FALL 1983

JOURNAL

AMERICAN COLLEGE of DENTISTS

MINORITY GROUP DENTAL STUDENTS

—A Need For Added Support

—Economic Pressures

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;

(c) To encourage, stimulate and promote research;

(d) 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;

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

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

(g) 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;

(h) 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.

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NOMINATIONS TO F.A.C.D.

FROM THE EDITOR'S DESK

Many Deserving Dentists Are Overlooked

Certainly, there are dentists in many areas of the country who are "truly outstanding" in the dental profession and appear to be well qualified to be Fellows of the American College of Dentists. Yet they are not members of the ACD primarily because they have never been nominated for membership. Something should be done about that.

Since only an active Fellow of the College can submit a nomination, the present ACD membership holds the key to the future membership of the College. The problem is that not enough of our present members are using that key. To put it another way, the bottleneck to maintaining the future membership of the College is in the current membership.

We are leaving nominations for Fellowship to the chance that individual members will assume the responsibility of nominating, but *the nomination process is too vital to the future of the College to be left to chance.*

With our nominating system, a present Fellow must first submit a written request to the ACD Central Office to obtain a nomination form, must fill out the form without the candidate's knowledge and assume all of the responsibilities involved. If the person is found to be qualified by the Committee on Credentials and accepts the invitation to membership, then the nominator (or the Fellow who seconds the nomination) must arrange to be present at the Convocation to act as the sponsor. Not all Fellows are dedicated enough, under these circumstances, to volunteer a nomination.

Keith P. Blair

We have another related problem, which is graying of our membership. Nearly 28 percent of our present members are Life Fellows, over 70 years of age. About 70 percent of our membership, including Life Fellows, is over age 55. Only 30 percent of our Fellows are under age 55.

Maintaining the membership is a problem that must be dealt with. There is a definite need for younger blood in the College.

We need to search out those apparently qualified dentists in every part of the country who have never been nominated to Fellowship. Someone or some group simply has to review the dentists in each area who have notably contributed to the advancement of the profession by reason of outstanding accomplishments in one or more areas of Service to the Profession, Public Service, Education, Research, Clinical Practice and Literature-Journalism.

It is unfair to a deserving dentist not to be nominated. It is unfair to the College not to have such a deserving dentist as a Fellow of the College.

There is no need to change the nomination system and alternative ways are not necessary. What is needed is a *Section Review Committee* in each Section which takes the responsibility to search for and recognize dentists who appear to be qualified for Fellowship and who may have been previously overlooked. The Section Review Committee can then call on Fellows of the Section to nominate candidates in the usual way.

Several of the more successful Sections of the College are already using variations of this proposed system of Section Review, with excellent results. The present nomination system is assisted, in this way, to make it function better.

Maintaining our membership has to be a concern for all members. A Section Review Committee could serve as one of the most important functions in the College.

Keith P. Blair

NEWS OF FELLOWS

Robert A. Cupples

Regent Cupples Dies

Robert A. Cupples, Regent of the Eighth District for the American College of Dentists, has died suddenly at his home in San Jose, California. He would have completed his four-year term as Regent in October 1983.

Dr. Cupples has served the dental profession for over 55 years at component, state and national levels. He was president of the Santa Clara County Dental Society and the California Dental Association. From 1966 to 1972 he was the 13th District Trustee to the American Dental Association Board of Trustee.

As the Eighth District Regent on the American College of Dentists Board of Regents, he represented Northern California, Oregon, Washington, Idaho, Hawaii, Alaska, British Columbia, Alberta and Saskatchewan. He was Chairman of the ACD Publications Advisory Committee.

Among other positions he has held in service to the profession was as a Director for the American Dental Health Foundation, Director and Treasurer for Delta Dental Service and as an official ADA representative to the General Assembly of the Federation Dentaire International at Munich, London and Athens.

He has been recognized by his community by a Distinguished Citizen Award from the city of San Jose and honored by his state dental association when the 1969 Annual Meeting of the CDA was dedicated to him.

Dr. Cupples was a Captain in the United States Naval Reserve. He leaves his wife, Jane, a daughter (Diane) and a son (John) who is a dentist in San Jose.

Alvin L. Morris, professor of dental care systems at the University of Pennsylvania School of Dental Medicine, has been named the 1983 recipient of the Percy T. Phillips Visiting Professorship at Columbia University. The program is sponsored jointly by the Dental Society of the State of New York and the Columbia University School of Dental and Oral Surgery.

The Academy of General Dentistry has recently presented honorary awards to ADA President **Burton H. Press** and to **Thomas H. Shipmon,** professor emeritus at the University of Tennessee College of Dentistry. **Sam W. Rogers, Jr.** of Houston, Texas was installed as AGD President-Elect. Also elected were **Stephen L. Kondis,** Munhall, Pennsylvania to serve a second term as AGD Secretary and **Carlton K. Swerdlove** of Brooklyn, N.Y. to be Speaker of AGD's House of Delegates.

Michael A. Heuer, present chairman of the Department of Endodontics at Northwestern University Dental School, has been named associate dean for academic affairs. He is a diplomate and past-president of the American Board of Endodontics and is serving his fifth term as secretary of the American Association of Endodontists.

Gerald J. Cox of the University of Pittsburgh School of Dental Medicine was presented with the Recognition Award of the Pennsylvania Dental Association. He was honored for his contributions to dentistry, including his work as a pioneer in fluoridation research and his efforts to introduce fluoride in public water supplies.

