons of academic hierarchy which, in turn, would open-up the prevailing system of excessive-and-fixed status-differentiation.

From a practical point of view, those changes could be achieved by reducing the scope of privileges and rewards bestowed upon dental administrators to the level commonly found in other disciplines. Most importantly, academic ranks and salaries of dental administrators should be made commensurate with their academic credentials. This would represent a major departure from a system which, as DiBiaggio¹⁰ points out, compensates departmental chairmen at a higher level than that at which the faculty within their departments are compensated, even when these faculty may have more experience and higher academic rank.

In conclusion it should be noted that the fixed-and-excessive status differentiation as well as the system of unilateral control from above observed in dental colleges tend to be associated with an authoritarian approach to the decision making process. Although it is true that a corporate organizational model utilizes quite effectively a system of unilateral control from above built around well defined, authoritarian, superior/subordinate type of organizational hierarchy,²⁴ that model of control does not furnish adequate provisions for implementing executive accountability measures within academic organizations.

In business corporations the quality of executive performance is both visible and readily quantifiable by means of such broadly disseminated measures as the range of earnings on the capital invested, the percentage of profit per dollar of sales, or the earnings per share of stock outstanding. Within academic institutions that unity of mission

as well as the continuing prod that comes from a need to show a dollar profit are missing,²⁴ and that is why, the authoritarian posture of the business corporation is not transferable to the academe. In the final analysis, academic authoritarianism is conducive to arbitrariness, ineptitude, or both and as such, it is totally incompatible with a from top to bottom institutional accountability based upon reliable performance evaluation data.

REFERENCES

1. Baldridge, J.V., S.M. Dornbusch, J.W. Garbarino and R.M. Jacobs. Faculty Evaluation: A Tool for Eliciting Desired Behaviors. *J. Dent. Educ.* 40:528-540, 1976.
2. Jacobs, R.M. Two Models of Organizational Control in Dental Colleges: A Critique and Suggestions. In press.
3. The American Association of University Administrators. Evaluation of Administrators in Higher Education. Regional Seminar, May 12 and 13, 1977.
4. Genova, W.J., M.K. Madoff, R. Chin and G.B. Thaoma. *Mutual Benefit Evaluation of Faculty and Administrators in Higher Education*. Cambridge, Mass.: Ballinger Publishing Co., 1976.
5. Brewster, Kingman. Politics in Academia. In Hodgkinson, H.L. and L.R. Meeth (Eds.) *Power and Authority*, San Francisco: Jossey-Bass, 1971.
6. Leeper, S.H. Faculty Evaluation at the University of Nebraska. *J. Dent. Educ.* 41:338-340, 1977.
7. Tannenbaum, A.S. *Control in Organizations*. New York: McGraw-Hill, 1968.
8. Keith, C.L., S.A. Weiss and A.L. Leo. The Role of Departmental Chairman in Faculty Evaluation. *J. Dent. Educ.* 41:324-328, 1977.
9. Athanassiades, J.C. The Distortion of Upward Communication in Hierarchical Organizations. *Academy Manag. J.* 207-226, 1973.
10. DiBiaggio, J. The Role of the Dean in the Evaluation Process. *J. Dent. Educ.* 41:320-323, 1977.
11. Mackenzie, R.S. Essential Features of a Faculty Evaluation Program. *J. Dent. Educ.* 41:310-316, 1977.
12. Jacobs, R.M. Judging the Worth of Educational Outcomes: An Approach to Evaluating Flexibility. In Jacobs, R.M. (Ed.) *A Flexible Design for Health Professions Education*. New York: John Wiley & Sons, 1976.

13. Stern, G.G. *People in Context: Measuring Person-Environment Congruency in Education and Industry*. New York: John Wiley and Sons, 1970.
14. Likert, R. *New Patterns of Management*. New York: McGraw-Hill, 1961.
15. Etzioni, A. *Modern Organizations*. Englewood Cliffs, N.J.: Prentice-Hall, 1964.
16. Bennis, W., N. Berkowitz, M. Affinito, and M. Malone. Authority, Power and the Ability to Influence. *Human Relations* 11:143-155, 1958.
17. Dill, W.R. Environments and Influence on Managerial Autonomy. *Admin. Sci. Quart.* 2:409-443, 1958.
18. Bishop, L.K. and C.R. Steinhoff. Organizational Characteristics of Administrative Training Programs: Professors and Their Work Environment. *J. Educ. Admin.* 13:54-61, 1975.
19. Committee T. Faculty Participation in the Selection and Retention of Administrators. *AAUP Bull.* 58:173-174, 1972.
20. Witkin, H.A., R.B. Dyke, F.H. Faterson, D.R. Goodenough and S.A. Karp. *Psychological Differentiation*. New York: John Wiley and Sons, 1962.
21. Linton, H. and F. Graham. Personality Correlates of Persuasibility. In I. Janis et al (Eds.) *Personality and Persuasibility*. New Haven: Yale University Press, 1959.
22. Jacobs, R.M. Toward an Equitable Faculty Compensation in Dental Colleges. *J. Am. Coll. Dent.* 41:167-186, 1974.
23. Gilligan, E.L. We've Got a Problem: Impolite Speculations on Higher Education. *Am. Ass. Univ. Prof. Bull.* 63:50-52, 1977.
24. Perkins, J.A. *The University as an Organization*. New York: McGraw-Hill, 1973.

University of Iowa
College of Dentistry
Iowa City, Iowa 52242

Dentistry and Essential Characteristics of a Learned Profession

EWALD B. NYQUIST

I have elected to discuss what I regard as some of the essential characteristics of the learned professions, with particular reference to dentistry, in a period when values, beliefs, and institutions are changing rapidly, and when individual and social rights are being radically redefined.

The first requisite of any learned profession, of course, is a body of knowledge substantial enough to require rigorous intellectual training in order to comprehend it. As a corollary of that proposition, I would quickly add that the knowledge which is acquired must be put to good use. As Aristotle pointed out long ago, processes have no significance or value except in terms of the results they lead to. I also treasure an observation Alfred North Whitehead once made along that same vein. Quoting Whitehead: "Pedants sneer at an education that is useful, but if education is not useful, what is it?"

I would note, too, that a profession must be distinguished by its dedication to altruistic purposes, to unselfish ends that transcend such considerations as personal profit, status, and so forth. The truly professional person is guided above all by a sense of social responsibility. The recent scandals in Medicaid point all too glaringly to many health practitioners who are more oriented to their purses and pocketbooks than to their professional purpose. Isn't there an old Biblical truth that those who live by the bottom line, shall bottom out by the bottom line?

I especially like the way Horace Mann, a great educator, expressed this thought in an address to a college graduating class near the end of his life. "Be ashamed to die," said Mann, "without winning some victory for Humanity."

From the Correction address to the American College of Dentists, Miami Beach Florida, October 8, 1977. Dr. Nyquist is vice president for Academic Development, Pace University, and former president of The University of the State of New York and Commissioner of Education.

Another important criterion of a profession is whether or not it has assumed aggressive responsibility for perpetuating itself in numbers adequate to meet the demands for its services. Let us remind ourselves that this is done by getting the best people into the profession, not by keeping them out. Restricting admissions to the profession is self-serving and is a prejudiced action in favor of the pocketbook and exalted status.

In this connection, I fully recognize that commendable and substantial progress is being made toward increasing the number of minority group members and women in the various professions. According to the latest data I have seen from the American Dental Association, to cite just one illustrative example, minority enrollment in dental schools increased from 9.7 percent in 1957-76 to 10 percent in 1976-77. Of the graduates from dental schools in 1976, 8.8 percent were from minorities, compared with 7.5 percent in 1975. And yet, the fact is that we have some distance left to go in this difficult and sensitive area, now that the conscience of higher education has at last been pricked and enrollment begins to reflect a cross-section of our society. As the old American adage reminds us, if we had not already done so much, we would not still have so much to do. It is a deep-seated conviction of mine that professional schools, like colleges and universities generally, must become even more aggressive than they have been so far in encouraging students from different racial and ethnic groups and women, too, to apply to such institutions, to take affirmative action to admit these students, and, to the extent that this is feasible, to appoint more faculty and professional staff among the traditionally under-represented, historically by-passed, groups.

Not so parenthetically, I am, among other things, a militant feminist, and have been one ever since 1953. I once remarked that equality is not when a female Einstein gets promoted to assistant professor. Equality is when a female schlemiel moves ahead as fast as a male schlemiel.

You should know, too, that I concur completely with those who say the so-called Bakke case now pending before the U.S. Supreme Court may be the most important one related to the education of minorities since the historic Brown decision of 1954. This case, as I am sure you know, involves a white man named Alan Bakke, who claimed that he was unfairly denied admission to the University of California Medical School at Davis because of "reverse discrimination." The California Supreme Court ruled in his favor and declared that the school could no longer set aside 16 percent of its places in the entering class under a special minority-admissions program. In the last couple of decades, the courts, and especially Federal courts, have been one of the most

important of all agents for constructive social change. I have often said, in fact, that they are *the* greatest educational innovators around. But recent decisions suggest that the Burger Court is getting more and more conservative, which is why some people are quite concerned that the tide could turn against equalizing educational opportunities when the decision is handed down in the Bakke case.

Whatever the outcome there, though, the health care professions are still obliged to abide by stiff, new affirmative action guidelines that authorize the U.S. Attorney General to deal with complaints of discrimination brought against licensing boards. The guidelines apply to any health care certifying board, including the nearly 500 state licensing boards charged with certifying doctors, dentists, and nurses. Under these guidelines, professional entrance tests may be declared invalid if the Justice Department concludes that the tests discriminate against minorities and women and do not measure qualities and skills directly related to the job. For example, according to Peter Robertson, the Director of the Office of Federal Liaison for the Equal Employment Opportunity Coordinating Council, if the acceptance rate of a particular racial, ethnic, or sex group is found to be 20 percent less than the group with the highest selection rate, this would be considered discriminatory and would require compensatory action. The burden of proof would be on the licensing board, not the person who filed the complaint, Mr. Robertson also noted.

