SECTION NEWS

Texas Section

The Texas Section meeting this spring will be in El Paso on April 21, preceding the opening of the annual session to the Texas Dental Association. Vice-president John Wilbanks is already coordinating plans for the program.

At the 1976 business session of the Texas Section, we contributed $500.00 to the Foundation of the American College of Dentists in honor of Dr. Ralph Boelsche, a founder of this Foundation. A donation of $100.00 was made to the Texas Foundation for Dental Health and Education in memory of Texas Fellows who have passed away this year. Also, the Texas Section will furnish a plaque to each of the Texas dental schools, to be presented to a Senior student who demonstrates "Outstanding Leadership", as chosen by the Fellows on the faculty.

The following officers were elected for 1976-1977: J. Ross Woodul, president; John Wilson, president-elect; John Wilbanks, vice-president; and Robert E. Lamb, secretary-treasurer.

District of Columbia Section

The Washington, D.C. Section of the American College of Dentists met on January 19, 1977, at the Sir Walter Raleigh Inn. Chairman Israel Shulman introduced new members Stanley Milobsky, Mildred Romans, and Ernest Hardway II, as well as several guests. After reports on the mini-self assessment tests, project library, and the senior student project, it was decided to sponsor an all day program each year for Howard and Georgetown dental students.

Tribute was paid to Fellow Pat Murto, retiring dean of the dental school at Georgetown University. Program chairman Joe Salcetti introduced Dr. David B. Scott, Director of the National Institute of Dental Research, who spoke on "Frontiers of Dental Research".
New Jersey Section

The New Jersey Section met on October 28, 1976 at the Ramada Inn, Clark, New Jersey. Chairman Jacob Oxman presided. The speaker of the evening was Dr. Stanley S. Bergen, Jr., president of the College of Medicine and Dentistry of New Jersey, who talked about the past, present, and future of this institution. He discussed the problems that face dental and medical education today, and the direction being taken to solve them.

A question and answer period followed.

New York Section

The New York Section of the American College of Dentists held a meeting in conjunction with the Greater New York meeting on November 29th, 1976 under the chairmanship of Dr. Barry Symons.

Eighty fellows and guests as well as new members were greeted by Regent Charles A. Calder. Harry Schwartz, Assistant Editor of the New York Times and a specialist on Soviet Affairs presented a most interesting and stimulating talk on the "Future of American Foreign Policy". He also answered questions from the audience.

NEWS OF FELLOWS

The Jarvie-Burkhart Award, the highest honor of the Dental Society of the State of New York, will be presented to Robert J. Nelsen on May 13 during the annual meeting at the Playboy Resort and Country Club in McAfee, New Jersey.

"Take Time For Travel" is the title of a book published recently by the Berea College Press. Its author is Russell I. Todd of Richmond, Kentucky.

James V. Bibbo of Bradford, New Hampshire has been elected to the New Hampshire state legislature, representing Merrimack County.

Evelyn Strange, a clinical associate in pedodontics at the University of Oregon Health Science Center's School of Dentistry, has been elected treasurer of the Association of American Women Dentists.

The University of Illinois Alumni Association presented its "Loyalty Award" to Rodney E. Sippy of LaGrange, Illinois at its Dental Homecoming. Dr. Sippy served as president of the Alumni Association in 1974-75 and is also president-elect of the West Suburban branch of the Chicago Dental Society.
the JOURNAL of the
AMERICAN COLLEGE
of DENTISTS

A QUARTERLY PRESENTING IDEAS IN DENTISTRY

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Regent Odin M. Langsjoen

Odin M. Langsjoen of Duluth, Minnesota has been elected to the Board of Regents of the College, to represent Regency five. He saw service in World War II as a Lieutenant junior grade in the United States Naval Reserve in the Pacific Theatre. Assigned to USS LCI 775 as Executive Officer, he was awarded the Purple Heart for wounds received in the battle for Okinawa.

Following the war, he enrolled at the University of Minnesota School of Dentistry, graduating with honors in 1950. He saw service again during the Korean conflict as a Captain in the Dental Corps of the U.S. Army, assigned to the prosthodontic service at Fort Leonard Wood, Missouri.

Dr. Langsjoen was in private practice for sixteen years in St. Paul and St. Cloud, Minnesota, before returning to his alma mater as assistant professor of oral anatomy. Since 1971 he has been director of the dental hygiene program and associate professor of dentistry at the Duluth branch of the University of Minnesota.

He has been president of the St. Cloud Dental Society and the Minnesota Dental Association, member of the executive councils of both the Minneapolis District Dental Society and the Duluth District Dental Society, and served for three years as a delegate to the American Dental Association. He is also a consultant to the ADA Council on Dental Education.

He has presented table clinics and lectures to a number of local, state, and national dental groups, and is the co-author of a text book on dental anatomy. He is a former member of the Minnesota State Board of Health, and currently serves on the dental staff of the Miller-Dwan Hospital in Duluth.
The Decline of Ethical Standards

There has been an increasing concern over the apparent decline of ethical standards in many aspects of American life. The legal profession, government, business, education and journalism, as well as the health professions have all come in for their share of criticism.

While the shortcomings of other groups are well documented and need no repetition here, a look at the health professions, particularly dentistry, may be appropriate. Some rather strong charges have been brought against the professions. Ignorance, greed and lack of interest in the patient are common accusations. Costs are too high, say the critics; and the professions protect their incompetents. Statements that contradict these charges are disregarded as representing the voice of the "establishment." This lack of confidence, this suspicion is clearly evident in the difficulties that are encountered in convincing the public of the benefits of public health measures such as water fluoridation and other disease-preventive measures. A lack of trust is further manifest in the increasing number of suits for malpractice that are presently taking place. Despite the development of peer review mechanisms (which are often thought of by the public as peer justification devices), despite the efforts being made to improve the public image of dentists, the profession has a long way to go to regain the esteem it once enjoyed.

Essentially, the fault may lie in the fact that as methods are found to improve care, through the use of faster and more productive methods, including the use of auxiliaries to provide many of the services previously rendered by the dentist, there has been a weakening, a strain placed on the interpersonal relationship between dentist and patient. A diminution of trust and confidence is bound to occur when the patient is treated as a "case", rushed through the treatment, with no time to express his thoughts and feelings to the busy practitioner, who often may have no regard for him as an individual.
So while the people of our country are receiving dental treatment that is perhaps the best in the world, the regard for the dentist, has fallen because of the recognition that some dentists are motivated, not by the true spirit of the professional who asks “How can I help you?” but by the commercial attitude of the merchant of dentistry who asks “What's in it for me?”

The American Dental Association has recognized the problems faced by the profession and is spending large sums of money on its Public Education Program, which is designed to show the benefits to be obtained through maintaining the traditional private practice fee-for-service method of dental care. But this program, however well meant, may not be completely effective unless there is a companion effort on the part of the profession to upgrade its ethical standards and make its peer review efforts meaningful by removing from its midst those practitioners who willfully and repeatedly violate its principles of ethics.

Psychologists tell us that a person's moral and ethical character is formed before maturity. Many factors contribute to such development — family background, economic circumstances, educational, social and religious influences — all these and more help to shape the character of an individual. Listening to some lectures on ethics while in dental school may have a beneficial effect, but a greater influence is that provided by someone in the profession — a family dentist, a dental school teacher — who the student looks up to and respects and admires. Call it “hero worship” if you will, but it plays a large part in character development. Unfortunately, in today's world, the hero has gone out of fashion and the anti-hero has taken his place. But the anti-hero has no place in dentistry, for he inspires no trust and confidence, no willingness on the part of the patient to allow him to assume responsibility for any type of health care.

Patients look up to their dentist for help, advice, support, encouragement, kindness and sympathy, as well as treatment. Each dentist should act as though the entire future of the profession rests upon his shoulders, for in truth it does.

RIK
Departments of Community Dentistry — Are They a Threat to the Dental Profession?

H. BARRY WALDMAN, D.D.S., Ph.D., M.P.H.

Each year, schools of dentistry in this country deliver more than 5,000 dentists to the profession; some eager for traditional private practice, others more willing to explore the realm of hospital residencies, specialty training, research positions, practice associations, and a veritable plethora of opportunities which only a few short years ago were nonexistent. As these young men and women join the profession they gradually modify it with their particular views on problems that long have concerned the practicing dentist. No doubt there are many practitioners who are concerned with these perspectives and the subsequent effects that these “dental upstarts” may have upon the practice of dentistry.

Ours is an era of growing pressures upon all the health professions. We somehow must respond to the needs and demands of the public for increased accessibility to reasonably priced quality health services. There are increasing threats of government and other third party supervision and takeover. Expanded duty auxiliaries and denturists menace the very essence of our profession. Compounding these problems is the possibility that the recent graduate, in some idealistic, post-hypnotic, ivory-tower state, may be unable to properly evaluate all these demands for change and their inherent potential dangers for the dental profession and the public.

In addition, there is a growing concern regarding the clinical capabilities of these new graduates. During the past two decades there have been many changes in dental curricula — from the shortening of the overall programs to the addition of nonclinical activities.

Professor and Chairman, Department of Dental Health, School of Dental Medicine, State University of New York at Stony Brook, Stony Brook, New York 11794.
Yet, no matter how intense are these concerns for the specifics of these curricula modifications, there is far more apprehension over the general philosophic orientation of the educational environment and the attitudes of the dental educators themselves. The concern has been in terms of the effect that these philosophic changes may have on the neophyte practitioner and his perceptual orientation to the changing pressures upon the dental profession.

For example, the editor of the Journal of the American Dental Association (JADA) commented recently that there are "'progressive' dental educators who appear to regard clinical dentistry as more craftsmanship than scholarship." He continued with the thought that, "... 'creeping liberalism' in dental education... has resulted in a drastic swing away from emphasis on clinical training." Another dentist, upon assuming the presidency of the New York Academy of Dentistry, commented on this change in emphasis and asked, "Do we feel that clinical exposure should be sacrificed for didactic courses such as community dentistry and nutrition?"

This deemphasis in clinical education, according to the editor of the JADA, began in the late 1950s or early 1960s when the U.S. Public Health Service (PHS) effectively excluded financial support for clinical dentistry. During this same period, the PHS has been emphasizing programs in behavioral sciences, community dentistry, and extra-mural service programs.

This general concern regarding the variety of forces intervening in the curricula of dental schools was voiced by the Indiana Dental Association delegation to the 1974 ADA annual meeting. The delegation called for a thorough evaluation of dental school curricula throughout the country to ensure adequate attention to "total patient care" in the clinical areas. The Association responded to this call with a two year study of all dental schools in the United States which included a thorough appraisal of student instruction and clinical experience.

It is difficult to document in the recorded proceedings of the Association whether the general atmosphere of concern for the influence of "progressive dental educators" was a factor in this decision to review dental education programs. However, some insight on the views within the Association at that time may be found in the 1972 remarks at various speaking engagements by officials of the ADA. The speakers alluded to the "socialist tendencies" of the administrative officials of some dental schools. The breakdown in communication between the ADA and
the American Association of Dental Schools was supposedly the fault of the "tendencies."  
One could continue to ruminate upon the various real and imagined explanations for the changing relations between the organs and institutions of the profession, or between younger and older practitioners. However, it would seem to be of much more value to consider available information which might cast some light upon the dental school environment, the possible changing attitudes and abilities of dental students, and the particular impact of departments of community dentistry upon the dental school scene.