W. Phillip Phair, professor of Preventive and Community Dentistry at the University of Iowa College of Dentistry has retired from full-time teaching and has been named professor emeritus. He will continue to serve the College of a voluntary basis.

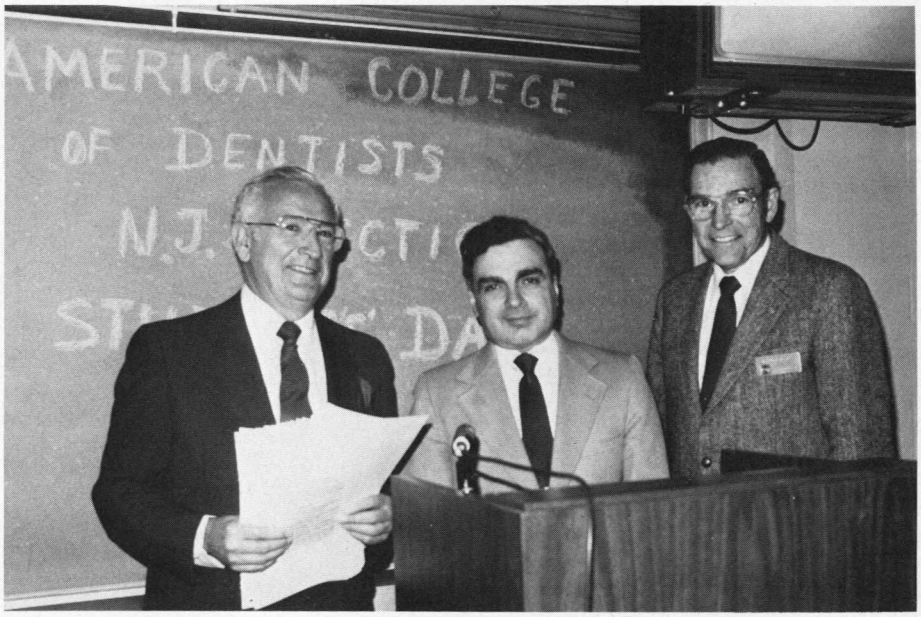
SECTION ACTIVITIES

New Jersey

The New Jersey Section sponsored a Students Day at Fairleigh Dickinson University School of Dentistry with a program featuring "The Management of Dental Problems Today."

The program chairman was Dr. Ralph Terrace who introduced the Section Chairman Thomas M. DeStefano; Dr. Ralph Kaslick, Dean of the Dental School and Dr. H. Curtis Hester, ACD Regent.

Discussion groups were lead by Fellows of the College in seven separate groups. The event was held in the late afternoon and was followed by a buffet supper. This first-time project was considered to be a definite success.



Pictured at the New Jersey Section's Students Day at Fairleigh Dickinson University are, left to right, Dr. Ralph Terrace, program chairman; Dr. Ralph Kaslick, Dean of the Dental School and Dr. H. Curtis Hester, Regent for Regency 2 of the American College of Dentists.

Kentucky

Section Chairman Hubert Fields welcomed the group, including a number of dignitaries. He introduced Dr. Theodore E. Logan, Sr., Executive Director of the Kentucky Dental Association, former ADA Trustee Joseph H. Hagan, ADA President-Elect Donald E. Bentley, ADA Treasurer John L. Bomba, ADA Trustee Robert B. Dixon and ADA Trustee R. Michael Overbey.

Dr. Overbey addressed the group, presenting some interesting and enlightening information on pending and proposed legislation.

It was decided that a contribution of $25. would be made to the American College of Dentists Foundation as a memorial gift in the event of a death of a Section Fellow.

New officers elected were Ernest Ellison, Chairman, Harry Weddington, Vice Chairman and Richard L. Miller, Secretary-Treasurer.

Richard L. Miller

Pictured above are VIP's attending the Kentucky Section Meeting. Left to right are former ADA Trustee Joseph H. Hagan, ADA Trustee R. Michael Overbey, ADA Trustee Robert B. Dixon, W. Hutson, ADA President Elect Donald E. Bentley, ADA Treasurer John L. Bomba, and Charles D. Carter.

The Illinois Section presented the American College of Dentists Award of Merit to the outstanding senior student from each of the four dental schools in Illinois. Seated, left to right, are the recipients John M. Conness of the Loyola (Chicago) School of Dentistry, Geoffrey Bauman of the Southern Illinois University Dental School, Louis F. Clarizio of the Northwestern University Dental School and James Lee Gehrs of the University of Illinois Dental School. Proudly standing in back of his honored student is the Dean from each of the respective dental schools, Dr. Raffaele Suriano, Dr. Herbert C. Butts, Dr. Norman H. Olsen and Dr. Seymour Yale.

St. Louis

The Section meeting was held at the University Club. Mr. James Brophy, Executive Secretary of the American Association of Orthodontists was the main speaker. His subject was "Dentistry in the Eighties—Directions for the Future."

Dr. George D. Selfridge, Dean of Washington University School of Dental Medicine, introduced two young men, Mr. David Gonzales and Mr. James Davis who were the recipients of the awards for the Most Outstanding Junior Student at our two local Dental Schools.