Another concern I have relates to the need for professional practitioners to keep pace with quantum leaps in new knowledge. Members of every profession have to rethink much of what they were taught before they were licensed and to make sense out of theories that are in constant flux. Knowledge, it has been aptly said, keeps no better than fish. Yesterday's truth is often today's error. And this is particularly the case these days. Someone recently calculated that enough new knowledge is produced every 40 minutes to fill a 24-volume encyclopedia. So part of what you knew when you checked into the Fontainebleau is already obsolete.

With this in mind, New York's Board of Regents proposed as part of its annual legislative program, upon my recommendation, to require continuing education in medicine and dentistry. We were supported in this by the State Boards for Medicine and Dentistry. But the Legislature took no action. The only profession in the State with a continuing education requirement at present is podiatry.

Under the proposal we submitted, the emphasis was placed on *continuing competence*, in recognition of our belief that the term continuing education, with its narrower connotation of course work,

can be too restrictive. Continuing education alone may not be the best means for achieving the paramount objective, which is to improve professional competence for practice, most notably with respect to the use of specialized new equipment and techniques. Therefore, we recommended such other methods as peer review, which would provide for fellow practitioners to go into dental offices or dental laboratories and to counsel the dentists whom they visit. Also, there could be different forms of self-instruction combined with periodic retesting. The requirements established for continued competence would then become prerequisites for reregistration, which occurs biennially.

I would note in this regard that eight states now have continuing education requirements in the field of dentistry, and 27 other states were considering such requirements as of last spring.

Something else that is much on my mind is the need to see that professional training rests upon a base that is humanistic as well as technological and scientific. There is in American education right now, and not just in the professional schools, of course, too much emphasis on narrowly defined career education, a pronounced vocationalism, at the expense of the liberal arts. And it gets worse the further one goes up the academic ladder. I say this from personal experience in addition to what I read. For instance, I attend a lot of educational conferences, symposia, commission meetings, and so forth, and it seems that more and more of them deal with education and work and manpower goals in an almost anti-intellectual way that frightens the hell out of me. The emphasis many people place on the pursuit of job credentials and on the comparative work benefits of a college education threatens to make a four-letter word out of the "higher" part of the term "higher education." That is, "higher" may now have to be spelled h-i-r-e.

So there is a clear and present danger that the professions will be filled with what one university administrator describes bluntly as "specialty idiots," or what the Germans call *Fachidioten*. What he means by this, I believe, is that educators are turning out graduates who know a great deal about their chosen profession, but who have little conception of a theory of life, a theory of values, and how the profession fits into the scheme of things.

I would even go as far as to add that I hope there will be colleges devoted exclusively to the liberating arts and to graduating liberal scholars, dreamers, and poets. These are absolutely essential, too, and especially so for a nation that has yet to achieve man's highest aspiration, a cultural democracy. We need desperately people who worry about the grossness of our national product more than the gross national product.

A liberal education is what you need so that when you knock on yourself, you will find someone at home.

We must never forget that education has two purposes: one is to help each person to earn his bread; and the other is to make each mouthful sweeter. Just as the Hebrew sages have said that man does not live by bread alone, thus emphasizing to us that we live by ideals and spiritual renewal, so, too, have they remarked that where there is no bread there is no Torah, thus reminding us that we must also be practical, that there are practicalities which must limit our idealists. Education is learning how to make a living, of course. But it is also learning how to live a life, a life that is sensitive, creative, compassionate, and humane. As someone has remarked, "the greatest of human arts is that of finding a past that has not only made us its victims but can enoble us; it is that of envisaging a future with an imagination that is larger because it is liberal and more disciplined and prudent because it is liberal."

And this from Mark Van Doren:

All education is useful and none more so than that which makes men free to possess their nature. It is both useful and liberal to be human, just as it takes both skill and knowledge to be wise. If liberal education is concerned with truth, and technical with things, then the two should teach each other.

Turning to another point to ponder, every profession must expect to come under the increasing glare of public scrutiny as tough-minded consumer advocates, Nader's Raiders among them, demand improvements in the quality of professional services and increased competition to hold down fees.

Witness as just one illustrative example the U.S. Supreme Court decision of last June in which the Court majority held that lawyers cannot constitutionally be prohibited from advertising the fees they charge for routine legal services. The issue was decided, in part, on the basis of the free speech guarantees of the First Amendment. However, I believe the American Civil Liberties Union, whose lawyers handled the case, got right to the heart of the matter by hailing the decision as—and I quote—"an important victory not just for free speech but for the rights of consumers."

In New York, the Regents responded to consumer concern a year or so ago by adopting regulations which permit the advertising of prescription price information by pharmacies. State regulations now require pharmacists to display a list of prices of the 150 most-used drugs. In addition, the Board voted in July of this year to allow informational advertising of services and fees by the other professions as long as

such advertising is in the public interest and does not involve any fraudulent or flamboyant come-ons. The new Regents Rules contain a specific provision pertaining to the health professions permitting the distribution of information to groups like labor unions which often enter into arrangements for the provision of health services at specific prices. The information may state details of the arrangement, including the names, addresses and telephone numbers of the participating practitioners.

I sometimes wonder why it has taken so long to gain acceptance of advertising by professional practitioners in modern times, in view of the fact that this kind of advertising was quite common in America in earlier times. Let me read you part of an ad that appeared in a Boston newspaper in 1768:

WHEREAS many Persons are so unfortunate as to lose their Fore-Teeth by Accident, and in other ways, to their great Detriment, not only in Looks, but speaking both in Public and Private: - This is to inform all such that they may have them re-placed with artificial Ones that look as well as the Natural, & answer the End of Speaking to all Intents.

You may be interested to know who placed that ad in the paper, since his name is one you will recognize. It seems this man decided that his other skills as a silversmith, goldsmith, bell caster, and copper worker qualified him to do dentistry in the bargain. He was, in case you didn't guess from these clues, none other than Paul Revere.

At any rate, such powerful new forces as consumerism ought to be regarded not as insurmountable problems, but rather, at the very least, as what Pogo used to call "insurmountable opportunities." Every professional group ought to be its own best policeman and consumer advocate these days. This is another mark of a true profession. It should take appropriate and immediate action against individual violators within the profession and, no less important, correct any conditions that tempt practitioners to go wrong. There is much rhetoric in the professions of self-policing, but practice has some distance to go to equal what is so often piously affirmed.

The best way I know *not* to have constraints handed down from outside the professions, is for the professions themselves to set high standards to which their own members will repair. Remember that we live in a society in which no one has the right to be as bad as he wants to be. And keep in mind, too, that the freedom a profession gets is the freedom it deserves. Put another way, self-discipline is the free man's yoke. The surest protection against encroachments upon the autonomy of the professions is probably best summed up in that wonder-

ful quote from Mark Twain that Harry Truman used to keep on his desk in the White House:

"Do what is right. It will please some and astonish the rest."

Or follow Nyquist's first principle of executive decision making: whenever you are in doubt, always do the right thing.

Finally, as a long-time educator, I would be remiss if I did not say something about the extreme fiscal pain many dental schools are experiencing these days. For this purpose, let me cite the plight of the New York University College of Dentistry, and what the implications of the situation mean to the State as a whole. Besides, that dental school is the second largest in the nation. What happens there should not lie outside your orbit of interest, or at least not fall within your zone of indifference, regardless of which part of the country you happen to be from.

New York University is a nonpublic institution, and its dental school appears headed, as of June anyway, for a deficit of \$2.7 million in its operating budget for 1978-79. This deficit amounts to 22 percent of a projected budget of \$12.1 million and will occur if present financing arrangements, including Federal and State contributions, are continued at present levels. The State has already approved an appropriation of \$3 million to enable the school to construct a major new facility and made a commitment from a grant of \$5 million to expand the enrollment. This is in addition to other forms of State assistance provided through such means as our Bundy Program of aid to independent colleges and universities throughout New York.

We have found that neither the N.Y.U. dental school nor the one at Columbia—the two under private auspices in the State—can attract adequate amounts of gifts and grants to cover operating deficits, meaning special treatment must be accorded to these institutions by the State. But State government is going through a period of severe fiscal constraints, too. As a result, it may become necessary to resort to extraordinary measures to resolve the situation. One measure now under consideration is to close the State University Dental School at Stony Brook, on Long Island, which now receives roughly \$2.5 million in State funding, to reallocate these funds to N.Y.U., and to have most of the 24 Stony Brook students transfer to N.Y.U. The balance might be admitted to Columbia.

It is too early to say exactly what will be done, since the final decision involves not only the educational institutions involved and the Board of Regents and State Education Commissioner, but political authorities as well. There is a new Golden Rule these days, you know: He who has the gold makes the rule.

This is why deans of dental schools sleep like babies at night—you know, they sleep for an hour and then wake up and cry for an hour.

I would only add one other characteristic of a true profession: an abiding willingness to engage in experimentation and innovation, in responsible heresy, in imagineering. I do not mean that professional people ought to be so open-minded that their brains fall out. But I do know of some professions where change takes place at a glacial pace. They somehow subscribe to the conclusion of a report on British academic politics: Never do anything for the first time.

In coming to a close, Robert Nelsen asked me earlier: "Is there an answer to the question, 'Can the professions survive?'" There is an answer, and it is "yes." The professions will not only survive but flourish, provided they have vigorous and creative leadership, a leadership which is able to identify purposes clearly and to interpret those purposes to the public in many wise ways, leadership which knows and exercises self-control, emphasizes service to others, and progressive change instead of resisting change, thus bearing everlasting witness to what you already know. It is with the professions as with other social endeavors. There must be people in them who are ready to lead, not merely follow out in front, who can influence others to do the things they ought to do, and who point to a better way out of a concern for what is in the best interest of the whole community.

The president of a university was once asked what had become of his last dean of the dental school. "He left us as he came," replied the president, "*fired* with enthusiasm."