THE DENTAL STUDENT

It has become virtually a tradition, when introducing the subject of dental student motivation and characteristics in any paper, to refer to the works of a small number of sociologists and psychologists who studied the dental student during the late 1950s and early 1960s. The composite "average" dental student and eventual practitioner developed by these investigators was that of a male, caucasian, who was described as being conforming, unconsciously aggressive, persistent, methodical, somewhat rigid, inflexible, with motives of upward mobility and financial betterment. In addition, More, in his study of freshmen dental students in the late 1950s, noted that any campaign to enlist applicants in the study of dentistry could not ignore symbolic or even direct appeals to the possible applicant's desire for social status and occupational prestige, financial improvement and security. And further, one would need to stress the opportunity to make creative use of manual talent, while providing a genuinely needed service to mankind.

An extensive literature exists regarding the admission policies, procedures, and particular concerns during this period. In general, the reports in the literature of this period regard the student selection process in terms of selecting students who most likely would perform best in the dental school environment. Only a few comments are made in terms of considering the selection system and its possible effects upon the outlook of the profession. Young commented that, "admission policies of the schools [of dentistry], and probably the aptitude tests, tend to encourage [a] limitation of interests and to favor those students with a narrow range of interests." Mann, writing in the "Survey of Dentistry,"
reported that the applicant's predental scholastic average and his grades in required courses were assigned most weight in the selection process; followed by the individual's performance on the dental admission test. And finally, commenting on the emphasis in the selection process, Nedelsky\textsuperscript{18} warned that the requirements for entrance to schools of dentistry effectively prevented students from obtaining a liberal pre-doctoral education.

As the decade of the 1960s drew to a close, and in response to the changing social times, the American Dental Association moved to broaden the backgrounds of entering dental students. At the 1970 ADA convention, the House of Delegates modified the minimum requirement statement for admission to schools of dentistry and permitted each school to adopt its own minimums beyond the general requirement of at least two years of education at an accredited college of liberal arts and sciences.\textsuperscript{19}

It is probably too soon to perceive the full impact of this change since most schools of dentistry still adhere to the same general requirements established in previous years.\textsuperscript{20} In general though, the latest admission requirements by most schools encourage applicants to broaden their undergraduate educational experiences while listing a litany of physical and biological science requirements.

Writing in the early 1970s, Waldman\textsuperscript{21} reported on a study to interest non-predental college students in the study of dentistry. Aside from drastically altering the educational process for dental students, the delivery modality of dental services, the working environment of dental practice, and a whole host of other related factors, few if any of the respondents would be attracted to what they saw as a rather limiting professional experience.

The nationwide studies of dental students carried out in the early 1960s have not been repeated in this decade. Nevertheless, a series of studies of students at individual and paired schools has been carried out in the 1970s to determine the personal values and interests of students entering the profession. Witteman and Currier\textsuperscript{22} reported that the dental students and private practitioners they interviewed expressed their motivation in terms of nonmonetary factors; "'freedom to carry out one's ideas' and 'to develop to one's full potential.'" Earning a good salary is a priority, but so is growth in new knowledge and skills.

Silberman\textsuperscript{23}, in his report of first year students at four schools of dentistry, noted that aesthetic personal values were rated higher than social and economic factors. Fourth year students specified
aesthetic, then economic, and finally social factors in their preferential ratings.

Sherlock and Morris\textsuperscript{24}, in their longitudinal study of dental students in the late 1960s, reported that recruitment to dentistry was more a matter of status mobility with concern for financial security. And finally Waldman\textsuperscript{25}, in 1973, summarized taped interviews with the first class of students at a new dental school with the following commentary. They “had fixed views about individual practice, desires for money and status, a distrust of governmental intervention in the health care system, a willingness to explore the profession before making final decisions, but nevertheless rather specific views of the need for and willingness to provide health services for the lower socioeconomic classes at some ‘clinic setting’ while providing care for other patients in private offices.”

In summary, the reports in the literature record a consistency during the past 15 to 20 years in the motives and values of many of the students entering dental schools. It should be noted that such a finding is contrary to the studies by Funkstein\textsuperscript{26}, a long-time commentator on medical student admission concerns. He had reported marked shifts in the values held by entering medical students, which he held to be more a reflection of social changes than education experiences. Yet, Witteman and Currier\textsuperscript{27} conclude, in their review of the individuals selected for admission to schools of dentistry, that “the similarity of motives [of dental student and practitioners] should ease the minds of practitioners who believe that contemporary dental students have perceptions of the profession radically different from theirs.” If these findings are correct, then the specific concern regarding the potential “threat” of departments of community dentistry to the dental profession would be with their ability to somehow reorient these students, while in dental school, to attitudes and perceptions different from those of current practitioners.

THE DENTAL SCHOOL EXPERIENCE

Socialization, the process by which a culture is transmitted and individuals are fitted into an organized way of life, is life-long. The process of professional socialization is a complex interchange between the individual to be socialized, the methodology used to socialize him, and the goals of the process. Socialization is not only that which the individual must absorb, but it is also the impact of the process itself.
While much exists in the medical literature relative to the transformation of the medical student, only limited attention has been paid to the process in dental school. Earlier works by More and O'Shea et al. describe the dental school process as a deliberate attempt to subordinate the student and have him undergo a trial by ordeal. More recent works by Moody et al., Di Marco and Pearlmutter, and Morris and Sherlock describe the changing attitudes of students as they pass through the dental school experience in terms of decreased humanitarianism and commitment and increased cynicism and Machiavellianism.

The development of departments of community dentistry (known in some schools as departments of community and preventive dentistry, ecological dentistry, dental health, social and behavioral sciences) was both in response to these realities of dental education and awareness by the profession of social changes in our society. They were established to “assume primary responsibility for curriculum development, teaching and research in those areas of dental education which contribute most directly to the social maturation and evolving professional philosophy of the student.” It was hoped that these efforts could join all departments more effectively for the basic common objective of producing graduates who are “well rounded, socially motivated, and professionally competent citizens.” In essence, departments of community dentistry were assigned the task of transforming the “conservative, conforming, unconsciously aggressive, persistent, and somewhat rigid or inflexible student, motivated to move upward and gain financial betterment” (described earlier) into a socially sensitive practitioner — one who is capable of understanding and contributing to the needs of a changing social environment.

At the outset, one should not categorically assume that any faculty member not within a department of community dentistry is either unwilling or unable to contribute significantly to this process. However, because of the traditional concern by other departments for technical abilities and basic science knowledge, limited attention was directed by other departments to these particular areas.

In the early days of activities by departments of community dentistry, the primary concern was with getting adequate time in the dental curriculum to simply get some of these “new” ideas across. For example, it was not until the late 1960s that approximately 200 hours of teaching time (about five percent of
the curriculum) was allocated in dental schools for subjects of direct or indirect concern to departments of community dentistry. (See Table I) However, most often these hours were concentrated in the fourth year when most students primarily were concerned with final clinical requirements and state board examinations.

As departments matured and a greater appreciation for a more realistic role within the dental school evolved, it became obvious that the teaching program had to have more relevancy for the probably future private practice role to which most students aspired. For example: there was increased emphasis in the behavioral sciences — the improvement of the one-to-one doctor/patient relationship — rather than merely visiting clinics for indigent patients to get to understand "them;" as well as increased attention to the problems of medicaid, PSROs, national health insurance, and national health services corps practice in underserved areas.

Yet, despite these efforts to ensure their relevancy to would-be private practitioners, departments of community dentistry have had to deal with continued opposition from the profession in general and fellow faculty members in particular. The general perception that departments of community dentistry are somehow

### TABLE I.

The recommended and actual operational percent of dental curricula time during selected periods allocated for subjects directly related to departments of community dentistry.

<table>
<thead>
<tr>
<th>Public Health and Hygiene</th>
<th>Recommended</th>
<th>In Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>History, ethics, practice administration, jurisprudence, technical composition</td>
<td>1.83 1.00</td>
<td>0.54 0.35</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>4.99 3.87</td>
<td>1.86 1.62 5.00</td>
</tr>
</tbody>
</table>
the advance guard of some form of government takeover of the profession can and does reach the dental student by way of articles in professional journals and dental society commentaries. But of much more significance is the general climate of opposition and resentment experienced by departments of community dentistry from colleagues in other departments within the school. There is a general unwillingness to relinquish curriculum time to innovations in the educational experience which do not lend themselves to measurable improvements in technical performance and basic science knowledge — both of which are measured on state and national board examinations. This general atmosphere of opposition, together with a limited ability by departments of community dentistry to demonstrate technical feats which obviously can be translated into financial rewards (e.g., cast crowns, fillings and dentures) are rapidly translated by dental students into an ordering of priorities which limit their attention to the activities of departments of community dentistry.

I doubt that there are many educators, regardless of their teaching prowess, who could overcome the all but impossible situation of, (1) limited teaching hours, (2) opposition and lack of interest by other faculty members, and (3) student values which may well be at odds with those of the instructor, and still make significant long-term modifications in underlying student philosophic orientations. Personally, I cannot help but smile when I hear of the supposed power that departments of community dentistry possess and are somehow able to significantly alter the attitudes of the neophyte practitioners. I believe these commentators have too little respect for the strength of conviction of these students, too little understanding of the long-standing views of faculty members of the more traditional clinical and basic science departments, and too much imagination regarding the teaching abilities of instructors in departments of community dentistry. One could wish he was that good a teacher, with enough charisma to virtually single-handedly effect philosophic changes in men and women in their mid-twenties!

What is more amazing (and which attests to the diversity and strength of our profession) is that schools of dentistry are able to attract competent and knowledgeable individuals willing to teach in such an environment. Regretfully, there has been only limited research into the background and motivation of the individuals attracted to these positions. Surely, more study is in order.
STUDENT PERFORMANCE

While one could argue that departments of community dentistry have limited impact upon the motivational orientation of dental students, nevertheless, the contention still remains that the cumulative effect of the many modifications of the dental curriculum has an adverse effect upon the student's clinical performance.

Regrettably, there are few measurements available for the profession to determine the validity of these accusations, other than the performance on state board examinations. However, the results of these licensing examinations during the past 25 years indicate little change in the failure rate on these state board examinations by recent graduates. (See Table II) Surely, if there was a significant reduction in the capabilities of recent graduates, it

<table>
<thead>
<tr>
<th>Year</th>
<th>Passed</th>
<th>Failed</th>
<th>Percent Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>3,112</td>
<td>264</td>
<td>7.81</td>
</tr>
<tr>
<td>1960</td>
<td>3,749</td>
<td>374</td>
<td>9.07</td>
</tr>
<tr>
<td>1965</td>
<td>3,621</td>
<td>400</td>
<td>9.94</td>
</tr>
<tr>
<td>1966</td>
<td>3,660</td>
<td>373</td>
<td>9.24</td>
</tr>
<tr>
<td>1967</td>
<td>3,814</td>
<td>483</td>
<td>11.24</td>
</tr>
<tr>
<td>1968</td>
<td>3,911</td>
<td>371</td>
<td>8.66</td>
</tr>
<tr>
<td>1969</td>
<td>3,537</td>
<td>310</td>
<td>8.05</td>
</tr>
<tr>
<td>1970</td>
<td>3,360</td>
<td>343</td>
<td>9.26</td>
</tr>
<tr>
<td>1971</td>
<td>3,455</td>
<td>331</td>
<td>8.74</td>
</tr>
<tr>
<td>1972*</td>
<td>3,673</td>
<td>335</td>
<td>8.35**</td>
</tr>
<tr>
<td>1973</td>
<td>3,383</td>
<td>375</td>
<td>9.97**</td>
</tr>
<tr>
<td>1974</td>
<td>4,162</td>
<td>500</td>
<td>10.72**</td>
</tr>
<tr>
<td>1975</td>
<td>4,424</td>
<td>403</td>
<td>8.34**</td>
</tr>
</tbody>
</table>

*First year of regional board examinations.

**Does not include results of Northeast Regional Board and Central Regional Dental Testing Service examinations for examinees not identified as licensed by a state board of dentistry.
Results on licensure examinations by recent graduates, including regional board examinations.