New officers elected were Jerome S. Grosby, Chairman, Everett R. Roeder, Vice Chairman and John G. Durham, Secretary-Treasurer.

A moment of silence was observed for deceased members Dr. Charles Brand and Dr. Ralph Rosen.

Chairman William J. Kelly, Jr. announced that twelve nominations for new Fellows are pending at this time.

Chairman Kelly turned the gavel over to the incoming Section Chairman Jerome S. Grosby.

Everett R. Roeder

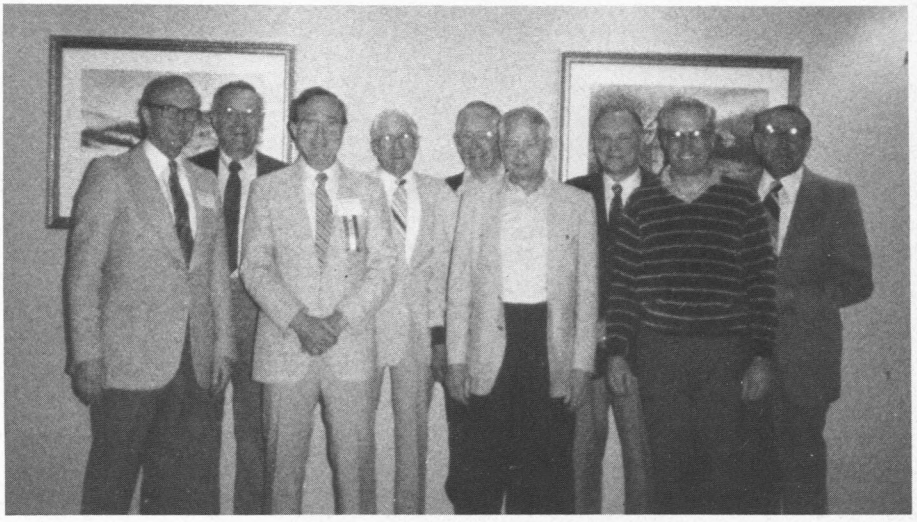
Georgia

The Georgia Section held its annual breakfast meeting at the DeSoto Hilton Hotel in Savannah.

The American College Vice President, Charles W. Fain, Jr., addressed the group and pointed out that *SERVICE* to the profession and to the community is the distinguishing quality for members of the College.

Regent James A. Harrell, Sr. of Elkin, N.C. gave the group a brief history of the College with a challenge to the Section to develop worthwhile service projects.

P. B. Cleaveland, Jr.



Meeting of the Montana Section was held April 21. Pictured, left to right are Executive Director Gordon H. Rovelstad, David W. Downey, Harold A. Pressman, Marion G. Maixner, Clarence H. Swanson, David V. Diggs, Edgar J. Guay, Donald R. Frederickson and Albert J. Thompson.

Dr. Robert Thoburn, of Daytona Beach, Florida who has had a long and illustrious career in dentistry, has written a book entitled, "One Hundred Years of Dentistry in Florida," in honor of the 1983 centennial celebration of the Florida Dental Association. Pictured left to right are Walter Zubinsky of the Volusia County (Florida) Library System; Marvin Samuels, President of the Volusia County Library System; Dr. Thoburn and Dr. James C. Yeargin, President of the Volusia County Dental Society. Dr. Yeargin presented enough copies of the book so that one copy can be placed in each public library in Volusia County.

AND LEAD ME NOT INTO TEMPTATION

Robert M. Unger*

"And lead me not into temptation." That title may sound more appropriate for a sermon in a synagogue or a church. While that may be true, I do not believe that it is a restricted subject, for it applies to society as a whole as well as to our professional association.

With shaky economic conditions, with political uncertainty, with an unknown future, together with an accumulation of many of our shattered youthful dreams, the average person today finds himself betwixt and between the proverbial rock and a hard place. This is also true today for the average practitioner in our dental profession. No one is truly exempt from the harsh realities of today.

There are many and varied reasons for entering into the profession of dentistry. For whatever reason we chose dentistry, we did pledge upon our graduation from professional school to improve the dental health of the public we serve and to improve the art and science of our profession. When we joined organized dentistry's association we further pledged to represent the interest of our fellow members and that of the public. An ideal pledge to be sure, and a pledge that each and every one of us was certain we could live up to.

The purpose of marketing is to stimulate demand. All of the expensive institutional advertising in the world, however, will not relieve our individual responsibility for stimulating demand.

What happens to that strong motivation a dentist possesses upon graduation, when he steps into the real world that all of us live in? Do we change our philosophy on the reasons we became professionals? I believe that we must admit that we all do change to some degree. The dream world we entered when we chose our profession does not truly match the actuality of working in the street of hard knocks. We found ourselves facing a world which harshly demanded from us excellence in the performance of our service while it begrudgingly gave us a stipend much lower than we thought should be given. A stipend that we personally may deem necessary to, not only carry on our professional life, but to afford us those extra benefits befitting the stature of a professional person. To desire worldly riches and honors is not necessarily wrong, but to be willing to abandon the ethics and the morals of one's profession to obtain them is definitely wrong.