I am sure the Regents, officers and members of the American College of Dentists are led by high aspiration and compelling inspiration, and are fired with enthusiasm, to see that the noblest objectives of the dental profession are brought to full fruition. So may it be said of you, as it was said of the climbers of Mount Everest who, eventually in their arduous ascent, disappeared into the clouds: "When last seen, they were still climbing."

Barriers to Access to Dental Care: an Economic Examination

DONALD R. HOUSE, Ph.D.

Only until the last few years has the nation's health become a major policy issue. Congressmen hope the Carter administration will propose a national health plan which would control health care costs and improve access to care to those now restrained by various economic and sociological barriers. Some attempt to further the notion that adequate health care is an American right—not a privilege. But before one can intelligently assess these issues, one must appreciate the present market forces that determine health care costs and the resulting economic barriers to access to care. This paper briefly examines present barriers in the dental market and discusses the determinants of these barriers.

Barriers to access to dental care are a natural consequence of our capitalistic system. Although ours is a rich nation by world standards, we are not blessed with enough goods and services to go around. Economists have long realized that individuals seek a balance among needs and desires for the near-endless list of commodities available in today's marketplace. Dental care is only a very small fraction of all purchased items in the family budget. (The average family spends less than 1% of its income on dental care.) And although dentists, with good intentions, frequently voice concern over the segment of the population with poor oral health, these individuals are reacting to market barriers, choosing little or no dental care in return for more from other markets. Their numbers are significant.

The National Health Survey of 1969 indicates that 6% of the population over five years of age had never seen a dentist. Approximately 55% of the population had not seen a dentist within the past 11 months. And 13% indicate that their last visit was at least 5 years prior to the

A shorter version of the paper was presented at the Conference on Increasing Access to Dental Care, American Dental Association, May 16, 1977 in Chicago. Dr. House is Senior Economist, Bureau of Economic Research and Statistics, American Dental Association.

interview.¹ There may be many reasons one might present in explaining why some rarely seek professional dental care. Surely several psychological factors play a part, including patient fear and anxiety. But from an economic perspective, dental fees and patient time create barriers that deserve examination. This paper focuses upon these two economic barriers.

DENTAL FEES

Fees represent the most commonly noted economic barrier. Families are aware of their household income and the significance of the financial sacrifice that dental care requires. Third party payments currently provide only a small contribution toward relaxing the fee barrier. In 1976, consumers on average financed 81¢ out of every dollar in dental bills—a marked contrast to the 9¢ paid out of every dollar in hospital bills.² To be sure, the household inevitably receives the entire bill in the form of taxes, insurance premiums, and reduced wages. But it is out-of-pocket expenses, the 81¢, that remains a prime determinant of dental care utilization and a significant economic barrier.

The levels of dental fees represent the single determinant of fee barriers for most individuals and a significant determinant of out-of-pocket expenses among those enjoying third-party participation in paying dental bills. These fee levels are determined by market forces—specifically the interaction of supply and demand. The economic literature does not yet include many studies of these market forces in the dental market, but two recent publications present noteworthy attempts in identifying both supply and demand in dental markets. Paul J. Feldstein in 1973 used ADA survey results of U.S. regions between 1955 and 1967³, and two years later Alex R. Maurizi used 1962 results from the *ADA Survey of Dental Practice*.⁴ More research in this area is on-going, and unless contrary evidence is discovered, economists look to the conventional market forces (i.e., supply and demand) to explain changes in dental fees.

Once fee levels are determined, it is useful to identify those individuals or households to whom fee barriers appear to be most restrictive. For this, we need only to seek the low income families with little or no third-party coverage. With fewer dollars to spend, dental care receives a low purchasing priority and rarely does the family allocation of dollars reach dental needs. For instance, in 1969, an estimated 16½% of the population with incomes less than \$3,000 had never seen a dentist as compared to only 5.3% with incomes in excess of \$15,000.¹

The number of individuals that fall into the low income brackets is easily determined. The Bureau of the Census reports some 5,109,000

families maintain incomes below the official poverty level as of March 1975. This amounts to 9% of all U.S. families. However, it is more difficult to identify the extent of third-party coverage among these individuals.⁵ Many are eligible for dental benefits under Medicare programs while others receive dental prepayment as an employee fringe benefit. One would expect that these income-poor families enjoy the bulk of the government-provided dental benefits (during fiscal year 1976, government supplied \$469 million representing 5.4% of the total dental bill), but they may receive little dental prepayment coverage since only about 30% of family heads either have or seek employment and their unemployment rate approaches 17%—3 times the national average. (Today, virtually all dental prepayment is offered as employee benefits.)

PATIENT TIME

The time barrier to access to dental care has only recently received attention in the economics literature and is commonly ignored among many who study dental care behaviors. In short, the time barrier reflects the patient's time spent in receiving dental care, both at home and in the dentist's office. For professional care, the time barrier includes the value of the patient's transportation time, waiting time, and treatment time. In this regard, dental care is not unlike any other service; successful delivery of the service requires the consumer's time. Unlike the fee barrier, third party payments cannot significantly alter the time expense of receiving professional dental care.

As an illustration of the time expense, consider an hourly wage earner that leaves his place of employment for his periodic dental visit with treatment limited to a routine oral exam and prophylaxis. Suppose he earns \$3.60 per hour and must spend 30 minutes travel time to the dental office. Once at the office he waits 20 minutes before treatment and 50 minutes with the hygienist and dentist. In total, the visit required two hours and ten minutes of his time. Assume that the dental bill is \$25 in fees. His total cost of the dental visit includes both fees and the value of his time. Since he gave up \$3.60 per hour at work, his value of the time spent equals \$7.80 (2 hours and 10 minutes times \$3.60 per hours). His total expense is \$32.80.

The patient time cost of dental care is, like dental fees, market determined. This is, it requires a balance among the relevant market forces. For a clearer understanding of the determinants of the three components of patient time (transportation, waiting, treatment), an examination of each is presented below.

Patient transportation time reflects a locality's modes of transportation and the dentist's practice-location decision. Each dentist has an economic incentive to locate his practice where patient transportation time is minimized (i.e., in the vicinity of his patients). This location decision, however, is affected by other considerations such as land values, area zoning, and the dentist's transportation time. A dentist, residing out in the country, is often encouraged to maintain an office in town, thereby making his services more convenient for his clientele.

Patient waiting time, the second time category, is also of concern to both dentist and patient. The dentist spends most of his time treating patients, but from time to time he is idle due to patient tardiness or no-shows. To him, this time is quite expensive. Not only does he lose dental fees during idle time, but he also must meet his payroll demands which are largely independent of patient flow. If a patient misses a scheduled appointment, the dentist faces little reduction in practice costs but a large reduction in gross income. Hence, the dentist must create an "inventory" of patients as a means of reducing idle time produced by patient tardiness and no-shows. On the other hand, if waiting time gets excessive, the patient will either change dentists or limit his dental visits to a bare minimum. Accordingly, the patient's waiting time balances his desire for short waiting times and the dentist's desire for large patient inventories.

Lastly, treatment time often represents the largest time expenditure. Historically, treatment time has changed slowly through the years, but its changes, however slight, can be explained as an example of economic behavior. As time becomes more valuable to both patient and dentist, there exist greater incentives to develop and implement faster treatment techniques. Four-handed dentistry represents an important innovation in this regard as well as the high-speed hand piece. But if time were not as valuable, fewer dentists would have implemented these technologies.

As with the dental fee barrier, the examination of the time barrier leads to an identification of individuals to whom the time barrier appears most restrictive. With this examination, one soon realizes that the patient time cost is greater among those with the greater hourly earnings. The hourly wage earner in the above example lost \$3.60 per hour for time away from the job. In contrast, an attorney with a successful business could lose up to \$80 per hour in net income during the dentist's office hours. Consequently, the time cost is greater for the attorney—not the wage earner. One might further consider the unemployable welfare recipient who merely gives up daytime T.V. during a dental visit. His time cost is indeed minimal.

GOVERNMENT POLICIES

Today, the government is an active participant in the economy and especially in the health care markets. Its activities are extensive, ranging from medical research to funding and controlling expansions of hospitals. Beyond the health care markets, the government redistributes income through public assistance and social security programs and redistributes goods and services through agencies responsible for food stamps, public housing, etc. Almost all of these contribute to changes in dental care utilization.

Government participation in dental markets, as mentioned previously, amounts to the control of 5.4% of dentists' services. Most (83%) is funded under Medicaid programs with the remaining being funded under the direction of the Veterans Administration (12%), Maternal and Child Health Services (3%), Department of Defense (1%) and General Hospital and Medical Care (1%).² It must be noted that virtually all funding is directed to a relaxation in the dental fee barrier. Among those enjoying the benefits of these programs, dental fees become only trivially important and the major economic barrier separating recipients from professional dental care is the time barrier. Inasmuch as most recipients (especially those eligible under Medicaid) place a relatively low value on their time (i.e., low or no wages), economic barriers would seem to play but a minor role in restricting dental care utilization among these individuals.

The government, in addition to dental programs, affects dental care through income transfers whereby recipients receive a higher income. Economists have determined that as individuals' incomes increase, they purchase more professional dental care. That is, as families receive more income, the fee barrier to access to dental care becomes less restrictive. One of the earlier examinations of this relation was published by Ronald Andersen and Lee Benham. Their study found that if family income increases by 10%, dental care expenditures will increase by 10%.⁶ Several later studies confirm these results.^{3,4,7} Again, one expects that the major recipients of the income transfer programs are those with little income and a relatively low time valuation.

Other government programs include a multitude of in-kind transfers whereby the government distributes goods and services (such as food stamps). Each of these programs potentially affects dental care utilization among recipients. But the impact of these programs depends upon how recipients value the goods and services distributed. Frequently there is a major loss of value in these programs. Recipients often do not value the government benefits as they would value an equal amount of income. If a family receives a \$400 a month apartment

from the government, but privately would only pay \$250 for it, its receipt has the same impact as if \$250 in income were distributed. The dental care purchases would increase as if income had increased \$250 per month instead of \$400/month.