<table>
<thead>
<tr>
<th>Year</th>
<th>Passed</th>
<th>Failed</th>
<th>Percent Failed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>4,344</td>
<td>385</td>
<td>8.14</td>
</tr>
<tr>
<td>1973</td>
<td>4,453</td>
<td>523</td>
<td>10.57</td>
</tr>
<tr>
<td>1974</td>
<td>4,956</td>
<td>657</td>
<td>11.70</td>
</tr>
<tr>
<td>1975</td>
<td>5,372</td>
<td>678</td>
<td>11.20</td>
</tr>
</tbody>
</table>

would show up at the time of the licensing examination. It is at this point in time when the results of the educational experience are most evident, rather than at a time long after graduation when the years of practice experience would tend to minimize the alleged differences in educational preparedness.

CONCLUSIONS

If there is a “similarity of motives and perceptions between dental students and practitioners;” if departments of community dentistry have limited capacity to “turn students around;” and if there are no demonstrable changes in dental graduate technical capabilities, what then is the “threat” of departments of community dentistry to the profession? No doubt it is the incidious long-term effects that the members of these departments may have upon the dental profession.

Yes, the gradual, almost imperceptible changes someday will effect significant alterations in the profession that many of us entered those long years ago.

And why not? Will a static profession remain a viable commodity in a changing society? Are we not better off with these gradual modifications which ensure the future of dentistry, or do you think so little of the fiber of our profession that it could not survive in an altered arena? Remember, most members of departments of community dentistry ARE DENTISTS. Do you believe that we would set out to destroy OUR profession?

Custom becomes a master, and custom can become a tyrant. Custom survives the circumstances which give it birth, and because the retention of it is based on sentiment, it is not amenable to the assaults of reason.49
REFERENCES AND NOTES

3. ADA Transactions, 1974; p. 236.
4. Personal communications with members of the audience at these presentations.
19. Prior to this period, each successful applicant to a school of dentistry required at least one full year of credit in English, biology, physics, and inorganic chemistry and one half year's credit in organic chemistry. Admissions Requirements of American Dental Schools: 1968-69. Chicago, American Association of Dental Schools, 1968. 148 p.
27. Witteman and Currier, op. cit.
33. Sherlock, B.J. and Morris, R.T., op. cit.


40. Represents actual figure for curriculum time at the School of Dental Medicine at Stony Brook. Figure also represents probable findings for current ADA study in progress of curricula in dental schools. Personal communication with staff member of study.


42. It is not too difficult to find comments in the literature regarding the general attitudes of private practitioners toward public health dentists. For example:

   The ADA does not represent me in the minority. I am opposed to public health, federally employed and teaching dentists having any votes at level in the Association.
   — Letters from our readers. Le Baron, J.H. Dental Economics, 63:12, January 1973

   The most ardent advocates of expansion (increased duties of dental auxiliaries) are faculty men, public health officials, and administrators who rarely, if ever, get their fingers wet.

43. Student representatives from our institution have been approached by representatives of the local dental society, expressing concern over the influence that the Department of Dental Health has had on their education. Personal communication with students involved.

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In keeping with the bicentennial anniversary of the United States, let us briefly consider what dentistry was like two hundred years ago. I would like to quote from a treatise written by a French physician named Pierre Fauchard and the name of the book is “Le Chirurgien Dentiste” (The Surgeon Dentist). This was the most complete text on dentistry available in America at the time of the signing of the Declaration of Independence. Fauchard, who is often thought of as the father of modern dentistry, wrote:

“Although surgery in general has been much improved in these modern times, although important discoveries in anatomy and operative procedures have been made, and although a quantity of scholarly and careful observations have been published, nevertheless, dentists still do not find in them nearly enough help to guide them in their operations.

Furthermore, there is no public or private course in surgery where the theory of diseases of the teeth is fully taught and where one can learn thoroughly the practice of that art so necessary to the cure of these diseases, and of those which occur in the neighboring parts.

The most celebrated surgeons, having abandoned this part of the art, or at least having little cultivated it, their negligence has allowed persons without theory and without experience to take it over and to practice it at random, without principles or methods.”

Presented at the meeting of the Tri State Section of the American College of Dentists, Memphis, Tennessee, February 28, 1976. Dr. Rovelstad, a former Regent of the College, is Assistant Dean for Educational Programs, University of Mississippi College of Dentistry, Jackson, Miss.
It is obvious that there was a lack of dental literature, a lack of systematic instruction, and a lack of adequate regulation. In fact dentistry as we know it today in the United States did not exist at the time of the country's founding.

Dentistry developed initially as a profession in the United States almost three quarters of a century later when the first independent and privately owned dental college in the world was chartered, (Baltimore College of Dental Surgery began its first class of instruction on November 3, 1840), the first dental society in the world with national character was founded (The American Society of Dental Surgeons in 1840, the first periodical in the world devoted to dentistry was begun (The American Journal of Dental Science in 1839) and the first regulatory bodies were set up. (Alabama 1841 and Ohio, Kentucky and New York, 1868).

The first dental school had a faculty of four men who placed the degree of M.D. after their names. Horace Hayden, president of the College, possessed an honorary medical degree. Chapin Harris, dean of the faculty is not known to have been graduated from any medical school and the source of his M.D. has never been accounted for. The custom was often by preceptorship and these were not recorded. The two remaining members of the faculty were young physicians who did not practice dentistry.

The first College of Dental Surgery was empowered to confer the degree Doctor of Dental Surgery to its graduates and did so for the first time on two who graduated on March 9, 1841, little more than five months after opening the school. It was not until five years later that the course of instruction included any clinical experiences.

Chapin Harris, insofar as his vision and aims in dental organization, dental education, and dental literature were concerned, was in many ways comparable to Fauchard one hundred years earlier. His "Principles and Practices of Dental Surgery", initially "Dental Art", became the standard American textbook of dentistry. It appeared in seven editions in the author's lifetime and reached a 13th edition by 1912. Harris also wrote the first dental dictionary.

Thus the establishment of dentistry as a profession began in the United States, perhaps stimulated by a Frenchman whose only known professional training came while he was apprenticed to a ship's surgeon in the King's Navy and later privately with his master in retirement from service. There is no documentary evidence that Fauchard ever completed his surgical studies in a regular way or that he was a surgeon admitted to the Fraternity of
St. Como, although he considered himself a Chirurgien Dentiste. G. V. Black is probably the real father of modern dentistry. Black, a self-educated and self-trained dentist, entered practice at the age of 21 with such education and training as he was able to pick up in his own way and with whatever help a good family background and a brother physician could give him. He took the first board examination in medicine whenever it came along and passed. He was made dean of Northwestern University school of Dentistry, where he served until his death in 1915. His son, Dr. Arthur Black, also later to become dean of Northwestern University School of Dentistry, and was one of four men who conceived the idea and organized the American College of Dentists.

The object of the College as originally adopted was to elevate the standards of dentistry to encourage graduate study, and to grant fellowship to those who have done meritorious work. The founders were deeply concerned about the problems facing the profession. Dental education was attempting to reorganize its curriculum for better teaching, the Dental Education Council was active in setting up standards for the classification of dental schools. The Flexner Report in Medical Education in 1910 had aroused all the professions to greater responsibility in their respective fields and dentistry particularly sensed its responsibilities. The advent of the focal infection theory in 1910 emphasized that vocational training was no longer sufficient for the dental student. Dental research was coming into its own with the Journal of Dental Research being founded in 1919. Commercialism dominated dental journalism as well as dental education. The Dental Educational Council of America in 1910 had undertaken a classification of dental schools. A survey of dental schools was imminent. A crisis was envisioned.

THE COLLEGE TODAY

The American College of Dentists has developed over the years to an organization devoted to the promotion of the highest ideals in health care, advancement of the standards and efficiency of dentistry, development of good human relations and understanding, and extending the benefits of dental health to the greatest number. This includes attention to research, education, literature, and delivery of service. These four areas identify the four Commissions of the College, formed under the new structure of the College.
As a Regent of the College, I have had the privilege of being party to the transition of the College from a centralized national organization to a sectional national organization with Regencies and Sections, and demands that Sections assume greater responsibility for College activities. Our Executive Director has been the prime mover in this change. Bob Nelsen is one of the rare individuals in dentistry today with firm convictions of professionalism in dentistry and the highest of standards in all of his endeavors. He has personally been involved in research, education, publication and dental practice. He is now providing leadership to the College in a dynamic way.

You may not be aware that the College has had a reorganization of its records, financial management, budget, bookkeeping, files, bylaws, methods of nomination of Fellows, methods for awards, even the location of the central office. These changes are matters that come with age. As dentistry has grown, so has the College. As the problems affecting dentistry and quality of dental care have arisen in the past, the College has responded. There was the workshop on the “Image of Dentistry” and another workshop on “Dental Manpower”. Committee activities have been varied, one of the earliest being the attack on proprietary journalism and commercialism. Now the focus at annual meetings is on “Alternatives for the delivery of health care”, recognizing that changes have occurred in the professions since the College was founded. The rapidity of the changes in the last few years has made response difficult.

One of the outstanding programs of the College was the “Institute for Advanced Education in Dental Research”. This Center for exchange of knowledge in the biological and physical sciences as related to dentistry provided continuing education to many dental investigators during the years of its activity, 1963 to 1974.

The programs of the College at the national level include the Self Assessment Program and its counterpart Mini-Self-Assessment, Project Library and Project Bookshelf. Additionally, the Foundation is a development that has a philanthropic approach to further study and exploration.

SOME PERSONAL THOUGHTS

I grew up in a professional family. My father was a dentist, a teacher of physiology at Northwestern, a general practitioner, and a very good one. He was highly regarded by all in the community;
dentists, physicians, attorneys, business men, community leaders, church leaders, teachers, tradesmen and service people. Patients used to come from all around Northern Illinois, Southern Wisconsin and even Northern Indiana, to see him. I never heard an unkind word spoken about him.

I had the privilege of sharing office space with him between the years 1945 and 1953. He taught me more about professionalism than any other person or organization. He taught me what it was to be a general practitioner. I was a specialist in pedodontics. He taught me the meaning of referral and the importance of recognizing one's limitations. He served his community in many ways. There were no governmental programs to meet dental health needs of the poor or handicapped. The Children's Dental Health Survey was conducted by the local dental society annually in all schools. Indigent children received needed dental care through a cooperative program of the dental society and the Junior Service Board. My father started both of these programs, although I didn't know it until years after his death. He set up a dental health program for the School of Nursing in the local hospital and taught dental subjects in the classes. He served organized dentistry locally. He was active on committees and served in all of the offices of the constituent and component dental societies of the area. He was truly a professional man and he believed in and practiced the philosophy of G. V. Black.

My first introduction into dentistry, other than for having my teeth cleaned and checked over, was when I was nine years old. I would stop by my father's office upon my return from the YMCA swimming classes and wait for a ride home. In doing so I would often have an hour or two to become familiar with the sounds, the smells, the activities and the people of a dental office. The dental assistant, or office girl, would sometimes take me into the laboratory and give me some red wax to play with. Many patients would give me a pat on the head as they passed by and ask the usual question, "are you going to follow in your father's footsteps?" My presumptuous answer was always, "I hope so", although career planning at ten years of age was not foremost of concern to me.

Sometimes my father took me down to the dental laboratory where he had his laboratory work done. Those were still vulcanite days. Hekalite was just being introduced but was too expensive to use. Harry Davidson, the lab man sculptured faces and animals for me out of red, black and pink wax and taught me to do the same. He told me many stories of his adventures in his homeland as a
dentist and also of his escape at the time of the invasion of barbarian guerillas. He also followed up on "the Father's footsteps" pitch.