Robert M. Unger

The temptation to abandon personal high ideals is readily appreciated when one sees, as we all do, that the ways of the world today demand more than we can attain or give in return. Many of us are tempted to give into that wedge that appeals to our pride and vainglory with the hope and promise of the suggestion that what we want belongs to us. But, what price are we willing to pay to obtain those wants? Are we willing to abandon the high standards called for by our profession? Are we willing to evade the pledge we gave upon graduation? Are we willing to become an occupation, or a big business, to obtain the big dollars? Are we willing to be seduced by entrepre-

*Robert M. Unger, DDS, Chicago, Trustee, 8th District, American Dental Association.

neurs who tempt us while helping themselves? Not easy questions to answer to be sure, when the banker is calling for his money which we borrowed, when the tax man is calling for more, when the price of everyday living necessities is going up, and we see ourselves being squeezed. We may very well find ourselves betwixt and between our natural desire to fulfill our dreams to be a true professional and the temptation to give in to the expediency of the times to make our daily bread. As a wise man once said, "The honest bread we need to sustain is good, it's the butter that makes the temptation."

Today, we find honest differences of opinion among honorable men on how to solve the complex problems facing society. We find this to be true within our own profession as well. The problems vary in importance. I would like to discuss a few of those major problems.

The problems resolve around two words, "Dentistry's Busyness." When these words became vogue in our professional vocabulary a few short years ago, I did not pay too much attention. Lack of busyness was not my problem as it was for some. Today, that has become a universal problem. No one is truly exempt from that reality.

The major causes for the decline in dental appointments are well known. Our efforts in the area of prevention, our increased productivity, the rise in the number of dentists, and our troubled economy have all had an effect on the demand for dental care. Knowing the problem is one thing; eliminating the multiple causes of the problem is another matter.

The capitation programs must be brought under the same laws as those governing the prepaid dental insurance programs.....However, no matter what system is used, the underlying question must always be: are we doing what is best for the patient?

A typical concern is the method of delivering dental services. We have all been historically educated on the fee-for-service concept where the patient is responsible for the payment for the service rendered. The dentist's risk factor under this concept is limited to that very small percentage who fail to pay. With the advent of prepaid dental benefit plans, dentists began to accept assignments for payment from a third party. This concept brought an increase in demand for dental care. At the present time, eighty seven million people are covered by dental benefit plans. Plans vary widely in the type of coverage that is offered to the individual consumer.

Because of the decrease in dollars available for fringe benefits given by the employers, we are facing a great demand for alternate ways of compensating employees. This fact is a concern, not only in the private sector of our society, but it is increasingly becoming a major item for discussion by government agencies. The direction those discussions take will have a monumental effect on the way we may run our practices in the future.

To compensate for the loss of dollars in today's market place, we also find a greater public demand to reduce the seemingly runaway cost of health care. While dentistry has historically kept the cost of its portion of the health cost below that of its allied profession, it is being tarred with the same brush as a major culprit. The fight for the reduced dollar has brought about a call to find alternative modes of delivering dental service, and the reimbursement for that service. Plans such as retail store dentistry, closed panels, HMO's, and capitation are some of the newest approaches to compensate dentists for dental service.

Capitation, although an acceptable practice in the business world,

is a relatively new idea to our profession. The pros and cons of the concept are judgmental at this time. On this day, this reviewer's viewpoint remains on the negative side of the debate.

In the simplest of terms, capitation is an alternate approach to the fee-for-service method in reimbursing the dentist for his service. It is a system by which the contracting dentist assumes the financial risk, is compensated at a fixed per capita rate for agreeing to provide predetermined dental service as appropriate and necessary. The contracting dentist is given a fixed amount in advanced to provide a service for a given time period. The opportunities for potential abuse are glaring, unless a proper monitoring system and external review are provided. The prepaid fee-for-service tends to promote over-utilization, while capitation encourages under-utilization. No system is foolproof or free of abuse. The question that must be asked is, "Do we advocate the substitution of other systems with attendant problems equal or greater than the problems they solve?" I, for one, do not believe that it is a true solution. As far as this person is concerned, capitation programs must be brought under the same laws as those governing the prepaid dental insurance plans, for they are akin to each other. However, no matter what system is used, the underlying question must always be: are we doing what is best for the patient?

For every alleged cause for the decline in busyness in our offices, we have an alleged instant cure. Unfortunately, like the national government, trying to cure the woes of the economy, no one plan can be developed to please everyone. What is needed is a series of programs that will afford the maximum good for the maximum number of our members, at a price that we as an association and as individuals can afford.

The new ADA Marketing program is one such approach. It was developed over a period of more than two years. A great deal of careful study and research went into it.

What we have now is a detailed multi-faceted plan designed to reach that vast number of Americans who have not previously enjoyed the benefits of regular dental care.

To desire worldly riches and honors is not necessarily wrong, but to be willing to abandon the ethics and the morals of one's profession to obtain them is definitely wrong.

This program reflects our belief that dental service marketing begins with the individual dentist. The success of this effort will depend chiefly on the hard work and unwavering commitment of the private practitioner. We supply the tools—the nuts and bolts—but the dentist is the professional. What he fashions from these materials is entirely a matter of his personal choice.

On the local, state and national levels, our primary responsibility is to support and complement the grassroots efforts of the individual practitioners, providing the icing on the cake, reinforcing our members' personal marketing activities. The new ADA marketing plan includes varied programs and promotions to achieve this goal.

Our overall purpose is to stimulate demand for dental care. If our analysis of dentistry's position will indicate that a national institutional advertising campaign is needed in order to achieve that purpose, then, I am sure, one will be recommended. We must understand that a national campaign of that size will require a total commitment from the profession to support a long term and expensive program.