The Federal government has established legislation that is designed to reduce the economic barriers to access to care for the provider side of the market. The Health Profession Educational Assistance Act of 1976 (PL94-484) attempts to increase the supply of dentists, improve their productivity, and alter dentists' location decisions. The recent act first broadens capitation grant support to dental schools in order to insure increasing supplies of new dentists. For example, during the 1978-79 school year, each participating dental school will receive \$2000 for each full-time student. (A school participates if among other requirements, it does not decrease its total enrollment in the current year below the preceding year's level or the 1976-77 level, whichever is greater.) Further, the act finances education of expanded function dental auxiliaries which should increase the pool of trained dental auxiliaries.⁸ Studies have already recorded the increase in dentists' productivity with employment of dental auxiliaries.⁹ These results partially offer a rationale for such legislation. To alter location decisions, the act supports the National Health Service Corps wherein recipients of Corps scholarships are obligated for service for a minimum of two years. A portion of those obligated are sent to establish a private practice within a government-defined "shortage area".

The success of the act in reducing economic barriers to access to dental care remains to be seen. Supposedly, the increase in the number and productivity of dentists will increase both fee and time barriers. With more productive dentists, the market requires lower fees in order to balance market forces (in the absence of compensating increases in demand for dental care). Moreover, with more dentists, the average travel time to the dentist should decrease, especially in the "shortage areas". Consequently, supporters of the act expect increased utilization of dental care as a result of reductions in both economic barriers.

PATIENT RESPONSE TO BARRIERS

A patient, through his own activity, can reduce the restrictiveness of both barriers to access to dental care. Obviously, an individual can earn more income by working longer hours or seeking eligibility for government programs. Each of these would reduce the fee barrier. But beyond these obvious options, the individual can 1) seek employment that offers dental prepayment as a fringe benefit and 2) search for less expensive dental care.

The economics literature includes several theoretical and empirical examinations of the demand for health insurance. Currently union and non-union employees alike appear to be demanding more insurance-type benefits in lieu of more wages. And dental prepayment is becoming a popular benefit in today's labor markets. There appears to be two major factors behind this current trend. First, in the face of rising health care prices, more individuals seek insurance as a means of decreasing the probability of unwanted major health care expenditures. By pooling risks among relatively similar individuals, premiums for insurance packages can be reduced below what is available to the public at large encompassing all types of health conditions. Hence, it is economical to obtain coverage through one's place of employment. Second, tax laws strongly encourage a switch from wages to in-kind benefits as a form of remuneration. With such high income tax rates, the employee can sacrifice taxable wages and receive a greater value in insurance-type benefits. For example, at a 20% tax rate, the individual can decrease his gross income by \$200 and receive an equal value in dental prepayment coverage for he and his family. But while premiums equal \$200, the employee gives up only \$160 in after-tax income. Consequently he receives an extra \$40 in benefits to the dismay of the government treasury. If the family is entitled to \$190 in dental benefits for the year, the family in effect enjoys an extra \$30 worth of dental care financed directly by the treasury simply by receiving dental prepayment as a fringe benefit.

Additionally, individuals shop for the least expensive dental care offered in the market-place. Such shopping does not mean that each individual spends several hours comparing fees among all dental offices in the community. Indeed, the lowest dental fee may not be the least expensive. But individuals choose the dental office which minimizes the sum of the dentist's fees and the patient's time cost. The typical family chooses a dentist relatively close to the family residence—an example of this shopping activity. By reducing transportation time, the restrictiveness of the time barrier is reduced. Beyond the transportation time, patients seem to recognize a market trade-off between dentist's fee and waiting time. At least one study shows that physicians, charging higher fees, often require patients to wait less time before treatment.¹⁰ An attorney can reduce the total expense of physician care by paying \$10 more in fees and reducing waiting time by one-half hour. A welfare recipient can reduce his total expense by saving \$10 in fees and waiting an extra half-hour. Statistics illustrating this relation within dental markets have not yet been collected. But it is generally expected that the same pattern exists.

DENTIST RESPONSE TO BARRIERS

The individual practitioner, providing dental services in a viable market place, faces market forces that create incentives to minimize the barriers to access to care for the public at large. While professional integrity certainly plays an important role in the determination of barriers, the economist recognizes a *profit motive*, produced in the market place, which encourages the behavior that one most admires among those of the highest professional integrity. Such is the beauty of the private practice system.

First, as mentioned previously, the dentist is encouraged to reduce patient transportation time by locating the dental office within close proximity to patient residences or places of employment. This, from the dentist's perspective, promotes growth in the size of the practice.

Second, the dentist cannot establish fee levels out of line with the other competing dentists within the community. While on paper it would seem that a \$200 fee for an initial exam would substantially increase practice income, patients quickly realize less expensive alternatives and the dentist is left with both a clientele too small to support a practice and a well-deserved reputation in the community that would discourage any growth in the practice even if fees were reduced. On the other hand, the dentist cannot establish fee levels that are too low. A "reasonable" level of profits (or net income) is a necessary condition for the market system to work. Only if the net incomes of dentists are sufficiently high will any undergraduate student desire to enter the profession with total dedication. For example, if dentists' incomes were near poverty levels, few (if any) talented students would sacrifice four years of income during dental school, tuition expenses, etc., and start-up investments to attain such a standard of living. By spending those talents in a closely related endeavor the student attains a substantially improved lifestyle that he and his family can enjoy. In this context, dentistry must compete with all other professions in order to attract capable individuals in quantities necessary to meet the public demand for dental care. And the only way in which dentistry can meet this demand is to establish fee levels that insure an adequate supply of dentists.

Third, the dentist must offer a reasonable waiting time for the patient. While the dentist's idle time is reduced with larger inventories of patients (and therefore longer patient waiting times), his practice prospers with the growth of a stable clientele who consistently relies upon the dentist's advice as to frequency of visits and type of treatment. If patient waiting times are too long, they will seek alternative

dental practices where the wait is not as long and unpredictable. Consequently, the dentist has sufficient economic incentives to reduce patient waiting time and hasten the growth of a stable clientele which offers a prosperous practice and a long lasting personal rapport with patients. If patients frequently wait 45 minutes before treatment in one office, and 10 minutes in all other offices, they have every incentive to change dentists.

Lastly, the dentist, from time to time, adjusts dental fees when the patient's ability to pay is in question. While we have no substantial evidence of the frequency of either unpaid or reduced bills, it is commonly understood that this does take place. Economic theory suggests that dentists can effectively increase their net incomes by offering service at a lower fee to low income families and charging the higher income families the higher fee. In contrast, such activity could likewise be explained by pure philanthropic motives. (Certainly net income is not improved when the dentist chooses not to charge a low-income family for services rendered.) While convincing arguments could be offered supporting either view, the effect of the behavior is the same. The fee barrier is reduced for those to whom it is most restrictive. And such behavior is strictly voluntary. Its consequence is expected to be a higher utilization of dental care among low income families.

ECONOMIC BARRIERS IN THE FUTURE

The future should bring changes in the barriers to access to dental care, especially if some form of a national health insurance program passes Congress. If such a program is established, not all of its effects will necessarily be beneficial.

For many years now, American laborers have become more productive. Accordingly, their hourly earnings have improved—directly affecting the time cost of consuming dental care. With no other changes, we should expect an increase in earnings and income which decreases the importance of the fee barrier but increases the importance of the time barrier (i.e., an individual's time is more valuable).

With a national health insurance program in effect, one can predict several consequences. If the program is all inclusive, providing regular dental care to a significant number of individuals, the fee barrier will be reduced for program recipients. Accordingly, we would expect their utilization to increase. But, as a consequence, patients will wait longer at the dentist's office, especially if the program provides sufficient dental benefits to low income families with relatively low earnings.

Dentists, however, could introduce a partially offsetting effect

through improvements in treatment time. However, these depend upon technological advances that are impossible to predict. Certainly, the further use of dental auxiliaries will improve treatment time, but there is a logical limit to these improvements without technological change even though we currently have room for significant advances in this area.

On the whole, the net impact of national health insurance upon barriers to dental care remains in question. While on the surface it appears that patients, increasing utilization through expanded third party payments, will necessitate longer waiting times in dentists' offices, dentists may respond by increasing productivity through technological advances, further use of auxiliaries, and more intense use of their time. Waiting times may not increase.

Since, in the future, patients will value their time more on average than they do today, dentists will pay more attention to patient waiting time in order to maintain a successful practice. If national health insurance reduces the fee barrier for dental care, legislators will find that decreases in dentists' fees have much less impact on utilization than do reductions in patient waiting time. These alterations in the marketplace should be considered in present discussions of alternative delivery systems (such as public clinics, closed panels, etc.). A system that is designed to reduce fee barriers may be somewhat successful today in increasing utilization. But its future performance in a market where patient time is a major determinant of utilization may be much less satisfactory.

REFERENCES

1. *Dental Visits, Volume and Interval Since Last Visit, United States - 1969*, Vital and Health Statistics, Series 10, Number 76, Department of Health, Education, and Welfare, July 1972.
2. "National Health Expenditures, Fiscal Year 1976," *Social Security Bulletin*, Volume 40, April 1977, pp. 3-22.
3. Paul J. Feldstein, *Financing Dental Care: An Economic Analysis*, Lexington Books (Lexington, Massachusetts), 1973, pp. 143-147.
4. Alex R. Maurizi, *Public Policy and the Dental Care Market*, American Enterprise Institute for Public Policy Research, Washington, D.C., 1975, pp. 24-35.
5. *Statistical Abstract of the United States*, 1976, Bureau of the Census, Department of Commerce, Washington, D.C., 1976, pp. 418.

(continued on page 188)

Social and Psychological Barriers to Dental Care: Consideration of the Near-Poverty Income Individual

HELEN C. GIFT, Ph.D.

