JOURNAL AMERICAN COLLEGE OF DENTISTS



Gies Editorial Winners Making A Commitment to Teaching Ethics Dental Faculty Tenure

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

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

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

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

(d) To encourage, stimulate and promote research;

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

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

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

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

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

Revision adopted October 10, 1980

Volume 53 Number 3 Fall 1986

The

of the AMERICAN



A Quarterly Publication Presenting

Ideas & Opinions In Dentistry

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The Journal of the American College of Dentists (ISSN 0002-7979) is published quarterly by the American College of Dentists, Inc., McFarland Company, Harrisburg, Pennsylvania, with Second Class Postage paid at Harrisburg, Pennsylvania and additional points. Copyright 1986 by the American College of Dentists, Inc.

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

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Reprint requests should be directed to the author.

For bibliographic references the *Journal* is abbreviated J Am Col Dent and should be followed by the volume number, page, month and year. The reference for this issue is J Am Col Dent 53:1-32, Fall 1986.



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JOURNALISM

-Dentistry's Neglected Responsibility

There are four main areas of a health profession's responsibility: research, education, journalism and the delivery of care. Of these four, in dentistry, journalism is the most neglected. Journalism is a necessary part of communication within the profession, an essential part of providing leadership and the main way that research information can reach the profession. This country has led the way in developing professional dental journalism.

In the 1920's all dental publications were owned by dental supply houses which *allowed* dentists to publish articles that were acceptable to the trade business and to their advertisers. These "trade house organs" were not necessarily concerned about the authenticity and accuracy of articles, particularly if the articles recommended their products.

From its earliest days, the American College of Dentists has had strong and continuing convictions on the necessity of professionalism in journalism and it was extremely concerned about trade journals. It created a *Commission on Journalism* to study the problem and the Commission Report in 1930 made specific recommendations for changes. This was a turning point in removing the control of dental journalism from the supply houses and placing it in the hands of the dental profession.

In 1931, the College established the American Association of Dental Editors (AADE), an organization that has elevated the standards and has been very influential in improving the quality and content of dental publications.



Keith P. Blair

One large step forward was the development of peer review (refereed) journals in which an article must be reviewed by at least two recognized authorities in the field of science involved before it is accepted for publication. Once a manuscript is published in a refereed journal, it becomes a permanent part of dental literature. The ACD urges its Fellows to publish articles only in scholarly journals.

One large problem for dental journalism is that most money to operate a publication must come from advertising and the majority of advertising money is still going to the give-away trade publications instead of to scientific journals. These slick magazines apparently serve the advertiser better and are supposedly read more frequently than are professional journals. Unfortunately most dentists prefer their professional reading to be light and brief.

The IRS adds to the problem by making professional societies pay

taxes on advertising income. It seems ironic that the government creates a non-profit status for scientific societies so that continuing excellence can be assured, then takes away a large part of its income from journal advertising in taxes.

EDI

FROM

The considerable amount of money annually spent on dental research may produce a multitude of information but many significant scientific papers are never published because scientific journals do not have the necessary funds to do so.

Dental societies, large and small, generally do not understand the importance and the value of welltrained, competent, experienced editors, nor do they realize the ethics and responsibilities involved in maintaining journalistic standards. Too many organizations change editors so often that there is no possibility for anyone to learn the editor's job. The most successful publications are those that keep editors over longer terms. Good editors are hard to find.

It is hoped that the dental profession will continue to do more to assist and support its editors. Somewhere some creative thinking must go into the providing of more funds for the publication of research findings. It is encouraging that, in its current re-organization, the ADA is planning to place more emphasis on journalism activities.

Journalism in dentistry has contributed greatly to the development and success of the profession over the years. It is too vital to the profession to be neglected. Keith P. Blair

MAKING A COMMITMENT TO TEACHING ETHICS

John G. Odom

Modern dentists are encountering a multitude of ethical problems which did not exist for their predecessors. Thus it is increasingly important for dental schools to provide an environment which encourages and directs a commitment to the highest standards of ethical behavior.

The September 1982 issue of The Journal of Dental Education documented dental schools' lack of commitment to formal instruction in ethics. One fourth of the schools provided no formal instruction, and those which did provide instruction averaged only 7.8 clock hours per institution.¹ Since about 1980 there has been a substantial growth of interest in providing dental students with more preparation for confronting the broad spectrum of biomedical, social and financial issues of modern dental practice. This is demonstrated by: (1) editorials,² and articles on the need to teach ethics as well as articles on approaches to teaching ethics³⁻⁴; (2) a half day program of the Community and Preventive Dentistry Section of the American Association of Dental Schools being devoted to ethics⁵⁻⁶; (3) two National Symposiums on Ethics presented by Omicron Kappa Upsilon⁷⁻⁸; (4) and a round table session on ethics in dentistry for the 1985 Dental Health Section of the American Public Health Association annual meeting.⁹ In addition, a number of dental schools have initiated courses or programs in ethics that are designed to provide formal preparation for addressing the ethical problems of modern dentistry.

The purpose of this article is to show the process that The Ohio State University College of Dentistry is using to formalize its educational commitment to teaching ethics. It is different from some other programs in that (a) there is a vertical integration of educational components which begins in the student's first quarter and extends through the fourth year, (b) an annual Institute on Dental Ethics is directed by nationally recognized leaders in medical ethics who emphasize conceptual development based on the application of specific theories, concepts, and principles of ethics, (c) both the freshmen and the Institute participants receive a variety of input from an eccletic group of professionals and nonprofessionals, (d) an elective in ethics can be taken more than one quarter, and (e) dental faculty receive a background in the fundamental principles of ethics which encourages them to discuss ethics in seminars and the dental clinic.

Goals

The ethical problems confronting dentistry are increasing due to radical changes in technology, third party payment, health care expectations of an informed public, malpractice actions and other social and financial aspects of oral health care. With the expansion of the range of ethical dilemmas surrounding the profession, e.g., truth telling, informed consent, incompetent colleagues, and advertising, it was important to establish some specific goals for developing a program in ethics. This approach required more than simply moving a new course called "Ethics in Dentistry" through the Curriculum Committee. It involved analysis of how to effectively involve a variety of people with divergent ideas, knowledge, and expertise in the process of ethics instruction. Thus the following goals were considered important in developing a viable program.

First, the teaching of ethics could be most effectively accomplished if it included, among others, dental students, dental faculty, dental practitioners, ethicists, and consumers in a participatory environment that encouraged a free exchange of ideas.

Second, effective instruction would be best achieved if participants received a foundation in some of the basic principles and concepts of ethics and used these principles to analyze the types of situations typical to the practice of dentistry. Note that this is not taking the safe approach to the problem. The safe approach is to provide some case examples and allow people to debate the dilemmas based primarily on intuition.

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We wanted to accomplish more than that.

Third, it was important to establish an enduring system that spanned both the didactic and clinical components of dental education. Students should receive opportunities to recognize and resolve ethical dilemmas from the time they enter the College until they graduate.

Fourth, the ethics instruction should help students and dentists to be able to recognize the ethical components in the day-to-day situations that occur in the practice of dentistry.

Fifth, it was necessary to provide guidance in developing analytical skills which allow students to systematically address the ethical issues that are recognized. This goal includes helping one develop a cognitive system for coherently and consistently analyzing situations common to the profession.

Finally, it was also important that a course in ethics not become another course in law and jurisprudence. Courses in jurisprudence which emphasize dental practice acts, controlled substances acts, how to prevent a lawsuit, and how to reduce the risk of legal claims are important. They are not, however, courses in ethics. It would be difficult to equate the avoidance of malpractice litigation with ethical behavior.

Structuring the Program

In accordance with the foregoing goals, several interrelated curriculum activities were initiated. The first was the development of an annual Institute on Dental Ethics, second was the creation of an elective course offered to junior and senior dental students each quarter, and third was a didactic component in the freshmen year.

A. Institute on Dental Ethics

The first Institute on Dental Ethics, one and one-half days long, was held in October, 1984. Twelve students participated in the course which had two primary objectives. The first was to provide dental students and practicing dentists with knowledge which would help them evaluate and act upon the ethical situations encountered in the practice of dentistry. The second emphasized the development of a core group of practitioners and dental faculty who could contribute to our dental ethics instructional program. Participating in the Institute provided these professionals with a common background of knowledge and information which will enhance their future contributions in dental ethics.

Dr. Robert Veatch, a nationally recognized scholar in medical ethics, was invited to provide leadership for this one and onehalf day program. Veatch is Professor of Medical Ethics at the Kennedy Institute of Ethics and holds appointments as Professor in community medicine, obstetrics and philosophy at Georgetown University. His association with dentistry includes membership in the National Institutes of Health Consensus Panel on Dental Sealants, and he was one of four speakers at the March 1984 OKS Symposium titled "Professional Ethics in Dental Medicine."

The Institute participants were selected to represent a variety of interests, knowledge and experiences related to dentistry and ethics. The participants included senior dental students who received elective credit for the course, dental educators, practicing dentists, philosophers and educators in ethics and consumers. To my knowledge, this was the first time such a diversity of participants and such a distinguished scholar of medical ethics have participated in a systematic discussion of the ethics of the profession of dentistry.

The basic format of the Institute was participatory in that all members of the groups actively explored questions relating to dental practice. Although case analysis was an important part of the program, a substantial amount of time was devoted to acquiring knowledge of basic principals of ethics that are essential to exploring questions and issues. The entire first half day and substantial portions of the remaining day focused on the theory of medical ethics. The purpose of this approach was to provide a background and common frame of reference for evaluating ethical issues in dentistry. Presenting this diverse group with a large amount of theoretical background was

risky, but proved to be both a sound and exciting approach. Content focused upon the ethical tensions or conflicts resulting from paternalism (the dentist acting on behalf of the patient as though the patient was a child) and patient autonomy. The potential conflict between the principles of paternalism and autonomy are essential in understanding the ethical dimension of the doctor-patient relationship.

The second Institute on Dental Ethics was held in October, 1985 with leadership provided by Dr. Louis Hodges, Director for Society and Professional Studies in Applied Ethics at Washington and Lee University. Because of the success of the first Institute, the program was expanded to accommodate twenty-four student participants. The program continued its emphasis on a participatory experience involving a diverse group of people, as well as the emphasis on developing a fundamental knowledge and skill in the application of ethical principles. The content included discussions of what ethics is, why one should study ethics, the stages of moral development, who should decide (the paternalism/autonomy issue), and ample opportunities to apply these principles in small group case analysis.

B. Junior/Senior Electives

Each quarter for the past two years the author of this article has offered an elective for junior/senior dental students. The course is limited to twelve students per term and the seminar format allows critical exploration of fundamental ethical principles primarily through analysis of case problems. Emphasis is on issues related to the profession and society, the dentist-patient relationship, conflicts in the personal and professional priorities of the dentist, and the ethical problems students experience during their clinical education. The instructor has a substantial background in ethics and directs discussions toward the fundamental ethical principles and components of the case problems.

C. Initial Exposure to Dental Ethics

As a component of a first quarter course on behavioral factors in dentistry, our freshmen receive an introduction to some of the ethical problems of the profession. One week prior to the two-hour ethics class, students are given a series of case problems, the ADA Principles of Ethics, and a series of questions related to the cases. They are required to come to the class prepared to interact with a "panel of experts" in discussing the cases. The "panel of experts" is typically composed of an ethicist, a dental educator, and a practicing dentist, all of whom have participated in the Institute on Dental Ethics. The course director serves as moderator. The material is presented at this early stage of the students' dental career in order to take advantage of their idealism, raise their consciousness about ethical problems in the profession, and to help clarify the relationship between ethical behavior and being a professional. The students are extremely interested in these issues, and the classes have been very lively.