No matter how well an ad campaign is conceived, if the individuals we want to attract to our offices are in such a financial bind that they are unable to afford our services, we may be placing our hard earned dollars to misuse. There is no easy nor foolproof way. All possible avenues must be explored.

The private practitioner is the cornerstone of any marketing program. It is the individual dentist who must take the necessary first steps toward stimulating increased demand for dental care. It is the private practitioner who will affect genuine and lasting change in reaching those who are not currently receiving the dental care they require.

All of the expensive advertising in the world will not relieve our individual responsibility for stimulating increased demand for quality dental services.

The title of my paper has been, "and lead me not into temptation." So far, you have heard only the word, "us." I would like to remind you that before there can be "us", there must be "me". And, being what we are, no suggestion or temptation has a chance for infiltration into our life style except along a path already made smooth by the life journey of our hearts and minds.

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PERCEPTIONS OF DENTAL STUDENTS' PROBLEMS

Oliver J. W. Bjorksten*
M. Clinton Miller, III*
Susan E. Sutherland*
Thomas J. Stewart*

This study compared the perceived problems of 181 dental students with those of 1202 other health science students (Allied Health, Medicine, Nursing, Pharmacy, and Biomedical Graduate Studies). It was found that dental students have the same spectrum of problems as other students, but the severity of these problems appears less intense.

In 1977, a workshop held by The 24th Congress of the International Association of Dental Students summarized the quality of life of dental students.[1] They observed "that there are more similarities than differences concerning the feelings and thoughts of dental students throughout the world. There is not much divergence, despite (differences in) racial, cultural, or geographic backgrounds."[1] After citing financial difficulties, effects (of student life) on social life, and professional demeanor as sources of stress, they concluded that "Everything taken into account, the quality of life of dental students is rated stressed, but acceptably good and secure."[1]

Nevertheless, dental educators have recognized that the educational process of dental students can be more stressful than was reported by the 24th Congress.[2-8] The results of inquiry into the sources of these stressors and their effects have been summarized by Garbee, et al.[9]

The present study of perceived problems among dental students extends previous studies in three areas: First, it focuses on problem areas which have not previously been reported, including: the student's life situation, problems with family, relatives and friends; behavior; and feelings. Second, it develops a "control" group of health professions students with whom one can compare findings. Finally, it compares several demographic subgroups of the dental student body at the Medical University of South Carolina (MUSC).

The Bjorksten Student Problems Inventory (BSPI) is designed to identify, from a diversified range of problems, those areas that are of concern to an individual student.[10] It also permits the student to express his perception of the level of his peers' concern with the same problem areas. The inventory has five sections. The first section identifies the student using 17 demographic variables. The next four sections, which consist of 83 items, permit the student to rank on a 5 point Likert scale, his concern for four potential problems areas. These include: problems with life situation (school and educational environment); problems with other people (family, relatives, friends); problems with behavior; and problems with feelings.

Of the 1790 students at MUSC in 1976, 1383 anonymously completed the BSPI during regularly scheduled class sessions. All of the 181 dental students, representing each of the three classes in the three year curriculum, completed the inventory. Since we are concerned with the characterization of the type and source of problems for dental students, the statistical methodology is primarily descriptive. Means of severity ratings for each item were calculated and ranked for dental students and all

Everything taken into account, the quality of life of dental students is rated stressed, but acceptably good and secure.

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other students in the other health professions schools. These schools include: Medicine, Pharmacy, Allied Health, Nursing, and Graduate Studies. Sign tests and Kendall's coefficient of concordance were used to examine the overall similarity of the number and type of dental student problems with those of other students. Analysis of variance was used to test for the significance of differences among subgroups of the dental students themselves. In addition, the percentage of students scoring 3, 4 or 5 on each item was calculated. Then the frequencies were rank ordered as shown in Table 2. Because this crossectional survey has the objective of identifying areas of concern of dental students that produce stress, it examines a large number of variables (83). Whenever a large number of dependent variables are tested for significant differences, it is likely, by chance alone, that some of them will be statistically significant. Since it is not proper to apply usual levels of statistical significance unless the hypothesis has been stated before collecting and analyzing the data, we will restrict our conclusions to the identification of associations among the dependent and independent variables in our study. In those instances where we tested hypotheses, we used Bonferroni's adjustment for multiple testing within a sample.[11] This permits one to establish the Type 1 error rate.

Results

The demographic characteristics of the sample can be summarized as follows: 55 percent married; 95 percent white; 94 percent male; and 63 percent below 25 years of age.

Table 1 presents the top fifteen ranked problems for dental students. The means are based on a 5 point Likert scale, in which one represents no problem, and five, great difficulty with the problem. Kendall's coefficient of concordance ($w = .98$) shows no significant difference between dental and other health professions students in their ranking of those 15 problems thought to be most important. The direction of the sign test for differences in the means between dental students and all other students, using all 83 items on the inventory collectively, indicates that dental students are less concerned than other health professions students with the problems enumerated on the Bjorksten inventory. Although the standard tests for significant differences resulted in 26 positive tests at $p = 0.05$, Bonferroni's adjustment for multiple testing (where p must be less than $0.05/83 = 0.0006$) disclosed only five differences. Of these five, four (cheating, theft, alcohol and paying for health care and/or materials) were of greater concern to dental students while the remaining problem (dating) was of less concern.