Economic conditions are not the only barriers to dental care. While much of the emphasis of this conference is on those persons who have financial restrictions that may present barriers to care, this same group of people—the “working poor”—are also characterized by other social and psychological factors which are useful to know if we are going to improve their access to dental offices. Using statistical averages for this earning group (\$5-\$10,000) compared to others, we find that they have different patterns of utilization of dental services, as well as characteristic patterns of education, race, occupations and living locations. Based on the most recent survey data, 1970, the following descriptions of dental utilization can be made.^{1,2}

About 38% of the people in the near-poverty group make a dental visit during a given year. This has not changed appreciably between survey years of 1953, 1963 and 1970. There is considerable variation in percentages seeing a dentist within this income group. The age group under 5 years has the fewest individuals with visits, 14%, and the group aged 6-17 has the highest, 53%. About one third of the persons over 55 in this income group have visits during a year.¹

There is some variation by race, with Blacks having a lower percentage of persons making a visit. Among those persons with a visit, however, the difference is not great as both races report 2½ to 3½ visits that year. The influence of income on these different utilization patterns is less than that of race. This is demonstrated in data indicating that the comparative average number of visits for Black persons does not vary between those below the poverty line and those above it, while, among White persons, the contrast between these two income groups is more significant.²

Presented at the Conference to Increase Access to Dental Care, American Dental Association, Chicago, Illinois. May 16, 1977. Dr. Gift is Director of the Bureau of Economic Research and Statistics, American Dental Association, Chicago, Illinois.

There are also differences in the services received when comparing those just above the poverty line and those below that level. Again, these differences vary by race. Among Whites, there is no difference in teeth filled, but those individuals who are below the poverty level report more extractions while those above the poverty level report more preventive services. Among Blacks, there is little difference in preventive services received, while those above the poverty level receive more fillings, and the below poverty level persons have more extractions.² There are clear differences between the races when income is not noted with Whites having more preventive services, slightly more restorative work and many fewer extractions.² These data clearly demonstrate the different status of oral conditions that are or can be presented by this income group in the dental office.

Individuals who have earnings are categorized in census publications by still other social characteristics.^{3,4} Persons whose earnings are in this category just above the poverty level are more likely to be female. Among persons reporting earnings, the differential between average male and female incomes is about \$5,000. The same level of contrast is seen in comparing earnings by race. Blacks are more predominant in this low, but not poverty, income category. The average earnings of Blacks is about \$5,000 less than is the average White's earnings. The persons in this earning category are more likely to live in either the non-metropolitan or the central city areas than in suburban locations. Looking at all of these factors simultaneously, a tentative description of the statistically average person in this near-poverty income group is a Black, female, head of household living in a non-metropolitan area.

Looking at other social factors, the census data indicate that this earning group is more prevalent in very rural areas. The people in this earning group are also very likely to be in occupations for which they are employed only part-time or part of the year. Also, the occupations described are generally unskilled labor in all types of work—farming or industry. As pointed out in another presentation, the purchasing power of these dollars may be different in different areas.

Considering education and sex, we find that people at this earning level are characterized by lower education attainments and are predominantly female. On the average, only Black or White males who did not complete high school would be found in this earning group. The average income of all White females, except those with graduate school training, is in this low earning category above poverty, and the average income of all Black females, except those who are at least college graduates, are in this "working poor" category.

From this brief description, it should be apparent that there are a number of social factors, characteristic of this group, that are also barriers to access in addition to financial ones. It is the purpose of this presentation to consider how these factors, as well as the psychological characteristics that are associated with them, may inhibit the individuals from seeking care.

BACKGROUND

A number of behavioral factors affect the delivery of dental care. This presentation is not intended to consider them all, but to select certain psychological, social and cultural factors that have had a clear association with the use and acceptance of care, particularly prosthodontic care.⁶ These factors affect not only whether a person seeks dental care and under what circumstances, but also the acceptance of care that the dentist defines as necessary for optimal oral health.

The effects that social and cultural factors have on use of dental services are well documented in the literature.^{1,2,5} The use of general health services, the literature shows, is affected by: 1) predisposing factors such as age, sex, marital status, life style, education and race; 2) enabling factors such as income, insurance, accessibility of services, and by 3) perceived need. In a country such as ours, with a wide variance of all these characteristics, it is not unexpected that there is a wide differential in number and types of health services used.

When considering health care, that is sometimes viewed as discretionary, such as dental treatments, psychological, cultural and social factors have even more direct impact on number and types of services demanded and received.

Of all these factors, perceived need is one of the most important affecting the person's use of dental services. Only if a person considers himself in need will he consult a health care specialist, unless he has a unique concept of need that makes him preventively oriented.

The predisposing factors mentioned are measures of attitudes, beliefs, level of risk to disease, and knowledge and experience with the delivery system. They are not causes of use, *per se*, but are representative of underlying conditions, such as need and attitudes, that are difficult to measure. By knowing someone's age, for example, we are able to make additional assumptions that we can be relatively sure are logical. Consider by way of illustration, two patients, one 6 and one 60 years of age, about whom the dentist knows nothing else. Merely by knowing age, he will expect differences in number and type of restorations existing in the mouth, experience with the dental care

environment, and ability to understand the treatment he is providing. Being familiar with the values of an ethnic group in the city, as further illustration, will have prepared the dentist not merely for the explicit attitude regarding such matters as dental care for children, or loss of teeth but, equally important, the implicit unexpressed attitudes.

The other important class of factors affecting use of dental services are enabling characteristics. These are the variables that determine the individual's ability to obtain care. Is there a dental office accessible to him based on his mode of transportation? Does he have an income? Does he have a job during all hours that the dentist's office is open? All such factors encourage or inhibit him from using services in general or from pursuing specific services that may be time-consuming or expensive.

Such cultural and social measures are proxy variables. They represent other conditions for which we may not have precise measurement such as attitudes, values, knowledge, resources and perceived need.

Certain social measures, then reflect values and attitudes, while others, such as income and residence, affect accessibility to services. Yet other measures, such as education or ethnicity, may represent the perception of illness or need.

Perceived need, social variables and cultural variables all interact to determine use of dental services. Therefore, the better the understanding of them, singly and in combination, the better able dentists are to improve the delivery of appropriate dental care.

Predisposing and enabling factors interact to influence the action that an individual will take in regard to a perceived need. For example:

1. An individual can be interested in seeking regular dental care, and have positive values toward health but not have the income or accessibility, which would result in no utilization.
2. Another individual could be poorly disposed toward the value of dental health, lack knowledge of the need for care, have the resources available and still not seek dental care.

Either person may eventually enter a dental office and present a poor oral condition with the need for complex prosthodontic work. How the dentist proceeds with treatment planning and treatment itself should vary, however, depending on the causes that lead to the poor oral health status and the patient's attitude toward that level of health.

The more severe the symptoms in terms of pain or discomfort, the more likely that it will override the affect the behavioral factors will have on the demand for services. Even in this case, however, the specific type of service expected or requested may be influenced by the values of the person or by his resources.

A person missing most of his natural teeth, for example, who is acting on perceived need, may make an appointment. Behavioral factors such as his attitude toward the value of natural teeth and his perceived ability to pay for extraction and full dentures versus restoration and partials, may likely be more dominant in his decision making regarding type of service than any pain or discomfort.

PATIENT CHARACTERISTICS AND IMPROVED DELIVERY OF CARE

The most comprehensive way to study the impact of all social and behavioral factors would be to consider at one time, investigating the totality of combined effects. Even were this possible, it would be inappropriately complex for this presentation. Several examples, illustrating the impact of selected behavioral factors, will be the basis of this presentation. Many others could be investigated in similar fashion.

The most practical reason for studying social or cultural variables is to determine how we can use the knowledge to improve delivery of dental care.⁶ Does knowing a patient's age, for example, change the provider's behavior in any way? Do we speak in simpler language to children? Of course, we do and beginning with that, we could complete a significant list of these behaviors as well as reasons why, in delivering good care, it is helpful to alter approaches.

Each social and cultural condition can be considered in the same fashion as age. Certain characteristics are unchangeable, while others are more subject to modification. The dentist can do nothing to change the age of an individual patient but, given the fact that the characteristics will not change, may alter his approach to ensure the greatest benefit from the dental visit.

Other factors may be difficult to change, but still affect delivery of dental services. For example, through continuity of care in restorative and prosthodontic procedures is important, the United States population is very mobile and being unable to affect this appreciably, the dentist must assist the patient in continuing care elsewhere (or decline to start providing the service).

Still other factors may be more directly changeable by the dentist himself or others, such as access to regular care, ability to pay for services or price of care.

The ultimate goal of knowledge of the social and cultural factors affecting dental care would be to identify those factors that have a strong effect on use and acceptance of services and that can be built upon or altered. The following six illustrations are examples of how consideration of behavioral factors can alter treatment outcomes.

1. *Patient's Background*

An individual patient comes to your office for a reason. This may be because it is time, he is in pain, or he perceives some other symptom that he associates with a dental visit. Regardless of his stated reason, this person brings with him his previous experience, behavioral skills, physical and emotional resources, the cultural or group norms of his community and family, and his personal expectations. These are deeply seated and frequently beyond conscious enumeration by the patient, much less the dentist.

It is important to remember that an adult may appear based on the surface description to be representative of a particular orientation, while he may, in terms of values and orientation toward health, more clearly reflect the orientation of his parents. To this extent, it is valuable to know the origins of a person to more clearly understand an approach to him as a patient.

Someone may appear in the office who, based on conversation regarding occupation or other issues, appears to be intelligent and have a good self-perception. Based on this, the dentist might expect no reaction to the suggestion for a complex restorative procedure which would save his teeth. But knowing that he came from a subculture that saw no value in keeping natural teeth and, in fact, saw dentures as a status symbol, clearly help to predict totally negative reaction such a treatment plan would receive.

Based on the statistics presented earlier, it should be apparent also that employed women who may appear to be intelligent and value health are possibly in a lower paying job than you would assume which may make dental care payments a hardship.