Another relation to health care developed through my involvement in forensics. At age 13, while aspiring to be a debater, I became involved in the negative position on the National Forensic League assigned topic of Socialized Medicine. The girl who was later to become my wife was on the affirmative side. I developed files of material on why governmental intervention in the field of health care was bad! She developed files of material on why governmental intervention in the field of health care was necessary! From the amount of government involvement in health care today, someone must have been listening to her.

At the age of 16, I attended the Midwinter meeting of the Chicago Dental Society with my father, toured the exhibit halls and attended the Northwestern University Alumni Luncheon. Here I met his classmates and heard first hand stories of G. V. Black and his son, A. D., from those who were their former students.

My father served all who came to him for care. He provided dental care for many who had no source of income and through the depression years, things were pretty tough. We always had a roof over our heads, food and clothes, but we all knew austerity. I didn't quite understand it all, how my family did it. However, I believe I was 13 years of age before I realized that it wasn't natural to lose all of one's teeth and wear dentures. Everyone that painted, papered, hauled ashes, delivered milk and eggs or did repairs at our house either had dentures or was without teeth. It seems that many of my father's patients worked out their dental bills. Sometimes we would find a bushel of tomatoes or corn on our porch steps in the morning.

Dentistry to my father was service to people. Professionalism meant just that of the highest order.

To complete this story I should tell you that my father's active practice came to an abrupt end in 1953. It was on the 28th of December in 1952 when a County patient was referred for dental care because of long standing pain in a tooth. The referring physician said that the patient was desperate. No one would take care of the patient because he was jaundiced and had been for weeks. My father saw him, using a local anesthetic removed the offending tooth. The physician provided the backup for the patient but not for the dentist. You know the sequellae. He developed infectious hepatitis at the end of January, was transferred to the
Mayo Hospital but, inspite of immediate and intensive care in the Hepatitis Unit over four months, failed to respond to treatment. He died in the 38th year of his very active dental practice.

With this beginning I have since had a variety of dental experiences. I have been in dental offices in North and South America, Scandinavia, Europe, England, Africa and even a refugee village near the Yellow Sea. I have met and worked with dentists from all parts of the world. Nowhere has the quality of care exceeded that with which I grew up. Nowhere can I identify a substitute for the professional ideals espoused by the founders of the College to ensure delivery of high quality dental health care.

Recognizing the many challenges that are facing the College if not dentistry as a whole, I am delighted with the organizational change that has taken place. Responsibility is placed on the individual and on Sections for support and pursuit of the ideals of the College in high quality health care with input from research, education, publications and practice. This is a most important turn of events. In the manner exemplified by Fauchard, Hayden, Harris, G. V. Black, A. D. Black and, for me, my father, none of us have any right to be other than a continuous student. We have a responsibility to ourselves, our profession and our community. Each of us is charged with self study, personal enrichment in knowledge and service to people. Activities which are self serving, whether from within the profession or without should be avoided. Every effort should be made to emphasize the maturity of Dentistry, the role of the professional in the community, and the responsibility of the dentist to the community and his profession.

Dentistry as a profession is American. It started here. Its character developed here and its future will depend upon us, American dentists. Yet that problem that requires the majority of the attention of American Dentists, i.e. restorative dentistry, is relatively new in the world. Only twenty pages of Fauchard's text dealt with restorative technics. His successors similarly said little about it and very little of this procedure was known until well into the 19th century. Although the importance of filling carious teeth was recognized by dentists of the time, it was unlikely that the operations were largely practiced. Only the wealthy or very important persons went to the expense of saving teeth.

Were predictions made about dental care two hundred years ago what would have been the direction of thought? Were predictions made about fifty-five years ago, what would have been? Technology has advanced more rapidly in the past fifty years than
in the previous 5000.

A Commission on the Year 2000 was created in 1966 by the American Academy of Arts and Sciences. A series of meetings were held with some of the nations leading forecasters and academic leaders. The objective of this Commission was to suggest alternative futures among which choices would be possible. Edmund Bacon's book, "Design of Cities" presented and elaborated on the concept that "the future is what we make it."

The Commission attempted to indicate the future consequences of present policy decisions to anticipate future problems and to begin the design of alternative solutions so that society can have more options and can make a moral choice before problems descend unnoticed and demand immediate attention. Dentistry is in the throes of this type of planning right now. However, there are problems inasmuch as predictions are often based on limited facts and guesswork.

Today, dentistry is being challenged as a profession. There are numerous programs which are in progress or under consideration in which dentistry is directly involved. Many of these are federal government programs which place conditions upon the delivery of health care and remove responsibility from the dentist. Dentists are being questioned in methods, services, ethics, standards and motives. Courses of study are being described by teachers and examiners as too short and by federal government and "third party vendors" as too long. Predictions of change to become "a specialty of medicine" are being carelessly made with many of the procedures known in dental practice today being assigned to lesser trained individuals. Even competition is being encouraged and advertising is openly being explored as a means to reduce costs to the payor and insurance vendor. Proprietary journalism is back in common use. Curricula at dental schools are again to be surveyed.

We must ask ourselves, "Have we failed by being smug and careless?" We must review that which is our responsibility, our community, our affairs, to determine where we must act in order to meet that which is on the horizon — a breakdown of our society. The world of George Orwell as described in his book, "1984" is coming too close to reality for anyone's comfort. The shadow of "Big Brother" or "Automaton" seems to be lengthening. Our role in this struggle may seem insignificant, but Fellowship in the American College has not been conferred upon insignificant men and women. Therefore, we cannot just let things happen.
Alexander Pope wrote a poem in the early 1700's that tells a frightening story that is applicable today. Let me read it to you:

The Quiet Life
Happy the man, whose wish and care
A few paternal acres bound
Content to breathe his native air
   In his own ground.
Whose herd with milk, whose field with bread
   Whose flocks supply him with attire;
Whose trees in summer yield him shade,
   In winter fire.
Bless who can unconcernedly find
   Hours, days, and years slide soft away
In health of body, peace of mind,
   quiet by day,
   Sound sleep by night; study and ease
   Together mix'd; sweet recreation,
An innocence, which most does please
   With meditation.
Thus let me live, unseen, unknown;
   Thus unlamented let me die:
Steal from the world, and not a stone
   Tell where I lie.

This poem is frightening because it has a description of what has been a way of life for many Americans — Apathy! Perhaps this is the major contributor to the many crises of our day. — "Let me live, unseen, unknown; . . . Steal from the world, and not a stone tell where I lie."

Sometimes, the problems that seem to be confronting dentistry as a profession can be related to lack of participation — lack of involvement — Apathy by some of our leaders. All too often we can recognize colleagues "whose wish and care, is a few paternal acres and is bound content to breathe his native air in his own ground."

Louis G. Terkla, the Past President of the American College of Dentists, declared that this is not enough for Fellows of the American College; not even for Sections of the College. In his words, "the American College of Dentists is dedicated to the

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The Discovery of Dental History
as the Recorder of a Usable Past

GARDNER P.H. FOLEY

The study of history is a watch tower that provides us with a long prospect into the past and a supportive sight of modern problems and vistas in more authoritative proportions of judgment. History is essentially the extension of the Truth; it presents us with a workable synthesis and a means of enlightening interpretation. We should regard the past as a matrix of the present and the future. We should cherish the values of the past scrupulously and labor to read its lessons; for, as George Santayana observed, "Those who fail to learn from history must take their lessons again."

The history of all cultures is based on a feeling of reverence of the past, for history reveals not only the wisdom but also the errors of the past. History is the master of truthful determination of values, for the world's stock of knowledge is reflected from the light of the past. Certainly the past is a living reality, else why should we be continually concerned with "the glory that was Greece and the grandeur that was Rome" or with the first two hundred years of our own nation. History provides us with signposts pointing to the probabilities and possibilities of the present. Let us remember well the precept of Ralph Waldo Emerson: "Every man is a quotation from all his ancestors."

Unless dentists know where they came from, something of the road they have traveled as a profession, how can they know where they are going? (Adapted from Hal Borland). Dentists have a pressing need to nurture an historical self-comprehension. They should be salubriously aware that many great things happened in dentistry before they arrived on the present stage of the profession's progress. How can dentists recognize the concept of

Presented at the first J. Ben Robinson Lecture at the University of Maryland School of Dentistry, Baltimore, Maryland, November 4, 1976. Dr. Foley is professor emeritus of Dental History, University of Maryland Dental School.
progress unless they respect the fact that the roots of dentistry are in its past centuries of development? How can dentists measure progress unless they make comparisons with past efforts and achievements? The study of dental history offers a perennial interest and stimulus to the imagination; it inculcates a devotion to what is old and an aliveness to what is new. The spirit of emulation ought naturally to suggest that dentists study and try to imitate the great contributions of the profession's history. Without erecting in their minds bridges to the past, how can dentists identify the lasting purposes and the goals that have been certified by centuries of experience and cogitation? What about the role played by the contributions of their predecessors in forming the elements of the professional character? The economic and social factors that have influenced greatly the shaping of dentistry's professional identity are eminently worthy of their historical attention.

Dental history contains the story of the profession's entire culture and the related components of knowledge. Dental history is primarily concerned with recording and disseminating knowledge of dentistry's progress and reflecting the wisdom of its devoted contributors. A lack of historical perspective narrows the professional structure by ignoring the base of its construction; thus the limitation of comprehensiveness is compounded. The man who shows a lack of interest in the historical data of his professional fathers demonstrates both a depreciation and a depreciation of ancestral values, those solid values upon which mankind has perpetually registered its pride and affection.

Dental historians are strongly motivated by the belief that members of their profession should possess an appreciation and recognition of the high courage and determination that animated the long line of men who worked to establish dentistry as an enduring profession. They serve as harvesting agents for the presentation of dramatic testimony to the resourcefulness and skills of their predecessors. The historians are widely aware of what the past has done for the present of dentistry and seek to remind their professional brethren of their obligations to know the people who left their life's imprint on the profession. They regard a knowledge of dental history as a part of the whole duty of the dentist. To them the neglect of dental history represents a triumph for apathy and compressive pragmatism. To them it is a shameful reality that far more has been written about the history of alchemy than about the history of dentistry.
The study of dental history is an important force in the enrichment of one's professional life. Even a casual approach to this richly nourishing literary armamentarium will convince the dentist that dentistry's past is alive with interest and stirring with provocative information. A natural reaction to this effort will be the realization: "At last I have begun to discover my own profession." The delver into the story of dentistry will find an abundance of historic lore, an accumulation of facts and incidents colorfully illustrative of dentistry's centuries of progress. There are many powers of motivation that act to project a dentist into the reading of dental history: pride in the great works of his professional ancestors, the nourishment of his mind as he becomes alert to the centuries of experience and struggle to create his own profession, and an enlarged awareness of the importance of his daily performance. Gradually the reader should widen his scope of application and derive an increased respect for what dentistry was, is and will be. He will find that he has within his reach a medium of intellectual enlightenment from which he can obtain a liberating sense of comprehensiveness. He will develop an explorative deftness and thereby add variety and compass to his adventure in realms of history. He will profit markedly from the pleasure of discovering the inspiring data that he encounters and will find assuring comfort in his getting on terms of intimacy and friendship with the essence of dentistry's character and worth. In discerning dentistry's pattern of inching forward toward the peaks of accomplishment he will expand his aesthetic sensibility, his capacity for historical judgment, and his latent talent for scholarship.

My experiential observation leads me to believe that most dentists possess a wistful longing for an horizon out of view of their restrictive offices. Let these aspiring practitioners bring a particular kind of attention to their experience in dentistry by creating the very worthwhile hobby of dental history. The retired dentist eager to find a continuing interest that he can steadily and profitably adopt might wisely choose to spend pleasant hours in the reading of dental history or to indulge rewardingly in doing research in the proliferation of subjects that invite his curious attention. The resources of dental history offer a sensible and profitable pleasure that will lend vitality to the dentist whether in practice or retirement.