Evaluation

Each of the above activities are evaluated at their conclusion and in all cases the reaction has been outstanding. Freshmen typically comment on the ethics component being the most interesting and stimulating portion of their courses. The junior/senior elective has resulted in students making the following type of statements at the conclusion of the seminar. "I no longer do things with patients that I used to do without thinking. I no longer provide treatment out of sequence just because I have to have credit this quarter. I now consider whether it is ethical for me to benefit at the expense of my patient." An additional example of the impact of the courses is that students frequently share experiences or examples of questionable ethics with the course director and other faculty participants after the class has concluded.

The Institutes have had excellent evaluations and have impacted on the school in several ways. Students who have enjoyed the program are our best recruiters for the elective courses. They tell their classmates that it is worthwhile to examine the ethical problems in the profession. Additionally, it sometimes has direct effects upon behavior. Although benefits analysis is only one way to address an ethical issue, I would like to share an example that was a direct result of our most recent Institute. One of the student participants related the following scenario.

The dental student agreed to examine the wife of a friend. Upon examination, he identified the woman as an ideal periodontal board patient. However, he also recognized an ethical component in this situation and used a reasoning process based on his recent experience at the Institute.

The student did the following benefits analysis:

- 1. If the patient's treatment is postponed for six months, the dental student benefits but at the expense of the patient.
- 2. If the patient receives timely treatment, the patient benefits. However, since this dental student has already completed his periodontal requirements, he would receive only limited benefits. He also would be able to identify his board patient later.
- 3. If the dental student transferred the patient to one of his classmates who had not yet completed his periodontal requirement, the patient would benefit through timely treatment and his classmate would benefit from the clinical experience.

With a great deal of personal satisfaction, the dental student chose option three. Three people benefited from this decision-making process: the patient, the classmate, and the original student who felt very good about his recognition of the ethical problem and the way he resolved it. The College of Dentistry benefits when we provide this type of service to patients, and the profession benefits when our graduates can function in this manner.

One of the purposes of the Institute is to develop a cadre of faculty and practitioners who have a background in the knowledge, skills, and principles of ethics as applied to dentistry. Dental faculty and practitioners who have attended these programs continue to participate in our dental ethics elective courses and are contributing their knowledge and expertise to our students' education. These faculty have become more aware of their ability to take an active role in the ethical development of our students and are enjoying the opportunity to explore the ethical dilemmas of the profession. Their value cannot be over emphasized.

Future Development

It is anticipated that instruction in ethics will be part of the required dental curriculum and that instruction can be provided in a small group participatory environment by faculty who have received preparation in the principles of ethics. This places a large demand on the faculty resources of the College, but promoting the ethical behavior of our students and graduates is an essential component of dental education. Being good men and good women is not enough. Dentists need more than their intuition to successfully confront modern ethical issues. We are providing a foundation that can enhance not only their practice of dentistry but also the quality of their lives. \triangle

References

- Odom, John G. "Formal Ethics Instruction in Dental Education," *Journal of Dental Education*, 46:553–557, September 1982.
- Blair, Keith P. "Ethics and Professionalism—They Have To Be Taught," *Journal American College of Dentists*, 50:3, Summer 1983.
- Bebeau, Muriel J. "Professional Responsibility Curriculum Report," *Journal American College of Dentists*, 50:20–23, Summer 1983.
- Hollway, J.A., McNeal, D.R., and Lotzkar, S. "Ethical Problems in Dental Practice," *Journal American College of Dentists*, 52:12–16, Fall 1985.
- Odom, John G., "Status of the Formal Instruction of Ethics in Dental Education," paper presented at the annual meeting of the American Association of Dental Schools, New Orleans, March 1982.
- 6. Bebeau, Muriel J. "Initiatives in Teaching Professional Ethics," paper presented at the annual meeting of the American Association of Dental Schools, New Orleans, March 1982.
- Omicron Kappa Upsilon National Symposium on Professional Ethics in Dental Medicine, Cincinnati 1983.
- Omicron Kappa Upsilon National Symposium on Values and Ethics Education in Dentistry, Dallas 1984.
- 9. Odom, John G. "Principles Underlying Ethical Choices in Dentistry," presented at the annual meeting of the American Public Health Association, Washington, D.C. 1985.

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1

THE QUALITY OF RETAIL DENTAL SERVICES: EMPLOYEE DENTISTS' PERCEPTIONS

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A version of this paper was presented at the annual meeting of the International Association for Dental Research March 1985, Las Vegas, Nevada.

This research was supported by the American Fund for Dental Health's Small Grants for Dental Quality Assurance Studies.

I. Introduction and Background

In 1977 the Supreme Court ruled that professions may not be prohibited from advertising.¹ This decision allowed the re-emergence of an alternative dental delivery mode: retail dentistry.

Although the record is not very detailed, the first retail dental center was located in a Sears department store in Chicago in the 1920s.

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It is not clear whether this concept failed due to the nature of the dental practice or the economic climate of the 1930s.

The first modern retail dental center opened in an El Monte, California Sears store in 1977. Since that time the number of retail dental centers has grown rapidly.^{2,3,4}

Retail dentistry has been defined as being located in a retail department store, offering dental services to the general public . . . combining high visibility, convenient location and using extensive advertising to create a large volume of business.⁵ For this study, the definition of retail dentistry was broadened to include independent practices operating in commercial locations, such as shopping centers and malls. All of these offices may be characterized by accessibility and extended hours of operation.

Much of the initial information concerning retail dental centers is descriptive in nature.^{3,5,6} Further investigations have added to the body of knowledge by examining characteristics of patients.^{7,8}

There is anecdotal information concerning the quality of care received by patients at retail dental centers. Although many direct and indirect methodologies to assess quality have been developed,^{9,10,11,12} none have been applied to retail dental offices.

Some dentists employed at these offices have suggested that they do not always provide their best dentistry. They feel they would do things differently in more ideal circumstances. However, this information has not been substantiated in any formal or organized manner.

The overall objective of this study was to determine the quality of dental care at retail dental offices as seen through the eyes of dentists practicing in these settings.

II. Discussion of Quality

Quality will be viewed as a composite of several factors:

- A. Whether treatment proposed and rendered is appropriate.
- B. The level at which the dentists perceive they are functioning relative to their optimal effort and ability.
- C. Concern for the patient's needs.
- D. Overall work satisfaction.
- E. Quality of retail vs. traditional practice.

III. Methodology

Data were collected via telephone interviews using a 26-item structured questionnaire from June to September 1984 (a copy of the questionnaire is included with the report). The sample population was drawn from New York, New Jersey, Pennsylvania and Massachusetts. In order to increase reliability, only two interviewers were used throughout the study. Data analysis was carried out using the statistical package for the social sciences computer method.

IV. Results

 Demographic (Table 1) Seventy-three dentists were surveyed, 88% male and 12% female. Eighty-nine percent were under 35 and 47% were under 30. Seventy-seven percent were general practitioners and 23% were specialists, (oral surgeons: 6, orthodontists: 5, pedodontists: 1, periodontists: 4, prosthodontist: 1). Their length of

Table 1. Demographic Information

N = 73, 88% Male, 12% Female General Practitioners 77%, Specialists 23% Age – 47% under 30, 89% under 35 employment varied, but 67% had been at their jobs less than 24 months while 33% were employed for more than two years (Table 2). Half worked between 17 and 32 hours per week, (Table 3), while 48% were employed at this retail office only (Table 4).

2. Finances

Almost two-thirds of the respondents were paid on a percentage of collected fees, while over 20% were paid on a production basis. The remainder were compensated according to a combination of these criteria (Table 5). The median daily income for an average eight-hour day was \$180, (Table 6). Almost half of the dentists surveyed had a current debt greater than \$25,000 (Table 7). There was a significant relationship

Table 2. How long employed at this office?	
Less than 1 year-27% 1-2 years -40% (f More than 2	67% less han 2 years)

Table 3. How many
hours per week do
you work at this
dental office?1-16-- 28%17-32-- 51%More than 32-- 21%

(p < .01) between daily income and length of employment. Of those dentists earning less than \$150 per eight-hour day, 60% had been employed at their office for less than a year. Of those earning more than \$250 per eight-hour day, 54% had been employed at their center for more than two years, and only 8% had been employed for less than a year. There was also a significant relationship between daily income and the age of the respondent (p < .05). In the youngest

Table 4. Do you practice in any other dental offices?		
No	_	48%
Yes-own practice	—	23%
Yes-employed in traditional practice		29%

Table 5. Basis for pa	ayment
Percent Production	- 21%
Percent Collections	— 64%
Salary	— 3%
Salary plus production	— 12%

group (under 30), 75% earned less than \$200 per day; in the older groups (over 30), 55% earned more than \$200 per day.

3. Quality of Care

A. Appropriateness of treatment

The appropriateness of treatment composite variable was developed by combining the data from the following:

- 1. The adequacy of diagnosis and treatment plans offered.
- 2. The adequacy of preventive care and oral health education offered. (Table 8)

The breakdown for each question is as follows:

- 1. Twenty-five percent of the group thought the diagnosis and treatment plans offered were at the highest level, 49% above average level, and 26% average or below average.
- 2. Fifteen percent thought the preventive and oral

Table 6. Usual D (8 hour d	aily Income day)
Less than \$150	— 30%
\$150-\$199	— 25%
\$200-\$249	— 25%
\$250 and more	— 19%

Table 7. Current Level of Indebtedness				
Less than \$5,000) —	17%	- Internet and a second s	

5-10	 15%	
10-25	 20%	
25-50	 33%	
50 or more	 15%	

health educational needs of the patients were fulfilled at the highest level, 48% at an above average level, and 37% average or below average.

B. Dentist Self-Evaluated Level of Performance Twenty-nine percent of the respondents believed they were performing dentistry at the highest level of their ability, while 16% rated their performance as average or below average (Table 9). On the other hand, when we compared these personal findings with the ratings for the overall quality of dental care rendered in the office, only 16% rated the office's quality in the highest category (Table 10). These differences

(p < .02) level.
C. Concern for Patients' Needs Data for this variable were

Data for this variable were obtained by combining

were significant at the

Table 8. Approp	oriateness of
Treatment C	omposite
Variat	ble
Highest level	— 20%

20%	
49%	
31%	
	31%

Table 9. Dentists Self-Evaluated Level of Performance			
Highest level	— 29%		
Above Average	- 55%		

Above Average — 55% Average or below — 16%

> information from the following seven questions:

 Comfort in the reception area? 2) Equipment and materials used? 3) Privacy during treatment?
 Punctuality of appointments? 5) Patient emergency problems? 6) Auxiliary staff – patient rapport? 7) Overall dentist – patient rapport? (Table 11)

Low ratings were given by a sizable minority of dentists regarding equipment and materials used (36%), privacy during treatment (53%), and rapport between auxiliaries and patients (43%). High ratings were given for prompt treatment of emergencies (93%), and dentist-patient rapport (85%).

D. Overall Work Satisfaction Fifty percent of the sample scored their satisfaction as an employee as at least above average, while the other half of the group was in the average or below average category.

Table 10. Overall Office's Dental T	qua reat	lity of ment	
Highest level	_	16%	
Above average	—	51%	
Average or below		33%	

Table 11. Conc Patients Needs C Variable	ern omj	for posite
Highest level	_	29%
Above average		31%
Average or below		10%

(Table 12). Employee satisfaction in retail offices was directly proportional to employee self-evaluation of performance, to their evaluation of the overall performance of the retail office, and to their perception of the retail office's response to specific patient needs (p <.01) (Table 13).