2. *Values of Health*

Based on deep-seated cultural orientations, family beliefs, and individual experiences, patients will have different orientations toward health. This is best exemplified in dental health by the number of people who do not go to the dentist at all and the fact that the reason stated for not going is most frequently a lack of perceived need.⁵

Once in the dental office for a visit, however, this differential orientation toward health re-surfaces. Dental care beyond the relief of pain and the restoration of minimal function is viewed by many as a discretionary health service. It is easy for the dentist to blame the lack of appreciation for a particular service—for example a complex restoration versus an extraction—on cost, but this may not be the case at all. Differing reactions may have as this source, such factors as: a) the patient's perception of possible disability; b) symptoms that will be

present if the care is not received; c) his evaluation of these in relation to his other priorities, and; d) self-evaluation of his health.

Someone who has only sixteen natural teeth but thinks that she enjoys her food, and is attractive feels no deprivation, and perceives no need for dental services likely will not seek services. Someone else could have all their natural teeth, but, not liking the way they look, perceive a need for extensive prosthodontic services.

3. *Values of Physical Appearance*

Some cultural groups want gold stars placed on their front teeth. Others want no gold showing under any condition. Still others want a complete clearance and full dentures by their twentieth birthday. Our broad cultural orientation is certainly directed toward attractive white teeth and this message is carried to all parts of the United States that the media reaches. But different subgroups will have different values toward how straight is straight or how white is white, and how necessary their natural teeth are.

All dentists have been faced with the patient who wants his teeth straightened beyond the bony support for those teeth, or one who wants unnaturally white caps or dentures only to return and complain after the teeth are placed that they are not what they wanted.

Dentures are not mere mechanical appliances that help fulfill the biological needs of the patient. Dentures, as teeth, have social and personal meaning. Some people think of even, white teeth as a characteristic of higher socio-economic groups, white yellow teeth denote poverty. The symbolism of teeth is frequently seen in movies giving these kinds of images without any verbal description.

Within the framework of functional quality a sensitive practitioner will listen to what the patient wants in terms of cosmetics, discuss the possible outcomes with him and always remember that even if the dentist has satisfied the functional standards, the patient is the one who has to look at the teeth. Thus, the patient's aesthetic values may legitimately outweigh those of the dentist.

Values related to health and to beauty developed over time. Much of what a person perceives as normal health and beauty as an adult is built upon anticipation. Most of us anticipate good health, reasonable success in marriage and jobs and a long life. We do not anticipate being among those who have chronic disease, sexual problems or job failure. Being faced with an unexpected event, then, causes most people anxiety and they will try many ways of coping with this. Values of health and beauty, in terms of teeth, are already developed prior to a patient first visit for prosthodontic care. Patients will vary considerably

in terms of whether this event of losing their teeth and receiving dentures is an expected event or is defined as a personal failure.

Reactions all the way from "This is the best thing that ever happened to me. I finally will have straight teeth." to "It is the end of the world. I won't be able to open my mouth." can be expected and reflect the attitudes patients have toward health and beauty, toward success or failure.

What appears catastrophic to one may be manageable to another. In prosthodontics, the dentist is also very likely to be dealing with patients at an age when other possible losses or failures are occurring, and, in some cases, the loss of teeth may be the final, unbearable insult.

These differing reactions can be very frustrating to the practitioner. Getting some measure of the possible reaction in the treatment planning stage, rather than later will lessen the frustration significantly.

Loss of natural teeth presents a serious problem for many patients in our country. The impact is related to a rapid change in body image. The concept we have of ourselves is usually comfortable. One may know that his body is not the strongest or most beautiful, but still like it and resist drastic changes to it. Patients, then, need time to adjust to the bodily change produced by dentures. Less stable patients may, indeed, require relatively extensive preparation because of their fears and anxiety about what this means. They may need to discuss their fears and be reassured about the treatment and the results.

It is one thing to be aware of all of these patient characteristics, to recommend lengthy counseling sessions to prepare both patient and dentist. It is quite another thing to implement such action. Many forces, such as patient scheduling and rapidly increasing costs, make it difficult. Within a practice, however, dentists have opportunities they can use more efficiently, such as well-structured interviews on initial visits, complete histories with social and cultural information and patient education materials that you can discuss with the patient as you treat him.

4. Immediate and Delayed Gratification

Subcultures vary in their orientation toward immediate and future gratification. This will affect dental care in at least two ways, expenditure of money and acceptance of treatment plans. Some persons are oriented toward spending only what they have at the present time while others are oriented toward buying on time. Some people have to see the immediate result of their expenditure while others are quite used to delayed gratification. These different orientations may affect

not only the method by which you need to present the case but the methods by which you bill or accept payments. The income groups \$5-\$10,000 being emphasized in this presentation by necessity has an approach to financing. This may be different than the dentists and should be discussed early in treatment.

Persons from subcultures that have little appreciation for delayed gratification are the most difficult to convince to use prevention or therapies to save teeth, to accept the argument that a restoration will save the tooth or to understand that a well-designed denture fitted and adjusted at recall visits will prevent the necessity for an early replacement. If resistance to the treatment is strong, the dentist may need to find an argument for the procedure that is immediately tangible to the patient rather than continue to attempt to change an entire cultural value.

5. Family Structure and Work Environment

Subgroups in society have different family and occupational structure which may affect the dentist's abilities to use his preferred techniques and practice patterns in treating them. For the "working poor" individual, these may be very different than the dentist or his peers.

It may be preferred clinical advice, for example, to tell the patient not to wear dentures at night. Such instruction to all patients, with no regard for family and work situations, is simply asking for the advice not to be followed. In fact, a rephrasing of the advice may yield the desired effect. The dentist means to say, in this case, that the patient should go a certain number of hours per day without the denture in the mouth. It may be that a woman who does not work would rather take the teeth out during the day when no one is around. For the patient who works and still does not want family members to see them without teeth, the only recourse may be to suggest that they remove them while they are alone, such as in the bathroom.

The object is to get some kind of acceptance of the ultimate goal—allowing the oral tissue to rest. Without considering family and work structure, the dentist may not get anything other than a patient who complains of sore gums and does not understand why the dentist is asking him to cure that in a way that causes another type of equally unacceptable pain.

Awareness of the family structure, as well as working and school patterns, assist in scheduling patients—not expecting more than that patient can give you. Dentists may lose more patients than they know not because of the cost of the treatment, *per se*, but the cost of the

treatment added to the costs of transportation and the loss of wages. Saturday hours or a late evening may seem wholly adequate, but even these times are costly to the working family in terms of limited hours available to them to shop, visit with family, and perform other chores. The dentist may unconsciously, by not regarding these factors, put dental care back down the patient's list of priorities where it was initially. More compact scheduling and more respect for patients' time may mean that the care might be rendered, the patient might willingly pay and an improvement in the orientation toward dental health might be achieved.

6. *Prior Experience with Situations*

We all like to be comfortable wherever we are. Comfort is more likely if the situation in which we find ourselves is familiar, or at least similar to previous experiences. The experience with the health care system, with dental offices, offices of any kind or even with small rooms where there is close contact with other individual will vary considerably among patients and will affect the ability to provide care, particularly if the dentist's inclination is to ascribe all signs of discomfort to clinical procedures rather than other factors such as these.

The patient may well be confused about what is expected of him. If this confusion is not cleared up, it may result in his creating a crisis out of a relatively simple matter because he feels that he lost all control of the situation. A person who is frightened in the presence of "authority figures" may not openly describe his dental symptoms. This and other kinds of feelings based on lack of experience in the dental setting may lead to such extreme apprehension that the person wants "quick dental treatment" simply to escape an unfamiliar situation. The dentist may interpret this as discomfort with the dental treatment and consequently do nothing to relieve the real "pain". The number of times the dentist has provided denture care is far less relevant than is the fact that few patients experience it more than once or twice in a life time. This may lead to oversights that could be confusing and threatening and lessen their ability to accept care.

Whatever experience, or lack of it, that the patient has, he does bring with him certain expectations of service and treatment including time, money and outcome. This may be well-founded, but it is just as likely that it is based on an image from a friend or from a television show. This leads to many possible misconceptions that the dentist must perceive and then clarify and counteract through communication during treatment planning and treatment.

A common problem of expectation is that many patients think treatment is complete when the prosthesis is inserted and, thus, interpret any adjustments as errors. The need for adjustments, relines and even new dentures after a reasonable length of time is to be anticipated, but must be explained before treatment and not after.

Another problem is that some patients believe they will be abandoned once the prosthesis is inserted, especially if the payment is complete. The patients must be assured that they will be treated until all has been done that is possible in their particular circumstances or for some specified period of time for the money paid.

On the other extreme, it is not unusual to have a patient who will not return for even one adjustment. They are usually, healthy, hardy and very adaptable and don't see a need. The dentist's expectations of treatment and necessary follow-up should be emphasized to alleviate problems of both extremes.

7. Emotional Factors

Patients come to the dental setting in general and to denture therapy in particular with symbolic yet real needs, and expectations that differ from the plans of the dentist. If these needs are not met, or at least somehow addressed, the patients is going to be dissatisfied, and neither the patients nor the dentist is going to feel very successful.⁷

All patients have some concern for both function and esthetics. Younger patients more frequently focus on esthetics, and older patients more frequently focus on function, but all patients have some degree of concern about both factors and these relate to emotional needs and these are closely related to some of the misperceptions discussed above.

If emotional problems are present, it must be decided if the problems can be reduced or whether treatment can be successful in their presence. Dentures are remade numerous times for patients with emotional problems. When the dentist is asked what he intends to change, he does not know. The dentures frequently are remade in exactly the same manner, with exactly the same results. When the problems first occurred, the dentist quickly assumed that he had made a technical error. He could not identify the error but assumes it must be there and, hopefully, that it would be corrected by remaking the denture. The problem may lie with the emotional status of the patient and poor communication. Perspectives on emotional factors are, then, worth considering.

Everyone lives in the past. How much the dentures are going to cost, what the last visit to a dentist was like, the time and trouble it will take to

obtain dentures—patients live in the past when considering these questions. They remember what it was like the last time, and bring that memory to the denture therapy situation.