Alfred Owre, although one of the most innovative deans in the history of American dental education, testified in 1917: "Until the
dentist feels the glory of this pageant of life, until his spirit thrills to the march of the many forms down the ages, he cannot live up to the best that is in him.”

Dentistry must discharge itself from the vulgar and hurtful humors that contribute to the discouragement of the study of dental history. There is in our present general thinking a persistent canker of intellectual snobbishness that encourages the disavowal of antecedents and the resultant disdain of dental history as a facet of dental culture that should be placed behind a curtain of neglect and logically ignored. Dentistry has dangerously allowed the majority of its affiliates to become pitifully preoccupied with presentism, thus ignoring the chain of inheritance of which any present era must be an essential coordinating part.

For a dental dean or any other dentist with influential responsibilities to say “I don’t want to hear anything about the past” means that this gross show of intellectual intolerance reflects a gargantuan ego that erects in a capricious mind the dictum: Nothing that is chronologically past can be worthy of my interest or attention. My time of professional life needs not the inspiration, the guidance, the lessons of the past; for the present, in which I am a dominating force of directiveness, ought to be the primary — the only — time worthy of our concern.

William Hazlitt possessed a more accurate judgment of the past and its teachings: “Learning is a sacred deposit from the experience of ages.” And so did Patrick Henry: “The lamp that guides my feet is the lamp of experience. I have no way of judging the future, but by the past.”

Those who demean the importance of the study of dental history are not in agreement with the philosophy of Theodore Roosevelt: “We must have history, for without it the world would be like a man without a memory.” The insulators of dental history could glean a bit of deterrent wisdom from Winston Churchill: “Without a sense of history, no man can understand the problems of his time. . . . We are, after all, what our history has made us.” And let these self-deceivers pay heed to the warning voiced by Cicero two thousands years ago: “Not to know what happened before one was born is always to be a child.”

The present intolerable and debilitating situation reveals that dentistry desperately needs the kind of knowledge provided by the study of its own historical records. From the study — exercised on a wide scale of participation — dentistry can achieve a renascence of the pride and spirit it sorely needs in its present
struggles against the threatening forces of governmental domination and the incursion of non-professional elements into the domains of professional practice. Dentistry needs to adopt a new awareness of its identity and a militancy of prideful intelligence towards the contributors and contributions that have created the basic factors of their profession's strength and status. Dentists should be knowledgeable of the demographic facts of life that suggests the public's growing interest in the past as the millions of senior citizens review their own contributions to society and the younger citizens become imbued with the delights of nostalgia. The dentist who dismisses from his range of perception a continuing acquaintance with the structure of dental history has permitted his mind to abdicate one of its obligatory intellectual functions and is eliminating from his experience a significant dividend of cultural illumination.

In addressing this section of my lecture to the special attention of the student body of this hallowed first dental college in the world, I choose to begin by adapting a fruitful sentence voiced by Coleridge, the great English poet: "The youth who enters upon the study of dentistry without a feeling of respect and gratitude for his professional ancestors, who by their labors have prepared the way for him, is not likely to produce anything himself that will be held in remembrance by posterity."

It is the irrefragable mandate of every dental school to provide its students with a fair opportunity of learning to appreciate and to weigh the contributions made by their dental forefathers and to impress upon them, by administrative and faculty example, the influences exercised by events and men in the past in shaping and promoting the profession to its present distinctive and distinguished position as a health science. By refusing to place dental history in its proper place in the curriculum dental faculties are guilty of a form of pedagogical barbarism; for they, as individuals and as groups, are rejecting a subject that contains and nurtures a treasury not only of factual learning but also of inspirational potentiality. Our students, in the years of developing curiosity about their inheritance from the past, should be reminded both directly and casually of the inexhaustible riches of courage and vitality and adventure that invite them to the heroic and prideful story of dentistry. That story is a treasury of knowledge and incitation; it is a record for guidance and the measure of progress. By neglecting the study of dental history, dental educators are
actually contributing to the defacement of the image of dentistry which should be recognized as resting on the base of an enduring and perpetuated past.

Is it not realistic to profess that the underlying objective of dental education must be the instilling of robust feelings of pride and confidence in the integrity, the worth, and the historical endowment of the dental profession? The present dental student who is to be graduated without having had the benefit of some formal instruction in dental history will enter the profession under the ominous handicap of the injustice imposed upon him by the dearth of knowledge concerning dentistry's centuries of progress. Is it not apparent that the dentist will be asked by patients for information pertaining to the historical background of dentistry? From phone calls, letters and conversations with dentists seeking answers to patient inquiries, I have been motivated to conclude that there are a large number of graduates in dentistry who feel that dental history should have been a part of their curricula. Dentists who possess a substantial knowledge of dental history are comparatively of greater worth to their profession and of larger personal qualification; for those unusually advantaged persons care about the past, revere the greatness they perceive there, and expand the breadth of their understanding and their vision of dentistry.

It must be said, loud and clear, that the first dental college in the world, which prides itself on that glorious historical honor, should exercise its inherited responsibility of propagating by example through the reactivation of one of its oldest traditions: the teaching of dental history. Give the students of this initiatory institution the chance to discover the pleasure and interest that lie in the history of their chosen profession of dentistry.

The subject of my lecture stipulates that I shall discuss "dental history as the recorder of a usable past." There is an abundance of ways in which the study of the profession's historical records can benefit substantially the members of the dental profession. It can provide them generously with many facets of enlightenment: an understanding of their place in history; an acquaintance with the heroes of dentistry's progress and an appreciation of their contributions; a clear concept of the role of dentistry in the progress of humanity; an inspirational cognizance of the qualities of greatness mirrored in the story of dentistry; an exciting derivative to be gained and cherished from the dramatic narrative of dentistry's
emergence to a profession of solid identity and recognition; and a dependable recourse for the discovery of insightful analogies between the past and the present.

If dentists of the present do not know what has been discovered before them, they lack certain landmarks for profitable reference and also lack a dependable standard of cogitation to apply to particular cases that demand comparative elucidation. It is the knowledge of the past that has produced all changes, all innovations, and all improvements. Let the curious dentist set out to trace the development of any phase of dental practice and he will be astonished by the rewards he will receive in interest and pleasure. Let him study, for example, one of these subjects as it unfolds through the centuries: filling materials, anesthesia, artificial teeth (including the human teeth sometimes provided by the resurrectionists), the treatment of irregularities of the teeth, denture bases, drilling devices, dental chairs, dental offices, root-canal procedures, and instrumentation. In all of these areas of dental history, the investigator will find the source and follow the current of development to the present level of practice.

The student of dental history will soon become aware of the chauvinism, almost inherent among American dentists, manifested in their neglect or ignorance of the international aspects of dentistry's growth. Propelled by his desire to know about the past, that student fortunate enough to be so favored, will cultivate a solid perception of dentistry as an autonomous profession and will not be deterred in his acceptance of that vital identification by the ambiguities of those divisive ones who have sought to weaken or eliminate dentistry's essential force of professional recognition by their stumbling and perhaps traitorous efforts to reduce their own profession to the status of a specialty of medicine.

Despite the herculean and self-sacrificing efforts of a dedicated minority of the emerging profession, American dentistry in the nineteenth century and in the early decades of the twentieth century was divided into two grievously opposed factions. One faction was made up of well-trained professionals who envisioned for dentistry high standards of practice and an eventual general acceptance by a public difficult to educate as regards the importance of dental care. The progressive dentists sought assiduously to promote the interests of the quality dental schools and the steady growth of national, state and other component organizations. They worked ardently in advocacy of legislation to insure good standards of practice for the protection of the profes-
sion and the public and struggled against powerful opposition to achieve a non-commercial literature. A large segment of the dentist population for about eighty years after the erection of the 1839-1840 founding structures of education, organization and literative aggressively supported the proprietary journals and the methods of education offered by preceptors and irreputable proprietary schools; they vigorously opposed legislative measures, especially the creation of state boards; and they not only refrained from joining dental societies but also snarlingly accused them of being special-interest groups formed to maintain a level of fees that enabled their members to gouge the public. The general principle of that long internecine strife is still an ever-recurrent factor; self-interest opposed to professional interest.

Dentistry has been freed, chiefly by its own efforts, from the bondage of commercialism in practice, journalism and education. It now faces the imminent bondage of governmental dictation and also a resurrected form of threat to professional standards of practice; denturism.

4407 Sedgwick Road
Baltimore, Maryland 21210

Departments of Community Dentistry
(continued from page 92)

48. Personal communication, American Dental Association, Division of Educational Measurement.
A Barrier in Graduate Study

THOMAS K. BARBER, D.D.S., M.S.

Of the many characteristics unique to graduate study, or study in advanced professional specialty programs, one most outstanding is the close interpersonal relationships that develop between faculty and student. They are brought together in a daily life closeness that is uncommon in general education. Each develops an insight into the other's total capabilities. Fortunately, in most instances, the average graduate student meets the challenge of advanced education successfully because of his demonstrated above average academic and clinical capabilities. It is observed on the way that he and his mentors enjoy their relationship with each other. On the other hand, an occasional student is not able to meet the expectations of the program, his previous academic record and current capabilities don't seem to match; he's a misfit. Some would say we've made an error in accepting him into the program, we've made an error in letting him continue, we've made an error in letting him finish, we've made an error in letting him graduate and we've made an error in standing by and letting it all happen. But we do all these things and perhaps it is because we were interpersonally involved.

The purpose of this paper is to take a look at a few episodes in the two year period of a "problem post doctoral student" through the eyes of the faculty. Perhaps such examination and discussion will suggest some remedies. For this purpose, the reader is asked to recall a time when he has just allowed a student to graduate whom he feels should not have reached that plateau but for which the faculty member felt helpless to abort at the time. Let's look back over the span of the student's participation in the graduate program.

Doctor Barber is professor and chairman of the Division of Preventive Dental Sciences, Section on Pediatric Dentistry, of the School of Dentistry of the University of California at Los Angeles.
ADMISSION

All program directors rely upon similar documentation in the required application packet. Academic transcript records, letters of recommendation from people familiar with the applicant and frequently a personal interview with the candidate make up the credentials for selection. Do they adequately reflect the applicant's capabilities to meet the challenge of the program? Perhaps not, but it's all we have and in many ways we may be in danger of weakening the credibility of these. The reliability of grades has always been questioned especially when you find a postdoctoral student weak in areas where his record did not show the weakness prior to admission. What about letters of recommendation? Within the last few years I had the following experience: A pedodontic department head from another university approached me at a national meeting to ask me how one of the graduates from his school was doing in our program. When I replied that we were beginning to be a little concerned about some of the student's academic and clinical skills, the department head said he was afraid that might happen and that's why the student was not accepted into their own program. This very student's pre-admission packet contained a glowing letter of recommendation from this very faculty member, whose credibility is now ranked low. At the time of our hallway conversation about the student I expressed a concern our faculty had for the student's clinical skills in operative dentistry. He agreed, and said that they noted this while the student was in school. His transcript, however, stated that he received average and above average grades in the operative clinic.

What is the answer to improving the credibility of records and references or does a student really do well with one faculty member and not so well with another because of their interpersonal relationships?

IN RESIDENCE

The student has been admitted and he begins the program of lectures, seminars, laboratory exercises, and clinic orientation. Students are equally confused at first and are equally guilty of errors. It is easy to separate the errors in procedure unique to your programs from errors in dental professional performance. At the end of the first quarter, or semester, the faculty begins to identify
the early indicators of the problem student. They take the form of
the offhand comment about some facet of the student's actions.
Heresay and rumors become the seed of brief but informal lunch
conversation between faculty members. Does anyone take any
action or is it still too early? Is it even necessary to do anything
about it for maybe the student will adjust. Perhaps. Unfortunately,
the individual faculty member may feel it isn't his responsibility to
approach the student for a remedial discussion.