E. Quality of Retail vs. **Traditional Practice** Fifty-two percent of the respondents (38) worked in a traditional dental office in addition to employment in their retail settings (Table 4). Almost two-thirds of them thought the quality of care in the traditional mode was better than at their retail office. Only 9% of dentists who believed that care in traditional offices was generally better than retail reported that diagnosis and treatment plans in retail offices met the needs of the patients at a high level. Of those who believed that traditional

all W on	/ork
	9%
-	41%
	36%
-	14%
	all W on

	Perception of own Performance		Perception of office Performance		Concern fo Patients' Needs Com Variable	
	High	Low	High	Low	High	Low
Satisfaction Above average - High	81	33	67	17	81	31
Satisfaction Average – Below average	19	67	33	83	19	69

offices did not provide better care. 50% believed that retail centers met these patients' needs well. When asked to evaluate preventive dentistry and oral health education, 64% of those who believed traditional practice was generally better rated retail offices as below average, as opposed to 14% of the other group. When the two variables of treatment planning and prevention were combined, 50% of those favoring traditional practices rated the retail centers as low in providing for appropriateness of treatment needs compared to 14% who did not believe traditional offices provide higher quality care. When indicators of the retail offices' concern for patients needs were presented to dentists who practiced in both traditional and retail offices, 68% of those rating traditional offices higher rated retail offices below average in providing for patients' needs. This compared to 9% of the dentists who did not rate the traditional office higher than the retail office. All of these data were significant at least at the (p < .02)level (Table 14).

Specialist vs. General Practitioner

As expected, there were significant differences (p < .01) between specialists and generalists regarding daily income. Thirty percent of respondents reported daily income of less than \$150, and all but one of them was a general practitioner. On the other hand, 93% of the specialists earned more than \$200 per day as compared to 32% of the G.P.s. There were also significant differences (p < .05) between these groups when dentists' evaluation of their performance was compared with specialty status. Fiftythree percent of the specialists reported they were performing at the highest level of their ability as compared to only 21% of the generalists. Of the 12 dentists conceding that they were performing below their average ability, only one was a specialist. There were no significant differences between these groups when they were asked to evaluate the overall quality of treatment at the center (Table 15).

Table 14.	Traditi	ional P	ractice	vs. Oth	er Qua	lity Va	riables-	-%
	Diagr ar Treat Plan	nosis nd ment ning	Preve ar Educ	entive id ation	Appro nes Treat (cor varia	priate- s of ment mp. ible)	Conce Patie Nee (co varia	ern for ents' eds mp. able)
	High	Low	High	Low	High	Low	High	Low
Traditional practice "better"	9	49	5	64	9	50	9	36
Traditional practice "not better"	50	0	29	14	64	14	68	14

V. Discussion

While the main objective of this study was to determine the quality of dental care at retail dental offices as perceived by the dentists working in these establishments, other interesting data have also emerged. The youngest dentists among the respondents were the lowest paid, least satisfied with the diagnosis and treatment plans offered at their offices, and did not feel they were working up to their best potential. While it is true that most of the dentists in the study were young (89% under 35), the most recent graduates seem to have more difficulty adjusting to the "real world". This "real world"

of dental employment during the 1980's has not been a particularly easy one. The respondents in this survey had considerable personal debt (almost 50% of the group owed \$25,000 or more). The usual daily income for more than 55% of the group was under \$200 for an eight-hour day. These income data also included 17 specialists who made more money, were more satisfied with their jobs, and felt they were working closer to their optimal capacity. The mode of reimbursement for 64% of the dentists surveyed was based on a percentage of the fees actually collected. While we did not ask the actual percentage, our estima-

Table 15. Specialists vs. General Practitioners—%									
	Income		Perfor Le	mance vel	Overall Office Level				
	<150	>200	High	Low	High	Low			
Specialists	7	95	53	6	12	18			
Generalists	36	32	21	20	35	32			

tion from personal communication is that it is about 30%–33%. While these data are for young employed dentists in retail dentistry, they depict a difficult employment picture for all young dentists. This is an important factor when talented college students contemplate a career in dentistry, rather than other professions which are more financially promising and perhaps less stressful.

The variables to assess quality were:

- A. Appropriateness of treatment
- B. Dentist self-evaluated level of performance
- C. Concern for patient's needs
- D. Overall work satisfaction
- E. Quality of retail vs. traditional practice
- A. The respondents were considerably more positive about the adequacy of the diagnosis and treatment planning offered at their offices than the adequacy of preventive care and oral health education offered. Preventive care and patient education are frequently neglected in dental practice. When these data were combined to create the appropriateness of treatment composite variable, only 20% of the group scored in the highest category, as opposed to 31% in the average or below average category. This leaves much room for improvement.
- B. It was interesting that almost twice as many dentists thought their own performance was at an optimal level, as compared to their appraisal of the overall quality of dental treatment at the

same office. However, less than 30% of the group felt they were rendering care at the highest level of their ability. Do these findings reflect their own lack of personal motivation or the constraints of the setting in which they are working?

- C. While this composite variable measured a number of different factors, the efficient handling of emergency problems illustrates an important service that these centers can offer to the public. The perception by the respondents as being able to communicate well with their patients and to establish rapport contrasted sharply with their perception of the auxiliary staff's inability to do the same thing.
- D. The data related to overall work satisfaction emphasized the importance of a positive mental attitude toward one's work
- E. We were fortunate that more than one-half of the sample had worked in both traditional and retail settings. A significant portion of those surveyed believed the traditional office provided a higher quality of care. It must be remembered, however, that 44% of this cohort were engaged in their own traditional practices, which probably reflects a personal bias toward the traditional practice mode.

VI. Conclusions

The data present a picture of a young, moderately satisfied employee. However, the perceived quality of the dental care rendered by these respondents based on our established criteria seems to be mediocre. Most of the dentists did not feel they were working up to their capacity and some felt they were working below their average ability. For those respondents who were also practicing in traditional dental settings, a majority perceived the quality of that care as significantly better than at their retail offices.

We note that the specialists in the sample were more satisfied, earned considerably more money and tended to view their performance at closer to an optimal level. The youngest dentists in the general practitioner group presented a pattern in the opposite direction from the specialists. Greater work satisfaction as reported by the dentists also tended to be consistent with a better opinion of their own performance, as well as their retail offices' overall quality of patient care.

The practice of retail dentistry is a phenomenon that arrived on the dental delivery scene as a direct response to the lifting of the professional advertising ban. The future of retail dentistry as a major provider of health care to large segments of the population is questionable. However, it is serving as job training for recent dental graduates at a time when employment opportunities are scarce. The quality of care provided in these settings, while still largely a function of the efforts of the individual dentist, is also influenced by the structure and environmental atmosphere of the workplace. \triangle

References

1. Bates vs State Board of Georgia, 97 Supreme Court Decision 2691, 1977.

- 2. "Moving the Dentist's Chair to Retail Stores", Business Week, January 19, 1981
- 3. American Dental Association, "Update on Retail Store Dentistry", Joint Report of the Council on Dental Care Programs and the Council on Dental Practice, October, 1981.
- 4. Denton David, "Retail Store Dentistry, Fifth Anniversary Report." Dental Practice, February 1982.
- 5. American Dental Association: "The Status of Retail Dentistry 1980", Joint Review of the Council on Dental Care Programs and the Council on Dental Practice, 1980.
- 6. Hankin, R. Description and Documentation of the Retail Dental Delivery System, prepared by Urban Systems Research and Engineering, Inc., Cambridge, Mass., U.S. Department of Health and Human Services Contract No. 232-82-0014, July 1982.
- 7. Rosner, J., Yablon, P., Maykow, K., Wolf, M., "Retail Dentistry: Practice and Patient Characteristics", J Am Col Dent 50(2):26-32, 1983.
- 8. Yablon, P., Rosner, J., Maykow, K., Wolf, M., "Retail Dentistry: A study of Patient Utilization Patterns: Gen Dent 31(3):208-211, 1983.
- 9. California Dental Asssociation, 1977, Quality Evaluation for Dental Care. Guidelines for the Assessment of Clinical Quality and Professional Performance.
- 10. Friedman, J.W., A Guide for the Evaluation of Dental Care, Los Angeles, School of Public Health, University of California, 1972.
- 11. Donabedian, A., A Guide to Medical Care Administration, Medical Care Appraisal, Vol. II New York, American Public Health Association, 1969.
- 12. Brook, R.H., Quality of Care Assessment: A Comparison of Five Methods of Peer Review, Nat'l Center for Health Services Research and Development, U.S. Dept. of HEW, 1973.

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DENTAL FACULTY TENURE

Relationship of the Dental Faculty to the University Tenure System

Kenneth L. Kalkwarf*

Quality education in clinical dentistry has traditionally been achieved and maintained by dedicated clinical faculty in dental colleges. These faculty members typically were assigned a single role in the dental college, teaching applied dentistry, and did it quite well.

In these times of reduced financial support, university systems are redefining criteria for tenure award. Clinical faculty, who have traditionally not functioned within the traditional academic system, are receiving unusual pressures within the environment. To understand better the process of awarding tenure, one must comprehend the procedures by which academic administrations in university systems function.

Baldridge and others describe three models to summarize decision making in higher education.¹ The first, a bureaucracy, is a hierarchal structure with formal chains of command and systems of communication. Top-down authority relationships, formal policies, and rules to govern daily activities are present in this structure. Important attributes of an academic system, including the recognition and respect of academic rank and security, in the form of a tenure system, fit nicely into the bureaucratic model.

The bureaucratic model neatly describes the formalized power

structure of a higher education system; however, it does not explain the dynamic process by which policies are established and modifications take place. It also ignores the internal struggles that occur within the system and the informal types of power and influence that play major roles in policy development.

The second model, the collegium, was originally developed by Goodman.² Under this concept, the entire academic community, especially the faculty, administer affairs. Functions are differentiated and coordination achieved through the "dynamic of consensus".1 Individuals wield power not because of their position, but because of their competence. This model is simplistic and idealistic in its assumptions. Collegial decision-making may function at the departmental level, but policy-making in a university does not routinely occur in this manner. The model also fails to acknowledge the presence of conflict in the process by which consensus is achieved.

The matter of conflict in policymaking is characterized by a third model, the *political* system.³ This model focuses on the policy-forming procedures of an organization. It assumes that individuals and interest groups attempt to influence policies to reflect their own interests and values. Individuals, or groups, or both, move in and out of policy-making activity. Decisions are negotiated compromises made by those individuals and groups that persevere during the transactions. The political model also acknowledges that external factors may play a major, influential role during policy formation and may drastically restrict the number of alternatives. Because of the complex interactions that occur in the political model and the negotiations involved to reach compromise, the policies produced by the system are often ambiguous and segmentalized.

The purpose of this paper is to apply the described models to a perceived problem, the awarding of tenure in the present dental college environment.

The Problem

Background

Anderson notes that professional education programs are unique from other aspects of the university community.4 Unlike other educational programs, their objective is to produce a homogeneous product capable of passing certification exams and obtaining licensure. The organizational norms of the educational process are identified by the college. Departments are responsible to the college in formal and continuous ways. These responsibilities are monitored by rigorous accreditation procedures.