People also remember dramatic stories about successes and failures and these kinds of distortions are brought into the denture situation. The dentist must be aware of it, must discuss it and must handle it in some way.

There may be a fantasy belief on the part of the patient that somewhere there is a dentist who can provide dentures that are going to make the patient look twenty again. He or she will shop from dentist to dentist to find that elusive, magic figure. A dentist who watches for a patient who stresses youthful appearance will be more alert to such an attitude. If it also becomes evident that this is the fourth dentist the patient has seen in three months, the dentist can reasonably begin to wonder why he was the lucky one. He needs, at the beginning, to uncover such unrealistic expectations the patient has that are not being met - unfulfillable expectations that may have led to dissatisfaction and termination of care from the other dentists.

Patient commitment is another emotional factor that needs to be considered. There are two kinds of inadequate patient commitment that are very serious. One is the patient who enters the dental office and says: "I've got the money. I'll keep my appointments. I'm going to sit here and open my mouth and you treat me." This patient presumes that he is wholly passive, does not have to put forth an effort to adjust to dentures, to accommodate what's happening in his mouth. He does not understand that any kind of active commitment is being asked of him. That lack of commitment causes problems in his acceptance of the dentures and, thereby, causes problems for the dentist.

The second type of commitment is made by the patient who subtly gives the message that he is not committed to what's going on but he's doing it because he is being prodded by someone else. If a patient is not personally committed to obtaining dentures, problems are all but inevitable.

Inappropriate commitments are closely tied to unrealistic expectations. Listening to complaints about denture fittings and trying to make appropriate adjustments will be a waste of time if unrealistic expectation is the underlying cause. Checking for technical and functional problems, won't help if the underlying issue is that you didn't give him a new lease on life which is really what he thought you were providing.

Some patients go to the dental office expecting that dentures mean they will never again have mastication problems, bleeding gums, a

sunken face or poor articulation. Some of these may be realistic but, in some cases, these expectations are too high.

It is the dentist's responsibility, to bracket the patient's expectations of what he is to receive. If these expectations are too low or too high and the dentist does not discuss these, he can anticipate a troubled patient.

THE DENTIST'S SOCIAL AND CULTURAL CHARACTERISTICS

Another entire article could be written about the impact of social and cultural characteristics of the individual dentist on effective communication and dental treatment outcome. Each dentist is himself an individual just as is the patient. The dentist has past and current experiences that have established a set of values for him. These affect his communication patterns, his attitudes toward patient types, his values of quality dental care and how it is delivered and his attitudes toward the business aspects of his practice. While this will not be discussed in this presentation, it is important to realize that social and cultural characteristics of the dentist are interacting with the patient's characteristics helping to lead to success or failure. An awareness of this, and an ability to compromise reasonably when not affecting the person's health, will help the practitioner.

SUMMARY

The dentist's social and cultural characteristics, and those of the patient have effects on perceived need for care and the appropriate delivery of services to respond to this need. It is very likely that the dentist is consciously or unconsciously adapting to these now to improve the delivery of care. The above suggestions are offered to improve knowledge of social and cultural influences on dental care and awareness of things that could be done to make these work in favor of good care rather than against it. These suggestions are made in light of the current delivery system and with the full understanding that the dentist cannot devote fulltime to behavior and attitude change.

The professionally trained person, brings to the patient a combination of his time, his technical skill and his ability to call upon a broad range of education while focusing on a particular service. It is these characteristics that differentiate him from a narrow, less educated technician.

There is, however little to prevent the professional from neglecting to do his work properly. If patients think of a denture solely as an inert

object merely placed into an empty cavity, it isn't an impression they gained merely on their own. All of society contributes to it and not a few dentists are involved. The dentist who refers to "my denture" or says "I charge \$600 for my denture" is indeed, helping to create the impression that it is nothing but an inert object. On that basis, it is not surprising that a number of potential patients begin to wonder whether comparison shopping for a mechanical object isn't perfectly rational behavior. In a dental office, every comment the dentist makes, every time he cuts off the patient and indicates by behavior that the patient's individuality, his expectations, his fears are irrelevant to what's happening, he is reinforcing or even introducing the "thing" concept. To at least some degree, illegal practice of dentistry rises from such a combination of actions and, thus, the profession itself has culpability in its rise.

REFERENCES

1. Andersen, R., Lion, J. and Anderson, O. *Two Decades of Health Services* Cambridge, Massachusetts: Ballinger, 1976.
2. Kravits, J. and Schneider, J. "Health Care Need and Actual Use by Age, Race and Income", in R. Andersen, J. Kravits and O. Anderson, *Equity in Health Services* Cambridge, Massachusetts: Ballinger, 1975.
3. U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census. *Earnings by Occupation and Education, 1970 Census of the Population*.
4. U.S. Department of Commerce, Bureau of the Census. *Current Population Reports, Special Studies: Social and Economic Characteristics of Metropolitan and Non-metropolitan Population: 1974 and 1970*.
5. Aday, L.A. and Andersen, R. *Access to Medical Care* Ann Arbor, Michigan: Health Administration Press, 1975.
6. Gift, H.C. "Improved Prosthodontic Care Through Awareness of Patient Characteristics". Paper presented at the Twelfth Annual Carl O. Boucher Prosthodontic Conference, April, 1977.
7. American Dental Association, American Student Dental Association and the Warner-Lamberg Company. *Psychological Aspects of Treating Denture Patients: Highlights of a Symposium*. Chicago, Illinois, April, 1974.

211 East Chicago Avenue
Chicago, Illinois 60611

Guidelines for a General Practice Dental Residency

THOMAS W. BREHM, D.D.S.

Although dental internships have been known since 1900¹, general practice dental residency programs are recent innovations. The United States Army established one of the first such residency programs at Fort Hood, Texas, in 1962. The need for, and the acceptance of, such training programs is evidenced by the fact that in 1977 there are 251 accredited general practice dental residency programs in the United States.²

The trend toward specialization in dentistry which was so evident through the 1960's³ seems to be slowing in favor of treating the general practice of dentistry as a specialty. This is also apparent in medicine, where family practice is becoming a popular specialty.

The Council on Dental Education of the American Dental Association is the accrediting agency for all general practice dental residencies; it requires the training be given in a hospital whose dental department has been approved by the American Dental Association's Council on Hospital Dental Service. The requirements of these two councils are well documented and should serve as guidelines for any general practice dental residency.

The above councils state the purposes of a general practice residency are: 1. to provide an opportunity for advanced comprehensive clinical experience in a hospital and additional training in the sciences basic to dental practice; 2. to increase the resident's knowledge of oral and systemic relations in health and disease, and broaden his clinical experience by affording opportunities for viewing and following conditions not commonly seen in dental schools; 3. to familiarize the resident with hospital procedure and the scope and functions of the other divisions of the health services.

There is much variety in general practice dental residency programs. The accreditation criteria allow a variance between one and two years in the length of the training period and does not specify what subjects should be taught. Training programs also differ because of variation in hospital size, staff composition, patient load, and geographic location. There is no specific general practice dental residency curriculum; however, the typical program will include some, or all, of the following

Dr. Brehm is associate professor of Restorative Dentistry, University of Kentucky College of Dentistry, Lexington, Kentucky 40506.

dental specialties.

Oral medicine should provide basic knowledge and experience in the art of physical examination, evaluative work-up, and therapeutic management. History taking, diagnosis, and treatment planning should be stressed.

Radiology should reinforce basic oral roentgenographic principles and should include: film handling, anatomic landmarks, radiolucent and radioopaque lesions, panoramic technics, and radiation safety.

Pathology should impart the knowledge of pathologic characteristics and classify the fundamental process of disease. Recognizing lesions of oral and dental pathology is paramount.

Preventive dentistry should make the resident aware of modern preventive dentistry concepts and their application in general practice. This area may include: preventive philosophy, psychology in patient acceptance, enamel etching and sealants, nutrition, fluorides, plaque control, and economics of a preventive practice.

Oral surgery should develop the resident's surgical diagnostic skills and further his knowledge in: emergency treatment, surgical removal of teeth, drug therapy, odontogenic infections, fractures, and other traumatic injuries.

Restorative dentistry should add to and reinforce basic operative principles and provide the groundwork for continual self-evaluation and improvement in operative dentistry and fixed prosthodontics. The areas usually stressed are: fourhanded dentistry, preparations, bases and liners, pulp capping, gingival retraction, impression technic, temporization, laboratory procedures, and dental materials.

Periodontics should teach the resident how to prevent, diagnose, and treat periodontal disease. The following subjects may be covered: tissues of the periodontium, gingival and osseous surgery, premedication and sedation, occlusion in periodontal treatment, cervical sensitivity, and combined endodontic-periodontic lesions.

Endodontics provides an overview of examination, diagnosis, treatment planning, and surgical and non-surgical endodontic treatment. The most commonly included subjects are: pulpal morphology, pulpal pathology, endodontic emergencies, biomechanical preparation, medication armamentarium, traumatic injuries, and bleaching procedures.

Prosthodontic prepares the resident for the management of patients needing full and removable partial dentures. Some of the areas of study are: full and partial denture design, impression techniques, vertical dimension, jaw relations, articulators, artificial tooth arrangement, esthetics, phonetics, and denture adjustments and repairs.

Pedodontics should instill confidence in providing dental treatment for the child patient. Patient management, premedication, operative procedures, stainless steel and polycarbonate crowns, traumatic injuries to the teeth, interceptive orthodontics, space maintenance, and the treatment of the handicapped patient are all valid concerns in this area.

Orthodontics should enable the resident to recognize and differentiate various occlusal problems, and to provide treatment for simple orthodontic correction. Growth and development, serial extractions, cause and effect of malocclusions, and minor tooth movement appliances are the usual areas covered.

Community dentistry broadens the resident's perspective and makes him more aware of his role in life. Dental history is presented, peer review is discussed, and legislative actions are examined to improve the resident's self-image and better his relationship with society.