At some point in time there develops some real evidence of the
problem student. In programs that give grades he may receive
some grades that reflect marginal academic performance. In most
instances there is a reluctance to identify Pass/Fail levels of per-
formance for a postdoctoral student. Many of the faculty will let
marginal academic achievement pass because, after all, the post-
doctoral student was accepted because of demonstrated above
average performance and stated good abilities. The student who
demonstrates clinical weakness is in more serious difficulty how-
ever. He has managed to become a graduate dentist legally
prepared to practice but we have begun to think he should not
practice in our specialty. What do we do about it? Some faculty
members will begin to expect less of him, begin to spend less
time with him, will lose their desire to teach him and at staff
meetings say that he ought to be dismissed from the program.
Other faculty members may start to "get tough." They may
become demanding, may become oppressive, teach him less but
expect more, become very critical because, after all, "he's a post-
graduate student and he should already know and be able to do
these things."

Another matter which frequently surfaces in the consideration of
a student's performance is his involvement in extracurricular and
often times very personal activities which become known to the
faculty because of the interpersonal relation between the student
and the staff. Frequently the student is unaware of the faculty's
knowledge of his affairs and he will always attempt to hide those
matters which he feels will adversely affect his relation to the
faculty or his performance in the program. A faculty member's
awareness of a student's extracurricular problems may often go
unmentioned to anyone for the reason that he doesn't want "to get
involved." Since all of us try to be quite careful in our fairness in
teaching, it has to be clear and obvious that the student's abilities
and performance at this point are below par. Something needs to
be done. What? When? and by Whom?
COUNSELING

As a program director I have never felt personally more frustrated than when I learn that a student in the program has not been performing well for some time in any area of his course work, and the faculty related to that course has not called it to the attention of other faculty. Then, quite suddenly at perhaps a staff meeting, the student's performance is brought out into the open. Frequently there follows a spontaneous "band wagon" of criticism levied against the student which usually ends with the statement that "someone ought to do something about it." An analysis of faculty attitudes at that point would be quite interesting. One feels that he cannot relate well enough with the student to counsel him effectively. Another feels he cannot either because he doesn't want to endanger their good working relationships. Another feels that he is too close to the student; they are friends, he doesn't want to hurt his feelings. One doesn't know him well enough, another has never seen his work, and on and on. It adds up to the fact that no one wants to be "the bad guy" and have to discuss shortcomings with a student and suggest some appropriate remedial program.

Too commonly a third person, logically the program director, is required to discuss various aspects of a student's performance with him as they were reported by others who remain unnamed. Invariably the student becomes highly sensitive of his actions and focuses on a defense of the examples used, thereby preventing a constructive discussion intended to bring about an improvement in his future performance. The counselor might become helpless in such discussion, especially if he had no first-hand contact with the incidents and performances as reported to him by his faculty. Everyone readily enjoys and accepts a critique of himself which is complimentary. A negative critique is difficult to accept and to give. Usually they would like to be avoided. Frequently they are and the problem student continues on in the program because of the personal nature of postdoctoral education. Precise checks and balances such as grades and performance ratings and documentation are not employed. In discussing this problem through the years with other postdoctoral faculty, it seems apparent that postdoctoral grading is common in courses given by basic science departments and others related to the program. However, within the program itself relatively little grading is employed. In addition, there are few regularly scheduled periodic performed reviews and formalized counseling sessions for postdoctoral students.
DISCIPLINARY NEED

Do such things as academic or performance probation and/or dismissal exist? I am sure they do, especially where a higher degree is involved. I've known of students being dropped from degree contention but infrequently from a certificate program. A few years ago I asked ten pedodontic program directors at an American Academy of Pedodontics meeting if they had ever dismissed a student from their programs. Only one replied, yes once. The basis for that dismissal was because of activities outside of the program which got the student into difficulties with the law. It would be interesting to poll graduate dental programs to see how many, if any, students have been put on any kind of probation or were dismissed from an advanced program of any kind and for what reason. I wonder if we have any criteria for such actions and if they are employed. I suspect that, because the student is a graduate dentist and he will enter practice anyway, he is allowed to continue to completion of the "time requirement" of two years even though the problem post doctoral student may not match up with our individual and collective faculty image of a graduate pedodontist. I know of some in various programs, including my own, who were awarded their certificates without satisfying all of the requirements.

We do lack mechanisms for precise performance documentation, lack a strong desire for meaningful evaluation and counseling, lack the personal fortitude to confront a student with his deficiencies when they exist or is it even a problem? Who suffers? The program, the student, his practice, his patients, the profession, society? Does the interpersonal relationship of faculty and advanced student get into the way of proper performance?

RECOMMENDATIONS

Even after completion of his required time in an advanced program and receipt of his certificate, the postdoctoral student will frequently require documentation of his performance as part of a reference for various applications. Testimony of his skills is sought to support entry into a partnership in practice, membership in societies such as the American Academy of Pedodontics, eligibility and qualification for the American Board of Pedodontics examinations and various appointments such as staff memberships at the local hospital where he intends to engage in the hospital care of his private patients.
It has been my experience that none of the professional organizations or societies request a character or skill performance evaluation of a candidate. That he has received the certificate or advanced degree seems to suffice. Requests for a thorough evaluation to accompany an application seem to come mainly from hospital staffs or the intended employer or partner. Frequently the latter will place a personal telephone call to make his inquiries as to the clinical skills of the potential associate. I find this to be a most effective mechanism to get, or to give, personal information for it avoids the written word which apparently many seem to want to avoid.

Among the most important needs for accurate documentation of a candidate's skills in letters of reference or recommendation are those requested to support a potential teaching appointment. Here too, the letters tend to provide glowing comments of the candidate's skills if the recommendation is to be positive. Negative recommendations tend to try to evade the issue. This, presumably, is due to our desire to avoid negativism with our own graduates or to avoid any possible future confrontation with sponsorship of his career. There is a real reluctance to provide forthright and honest negative comments in letters of recommendation. However, apparently the real truth can be obtained by a discreet telephone conversation which avoids any future reference of documentation.

What is the relationship of these problems to the interpersonal values between faculty and student, student and student, faculty and faculty and between program and program?

SUMMARY AND CONCLUSIONS

The problem postdoctoral student at the end of his program of advanced study is likely the same student who was referred into the program initially. That is, he was judged to be a potentially weak candidate but there existed a reluctance on the part of the reference writer to say so. Perhaps they were well-acquainted and the personality of one inhibited the personality of the other to provide other than a strong positive recommendation for admission. Once in the program the faculty requires time to identify various weaknesses. Then it would appear that there is reluctance to exercise sufficient authority to expose the weaknesses in any meaningful way. Most frequently, if not always, the marginal postdoctoral student completes sufficient time to be released from

(Continued on page 136)
Are Schools Providing Adequate Clinical Preparation of Dental Students?

REX INGRAHAM, D.D.S.

Since the discussion of issues before the conference is directed toward the interface of dental examination and State Board examination for licensure, I will direct my discussion toward the performance of dental education in preparing the dental graduate to perform those clinical skills traditionally evaluated by State Board examination. An overview of the total clinical and academic preparation of the undergraduate student will be discussed in another section of the conference. Those discussions will relate current emphasis in the curriculum on the applied biological sciences, the human behavioral sciences, patient management, pain and anxiety control, efficient utilization of auxiliaries and preventive and community dentistry as they relate to the general clinical competence and professional judgment of today's dental graduate.

Technical competence has for many years been an issue of major concern to dental educators and to State Board examiners. This concern is particularly significant since well over 50 percent (50%) of the total clinical hours in the current dental curriculum of most schools is devoted to the restorative disciplines. Also, clinical examination in the restorative disciplines is the major emphasis of the Western Dental Boards. For this reason, it will be my objective to submit a cross-section of opinions and observations made by dental educators and State Board representatives on the level of clinical skills demonstrated by dental graduates in recent years.

Presented at the Western Conference of Dental Examiners and Dental School Deans, July 24, 1975, Flagstaff, Arizona. Dr. Rex Ingraham is distinguished professor, co-chairman of the Restorative Department, and chairman, Occlusion Section, University of Southern California School of Dentistry, Los Angeles, California.
An opinion survey regarding clinical competence was circulated to deans and representatives of the restorative disciplines of the schools on the west coast and to a number of State Board representatives in the western states. Sixty-seven percent (67%) of the educators and 71 percent (71%) of the State Board representatives contacted responded to the questionnaire. Fifty-three (53) questionnaires were distributed; 37 responses were received by the deadline date. Late responses were not included in these data. The results of the survey demonstrated a wide divergence of opinion among educators on specific questions and as expressed through open-end comments. However, the responses of a majority of the educators contributing to the survey indicates identifiable trends in observations submitted.

SURVEY REPORT

Observations reported in Figure 1 indicate that 77 percent (77%) of the educators and 83 percent (83%) of all respondents agree that there have been changes over the past 15 years in the level of competency of dental graduates in those clinical skills evaluated by State Board Examinations.

FIGURE 1

QUESTION: According to your observations have there been changes between the years 1960 and 1975 in the level of competency of dental graduates in those clinical skills traditionally evaluated by State Board Examinations?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deans</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Associate deans</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Operative chairman and representatives</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Fixed prosthodontics chairman</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Removable prosthodontics chairman and representatives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>State Board representatives</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>6</td>
</tr>
</tbody>
</table>

Figure 2 represents a mean of the subjective opinions and observations of all respondents, as well as a mean opinion of a 76 percent (76%) majority of the respondents regarding periods of highest and lowest levels of the performance of restorative clinical skills by dental graduates during the period from 1960 through
1975. The remaining 24 percent (24%) represented a wide divergence of opinion. Both curves, however, indicate a similar trend. The highest standard of performance was evident in the early 1960s with the lowest level of performance occurring from 1972 to 1974. Both curves identify an uptrend of performance starting in 1974 and continuing into 1975. The curve representing the mean response of the 76 percent (76%) majority indicates a considerably wider range of variation in performance.

**FIGURE 2**

**LEVEL OF PERFORMANCE OF CLINICAL RESTORATIVE SKILLS**

![Graph showing levels of performance from 1960 to 1975.](image)

- - Mean of observations of 100% of respondents (N = 37).
- - - Mean of observations of 76% of respondents (N = 28).

Figure 3 is a tabulation of responses to a question regarding correlation between levels of clinical skills demonstrated by undergraduate students prior to graduation and the performance of graduates on State Board examinations. Sixty-five percent (65%) of the educators responding were of the opinion that there is a correlation between the dental graduates performances on State Board examinations and the performance of clinical skills in a student's undergraduate clinical practice. The remaining 35 percent (35%) disagreed.

Figure 4 is a report of the percentages of students passing California State Board examinations at one west coast dental school (USC) between 1960 and 1975. While 100 percent of the student body passed the Board examinations in 1960 and 1962, only 90 percent passed in 1972 and 1973. An uptrend is evident in 1974, with 96 percent (96%) passing in 1975.
FIGURE 3

QUESTION: According to your observations has there been a correlation between levels of student performance of clinical skills tested on the State Board and the dental graduate's performance on State Board Examination?