Training in a health care profession, such as dentistry, requires another factor. The principles and practical application of patient care must reside within the curriculum.⁵ Historically, dental edu-

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Historically, dental education has been based on the concept of direct supervision during the training process.

cation has been based on the concept of direct supervision during the training process.⁶ In fact, prior to the 1926 Gies report, most dental training was accomplished in proprietary schools under a mentor system.⁷

Training programs for dentists were merged into university systems under the pretext that the graduate should be "educated" as well as "trained".8 Many have supported the concept that the research environment created by the university system is beneficial to dental education. Some point out that faculty who "define the most relevant and significant questions, who search the literature for new findings, methods and insights and who seek to advance knowledge surely must have a thorough understanding of the field."9 Others feel that it is "difficult to expect students to acquire a commitment to lifelong learning in a school where the spirit of inquiry does not permeate the faculty."10

The net result of dental education's merger into the university system is confusing to many dental faculty members. They would like to have the security and recognition provided by the university system in the form of tenure and rank, but still have autonomy, self-determination, and freedom from external constraints.¹¹ Dental faculty, like those of other professional health care programs, are jealous of their prestige and seek to maintain it with an aloofness towards the rest of the university.⁴ In fact, some members question whether dental training programs should even be associated with universities.¹²

Certain features of a typical dental faculty member's background and academic credentials help to explain this attitude. Prior to the 1960's, the clinical faculties of dental colleges were composed of part-time educators, who maintained independent, full-time practices as their main livelihood.5 Basic science was taught by fulltime educators who held the Ph.D. degree in a specific discipline but did not possess a professional degree. As administrators sought to align dental colleges closer to the rest of the university, full-time clinicians were employed as a major component of the dental faculty. These new faculty members were different from the rest of the university faculty. They did not pos-

Training programs for dentists were merged into university systems under the pretext that the graduate should be "educated" as well as "trained". sess formal research training. Direct student contact and patient care responsibilities occupied the majority of their time. Many of these individuals entered academics for only a few years, leaving for the financial benefits of private practice.8 The rigors of the university tenure system were not applied to the dental faculty. New schools were being developed, class sizes were expanding, and applicant pools were mushrooming. Federal monies were being pumped into dental training because it was identified as a "relevant" field of study.13 Dental college administrators needed every individual interested in participating in dental education. This atmosphere propagated the "status quo" regarding training of dental educators and the special and unique relationship of the dental faculty to the rest of the university.

Less than 4% of the present clinical dental faculty (who account for more than 70% of the total dental faculty) have had structured research training in the form of a Ph.D.¹⁴ One-half of the dental colleges have limited or inadequate funding for research programs.15 Student contact and patient care still account for up to 30 hours/week in the typical member's schedule.¹⁶ As recently as five years ago, it was obvious that a true university tenure system was not being applied at most dental colleges. Thirty-four percent of them reported no tenure denial during 1980-81.17

The environment surrounding

dental education has drastically changed during the past decade. The number of applicants for positions in dental colleges in 1984 was approximately 41% of that in 1976.¹⁸ In response to this decline, no new dental colleges have been established, a few have been closed, and class sizes at the remaining institutions have been substantially reduced.

These facts, coupled with the influence of increased faculty retirement ages, reduced faculty mobility due to the economic climate, and a perceived decrease in private practice opportunities, have caused reevaluation of the role of the university tenure system in the dental college.17 Recent surveys have shown that dental administrators believe that faculty will be subjected to more stringent criteria during future tenure decisions.^{17,19} When one considers that each tenure award costs an educational institution approximately \$1,000,000,20 it is easy to see why the decisions are becoming more important in this time of financial constraint.26

The Tenure Process

Tenure may be defined as "... an arrangement under which faculty appointments in an institution of higher education are continued until retirement age or physical disability, subject to dismissal for adequate cause or unavoidable termination on account of financial exigency or change of academic program. . . . At most institutions, tenure represents, at least theoretically, an earned privilege and not a rightful expectation."20 Early decisions regarding tenure were based primarily on moral character. It wasn't until 1892 that the University of Chicago began to require documented research as a criteria for tenure. Through the years, the use of research criteria for tenure deci... At most institutions, tenure represents, at least theoretically, an earned privilege and not a rightful expectation.

sions has grown.21 The general attitude by university administrators seems to be that scholarship is best evaluated by examples of new knowledge that have passed the scrutiny of peer review. High quality teaching is expected of faculty members, but does not play a major role in tenure systems. This may be because existing methods of instructional evaluation are inadequate. As stated by Guild, "Administrators want good teaching, but do not have the criterion."22 One must also realize that in this time of cutbacks, tenure decisions involve not only an individual's merit, but also his value to the institution.²¹

As dental faculty face more stringent tenure policies, they are confronted by an imposing dilemma. Research activity is the criterion by which they will survive within the university system, but most are not formally trained for that arena. Student and patient contact obligations take an inordinate amount of time, leaving little time in their schedule to perfect research capabilities which will allow them to be competitive for grant monies. For those who do possess research skills, the percentage of federal dollars obligated to

Research activity is the criterion by which they will survive within the university system, but most are not formally trained for that arena. dental research is declining.23

Faced with this dilemma, faculty are asking two pertinent questions: 1) does the presence of research improve the quality of dental education? and 2) why were presently tenured dental faculty evidently evaluated by a different system?

The question of the impact of the presence of research on the quality of education is legitimate. Several studies have failed to show a relationship between the two.^{24,25} The second question is also valid. It has been found that less than ten percent of faculty members account for 90 percent of published research reports and that, as recently as 1980, 47.5 percent of university faculty members had published at most one article.26 Publication appears to fit the "Inverse Square Model" proposed by Lotka in 1926, that the number of researchers making n contributions to the literature is $1/n^{27}$

It has been found that less than ten percent of faculty members account for 90 percent of published research reports and that, as recently as 1980, 47.5 percent of university faculty members had published at most one article.

Many dental faculty feel that it is unfair to try to change superb clinicians into research scientists.11 They feel that a narrow definition of scholarship that requires published research will result in a dilution of the professional education system while simultaneously lowering the quality of dental research by initiating the "Principal of Least Effort".28 This principal states that people will devote the effort necessary for a payoff. In the present tenure system, that payoff is achieved by publication. Publication may take place regardMany dental faculty feel that it is unfair to try to change superb clinicians into research scientists.

less of the quality of, or the work devoted to, the research. The result is often an increased number of authors on each manuscript and an overall decline in the quality of manuscripts.²⁸ The attitude that manuscript quality can be less than ideal and still serve the purpose for a tenure decision is indirectly supported by Whitehurst, who verified that the fate of a manuscript may be determined more by luck and editorial bias than quality.²⁹

Relationship of the Problem and the Model Frameworks

The structure of the tenure system, designed to protect the security and welfare of university faculty, fits into the bureaucratic model of governance. The system is constructed in a hierarchal review structure connected by formal channels.³⁰

Although the bureaucratic model describes the structure of tenure review, it fails to describe the decision-making process that occurs at each level. The dynamic processes occurring during tenure decision can be characterized best by the collegium and political models. At the department, and many times the college level, a collegium model is in effect. Ideally, this system awards individuals based solely on merit or competence. In reality, a tenure committee, composed of faculty, acts as the gate keeper of tenure at the department and college levels. These committees function as oligarchies. As with most oligarchies, they tend to be loyal to predecessors and peers.²⁶

The weakness of the collegium model in describing the tenure system is in its inability to purvey adequately the conflicts that may precede decisions. Disagreement among tenure committee members regarding the quality of a candidate's published work or the strength of his recommendations must be resolved by political means, with individuals or groups exerting their power to sway decisions. The real role of the political model in the tenure system, however, is in the remodeling of the entire structure that takes place in a longitudinal fashion.

The tenure system was initiated as a product of the collegium model. It was designed as a system to protect the scholar, who has been judged competent by his peers, from the prejudice and bias of present or future administrators. Due to the nature of the system, a bureaucratic structure arose to manage its logistical activity (organization of criteria, staging of evaluations, and methods of appeal). Conflicts have arisen through the blending of these systems. The result is that the various levels of review tend to act as filters, with each successive level reducing variation. The result is a group of tenured faculty that fit an administration's role model. This presents conflict with faculty, who feel that the ideal of "academic freedom" should be inherent in the tenure system.

Potential Solutions

Many dental faculty believe that the university tenure system is not compatible with the tradition and style of education that occur in their college. There appear to be three solutions to the problem:

- change the role of the dental educator to more closely match the university's criteria.
- 2) convince the university to

eliminate the tenure system, or

3) convince the university to modify the tenure system.

For a multitude of reasons (training systems available for dental educators, the nature of patient-care training, and reduced research dollars) a substantial number of dental faculty do not and should not fit into the research/scholar mold of the typical university professor. Attempting to remodel all dental educators could be detrimental to the future of the profession.

Modification of the Current Tenure System

Elimination of the tenure system is not a practical approach. The system is generally accepted in most academic institutions, it has been extremely resistant to numerous attempts to eliminate it, the legality of its seniority system has been confirmed by the courts, and it has the general support of organized faculty groups.²⁰ An attempt to modify the system appears to be the best approach for dental faculty.

Numerous modifications of the traditional tenure system have been tried. These vary from the Scandinavian system, where only one tenured professor (the chairman) exists in each department, to various approaches involving term appointments utilized by some liberal arts colleges.9,20,31 Two of the most practical modifications that dental faculty could present to university administrations would be: 1) redefinition of scholarship to include educational pursuits or applied technology, or 2) development of a dual-track tenure system.5,6,20

An attempt to modify the scholarship definition could be structured nicely under the political model. Many other professional training programs, such as medi-

cine, law, and architecture, face similar problems with the definition of scholarship. A coalition of faculty from these programs could present common concerns to the university administration. Traditionally alumni of these professional programs are major financial supporters of the university. Organization of alumni groups to provide external pressure could supply powerful support for the faculty endeavors. The entire process would have to be aimed at persuading the administration to broaden the definition of scholarly activity. Opposition to the suggestion would come from faculty within departments where goals and objectives coincide with the present criteria and from traditionally-oriented faculty and administrators who have matured under the present system, were rewarded by it, and feel there is no sense in causing turmoil by reworking its structure.

An attempt to create a dualtrack or extra-track tenure system makes logistical sense. Two distinct types of individuals presently comprise dental faculties.⁵ One type, the traditional dental educator, does not have research training nor time allotted to develop research skills. The other has research training (a Ph.D or at least a Masters Degree) and a specified amount of time, sponsored by the college or grant funding, to perform research. This second type of faculty fit into the mold expected by the university. Its members may participate in the traditional university tenure system and be rewarded with the security that the system provides. The non-research faculty may be offered nontenure-track positions, with faculty appointment for specific term. At the conclusion of that term, the individual would be evaluated using specific criteria for the position and rehired, if appropriate, for another specific term. The cri-

teria used for evaluation would pertain primarily to teaching. Individuals in the nontenure track would not be specifically required to participate in the research, but also would not enjoy the potential long-term security of tenure. Support for this modification would be derived potentially from faculty of other professional colleges who have similar concerns. Alumni groups, especially those that feel that the "art of patient care" is being sacrificed to the "science of the profession" under the present university system, could be cultivated to provide external support for this modification of the tenure system. Support from all faculty could be fostered by development of a dual system where transfer from the tenure track to the nontenure track is not permitted and tenure is completely divorced from other university activities, including academic promotion, salary, and benefits. This type of system would minimize false expectations and discourage offhand use of the nontenure track while ensuring that individuals in that track were not considered second class citizens.20

As plans for the effort to modify the system are developed, the process by which decisions are made within the university system must be understood and appropriate compensation made. Chaffee³² describes a rational process by which decisions are made. She states that, based upon values and alternatives, a choice is made. The choice permits implementation leading to results, which are in turn evaluated by feedback. Within this model, the individual makes a decision by ranking all the possible sets of consequences and choosing the alternative with the most acceptable outcome. The political model modifies this system by asking two pertinent questions: 1) why is the question being considered? and 2) who will make the

decision?3

The decision of why the question is considered is forced by those individuals or groups that are organized enough and persistent enough to push the question to the appropriate level. Who makes the decision is decided by those who remain active during the decision process. Policy formation becomes the focal point of the political mode, for major policies commit the organization to definite goals, set the strategy for reaching the goals, and determine the long-term destiny of the organization.33

A modification of the tenure system would be a major policy change for a university with a primary mission of research. It would mean the establishment of goals that are different for professional training and thus would place groups within the university in conflict in an effort to protect their domain.33 The policy change would not come without major external pressure. Research and the dollars generated by research are a major aspect of university financial support. Modifying the thrust of a university, even in a small degree, away from research could have a tremendous influence upon the system.³⁴

To function within the political model, the dental faculty would need to organize a group from the university faculty and outside interest groups with the common goal of modifying the tenure system. Organization of the group may be difficult. To act efficiently, it would be necessary to stimulate the emergence of a coordinated group from a complex, fragmented social structure, drawing a commonality from divergent concerns and lifestyles.