Dental students are concerned about grades, the competitive atmosphere of their learning environment, their relations with their faculty and their feeling of being powerless in the system.

Table 2 presents the students' problems ranked by prevalence of scores greater than or equal to 3. Sixty-nine percent or 57 of 83 problem items were reported by 10% or more of the dental students. These problems included 6 of the 7 items involving the students' life situation; 15 of the 17 items involving problems with school; 2 of the 7 items involving problems with relatives; 5 of the 6 items involving problems with friends; 5 of the 5 items involving problems with behavior; 2 of the 12 items involving problems with sex; and 22 of the 27 items involving problems with feelings.

Our subsequent analyses address the relationship of concerns among dental students to gender, year in school, age, and marital status. All tests were made using pooled estimates of the error and Bonferroni's adjustment for multiple item testing, i.e. p must be less than 0.0006 in order to be significant.

Other than the female-male gender difference in concern for personal safety (mean = 2.45 vs. 1.39) and discrimination based on sex (mean 1.91 vs. 1.21), no other gender differences were found.

First and second year dental students expressed significantly greater concern than third year (senior) students for lack of leisure time, too little time (in general), and conflict between work and fun. Second year students also expressed most concern for their feeling of "powerlessness" in the system.

Age, marital status, and their interaction contributed little to

Table 1. Rank order of top 15 problems for dental students and all other students combined

Rank	Problems for Dental Students	% with Score ≥3	Mean score ± s.e.	Mean score ± s.e. for Others*	Rank for others
1	Too little time	68.6	3.194 ± .091	3.212 ± .040	1
2	Leisure time	64.8	3.074 ± .103	2.888 ± .040	2
3	Powerless in system	57.1	2.887 ± .096	2.576 ± .040	3
4	Finances	54.8	2.763 ± .100	2.527 ± .036	4
5	Motivation to study	47.7	2.523 ± .079	2.430 ± .034	7
6	Tiredness	42.0	2.381 ± .076	2.451 ± .034	6
7	Not valued by faculty	40.6	2.349 ± .092	2.150 ± .036	11
8	Conflict between work and fun	39.5	2.326 ± .092	2.497 ± .038	5
9	Competition	41.4	2.310 ± .082	2.186 ± .034	10
10	Faculty Relationships	30.5	2.102 ± .080	1.853 ± .031	21
11	Grades	28.2	2.062 ± .071	2.308 ± .033	8
12	Daydreaming	25.4	1.989 ± .083	1.927 ± .030	17.5
13	Powerless	26.1	1.977 ± .086	1.828 ± .033	25
14	Other (school)	44.7	1.974 ± .208	2.307 ± .108	9
15	Paying for health care and/or materials	23.3	1.875 ± .089	1.581 ± .028	50

Others include Medical, Pharmacy, Nursing, Allied Health and Graduate Studies.
Kendall's Concordance $W = 0.9589$, $p < 0.02$

Table 2. Rank order of problems reported by dental students based on percentage of responses greater than or equal to 3

Rank	Problem Item	%	Mean	Rank	Problem Item	%	Mean
1	Too little time	68.6*	3.194	32	Self-confidence	16.5	1.693
2	Leisure time	64.8	3.074	33	Expectations of conduct	16.4	1.588
3	Powerless in system	57.1	2.887	34	Feelings too easily hurt	16.0	1.663
4	Finances	54.8	2.763	35	Other (problems with feelings)	15.8	1.737
5	Motivation to study	47.7	2.523	36	Feeling left out	15.8	1.610
6	Other (school)	44.7	1.974	37	Stealing/theft	15.3	1.542
7	Tiredness	42.0	2.381	38	Transportation	15.3	1.559
8	Competition	41.4	2.310	39	Loneliness	15.3	1.678
9	Not valued by faculty	40.6	2.349	40	Unsure of future goals	15.3	1.661
10	Conflict between work/fun	39.5	2.328	41	Depression/sadness	15.3	1.723
11	Faculty relationships	30.5	2.102	42	Racial prejudice	14.9	1.506
12	Grades	28.2	2.062	43	Shyness	14.7	1.610
13	Powerless	26.1	1.977	44	Easily upset	14.1	1.616
14	Daydreaming	25.4	1.989	45	Confusion of personal beliefs	14.1	1.622
15	Neighborhood	25.0	1.858	46	Speaking or acting without thinking	13.8	1.689
16	Apathy	24.3	1.864		(impulsiveness)		
17	Pressure to succeed	23.7	1.768	47	Inhibited	13.6	1.622
18	Feel quality of education is poor	23.7	1.864	48	Non-conformity	13.1	1.600
19	Paying for health care and/or materials	23.3	1.875	49	Aggressiveness	13.0	1.542
				50	Feeling ill at ease with other people	12.4	1.548
20	Job	20.9	1.657	51	Helplessness	11.9	1.597
21	House (apartment)	20.3	1.774	52	Cheating	11.9	1.497
22	Nervousness	19.2	1.825	53	Hopeless feelings	11.5	1.506
23	Feeling dissatisfied with self	18.6	1.819	54	Professional ambivalence	11.5	1.523
24	Anger/temper	18.6	1.735	55	Obeying rules	11.3	1.475
25	Submissiveness	18.5	1.728	56	Uncertainty about career choice	10.7	1.514
26	Sleep	18.2	1.670	57	Personal safety	10.2	1.455
27	Suspiciousness	18.1	1.695				
28	Being taken advantage of	18.1	1.689				
29	Other (friends)	17.1	1.629				
30	Moodiness	17.0	1.801				
31	Feeling distant from others	16.9	1.797				

*Percentage of responses ≥ 3

student variability in concern for most of the 83 items as determined by multiway analysis of variance.