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deans</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Associate Deans</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Operative chairman and representatives</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Fixed prosthodontics chairman and representatives</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Removable prosthodontics chairman and representatives</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>9</td>
</tr>
</tbody>
</table>

FIGURE 4

PERCENTAGE OF GRADUATES PASSING STATE BOARD EXAMINATIONS AT USC DENTAL SCHOOL FROM 1960 THRU 1975

Figure 5 represents a mean of the observations made by administrators and representatives of the restorative disciplines by the same school (USC) regarding levels of clinical performance between 1960 and 1975. There appears to be a close correlation between the subjective evaluation of levels of clinical performance of the undergraduate students before graduation and the percentage of graduates passing State Board examinations as shown in Graph III.
**FIGURE 5**

LEVEL OF PERFORMANCE OF CLINICAL RESTORATIVE SKILL LEVELS

Highest Level

Average Level

Lowest Level


Mean of observations by administrators of University of Southern California School of Dentistry.

Figure 6 represents a comparison of the mean observation reported at USC and a mean of observations made by 18 department heads and representatives of the restorative division of the seven west coast dental schools. While the general trend in observations is similar, the range in variations is considerably less as reported by representatives of all west coast schools.

**FIGURE 6**

LEVEL OF PERFORMANCE OF CLINICAL RESTORATION SKILLS

Highest Level

Average

Lowest Level


- - Restorative division of seven west coast dental schools.

- - Administrative representatives of USC School of Dentistry.
In assessing factors that might be considered to relate to general competency of dental graduates, trends appeared to be evident as expressed by a majority opinion of all respondents and also by a majority opinion of the educators answering the survey. For example, in comparing the competency of the student in clinical skills, level of theoretical background and knowledge, motivation and attitude, and concern and management of patients — a number of trends appear to be evident as represented in Figure 7. A consistent downtrend was indicated in clinical skills, with an equal and opposite uptrend occurring in “theoretical background and knowledge.” A definite downtrend was noted in “student motivation and attitude” and little change was evident in concern for, and management of, the patient.

**FIGURE 7**

**A SUMMARY OF MAJOR OPINION**

**QUESTION:** Compare the student’s clinical proficiency in each of the areas indicated by inserting an “S” for Superior, an “Av” for Average and an “I” for Inferior during the periods indicated.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical skills</td>
<td>S</td>
<td>Av-S</td>
<td>Av</td>
<td>Av-I</td>
</tr>
<tr>
<td>Theoretical knowledge</td>
<td>Av</td>
<td>Av-S</td>
<td>Av-S</td>
<td>S-Av</td>
</tr>
<tr>
<td>Motivation and attitude</td>
<td>S</td>
<td>S-Av</td>
<td>Av-I</td>
<td>Av-I</td>
</tr>
<tr>
<td>Concern and management of patients</td>
<td>S-Av</td>
<td>Av</td>
<td>Av</td>
<td>Av-S</td>
</tr>
</tbody>
</table>

Figure 8 is a continuation of the same report. It summarizes the majority opinion of the educators regarding clinical skills performed by the student in his treatment of patients. A number of trends may be noted in this summary.

According to the mean opinion of educators and State Board examiners represented in Figure 2, a decline in clinical restorative skills occurred from 1960 through the early 1970s with an uptrend in 1974 and 1975. Figure 9 represents a list of possible issues that may have contributed to the apparent decline. The figure gives the majority opinion and the percentage of that opinion on each issue.

Additional comments were requested from the respondents regarding the clinical competence of recent graduates. The following report lists comments contributed by dental educators representing the seven western dental schools.
FIGURE 8

GENERAL CLINICAL SKILLS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grown design and preparation</td>
<td>S</td>
<td>Av</td>
<td>Av</td>
<td>Av-I</td>
</tr>
<tr>
<td>Wax pattern techniques</td>
<td>Av</td>
<td>Av</td>
<td>Av</td>
<td>Av</td>
</tr>
<tr>
<td>Clinical gold foil procedures</td>
<td>S</td>
<td>S</td>
<td>Av</td>
<td>I</td>
</tr>
<tr>
<td>Full denture set-ups</td>
<td>S</td>
<td>S</td>
<td>(even)</td>
<td>Av-I</td>
</tr>
<tr>
<td>Removable partial denture design</td>
<td>I</td>
<td>Av</td>
<td>Av</td>
<td>S-Av</td>
</tr>
<tr>
<td>Management of rubber dam</td>
<td>S</td>
<td>S-Av</td>
<td>S-Av</td>
<td>S-Av</td>
</tr>
<tr>
<td>Diagnosis and Treatment planning</td>
<td>Av</td>
<td>Av</td>
<td>Av</td>
<td>S-Av</td>
</tr>
</tbody>
</table>

FIGURE 9

OBSERVATIONS BY ALL RESPONDENTS AND BY EDUCATORS ONLY

QUESTION: Please check (✓) the factors which you consider to be contributory to any decline in clinical competency of the dental graduates during the past 15 years.

<table>
<thead>
<tr>
<th>Factor</th>
<th>All Respondants</th>
<th>Educators Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Administrative</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leniency</td>
<td>81*</td>
<td>78</td>
</tr>
<tr>
<td>Lenient Attitude of Clinical Teachers</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>Inadequate system of clinical evaluation</td>
<td>92</td>
<td>62</td>
</tr>
<tr>
<td>Poor student attitude</td>
<td>90</td>
<td>87.5</td>
</tr>
<tr>
<td>Political and social trends and pressures</td>
<td>79</td>
<td>72</td>
</tr>
<tr>
<td>Failure to apply effective teaching methodologies and use of modern media</td>
<td>53</td>
<td>59</td>
</tr>
<tr>
<td>Reduced patient pool for clinical training</td>
<td>55</td>
<td>67</td>
</tr>
<tr>
<td>Use of manikins to substitute for clinical training on patients (gold foil and amalgams)</td>
<td>55</td>
<td>60</td>
</tr>
<tr>
<td>Less clinical demonstration by highly skilled staff</td>
<td>63</td>
<td>55</td>
</tr>
<tr>
<td>Decreased number of clinical hours (patient contact)</td>
<td>58</td>
<td>52</td>
</tr>
<tr>
<td>Accelerated three (3) year program</td>
<td>79</td>
<td>73</td>
</tr>
</tbody>
</table>

*Example: 25 of 31 respondents
**FIGURE 10**

OBSERVATIONS BY TOTAL RESPONDANTS AND EDUCATORS ONLY

**QUESTION:** Please check (✓) the factors which you consider to be contributory to any decline in clinical competency of the dental graduates during the past 15 years.

<table>
<thead>
<tr>
<th>Factor</th>
<th>All Respondants</th>
<th>Educators Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>General administrative (leniency)</td>
<td>81*</td>
<td></td>
</tr>
<tr>
<td>(Lenient) attitude of clinical teachers</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Inadequate system of clinical evaluation</td>
<td>92</td>
<td></td>
</tr>
<tr>
<td>Poor student attitude</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Political and social trends and pressures</td>
<td>79</td>
<td></td>
</tr>
<tr>
<td>Failure to apply effective teaching methodologies and use of modern media</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Reduced patient pool for clinical training (in less than 50%)</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Use of manikins to substitute for clinical training on patients (gold foil and amalgams)</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Less clinical demonstration by highly skilled staff</td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>Decreased number of clinical hours (patient contact)</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>Accelerated three (3) year program</td>
<td>79</td>
<td></td>
</tr>
</tbody>
</table>

*Example: 25 of 31 respondents

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**Survey Report**

OPEN-END COMMENTS REGARDING THE CLINICAL COMPETENCE OF DENTAL GRADUATES RELATED TO QUESTIONS IN THE SURVEY

**EDUCATORS**

1. We need to develop better criteria for evaluation and documentation of performance. If this could be developed, we would have a more accurate assessment of the quality of our educational system in future years.
2. There has been a greater interest to do well in clinical subjects the past year but the limited clinical hours make it most difficult to acquire the necessary skills.

3. The following items I believe are very important: (a, b and c especially)
   a. Lack of attention to detail by the daily clinical staff
   b. Lack of sufficient competent clinical staff members
   c. Younger, inexperienced clinical staff members
   d. Use of high speed; less use of hand instrumentation
   e. Lack of clinical judgment by the student
   f. Student's time is divided into too many sub-requirements: team, preventive dentistry, miniclinics, DAU, etc.
   g. Too much emphasis on biological; not enough on clinical application
   h. All schools seem to be in a trend to put less emphasis on clinical teaching; end result is an inferior clinical operator
   i. Lowering the student grade point admission level to accept the minority and then the faculty are requested to bring that student or students up to the average of the class what is next to impossible. End result — inferior training of students all the way through school and inferior practitioners after graduation.

4. I think the board sometimes tries to tell the schools what is proper cavity design which may be reflected in a higher failure rate.

5. There is some evidence to support the belief that there has been a lessening of attention to detail.

6. Most outstanding characteristic or weakness of present-day dental students is lack of motivation and resourcefulness and poor attitude.

7. In Fixed Prosthodontics the clinical competence has been superior for the last three years.

8. Maintaining a positive attitude in dental students has always been a problem in every school, but in more recent years a "get by" attitude and the continual lack of thrust for excellence seems to be more dominant.

9. In regards to the number of graduates from our school who take the State Board, our success ratio appears to be increasing, fewer failures in other words. Students are demonstrating acceptable level of clinical performance in school and on most Board exams. There is always a minority; 10% who have difficulty in school and on Board exams. This is not related to most of the factors included in this questionnaire, it is a reflection of probable error in the selection process.

10. This school has only recently gone to the accelerated three-year program. We see a noticeable decline in clinical performance of the three-year students although none of these have yet taken a State Board exam. Some obvious factors are:
     a. Decreased number of clinic hours
     b. Fewer good clinic patients due to socio-economic factors in the community
     c. More students per class (increased enrollment) causing further shortage of suitable patients
     d. Poorer student attitude due to increased program pressures
     e. Lower faculty-student (instructor-student) ratio
     f. Larger number of "disadvantaged" (and poorly qualified) students in the classes
g. Decrease in class and lab hours for instruction in technical and mechanical skills
11. Emphasis on other disciplines (such as prevention) has diminished student interest in Removable Prosthodontics.
12. Grading system and clinical evaluation instruments are consistently being revised.
13. The determination of clinical competence of students is very complex and usually is poorly done. We need some good measurement tools that will identify weaknesses early, to be followed up by concerted efforts to improve the involved students; or, if that fails, to dismiss them from the program.
14. Quality is improving but so are faculties. The groups (student-faculty) are learning to get along with each other again. The important thing to remember is: Students learn but they must be exposed to excellence! This includes faculty behavior, curriculum, administrative thrust, etc. Also, it should be emphasized that the curriculum, while not always better, is vastly different than that which State Boards "traditionally" measure. We should not be ashamed of these changes and should emphasize to the Board the need for them to upgrade their examinations.
15. Faculties today are prone to accept mediocre performance by the student as compared to the more rigid attitude of faculties in the '50's and early '60's.

GENERAL OBSERVATIONS

(1) It has been an observation of some educators that the "pass-fail" or "satisfactory-unsatisfactory" system has led to a more lenient attitude of the teaching faculty and a reduction of motivation and incentive for many students.
(2) An opinion has been expressed that within some school systems there is leniency in the evaluation of daily clinical performance of the student by part-time staff members while rigid standards are adhered to by senior staff members monitoring special clinics, mock boards, and block assignments. It appears that this dichotomy in evaluation and critique of the student reduces the credibility of instruction and is a deterrent to motivating the student toward consistently striving for high standards of performance.
(3) There appears to be less and less emphasis on clinical demonstration by highly skilled clinical teachers. It has been a long-term observation that it is far more effective to lead the student into proper clinical practices through demonstration and "elbow assistance," than it is to merely critique the end product of his performance. The student must have constant examples of excellence if he is to excel himself.
(4) In recent years the recruitment of part-time faculty at most institutions has become a major issue which is indirectly related to the level of competence of the dental graduates. The usual
stipend salary and the lack of institutional benefits is little incentive for the well-established, skilled practitioner in the community to devote his time and energies to teaching. Therefore, some of the most desirable clinical teachers in the community are no longer available to supplement the full-time teaching faculty in the undergraduate program.