The organized group may need to articulate its concern in a number of ways, to get the question considered initially. It must achieve interest at the decisionmaking stage, to synthesize groups with conflicting values into an effective force. At the legislative stage, it must clarify a translation process by which their concerns are articulated, considered, and negotiated into final policy.³

The group must also be aware that during the negotiation of a question by the political system, the model has two drawbacks: 1) the approach makes no provision for a superordinate goal. The goal of "quality education" must be put aside during the debate of specific modifications to tenure. 2) The result of the struggle cannot be predicted. Results cannot be linked to objectives and the final consequences may not serve the interest of any of the parties.³²

Conclusions

A problem exists in the relationship of dental colleges to the university tenure system. The traditional tenure system, initiated under a collegium model, has matured and is now structured in the bureaucratic model. However, modification of the system to consider the unique problems of professional colleges in general, and the dental colleges in particular, is going to take skilled use of the political model by concerned individuals and groups. Δ

References

- Baldridge, J.V. Alternate Models of Governance in Higher Education. in *Governing Academic Organizations*. Edited by G. Riley and J.V. Baldridge. Berkeley, California: McCutchen, 1977, pp. 9–19.
- Goodman, P. The Community of Scholars. New York, N.Y.: Random House, 1962, pp. 99–160.
- Baldridge, J.V. Power and Conflict in the University. New York, N.Y.: John Wiley, 1971, pp. 15–190.
- 4. Anderson, G.L. Organizational Diversity. in *Examining Departmental Management*. Edited by J.C. Smart and J.R.

Montgomery. San Francisco, California: Jossey-Bass, 1976, pp. 5–11.

- Mohl, N.D. Academic Advancement in the Health Sciences. Journal of Dental Education, 41:606–612, October 1977.
- Albino, J.E. Scholarship and Dental Education: New Perspectives for Clinical Faculty. Journal of Dental Education 48:509-513, September 1984.
- Smith, R.J. Requirements for Faculty Scholarship in Universities and Dental Schools: Implications for Promotion, Tenure, and the Dual-Track System. Journal of Dental Education 48:500– 505, September 1984.
- Morris, A.L. Quality of Education. Journal of Dental Education 47:643–649, October 1983.
- Bawden, J.W. Education, Research and Service: The Priority of Research. Journal of Dental Education 47:289–292, April 1983.
- Kennedy, J.E. Faculty Development. Journal of Dental Education 47:270– 275, April 1983.
- Heaney, R.P. Accountability and Responsibility of the Dental School Within the University. Journal of Dental Education 41:494–498, August 1977.
- Melcher, A.H. Do Faculties of Dentistry Belong in Universities? Journal of Dental Education 48:492–495, September 1984.
- Richman, B.M. and Farmer, R.H. Leadership, Goals and Power in Higher Education. San Francisco, California: Jossey-Bass, 1974, p. 296.
- Soloman, E. School Type and Characteristics of Dental School Faculty 1982–83. Journal of Dental Education 47:197–199, March 1983.
- Bruce, H.W., Jr. The Impact of Federal Legislation and Declining Financial Resources on Dental Education. Journal of Dental Education 45:646–651, October 1981.
- Loe, H. The Impact of Research and Technological Advances on Dental Education. Journal of Dental Education 45:670–675, October 1981.
- 17. Kennedy, J.E. The Role of Tenure and the Development of Tracks for Faculty. Journal of Dental Education 45:663– 667, October 1981.
- American Association of Dental Schools. Bulletin of Dental Education Vol. 18, No. 8, August 1985.
- Herzberg, M.C. and Katz, R.V. Future Faculty Training Requirements and Job Opportunities: A Survey of U.S. Dental School Deans. Journal of Dental Education 46:261–265, May 1982.
- 20. Chait, R.P. and Ford, A.T.: Beyond Tra-

ditional Tenure. San Francisco, Calif.: Jossey-Bass, 1982, pp. 3-79.

- Gjerde, C.C. and Columbo, S.E. Promotion Criterian: Perceptions of Faculty Members and Departmental Chairs. Journal of Medical Education 57:157– 162, March 1982.
- 22. Guild, R.E. Faculty Behavior: Appraisal and Rewards. Journal of Dental Education 41:307–319, June 1977.
- Hein, J.W. Fostering Research Activity in Academic Dentistry. Journal of Dental Education 47:239–243, April 1983.
- Proffit, W.R. and Vig, P.S. The Role of Research in Advanced Dental Education. Journal of Dental Education 44: 313–318, June 1980.
- Centra, J.A.: Research Productivity and Teaching Effectiveness. Research in Higher Education 18:379–389, April 1983.
- Lewis, L.S. Scaling the Ivory Tower. Baltimore, Md.: Johns Hopkins Press, 1975, p. 31–41.
- Lotka, A.J. The Frequency Distribution of Scientific Productivity. Journal of the Washington Academy of Science 16:217-223, 1926.
- MacKenzie, R.S. Symposium: Addressing the Negative Impact of Scholarship on Dental Education. Journal of Dental Education 48:496–499, September 1984.
- Whitehurst, G.J. Interrater Agreement for Journal Manuscript Reviews. American Psychologist 39:22–28, January 1984.
- Lewis, L.S. Getting Tenure: Change and Continuity. Academe 66:373–381, July 1980.
- Kennedy, J.E. Alternative to Traditional Tenure. Journal of Dental Education 48:506–508, September 1984.
- 32. Chaffee, E.E. Rational Decision Making in Higher Education. Boulder, Co.: National Center for Higher Education Management, 1983, pp. 9–20.
- Baldridge, J.V. and Deal, T.E. Managing Change in Educational Organizations. Berkeley, Calif: McCutchen, 1975, p. 428–436.
- Baldridge, J.V. Academic Governance. Berkeley, Calif.: McCutchen, 1979, p. 514.

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STANDARD OF CARE DEFINITION VARIES

A Presentation at the 1986 Fleming Memorial Lecture, San Francisco, California

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A Defense Attorney Examines the Relativity of Standard of Care

Under the American judicial system, any time a patient feels that they have been injured or harmed while under the care of a dentist, they may bring a civil lawsuit for damages and request restitution from a jury of their peers. The patient turned plaintiff must prove to that jury that the dentist was negligent in providing the care to the patient. The law defines dental negligence as that occasion wherein the doctor either fails to meet or exceed the standard of care. Proof of that failure need only be by a preponderance or fifty-one percent of the evidence.

The standard of care is determined and defined not by statute or the decisions of judges. Rather, this standard is defined and determined by the testimony of expert witnesses. A jury of peers is composed primarily and almost exclusively of non-health care professionals. A typical American jury is composed of retired individuals, housewives, students, and a spattering of blue collar workers. The professional or white collar juror is rare. In a simple automobile accident case, the jury is allowed to use their common knowledge to determine who was negligent. However, in a case alleging malpractice of a professional, such as a dentist or physician, the jury cannot make that determination. Rather, their role is to weigh the testimony of experts testifying as to the standard of care. Their common knowledge is to be used to determine credibility of the experts

Unfortunately, this system leaves the definition of standard of care undefined and without recorded guidelines for today's dental practitioner. The absence of such strict guidance for today's dentist is compounded by a public attitude that today's dentistry is more akin to the delivery of a product, and that any result that is less than perfect is presumed to have resulted from a defective product. The old rule that a dentist was innocent until proven guilty does not apply in civil litigation, where only fifty-one percent of the evidence is necessary to prove that the dentist committed malpractice. In other words, a jury may have forty-nine percent doubt and still return a verdict for the plaintiff. This wide margin, in conjunction with the public's attitude and the very competitive dental market, provides a dangerous legal arena for today's dental office. Careful and considerate practice is not enough to ward off litigation.

Today's dentist must use a sword and shield in the legal arena. The sword is effective practice and patient management, and the shield is the dentist's records, including documentation by way of x-rays and informed consent. Poor results are considered malpractice by juries in cases where the records are deficient or absent, practice management is lacking, and the dentist appears more preoccupied with billing than with treatment.

The number one defense is records. The dentist must learn to record health in addition to disease. Recording the absence of The number one defense is records. The dentist must learn to record health in addition to disease.

periodontal pockets is as important as recording their presence. The taking and maintaining of fullmouth x-rays that do not necessarily show pathology is as important as the diagnostic film used just before treatment. The dentist must recognize that there are many philosophies amongst experts and dentists regarding the standard of care. Although attorneys are well known for their practice of attempting to show bias amongst expert witnesses, the key to the case will be the expert's opinion based on the records of the defendant that are available for review. If the dentist does not chart and record healthy periodontal pockets, it will be difficult in today's environment for him to prove a rapid deterioration at the end of several years of routine care. The overfilling of a root canal will not be defensible in the absence of measuring films and a post-operative x-ray properly developed, fixed, and stored.

Recognizing that experts may differ on any one procedure, today's dentist must anticipate this ongoing debate, particularly as the treatment becomes more complex. Thus, even before beginning treatment, a very careful, thorough, and current health and dental history must be taken and recorded. On the yes/no type forms, every box must be checked or answered by the patient. For the general

rather than to determine an independent standard of care.

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practitioner or any individual who sees the patient over a period of months and years, this history must be updated and signed by the patient on a routine and periodic basis. In the presence of any systemic disorders or health risk. such as rheumatic fever, heart murmur, or pulmonary or cardiac debilitations, the dentist should consult the family physician and record such discussions. This includes the conversation in which the physician says that it is perfectly acceptable to proceed with the dental work without antibiotic or any other special medication prophylactically administered. The date and time of the discussion should be recorded.

Any shield can become a weapon. The dentist who alters or changes his records will make defense of the liability claims almost impossible. Juries will presume the standard of care was breached and give much more credibility to plaintiff's expert following the introduction of evidence of tampered records. An additional record keeping problem includes pre-billing of payments to an insurance carrier. The typical case is the root canal that is billed out as completed according to the form prior to the actual filling visit. Such patients may fail to return, and the standard of care will be held against the defendant because it will be presumed that he failed to fill the canal, although he billed for such treatment. This is a perfect example of how record keeping may lend credibility to plaintiff's expert when such records are kept improperly, altered, or changed.

For those who believe the best defense is an offense, we look at the sword of practice management. Patient rapport with both the dentist and the staff is critical to preventing any claim or litigation. Remember, the patients have Any shield can become a weapon. The dentist who alters or changes his records will make defense of the liability claims almost impossible.

but few dentists, while dentists have many patients. The plaintiff will recall with detail and specificity the events surrounding any particular treatment. Your treatment may seem routine. However, to the patient it is a very important and memorable day. The interaction of the patient with staff, as well as communication with the dentist, may determine whether or not that recollection is negative or positive. Careful recording and documentation of informed consent is necessary because patients quite often will genuinely forget the discussion conducted by the doctor because of the stress associated with the particular pathology and its treatment. Their recollection or the lack thereof will be given greater weight than that of the dentist because the jury is composed of patients. The standard of care testimony of expert witnesses becomes critical in informed consent cases when considering alternatives. In addition to discussing the risk of a procedure with the patient, today's practitioner must review and record the discussion of alternative procedures, including doing nothing at all. Plaintiff's experts are often heard to testify that a defendant fell below the standard of care because he failed to provide alternatives to a patient, and that the particular individual would have utilized a different treatment and the patient has a right to those choices.