Discussion

The global character of the Bjorksten Student Problem Inventory has enabled us to confirm Garbee, et al's[9] observation that dental students are concerned about grades, the competitive atmosphere of their learning environment, their relations with their faculty and their feeling of being powerless in the system. (See Table 1). Furthermore, its use has extended our understanding of the sources of dental student stress by demonstrating the contribution of the following factors: life situation (for example, school and educational environment), relationships with other people (for example, family, relatives, and friends), behavior, and feelings.

Among the reported top fifteen ranked problem areas for dental students were a number of items associated with the management of time: too little time, concern for leisure time, the conflict between work and fun, and the problems of tiredness and daydreaming. As one might expect, first year students reported the greatest problems with time management issues while third year students reported the least concern.

This study developed a "control" group consisting of other health profession students (medical, graduate, nursing, pharmacy, and allied health) with whom one can compare dental student findings. Although the number of differences between dental students and students of other health professions were few in number, there were some qualitative differences. Dental students were more concerned with financial matters and their living environment. They were concerned, but less so, with grades and projected a sense of greater self-confidence and self-satisfaction. Indeed, the clusters of items that significantly differentiate dental students from other health professions students suggest: a generally mature dental student with controlled feeling states, who cares about financing dental and health care, his living environment and his relationships with family and faculty.

Analysis of subgroups of dental students showed that demographic variables contributed little to student variability in concern for the 83 items. These investigators were struck by the homogeneity of dental student perceptions of the sources and extent of concerns regardless of age, gender, year in school or marital status. Exceptions were: young single dental students reported the greatest difficulty with the problem items: "motivation to study" and "too little time." The latter problem was shared by older married students. Among single students, older students expressed greater severity with the item of "marriage." The occurrence of these expected findings reinforce our belief that the Bjorksten Student Problems Inventory accurately ferrets out student concerns.

The mean was not found to be a particularly good measure of the severity or prevalence of a problem to students. For example, Table 2 presents the students' problems ranked by prevalence of scores greater than or equal to 3. Sixty-nine perent or 57 of 83 problem items were reported by 10% or more of the dental students. In the opinions of these investigators, any problem reported as 'some problem' or worse by more than 10 percent of a student population should be investigated and intervention programs considered by appropriate institutional officials. In spite of relatively low mean sources, 10 of the of 83 items had prevalences of 33%. (Table 2) One-third of our students found these 10 items to be 'some problem' or worse. The array of problems involved the students' life situation, school environment, behavior, feelings, and family and friends; thus suggesting that the Student Mental Health Program Director, Curriculum Committee, Office of Student Affairs and Faculty all have meaningful roles to play in the design and implementation of intervention programs.

Compared with other health professions students, dental students have the same spectrum of perceived problems but to a somewhat lesser degree.

In closing, dental educators should not despair. In spite of these unacceptable problem prevalences, our dental educational environment appears no more problematic than other colleges in this University. Indeed, the present study found that compared with other health professions students, dental students have the same spectrum of perceived problems but to a somewhat lesser degree. Dental students do not complain about many untoward feeling states which suggests a degree of satisfaction not found in other health professions students or an unwillingness to admit to them. △

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A TREASURY OF DENTISTRY

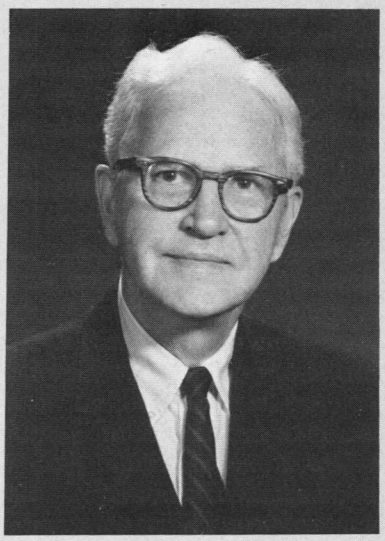
The Dental Attractions of the Wells Cathedral

Gardner P. H. Foley

To the members of the dental profession the Cathedral in Wells, a small city in Somersetshire, England, offers many features of pertinent interest. It has stood in glorious presence, in various stages of construction and restoration, since its beginning in 1148. It grew through the centuries by the efforts of successive generations of dedicated workers who were inspired to build a marvelously impressive building that would reflect their conceptions of the beauty of holiness and the glory of God. The construction of such a lovely Cathedral was a work to which all of the people could contribute their share according to their means and abilities. Throughout its history the offices of its clergy have been given to all sorts and conditions of men, women and children. The helpless were afforded protection; the hungry were fed; and medical services were rendered to all who needed them. To this blessed sanctuary the people flocked to ease the burdens of their barren lives, for within its splendid precincts they found peace and comfort and religious inspiration.