(5) Inadequate inservice training of the technique and clinical teaching staffs is probably one of the greatest failures of the undergraduate educational system. Adequate inservice training is the most direct method for maintaining adherence to the concepts and principles established by departmental administration and for maintaining coordination of instruction. To this date, a truly successful approach to this universal problem has not been developed by dental education.

(6) It has been demonstrated that the application of modern instructional media and a well-designed and administered Learning Resources Center can be highly effective in the educational process at any level. Nonetheless, quality instruction at the technique and clinical levels requires the presence of dedicated and highly skilled part-time and full-time teachers.

CONCLUSION

The expansion of the dental curriculum into the areas of human behavioral science, pain and anxiety control, preventive dentistry, utilization of auxiliaries and practice management, and the clinical application of oral pathology and other applied biological sciences has greatly improved the general clinical competence and professional judgment of the dental graduate in recent years. However, it is the opinion of many educators that dental education has failed to maintain an adequate emphasis on high standards of training in the technical and clinical skills necessary for the students to perform truly therapeutic restorative treatment of the patient. Also, failure of the dental educational process to adequately motivate and to impart a sense of self-discipline to the student renders it impossible for him to attain the level of clinical competence we would all desire.

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Non-Grade Attributes in the Selection of Dental Students

A Pilot Study

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There is concern among members of the admission committees of dental colleges that students who are being selected may not be the ones who will make the best dentists. Most applicants are judged on their academic ability by measures that include overall grade average, science grades, and Dental Aptitude Test (D.A.T.) scores, with the result that non-grade attributes are not systematically used in the selection process. The well-adjusted student who can work well with people may be completely overlooked in the selection process. One might further suggest that students are selected only for their success in school, and that success in practice is largely a matter of non-grade variables, once the student graduates.

Henry and others assert that the dental professional is obligated to attract and graduate into its ranks students who are well-adjusted and work well with people. Yet a survey of dental college entrance requirements reveals that the cumulative G.P.A. — particularly in the basic sciences — and the Dental Aptitude Test scores continue to be the two dominant indices of student selection. Thus there is a gap between the stated objectives of the profession and the instruments used to identify and select.

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Investigators have characterized the dental student as conservative, conforming, unconsciously aggressive, persistent, methodical, somewhat rigid and inflexible, with motives of upward mobility and financial betterment. For some time it was thought that courses in community, social or ecological dentistry could provide the knowledge, skills and motivation necessary to graduate a dentist who could work well in a variety of social situations. Young and Zwemer remind us, however, that by the time a student begins to prepare for a professional career, his personality characteristics, sense of values and attitudes have been developed to a great extent. Therefore, attention has turned to those instruments, particularly nonintellective measures which will aid in the selection of students who will likely carry their socially sensitive traits into dentistry.

Fusillo and Metz, in a comprehensive review of the literature, report that the Edwards Personal Preference Schedule, the Gough California Psychological Inventory, the Allport-Vernon-Lindsey Study of Values, the Strong Vocational Interest Blank and many other standardized measures have been used to define psychosocial characteristics and role orientations of entering dental students. While these studies provide information concerning the non-grade characteristics of dental students, they have not been used in the admissions process to select or eliminate students. The literature on non-grade characteristics of dental students has grown out of small samples from different dental colleges at different points in time, using standardized measures. Problem formulation and the generalizability of the findings still remains to be developed and refined.

Although there is a growing body of work on non-grade characteristics of dental students, there still exists a problem of identification of those students who possess desirable non-grade personal traits and who are likely to be successful dentists. Assuming that the applicant possesses the required academic competence, the non-grade attributes may be the most important characteristic for the practicing dentist.

The Admissions Committee at the University of Iowa College of Dentistry became concerned as to whether biographical data generated by applicants could measure their personality traits and give a history of working with people. This information was meant, in part, to replace the personal interview, which was discontinued at the University of Iowa. Payne, Rapley and Wells suggest that
biodata from such statements, used in conjunction with traditional measures, may be the best single predictors of future behavior.\textsuperscript{24} Others have found the use of a Life History Questionnaire to be successful in predicting how well these individuals will perform with other members of a team.\textsuperscript{19,25,26} Before using such biographic reports in the actual selection process, the question should be asked as to the practical usability of the information.

**METHOD**

The method of the study was to compare an existing non-structured biographic questionnaire with an experimental structured questionnaire. The two forms were compared for their practical use in providing reliable information about the non-grade attributes of dental applicants.

The existing form is the AADSAS page 16 blank page. The instructions at the top of the page request the applicant to:

"In the space below, state concisely, in your own handwriting, why you are interested in the dental profession, including any experiences which influenced your interest. You may use this area to provide additional information pertinent to your application."

While this page permits applicants to describe their personal attributes, many are reluctant to do so unless specifically requested. Member of Iowa's Admissions Committee felt that without explicit structure the information that was provided varied widely among applicants. Some kinds of information were not provided at all.

A survey of the Admissions Committee revealed that information was needed in four specific areas. To meet this need, an experimental Applicant Biographic Sketch Form was designed. (Fig. 1) This new form was structured specifically to the kinds of questions usually asked during admissions interviews to obtain non-grade information:

1. What have you done to explore dentistry as a career?
2. What activities show attainment of excellence in areas other than grades?
3. What have you done that demonstrates your ability to work with and relate to people?
4. Are there any special circumstances that you feel the committee should note and take into consideration when reviewing your case for admissions?
As a test of the usability of the experimental Applicant Biographic Sketch Form, the research question was posed: will the structured new form provide different and more consistent selection information than the available AADSAS unstructured form? The experimental form was sent to applicants in the Spring of 1975. Thirty-four applications were available for a comparative study during the Summer of 1975. Random numbers were assigned to each pair of experimental and AADSAS forms in order to mask recognition of applicants. Three judges were selected for the experiment who typified the experience and character of the

Figure 1

The University of Iowa College of Dentistry  
Dental Applicant's Biographic Sketch

This information will be reviewed by the Admissions Committee. Please cite specific examples for each question.

I. What have you done to explore dentistry as a career?

II. What activities show attainment of excellence in areas other than grades?

III. What have you done that demonstrates your ability to work with and relate to people?

IV. Are there any special circumstances that you feel the committee should note and take into consideration when reviewing your case for admission?

Applicant's Signature                Soc. Sec. #
14-person Admissions Committee. These judges were asked to independently sort the applicants into 5 classes of admissions desirability from most to least desirable, being sure to have equal numbers of applicants in each class. As a further aid to rank ordering, judges were asked to rank the high category from 1 to 7 and the low category from 28 to 34. The experimental form was rated separately from the available AADSAS form to prevent comparison of forms instead of attending to the content provided by each applicant.

Once the judges completed their rating, the identity of the “pairs” was returned for descriptive study. Analysis was accomplished by obtaining a mean of three ratings for each rank, since that tended to represent the decision of a group rather than of individuals, and was therefore more appropriate for committee decisions. The Pearson-Product-Moment Correlation was calculated between forms to provide answers to the following questions:

QUESTION 1: Are these forms giving us the same information?  
QUESTION 2: Was one form more reliable than the other?  
QUESTION 3: Did one form have more variance than the other?  
QUESTION 4: Which form ranked students lower (or higher)?

RESULTS

A brief narrative of the results pertaining to each specific question will be described.

QUESTION 1: An analysis was made by finding the mean rating for each applicant, then calculating a Pearson-Product-Moment Correlation between forms. The \( r = .55 \) permits a conclusion that the forms are not saying the same thing and therefore provide different information.

QUESTION 2: An analysis was made using the mean rating, with the finding of:

- AADSAS form \( r = .76 \)
- Experimental form \( r = .66 \)

The conclusion is that the forms are very similar in providing consistent information, the AADSAS form a little better than the experimental form.
QUESTION 3: An analysis was made by determining the widest range of the three ratings. The AADSAS form had more variance on 14 applicants while the experimental form had more variance on 15 applicants. The conclusion is that there is no difference with regard to variability.

QUESTION 4: Analysis was made by the mean ranking of each applicant. The AADSAS form ranked 13 students lower and the experimental form ranked 18 students lower. There were three ties. The conclusion is that neither form ranks students consistently higher or lower than the other.

DISCUSSION

The Admissions Committee researchers concluded from this study that the two forms provide different information, but both forms are equally reliable by the process used to test them. The study did not eliminate either form as being undesirable. Should a committee feel more comfortable in using the experimental form it would be acceptable. Because the forms are not providing the same information, they are not ranking the applicant the same; the choice of form will influence the ranking of applicants to be different.

A consideration in using a more structured form is that an admissions committee may find difficulty in agreeing upon the desired information. If the desired information can be agreed upon, then the structured form has apparent usefulness. The structured form becomes a feasible alternative for many schools, especially if the interview process has been discontinued. This study suggests that the structured form is just as consistent and easier to interpret than the unstructured form. Some committees may wish to use both forms, as one provides different information than the other. The Admissions Committee at the University of Iowa presently uses both forms.

This study provides only a beginning approach to the problem of obtaining information about non-grade attributes. Follow-up studies could assess the performance of dental students in school when compared to their ranking on the biographic form. In addition, the structured form could be compared question by question to see which question predicts a well-adjusted student and later
dentist who can work well with people. Such additional information would be welcome to a more effective method of providing schools with information on non-grade attributes of applicants.

**BIBLIOGRAPHY**


Pound for pound, and by overall dimensions, the second edition is an expanded, updated version of its predecessor. It presents the current concepts of endodontic theory and practice in a detailed manner that is readily comprehended by the specialist, the general dentist, and the dental student. On the whole the book is highly informative, clearly written, with a multitude of excellent illustrations.

Most chapters cover the same basic material as comparable chapters in the first edition, although the second edition has many more illustrations and photographs. Only eight of the contributors of the first edition have been retained in the second. The new contributors have given fresh approaches to the same subjects covered in the earlier edition by previous authors.

The inside of the front cover and fly leaf have been used in a unique fashion to list emergencies. Those considered primary by the author are shown in red, while those considered secondary are shown in black.

The chapter on Preparation for Endodontic Therapy has a greatly enlarged section on radiographic technique, which clearly depicts the problems that can arise when taking diagnostic and working radiographs. Such updated material is in sharp contrast to another part of the chapter which speaks of using cocaine solution in direct pulpal anesthesia, a substance that is not ordinarily found in the modern dental office.

Many archaic and outdated scientific terms, such as fistula and phoenix abscess, are still retained in the second edition. These should have been replaced with current descriptive scientific terminology.

The addition of the chapter on Pediatric Endodontics fills a great need in endodontic texts, and clearly presents information and techniques on endodontic care and treatment of the pediatric patient that will be of use to all readers no matter what their degree of expertise.

Harold M. Rappaport
Historical Perspectives
(continued from page 101)

highest forms of professional attitude and should maintain a steadfast refusal to allow erosion of it distinctive tenents. Its primary interests focus on the continued improvement of our profession and its services to society with individual human integrity as the basic building block.”

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A Barrier to Graduate Study
(continued from page 115)

the program with the award of a certificate. Later there is a reluctance to provide other than positive or complimentary references on behalf of this graduate when asked. I think we need to examine these problems and develop a new resolve to ensure that we maintain a high level of credibility among ourselves, between ourselves and our students and between ourselves and the highest levels of professionalism demanded of us by our specialty.

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STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

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Robert I. Kaplan, Editor
The Objectives of the American College of Dentists

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

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

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

(d) To encourage, stimulate and promote research;

(e) Through sound public health education, to improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient;

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

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

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

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

Revision adopted November 9, 1970.