Staff members should be prohibited from "playing dentist". They should not be critical of the care of other dental offices. Any criticism should be reserved until all of the facts are known. When a dentist expresses an opinion regarding the work of another dental office when seeing a transfer patient, that practitioner in effect is testifying to the standard of care. Statements made will be brought up again before a judge and jury and compared to the testimony of other dentists.

As a final note, the term expert witness is often confused by the dentist when viewing the legal arena. Our judicial system requires that an expert only be someone licensed to provide health care relative to the condition for which the patient was treated. A chiropractor and a physician may testify against each other. A physician and a dentist may testify against each other. Their academic and personal experience do not affect their qualifications to be an expert. The jury is told that a comparison of an individual's academic background or training is to be considered only as to the weight given their testimony. Thus, the courts will allow anyone with a D.D.S. to testify as to the standard of care.

In summary, the standard of care is determined by the testimony of expert witnesses reviewing the records of the defendant and others concerning the care rendered a particular patient. Dental philosophies and bias do not disqualify an expert; rather, they are used only to affect credibility or the weight to be given that testimony. Today's dentist will most often prevent a lawsuit by good practice management, and will win a lawsuit by maintaining detailed, accurate, and unaltered records. \triangle

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LIABILITY INSURANCE UPDATE 1986

Dentistry Should Form Captive Liability Companies and Captive Reinsurance Companies

Lorenz F. de Julien, Jr.*

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Availability vs. Affordability

"Dear Doctor your liability insurance will not be renewed on July 1 due to a corporate decision of the Humongous Insurance Company to withdraw from the medical and dental professional liability insurance market." Such 60 day notices were common in 1973-76 as many of the commercial carriers pulled in their horns in response to the liability crisis. A large void in availability of insurance resulted. One popular answer was to form captive medical-society-owned and dental-society-owned insurance companies. They were expensive to start but worth the price and effort. In such times of strife, affordability of insurance takes second position to availability of insurance.

Looking back ten years it is fair to state that the treatment was a success. Most of the companies are still in business making insurance available, and at a realistic price. (*Realistic—not "bargain"*)

A large national magazine recently headlined "America Your Liability Insurance Has Been Cancelled". This sounds like 1976 all over again, only with a greater number of industries and businesses affected. What will be the answer? My guess is that the national organizations of the industries and businesses involved will look to a proven answer—do it yourself and form a captive. The blueprints are readily available and the entrepreneurs are ready to assist with the formation of new industry-owned captives.

There is a major difference between the crisis of 1976 and 1986, and that is the present lack of capacity in the Reinsurance Industry. In 1976 reinsurance was readily available and inexpensive, thus fueling the formation of new companies. In 1986 the reinsurance market is a wasteland. Even Lloyds of London does not feel that professional liability insurance is currently a profitable field and has greatly reduced its reinsurance exposure. What capacity is available is very expensive.

The answer may be to expand on the original game. Not only to form Captive liability companies, but also to band together and fund Reinsurance Captives. These can be domestically based (USA) or "offshore" companies based in exotic places such as Bermuda and the Cayman Islands. It's the same game, only on a larger scale, much like going from checkers to chess!

If this comes about you will find a great need for competent insurance executives. Whether there is a large enough pool of talent available only time will tell. Good executives make good companies and bad executives create failures.

In short, it has become obvious that the Captive insurance indus-

try is here to stay. More state dental associations will be asking the existing companies if they can use their plans and computer programs-and the fees for such should help the bottom lines of the present companies like The Dentists Insurance Company (TDIC) in California. It would appear that the *occurrence* policy is an antique which has been supplanted by the *claims-made* policy. This change is rapidly being phased into the entire liability insurance industry. In time the present abhorrence of this concept by the ADA will pass. In the long run, density will be stronger because of these monumental decisions that are being made to make our ability to practice unfettered more secure. It is not inexpensive in either money or man-hours, but the end result is a more stable product. Perhaps dentistry's answer will be for the ADA to form a Reinsurance Captive and for the individual state dental association or groups of state dental associations to fund their own inter or intrastate companies and then to purchase the excess insurance from the ADA Captive Reinsurance company. It certainly does not seem feasible for the ADA to try to enter the insurance market in fifty States, when you factor in the myriad of State regulations.

"Nothing is static but change," and it will be interesting to see what innovation in the professional liability industry is brought out by the present "crisis". Δ

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Comparing Pharmacology Instruction

Comparative Analysis of Pharmacology Curricula in Schools of Dentistry, Medicine and Optometry

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During the past decade a plethora of new drugs have been developed and marketed. Some of these pharmacologic agents, such as long-acting local anesthetics, newer antibacterial, antifungal and antiviral agents, newer agents useful in conscious sedation regiments. newer non-steroidal antiinflammatory drugs, and agents used in the prevention of oral disease, have direct application to the general practice of dentistry. Current emphasis on cardiovascular diseases has resulted in the development of a myriad of new agents in addition to the continued use of mainstay agents such as digitalis and diuretics. The phenomenal advances in medicine, leading to increased life span, and the emphasis on preventive dentistry has mandated continuing dental care in geriatric patients and thus, necessitates an addi-

tional area of applied therapeutics. geriatric pharmacology. Furthermore, patients today demand that dental treatment be efficient, costeffective, anxiety-free, and painless. This can be partially accomplished through the use of conscious sedation techniques which, because of the availability of newer opioid and benzodiazepine derivatives with increased efficacy and safety,1 may be feasible for general practitioners. While all of this training can be provided, it requires additional time in the dental curriculum so that the adequacy of training in basic pharmacological principles and traditional therapeutics will not be compromised. As one might suspect, additions to the already overcrowded, continuously escalating undergraduate dental curriculum would not be well accepted by dental administrators. In fact, there is an increasing concept that the basic sciences in the undergraduate dental curriculum are too extensive.² Although pharmacology as a discipline is an applied clinical science as well as a basic science, it is not invulnerable to such attacks. In contrast, there is a consensus among some students surveyed that their pharmacology training is inadequate.³

There is one previous publication which investigated the teaching of pharmacology in dental schools as compared to other professional schools. Aviado (1972) analyzed data from dental schools, pharmacy schools, and medical schools. However, this survey did not report the number of didactic hours spent on each of the major areas of pharmacology, since the data was expressed as of total hours, which varied widely.4 Pharmacology percentages training in 58 dental schools in the United States and Canada was examined in 1976, although this study did not make any comparisons with other professional schools involved with teaching drug therapy.5

Curricular Guidelines in Pharmacology were developed by the Section on Pharmacology and Therapeutics, American Association of Dental Schools, and published in 1982.6 While these are recommendations only, the guidelines should be useful in defining areas of study for the dental pharmacology curriculum. Information regarding the use of these guidelines or current teaching trends in pharmacology and therapeutics in U.S. dental schools has not been published. Since the licensed dentist can utilize or prescribe any drugs relevant to the management of oral health problems, it is of interest to determine the current status of pharmacology training in U.S. dental schools as compared to schools of medicine and optometry. Therefore, the objective of this survey was to obtain informa-

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tion regarding the status of training in pharmacology for the dental student in reference to students in other health professions.

Methods

The 14 states which contain colleges of dentistry, medicine, and optometry were designated as study states. The states were Alabama, California, Illinois, Indiana, Massachusetts, Michigan, Missouri, New York, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, and Texas. Thirty-one colleges of dentistry, 37 colleges of medicine, and 15 schools of optometry received the survey instrument (which is available upon request). The department chairperson or director of pharmacology in each school was identified as the study respondent.

Data were generated from the subjects' responses to the instrument whose purpose was to query the amount of hours devoted to the study of pharmacology. The instrument was designed to reflect the table of contents of a major textbook⁷ used in pharmacology courses in dental schools⁵ and other professional schools.

The investigation, being descriptive in nature,8 viewed hours spent in each of 13 major areas of pharmacology as separate dependent variables. These categories included: (1) basic principles in pharmacology, (2) drug effects on the nervous system, (3) psychopharmacology, (4) central nervous system depressants and stimulants, (5) anesthetics, (6) cardiovascular agents, (7) ocular pharmacology, (8) respiratory and gastrointestinal tract agents, (9) endocrine pharmacology, (10) chemotherapy, (11) poisons and antidotes, (12) drug interactions, and (13) prescription

writing. A fourteenth variable involved the total hours each school type spends on the study of pharmacology. The categories purposefully were kept broad in order to be indicative of a pharmacology education in various health care professional schools whose educational goals differ. However, each broad category was clearly defined in the survey instrument regarding content. For example, category IV, Central Nervous System Depressants and Stimulants, was identified by the following drug groups: hypnotics, CNS stimulants of the convulsant type, anti-epileptic drugs, narcotic analgesics, and anti-inflammatory drugs.

Results from the instrument were analyzed using the statistical package for the social sciences (SPSS) and calculated on an AS 9000 computer. Treatment of the data was performed implementing: descriptive tables utilized to analyze (1) means, standard deviations, and analysis of variance (ANOVA) to analyze the major study categories; and (2) comparative analyses on the major study categories whose F-ratio indicated significant differences. The .050 level was selected for statistical significance.

Results

Of the 83 schools surveyed, 46 schools responded (55.4% response rate overall). Fifteen were schools of dentistry (48.4% response rate), 20 were schools of medicine (54.0% response rate), and 11 were schools of optometry (73.3% response rate). The results of the study questionnaire are presented in Tables 1 and 2. Table 1 presents means, standard deviations, total range of hours, and analysis of variance of classroom hours spent

on major areas of pharmacology (categories) in the different types of institutions.

Table 2 compares those categories, where F-ratios indicate significant differences, between the different types of schools.