In addition to such training in the recognized specialties of dentistry, the general practice dental resident is also given the opportunity to spend time in the hospital emergency room, the anesthesiology department, the general medicine clinic, the pathology laboratory, the radiology department, and the hospital operating room. He is required to attend tumor clinics, clinico-pathologic conferences, teaching ward rounds, and journal clubs. He is also encouraged to engage in a research activity of his own choosing. These interactions with others in the hospital environment greatly enhance the dentist's acceptance by his medical colleagues.

This paper has briefly presented some guidelines for a general practice dental residency curriculum. Such a curriculum should result in a well informed professional person who will not only be a technically skilled specialist in general dentistry, but also a citizen who is an asset to the intellectual, political, and cultural life of his community. The dental profession should be pleased to see the number of such postdoctoral educational opportunities growing annually.

REFERENCES

1. Eisenbud, Leon: The Form and Substance of a Hospital Dental Program. J.A.D.A., pp. 1039-1044, Vol. 86, May, 1973.
2. Santangelo, Mario V.: Assistant Secretary Council on Dental Education, Personal correspondence, March, 1977.
3. Volker, Joseph F.: Proceedings - The Impact of Specialization on the Future of Dentistry, Horn-Shafter Company, Baltimore, Md., pp. 94-102, 1966.

Book Reviews

Osteotomy of Mandibular Ramus. Marsh Robinson, D.D.S., H.D., F.A.C.D., Springfield, Illinois, Charles C. Thomas, 1977, 155 pp.

This is a very readable and highly effective text done in a style which is unusual for a medical textbook. The book reads as if the author was lecturing to you on a one to one basis at the operating table, and the informality and honesty is just delightful. More important, nothing is taken for granted and every detail given reasoned attention.

In recent years, numerous techniques involving osteotomies of the ramus of the mandible have been developed, but this book deals only with that single extra-oral technique used by the author. In that sense, the book's title is somewhat misleading as it does not deal comprehensively with the subject.

The text should be made required reading for all those in training for the specialty of oral and maxillofacial surgery, but both the novice and veteran will benefit from this comprehensive and explicit treatment of the operation as performed by an extremely competent surgeon and teacher.

Leonard Szerlip, D.D.S.

Endodontic Practice: by Louis I. Grossman, D.D.S. ninth edition, Philadelphia, 1978, Lea and Febiger. 440 pages, illustrated, \$19.50.

The ninth edition of Endodontic Practice continues and updates a text that has proven its value to dentists and dental students for nearly forty years. Dentistry owes a great deal to Dr. Louis I. Grossman, professor emeritus of endodontics at the University of Pennsylvania School of Dental Medicine, who is recognized as one of the leading dental researchers for his efforts in standardizing the art and science of root canal therapy. The techniques, methods and procedures which he has developed, written about, and taught to successive classes of graduate and undergraduate students have made his name and his fame world-wide. No one knows more about endodontics than Dr. Grossman.

In this new edition, the author has wisely deleted the chapter on pulp capping, believing now that it belongs in a text on operative dentistry rather than endodontics. He has included a new chapter on Endodontic Emergencies, which should be of particular value to the general

practitioner. New illustrations have been added, information on current developments has been included and references have been updated. A most interesting and useful chapter concerns Aids to Endodontic Practice, in which the author gives many practical and time saving suggestions that will make endodontic treatment easier.

This book is the classic text, the fountainhead, the standard against which all others are measured.

Good endodontics requires discipline in carrying out a planned precise procedure. This book is not designed for those practitioners looking for short-cuts or easy methods of treatment, but for individuals willing to follow tried and true methods.

Barriers to Access to Dental Care

(continued from page 169)

6. Ronald Anderson and Lee Benham, "Factors Affecting the Relationship Between Family Income and Medical Care Consumption," *Empirical Studies in Health Economics*, ed. by Herbert Klarman, Johns Hopkins University Press, Baltimore, Md., pp. 73-100.
7. Charles Upton and William Silverman, "The Demand for Dental Services," *Journal of Human Resources*, Volume 7, Spring 1972, pp. 250-261.
8. *Fact Sheet, Health Professions Educational Assistance Act of 1976 (PL94-484)*, Public Health Service, U.S. Department of Health, Education, and Welfare, December 1976.
9. Richard M. Scheffler and John E. Kreshman, "A Production Function for Dental Services: Estimation and Economic Implications," *Southern Economic Journal*, Volume 44, July 1977, pp. 25-35.
10. Barbara H. Kehrer, "Factors Affecting Patient Waiting Time in Physicians' Offices," *Profile of Medical Practice*, '74, American Medical Association, 1974.

211 East Chicago Ave.
Chicago, Illinois 60611

Metropolitan Washington Section

The Biennial Breakfast of the Metropolitan Washington Section of the American College of Dentists was the opening event of the 46th Annual Spring Postgraduate Meeting of the District of Columbia Dental Society on April 19, 1978. It was a prestigious affair with Colors presented by the Joint Armed Forces Color Guard and entertainment provided by the United States Navy Ceremonial Band and by the Southern Division Championship Barber Shop Quartet, "The Winning Hand". The featured speaker was Mr. Frank Mankiewicz, President of National Public Radio, who spoke on "Remote Control: Television and the Manipulation of American Life".

Irving M. Rothstein was chairman of this very successful affair.

NEWS OF FELLOWS

Dr. **Harold Hillenbrand** of Chicago, executive director emeritus of the American Dental Association, became the first honorary member of the Behavioral Science Group of the International Association for Dental Research during the 56th general session of IADR in Washington, D.C. recently. The citation was presented to him for his distinguished career as an architect of organized dentistry as a socially-aware profession in the United States and abroad.

Fellows **Clifton O. Dummett**, chairman of the Department of Community Dentistry at the University of Southern California Dental School; **Henry Goldman**, dean emeritus of the Boston University Dental School; **Louis Grossman**, professor emeritus of the University of Pennsylvania School of Dental Medicine and Honorary Fellow **Wilton Krogman**, professor emeritus of Anthropology at the University of Pennsylvania received honorary Doctor of Science degrees at a special convocation recently in honor of the University of Pennsylvania School of Dental Medicine's 100th anniversary.

The Department of Dentistry Mayo Clinic and Mayo Foundation Rochester, Minnesota announces the retirement from its staff of **Stanley A. Lovestedt** after 35 years of devoted service to the Institution and its patients.

Manuel I. Weisman, of Augusta, Georgia was elected president-elect of the Medical College of Georgia Chapter of Sigma Xi. Sigma Xi, The Research Society of North America, has over 120,000 members actively associated with it world wide.

The **Sidney I. Silverman** Award for Excellence in the General Practice of Dentistry and Human Values was introduced at the New York University College of Dentistry Graduation Ceremony in June. This award, which is named in honor of one of the College of Dentistry's most distinguished faculty members, will carry with it a \$500 cash prize and a citation which will read: "This award is given annually to the senior student who has demonstrated excellence in dental care skills and a special awareness and commitment to the humanitarian considerations inherent in superior health care." The award is an appropriate testimony to the professional skill and humanitarian ideas that the career of Dr. Silverman exemplifies.

The Board of Directors of the National Commission on Radiation Protection appointed **Robert J. Nelsen** as chairman of Scientific Committee 16 on X-ray Protection in Dental Offices.

Leonard K. Schreiber, head of the Department of Dental Hygiene at Clayton Junior College, Morrow, Georgia, has been promoted to the rank of professor.

The University of Southern California has received \$1 million for perpetual support of a professor in the School of Dentistry. The Donald and Sybil Harrington Foundation of Amarillo has endowed the Donald and Sybil Harrington Chair of Esthetic Dentistry, dedicated to Dr. **Charles L. Pincus** of Los Angeles. Income from the million dollar gift will provide salary for a dentist who will combine teaching and research ability with skill in restorative dentistry. The foundation's gift is intended as a tribute to Dr. Pincus who has treated Mrs. Harrington of Phoenix for a number of years.

At the recent Hinman Dental Meeting in Atlanta, Georgia, the speaker, Bob Hope, gave his \$10,000 honorarium to the Foundation as a further honor to Dr. Pincus.

John F. Prichard, a periodontist of Fort Worth, Texas, received the Distinguished Alumnus Award from the Baylor Dental Alumni Association at a luncheon in New Orleans recently. The award was given in recognition of constant devotion and outstanding contributions to the art and science of dentistry.

Donald W. Legler of Birmingham, chairman of the Department of Oral Biology has been appointed assistant dean for administration at the University of Alabama School of Dentistry.

Regent **L. M. Kennedy** of Dallas, Texas and **Irving E. Gruber** of Baldwin, New York have been honored by the presentation of the Jarvie-Burkhart Award from the Dental Society of the State of New York. This is the organization's highest honor.

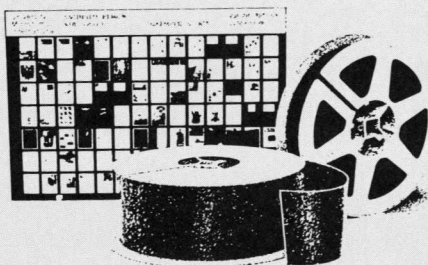
The New York University Alumni Meritorious Service Award was presented to **Howard L. Ward**, professor and chairperson, Department of Preventive Dentistry, New York University College of Dentistry, at commencement exercises in June.

Robert A. Downs, Denver, was honored recently with the "Man of the Year" award from the Colorado Section of the American College of Dentists for his dedicated services toward the improvement of public health in Colorado.



Left to right: Robert A. Downs, Norman K. Jensen, chairman of the Colorado Section and Miles R. Markley who presented the award.

this publication is available in microform



Please send me additional information.

University Microfilms International

300 North Zeeb Road
Dept. P.R.
Ann Arbor, MI 48106
U.S.A.

18 Bedford Row
Dept. P.R.
London, WC1R 4EJ
England

Name _____
Institution _____
Street _____
City _____
State _____ Zip _____

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.

American College of Dentists
7316 Wisconsin Avenue
Bethesda, Maryland 20014

Return Postage Guaranteed

Second Class Postage
PAID
Washington, D.C.
and Additional Mailing Points