Discussion

This survey presents some revealing quantitative information concerning the teaching of pharmacology in three types of professional schools whose educational goals and clinical skills are unique to each profession. In selected areas, which are not related to the major educational goal of the profession, there is great similarity in teaching hours. For example, in prescription writing, drug interactions, respiratory and GI tract medications, endocrine drugs, psychopharmacology, and CNS depressants and stimulants, there are no significant differences in time devoted to these subjects. All three types of professional schools share the importance of instruction in specific areas of pharmacology: basic principles, cardiovascular agents, drugs affecting the nervous system, and chemotherapeutic agents. Although the lecture hours differ significantly between the medical schools and each of the other schools, these areas of instruction constitute a major proportion of each of the curricula. It is noteworthy that the average hours in the dental curriculum utilized in teaching basic principles reported in this study is apparently less than those stated in 1976 $(\overline{X} = 6.87 \text{ vs } \overline{X} = 10.7).^5$

There are significant differences in teaching pharmacology in areas of major concern to the individual professions. Schools of optometry averaged 29 hours of lecture in

	Dental N=15	Medical N=20	Optometry N=11	Grand	Total Range		
	X	X	X	Mean	of	F-	
Category	(SD)	(SD)	(SD)	(SD)	Hours	ratio	F
1. Basic Principles in	6.87	10.35	7.73	8.59	3-18	5.03	*
Pharmacology	(2.95)	(3.79)	(3.10)	(3.67)			
2. Drug Effects on	10.86	15.90	10.91	12.87	5-28	8.77	
Nervous System	(3.77)	(4.91)	(3.87)	(5.01)			
3. Psycho-	3.87	5.40	3.82	4.52	1-12	2.59	ns
pharmacology	(1.81)	(2.21)	(2.96)	(2.37)			
4. CNS Stimulants	8.40	9.50	7.18	8.55	2-20	1.28	ns
and Depressants	(3.16)	(4.47)	(3.68)	(3.92)			
5. Anesthetics	6.13	4.00	3.00	4.46	1-12	8.33	*
	(2.69)	(1.89)	(1.00)	(2.35)			
6. Cardiovascular	7.47	11.95	5.82	9.02	3-19	15.73	*
Agents	(3.76)	(3.24)	(2.04)	(4.11)			
7. Ocular	0.53	0.65	29.82	7.59	0-50	91.66	*
Pharmacology	(0.64)	(0.87)	(12.87)	(14.00)			
8. Respiratory	2.20	3.15	1.91	2.54	0-8	2.08	ns
GE Tract Agents	(1.97)	(1.69)	(1.76)	(1.85)			
9. Endocrine	4.20	6.80	5.82	5.72	0-14	3.16	ns
Pharmacology	(2.43)	(3.58)	(2.64)	(3.17)			
0. Chemotherapy	8.47	13.75	8.27	10.72	0-30	7.10	*
	(4.14)	(5.52)	(4.08)	(5.40)			
1. Poisons and	1.27	3.25	1.27	2.13	0-10	6.24	*
Antidotes	(1.22)	(2.51)	(1.10)	(2.09)			
2. Drug Interactions	1.80	1.45	1.73	1.63	0-4	0.81	ns
-	(1.01)	(0.69)	(0.90)	(0.85)			
3. Prescription Writing	1.60	1.05	1.09	1.24	0-4	1.67	ns
	(1.12)	(0.89)	(0.70)	(0.95)			
4. Total Hours in	63.80	90.65	94.82	82.89	39-127	12.36	*
Pharm	(19.56)	(18.36)	(16.04)	(22.39)			

 Table 1. Means, Standard Deviations and Analysis of Variance of Class Lecture Hours Spent on

 Major Pharmacological Study Categories by Dental, Medical and Optometry Schools

ocular pharmacology, while dental and medical schools averaged less than one hour. The curricula of schools of dentistry emphasize the pharmacology of drugs that affect sensation and consciousness (defined here as "anesthetics"). As seen in Table 1, a mean of 6.13 hours was devoted to the study of anesthetics in the 15 dental schools responding to the survey. This is statistically (p < .05) more hours than the lecture time in medical

or optometry schools. This emphasis on anesthetics was also reflected in the earlier study by Kahn and Neidle,⁵ which reported means of 5.1 hours in general anesthetics and 4.2 hours in local anesthetics. The total number of hours (9.3) devoted to the subject in 1976, however, was apparently greater than that utilized by the dental schools surveyed herein. Nonetheless, local anesthetics continue to be a mainstay in the practice of dentistry. Many of the complex operative procedures on conscious patients would be impossible without adequate pain control. Also, there is an increasing demand from dental patients for not only pain-free, but also anxiety-free treatment, and they prefer not to remember the procedure. Intravenous conscious sedation and nitrous oxide analgesia continue to be an adequate means to overcome the fear and anxiety of most patients. Availability of new agents with increased safety and efficacy for use in conscious sedation techniques has enhanced the margin of safety for this means of patient management.¹ However, any practitioner who would employ this pharmacological approach in patient treatment must be thoroughly trained in the pharmacology and clinical application of these drugs.

It is clear from Table 1 that the lecture hours in the dental and optometry schools are remarkably similar, with significant differences occurring only in anesthetics and ocular pharmacology, the latter of which confers a significant difference in the total number of lecture hours between the two professional schools. This similarity is of particular interest since the dentist, who graduates after about 63 hours of instruction in pharmacology, becomes licensed and is allowed to prescribe any drug related to his practice. However, in most states, graduates of optometry schools can use diagnostic drugs only; in several states, they are not allowed to use any drug in their practice.

The medical schools devote significantly more hours to drugs that affect the nervous and cardio-

vascular systems. Additionally, the medical schools spend significantly more hours than either of the other professional schools in teaching chemotherapy. The scope of treatment in medicine is much broader and requires chemotherapy for microbial, fungal, viral, and parasitic diseases, as well as neoplasia. While the study of antimicrobial and antifungal agents also represent a major proportion of a dental pharmacology curriculum, the scope of treatment in dentistry is more restricted with emphasis on acute orodental infections or antibiotic prophylaxis in patients at risk of developing

		t-ratio	df	t-Probability
Basic Principles in Pharmacology	Dental-Medical	3.06	32.9	.004*
	Dental-Optometry	0.71	21.0	.483
	Medical-Optometry	2.08	24.5	.048*
Drug Effects on Nervous System	Dental-Medical	3.84	33.0	.001*
	Dental-Optometry	0.42	21,5	.675
	Medical-Optometry	3.13	25.3	.004*
Anesthetics	Dental-Medical	2.62	23.9	.015*
	Dental-Optometry	4.13	18.8	.001*
	Medical-Optometry	1.92	29.0	.064
Cardiovascular Agents	Dental-Medical	3.70	27.6	.001*
	Dental-Optometry	1.43	22.4	.165
	Medical-Optometry	6.46	28.3	.001*
Ocular Agents	Dental-Medical	0.46	33.0	.652
Ŭ	Dental-Optometry	7.54	10.0	.001*
	Medical-Optometry	7.51	10.1	.001*
Chemotherapy	Dental-Medical	3.23	33.0	.003*
	Dental-Optometry	0.12	21.9	.906
	Medical-Optometry	3.14	26.3	.004*
Poisons and Antidotes	Dental-Medical	3.08	29.0	.005*
	Dental-Optometry	0.01	22.9	.991
	Medical-Optometry	3.03	28.1	.005*
Total Lecture Hours in	Dental-Medical	4.13	29.2	.001*
Pharmacology	Dental-Optometry	4.44	23.6	.001*
	Medical-Optometry	0.66	23.3	.518

veloped drugs) with teaching time, and yet provide adequate clinical experience and a grasp of the basic sciences upon which dental education depends. Other new programs have been proposed in dental epidemiology and statistics.9 Morris¹⁰ has suggested that perhaps the most serious problem with the dental curriculum, which affects the quality of the education, is that of overcrowding. Hence, suggestions are made "to reduce the mass of information that is taught formally and that the student is required to know"9 and to reevaluate the basic science

content in dental education.²

bacterial endocarditis or other

complications because of compro-

mised host defense mechanisms.

Although there are a number of

newer antimicrobial, antifungal

and antiviral agents marketed

now, the apparent time devoted to these agents currently is less (\overline{X} =

8.47 hours) than in 1976 (\overline{X} =11.1

A revealing statistic in this survey was the comparison of the

total number of lecture hours in

each of the three professional

schools. The total hours of phar-

macology instruction in the dental

schools (\overline{X} =63.80 hours) were sig-

nificantly less than either the medi-

cal schools (\overline{X} =90.65) or the op-

any subject must be evaluated in

terms of the real problem of the

ever expanding dental curriculum.

The dental curriculum is influ-

enced by outside forces and recog-

nition of new community needs.

The dental schools are expected

to accommodate new areas (e.g.,

geriatrics, physical evaluation, eth-

ics, external rotations, medically

compromised patients, newly de-

Currently, the time devoted to

tometry schools ($\overline{\mathbf{X}}$ =94.82).

hours).5

An important question is: are the hours devoted to pharmacology and therapeutics providing adequate training so that the dental graduate today can provide patients optimally with effective and safe drug therapy? It is morally obligatory that excellent instruction and training, at all levels of dental education, be available. This, coupled with the growing concern of overcrowding in dental curricula, makes it imperative that we, as faculty, diligently strive to insure "quality hours" of instruction. We must select judiciously from the expanding biomedical sciences to enrich and strengthen the student's educational program, professional progress and ability to communicate effectively and intelligently with his colleagues in the health care field.

Conclusions

- 1. Based upon this research, dental schools spend significantly less lecture time in pharmacology than either medical or optometry schools.
- 2. Optometry schools spend significantly more hours teaching pharmacology for the degree of drug utilization or prescription by that profession.
- 3. Dental schools devote significantly more lecture hours on drugs which affect consciousness and sensation than medical and optometry schools.
- 4. Medical schools place great importance on teaching principles of pharmacology, cardiovascular drugs, chemotherapeutic agents and drugs that affect the nervous system.
- 5. There are no significant differences in time devoted to

teaching respiratory and GI tract agents, psychopharmacology, CNS depressants and stimulants, endocrine pharmacology, prescription writing, and drug interactions in the three types of professional schools.

References

- 1. Montgomery, E.H. and Jeske, A.H., Newer Aspects of the Pharmacology and Physiology of Intravenous Sedation, Journal of Dental Education, 63: 831–956, June 1984.
- 2. Neidle, E.A., Gies Redux: A Time to Look at Basic Science in the Dental Curriculum, Journal of Dental Education, 49:14–17, January 1985.
- 3. Dean, D.H., How Do Dental Students Feel About Rx Drugs?, Dental Student, 57:22-23, February 1979.
- Aviado, D.M., Teaching of Pharmacology. In Pharmacologic Principles of Medical Practice, Baltimore: Williams and Wilkens, 1972, pp. 1207–1214.
- 5. Kahn, N. and Neidle, E.A., The Teaching of Pharmacology in Dental Schools in the United States and Canada, Journal of Dental Education, 40:541–545, August 1976.
- AADS Curricular Guidelines in Pharmacology, Journal of Dental Education, 46:176–183, March 1982. Goth, A., Medical Pharmacology, ed. 10, St. Louis, Mosby, 1981, pp. ix-xi.
- B. Griedman, G.D., Primer of Epidemiology, New York: McGraw-Hill, 1974, p. 52.
- 9. Melcher, A.H., Do Faculties of Dentistry Belong in Universities?, Journal of Dental Education, 48:492–495, September 1984.
- Morris, A.L., Quality of Education, Journal of Dental Education, 47:643-649, October 1983.

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Gies Award Outstanding Editorial for 1985

THE NAME OF THE GAME

Robert L. Smith*

The time may have come for our profession to change the name of the game. The change would be dictated by an exhaustive, in-depth look at where we in dentistry have been and where we seem to be heading. Specifically, our future may not be a profession but rather a trade.

It took many long hard years of struggle for dentistry to raise itself by its boot-straps from the off-shoot of barbering to the respected deliverer of health care called a profession; a calling or occupation, other than commercial, involving special attainments and discipline. We fought to become a respected profession with high standards of achievement and conduct, committed to study, and having as its prime purpose the rendering of a public service. By force of organization and concerted opinion we maintained high standards.

Dentistry became a learned profession as requirements for dental school admission were raised and curriculum of professional schooling improved and expanded. Ethical codes of conduct and behavior were adopted that demanded and received rigid adherence. Quality care became the emphasis. We became a profession that, as Thomas Pyles wrote, "reflects credit on the association." We developed and exhibited an image that was highly respected by the public.

What is of equal importance is that the individual members of the association or profession believed in and adhered to that image and to the ideals and elements that produced that image. What the profession was was clearly understood and upheld by its members. They lived by, had faith in, and were dedicated to their profession's ideals. The golden age of dentistry had arrived.

A profession, however, is a vulnerable institution; it does not exist as a single entity. Its members are like all other human beings, there are some who will not follow the standards set by the profession. For many decades the profession's high ethical standards were supported and maintained.

It is ironic that practices of another era were outlawed by the government that has now reinstated those practices. It is disturbing that a number of dentists are taking advantage of the escape mechanism dictated by our government's court system. This indicates a loss of belief and faith in the accomplishments, standards, and ideals of our profession. Emphasis on quality care is being replaced by emphasis on megabuck incomes, high gross practices, gimmicks in advertising, hucksterism, and yes, even discount coupons. What was once a rare occurrence is now becoming a common practice.

These practices and emphasis are a course of action or conduct of a trade or business, not a profession. What we are seeing in the Yellow Pages, on television, and in our print media is demoting our profession to the level of ordinary trades and businesses. These practices are destroying the image of dentistry held in such high public esteem through most of this century.

So perhaps it is time that we take a look at ourselves and decide what we want to be. The profession cannot be saved when only a faithful remnant performs well and ethically; it will take the recovery of mental and moral force by a majority. If this is not to be, then let us call ourselves what we are becoming, a trade, and dispense with a facade of "profession."

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Gies Award 1st Runner-Up Editorial for 1985

DENTISTRY FOR THE HANDICAPPED TAKES ON A NEW DIMENSION

Bernard P. Tillis*

Bedlam was a part of medieval London's Hospital of St. Mary of Bethlehem, the origin of which has been traced to the year 1247. It was there that people afflicted with mental, and often physical limitations, were sequestered under such destructively horrendous conditions that the very name has come to connote confusions, wild uproar, the epitome of inhumanity. Such an attitude toward handicapped people has characterized the posture of our civilization down through the ages as every variety of society reacted to its fears, its superstitions anent such maladies, with the isolation and the neglect that Bedlam represented.

Happily, western civilization has, over the centuries, evolved a consciousness which indicated that a more humanistic approach to the problems of the physically limited would be more appropriate to the Judeo-Christian ethic under which it flourished. There have even been those who have come to believe that with the proper treatment and training afflicted people could make meaningful contribution to the community. And indeed this has proved to be a very valid philosophy, history being replete with instances of such achievement.

As a result, the attitude towards mentally and physically limited people has become more benevolent and constructive, although the mechanisms for the implementation of these good intentions are by no means wholly acceptable (witness the present confusion that plagues the care of the mentally handicapped). Nonetheless, significant programs for the care of the handicapped have been implemented, and extensive explorations in the field are being funded by governmental and private agencies.

As is so often the case, dental care as a less-thanlife-threatening phenomenon was a neglected aspect of the care the handicapped required. It took the insistent dedication of some individual dentist who, attracting the participation of colleagues, effectuated the inclusion of oral health care among the regimes being administered and taught to people of limited mental and physical facility.

Today a very respectable proportion of institutions which render care to the handicapped are equipped with staff and facilities to provide oral health care. Organizations such as the National Foundation of Dentistry for the Handicapped are meaningful influences in setting standards, as consultants and in generally assisting local facilities. Similarly, governmental agencies are involved in this effort to provide restorative and preventive oral health care to a particularly susceptible sector of the "people we serve."

Dentists have rallied to this cause with commendable devotion serving on institutional staffs, in mobile units, as well as in individual offices, dispensing care to a group of people who were for so long neglected. Nor has the era of house calls passed entirely into limbo, for dentists have developed portable equipment designed to treat patients confined to bed at home.

As preventive programs become more and more effective, and the field of dental care is diminished, practitioners would do well to explore and prepare themselves to serve in such hitherto neglected areas.

Dental practitioners have proverbially been noted for the ingenuity, the creativity with which they have developed procedures, materials and instruments for the treatment of the variety of health afflictions to which the human organism is heir. Nowhere has the challenge been more stringent than in the care of people with mental or physical limitations. Here again dentists are responding with characteristic ingenuity as patients learn to practice good oral hygiene using devices specifically designed for patients with limited capacities. Almost each variety of the dental procedures which have brought American dentistry into world predominance is now available to the handicapped. It remains for this beneficent care to be extended to wherever it is needed. This is a cause to which dentistry is rallying in a manner of which it may well be proud.

^{*}Bernard P. Tillis, DDS, Editor of the Journal, New York State Dental Society.

Gies Award 2nd Runner-Up Editorial for 1985

COMMUNITY DENTISTRY: ITS ROLE IN ORAL HEALTH CARE

Bernard P. Tillis*

Dentists have been wont to preen their organizational plumage as they contemplate the effects of the preventive dentistry regimes this profession has sponsored from the days of its earliest beginning to the challenging present. Indeed, preventive programs have proven so efficient that some of the brethren, as they are subjected to the pressures of a disheveled economy, have looked somewhat ruefully upon the diminishing caries index.

Spurred by dental advocates, the doctrines of good oral hygiene have been adopted all over the civilized world. The toothbrush, under the tutelage of dentists—and to give them their due, the purveyors of toothpastes—has become the hallmark of modern civilization wherever the enlightenment has been allowed to flourish. As a result untold millions have been spared some of the deprivations that result from oral diseases.

By similar tokens, this profession's espousal of the fluoridation of water supplies, despite the distorting remonstrations of a questionably motivated opposition, is significantly reducing the incidence of caries in countries extending from the Scandinavian Arctic to the Cape of Good Hope.

All of this activity, including the preachments of diet modifications, have come in large part under the heading of *Community Dentistry*, an aspect of dental care which undertakes to study the epidemiology of oral disease and its prevention. It gathers demographic information from which evaluations of population needs as well as the results of preventive procedure can be evaluated. Community dentistry is involved with the biostatistics vital to an understanding of what, in terms of oral health, is occurring in a population. Such study influences the trends of future preventive programs.

Thus we have an aspect of dental lore concerned with populations rather than the individual. Its mission, among other things, includes helping the poor, the elderly, the underprivileged, and providing access to oral health care where it is needed. In this regard community dentistry became concerned with underserved areas where dentists are needed whether they are private practitioners or employed by government.

The expertise developed has afforded scientific substantiation to the long held philosophy that the most effective health care is preventive care; that investment in terms of prevention and early restoration inevitably provide dividends for its beneficiaries in the avoidance of pain and expense.

Implementing these philosophies, community dentistry is engaged in encouraging and performing research aimed at extending the preventive armamentarium in government agencies, in hospitals, in universities and in industry. Every aspect of oral health advancement has invoked this preoccupation to a point where the old dental saw which insists that preventive dentistry is contrived to "put the dentist out of business" conveys more than a modicum of truth.

Yet, to comfort our aforementioned "rueful brethren," the doubtful possibility that dentists will find it practical to provide such effective preventive care to a hitherto reluctant public and eliminate the need for continuous oral health care seems an unlikely Utopian contingency. The disposition of Man, his vulnerability and his penchant for succumbing to nature's destructive elaborations, seem destined to insure the profession's indispensibility. In addition, it may well be that there can be no more inspirational, more noble destiny for a profession than striving for the relief of pain and disease so rampant in the community. So much for the current "busyness lapse!"

Dental savants on every hand are predicting changes of all kinds in the practice of dentistry. It seems to this "cockeyed optimist" that dentists will be following the guidance being provided by community dentistry protagonists; that they, as never before, will take up the banner of prevention so vital to an evolving society and will always continue to be an indispensible part of the community's health care service.

^{*}Bernard P. Tillis, DDS, Editor of the Journal, New York State Dental Society.

NEWS OF FELLOWS



Ralph V. McKinney, Jr., Colonel, USAR, has been awarded the Meritorious Service Medal with Fourth Oak Leak Cluster for his exceptional service as Commander of the 382nd Field Hospital and the U.S. Army Reserve Center, Augusta, Georgia. In civilian life, Colonel McKinney is Professor and Chairman of the Department of Oral Pathology at the Medical College of the Georgia School of Dentistry.

Arthur W. George of Pittsburgh, PA received the Distinguished Alumni Award of the University of Pittsburgh School of Dental Medicine. Dr. George has had a distinguished career as a practitioner, educator and as a participant in dental affairs. At present, he is Associate Dean Emeritus and continues to be very active in the administration of the school.

N. Sue Seale of Dallas has been appointed professor and chairman



James W. Smudski, Dean of the University of Pittsburgh School of Dental Medicine, left, presents the school's Distinguished Alumni Award to Arthur W. George, right, who is the Associate Dean Emeritus.

of the Department of Pediatric Dentistry at Baylor College of Dentistry. Dr. Seale has conducted numerous dental research projects and her work has been published in professional journals.

Theodore K. Lee of Oakland, CA was recently named president of the 3400 member Alumni Association of the University of the Pacific (UOP) School of Dentistry in San Francisco. Dr. Lee is a member of the Oakland Chinese Community Center and has the distinction of being the first Chinese to serve on an Oakland City Commission.

Jay F. Watson of Los Angeles has been appointed Associate Dean for Clinical Affairs at the UCLA



Theodore K. Lee

School of Dentistry. He previously served as Chairman of the UCLA Section of Operative Dentistry.

Arthur A. Dugoni, Dean of the University of the Pacific (UOP) School of Dentistry in San Francisco has completed his term as President of the American Board of Orthodontics. This Board is recognized by the ADA as the only certifying board in orthodontics. Dr. Dugoni was recently honored by the California Dental Association when the four-day Anaheim Meeting was dedicated to him in appreciation of his continuing achievements on behalf of the dental profession. He is a member of the ADA Board of Trustees, representing the state of California.



Ralph V. McKinney, Jr.



N. Sue Seale



Arthur A. Dugoni, left, Dean of the University of the Pacific School of Dentistry, receives a plaque commemorating the dedication of the 1986 Spring Scientific Session of the California Dental Association in his honor. Presenting the plaque is Harold S. Harada, CDA President, right.



Upper Midwest

The Upper Midwest Section continues to support the project at the University of Minnesota School of Dentistry on, "Ethics and Professional and Moral Reasoning." Fellows of the Section are actively participating in this program. The project director is Dr. Muriel J. Bebeau who recently accepted a check for \$1500. from the Section to be used on the project.



At the Upper Midwest Section Meeting, Dr. Muriel J. Bebeau, left, accepts a \$1500. check from the Section to help support the University of Minnesota School of Dentistry Ethics project. Presenting the contribution is Section Chairman Anna T. Hampel, right.

Carolinas

The Carolinas Section heard Dr. Christopher C. Fordham, III, Chancellor of the University of North Carolina, give a challenging presentation "Ethics and professionalism in these changing times. Dr. Fordham was presented a recognition plaque by ACD Regent James



Pictured at the Carolinas Section Meeting are, left to right, Section Chairman William A. Mynatt, University of North Carolina Chancellor Dr. Christopher C. Fordham, III, ACD Regent James Harrell, Sr., and ADA Trustee Lewis S. Earle.

Harrell, Sr. for his high ideals of professionalism and for his continued support for dentistry.

Section Chairman William A. Mynatt recognized Lewis S. Earle who is Chairman of the Florida Section and the Fifth District Trustee for the American Dental Association. Also recognized was ACD Regent James Harrell, Sr., who is 2nd Vice President for the American Dental Association.

Montana

The Section met at Great Falls. It was decided that the ACD Booklet, "Dentistry—a Health Service," along with a cover letter, would be sent to all dentists in Montana District 1. The 11th District Trustee for the American Dental Association, Dr. Geraldine Morrow, attended the meeting. The entire Section officer slate was re-elected.



The Western Pennsylvania Section presented its ACD Outstanding Student Award to Richard J. Doerfler, a 1986 graduate of the University of Pittsburgh School of Dental Medicine. Pictured, left to right, are ACD President Norman J. Olsen, Richard Doerfler, ACD Regent Joseph P. Cappuccio and Section Chairman Joel B. Freedman.



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