Sculpture at Wells Cathedral

The Wells Cathedral has the finest collection of medieval sculpture in England. These creations are in the form of capitals that record the history of the parish, the traditional interests of the people, and, of particular interest to dentists, the miseries of the toothache. A widely accepted Christian concept of sinful conduct acted as a serious deterrent to oral hygiene in the Middle Ages. The people believed that cleaning of the teeth and operations on the teeth, except extractions, were motivated by personal vanity and thus were not to



Gardner P. H. Foley

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be tolerated by the true professor of the faith. Therefore, it is natural that the medieval sculptors would carve several capitals to graphically illustrate a common affliction of the people. In the South Transept there is the bust of a man in pointed cap, grimacing with pain, and pulling his mouth open with his left forefinger, as if to show the aching tooth. In the undercroft of the Chapter-House there is a sculpture of a large head with enormous cheeks, apparently suffering from oral pain; a hankerchief covers the head and is tied under the chin.

Another Christian belief in the medieval period was that physical affliction was sent by a vengeful God as a punishment for transgression. Because the toothache sufferer was a sinner, he received no sympathy from his family or friends. He, therefore, sought intercession with God by saints and other sanctified personages. Fortunately there was in the second bay of the South Choir Aisle of the Cathedral the tomb of William Bytton (bishop in 1267–1274). "So great was the impression made by his holy life that he became the object of popular canonization at his death. Miracles were worked at his tomb and crowds flocked to it with offerings, especially such as were afflicted with toothache." The tomb became immediately famous throughout England for its cures of dental troubles. Following a long period of neglect the location of the Bytton tomb was discovered in 1848. The coffin was opened and it was observed that "the teeth were absolutely perfect in number, shape, and order, and without a trace of decay, and hardly any discoloration." From this testimony one could conclude that the saintly bishop was famous in his lifetime for his beautiful teeth, and that it was for this reason that his intercession came to be invoked after his death by those suffering from toothache.

I would heartily recommend that American dentists touring England make a pilgrimage to the Wells Cathedral. The city is attractive, the outside views of the Cathedral are memorably impressive, and the many areas of its interior are strikingly notable. Of course the dentist visitors will be greatly rewarded by their reverent visitations to the "toothache capitals" and to the tomb of Bishop Bytton, for these special features dramatize in vivid images interesting and important elements of the story of dentistry.

Permanent Temporary Filling

The resourcefulness of some victims of tooth decay who are forced by circumstances to perform self-dentistry is well exemplified by the experience of R.H.A., of Baltimore, Md. So pleased was he by the results of his own operative work that he reported his method to the *Scientific American* of January 30, 1858.

In 1841, the second molar tooth in my "working" side of the under jaw became decayed in the center of the crown and forward, so much so that it was very sensitive. Not being where a dentist was accessible I undertook the job of filling it. I cleaned the cavities and enlarged them slightly sidewise, and filled them with heavy tin-foil, the only thing I could get; thinking that as soon as practicable I would have the thing more artistically done. It is now seventeen years since I did so, yet the tooth has been used constantly, is emphatically a "working" tooth, and is as sound and strong apparently, as the day it was filled; it has not (owing, I suppose, to the non-conducting properties of the tin) showed the slightest sensitiveness. The metal seems as durable as gold, and if so, is far preferable on several accounts. I shall never have a tooth filled with anything else, if I should need such work done again.

MINORITY GROUP DENTAL STUDENTS:

A Need for Added Support

H. Barry Waldman

Despite efforts to retain minority group students in schools of dentistry, large numbers of these students fail to complete the course of training. A review of the experiences of these students is presented in an effort to focus attention on the need for added support.

The efforts by schools of dentistry to increase and maintain minority group candidates and students are chronicled on the pages of the American Dental Association's Annual Reports on Dental Education.* Despite these attempts, higher percentages of minority group students than other groups of students fail to complete the predoctoral course of dental studies.

This presentation will review the experience of minority group students within predoctoral dental programs in an effort to focus attention on the need for added support.

Ambiguity of minority status

Any effort to identify minority group student data is complicated by the ". . . . inherent difficulty in reporting enrollment and graduate information (based upon) the choice of the ethnic categories to be reported."[1] For example, Hispanic enrollment in the University of Puerto Rico School of Dentistry is not considered in some reports as minority enrollment. However, Hispanic enrollment in the other 59 schools of dentistry is considered as minority enrollment.

Similarly, efforts directed to increase minority group numbers as a means to overcome under-representation within the health professions, would need to consider the relatively large number of Americans of Asian ancestry in the professions. The number of Asian Americans, who are dentists, physicians, nurses and pharmacists per 100,000 Asian Americans is greater than the number of nonminority and other minority practitioners per 100,000 individuals of their respective population group.[5]

Applicants and accepted students

Although there has been a marked decrease in the overall number of applicants to schools of dentistry since 1977, there has been only a small variation in the total number of minority group applicants during this same period.*[6] However, the number of Hispanic applicants has consistently increased during this period.

During the 1970's, there was a general increase in percent of applicants in each ethnic group enrolled in schools of dentistry. (Table I) Since 1973, there has been a marked increase in the number of Puerto Rican and Mexican American (the two groups have been combined since 1977 under the reporting category "Hispanic") and Asian American students in first year dental school classes. However, during this same period, there has been only minor variations in the numbers of Black and American Indian students enrolled in first year dental school places. (Table II)

Finally, with the exception of a 1977 report by the American Association of Dental Schools,[6] there are essentially no data available, by ethnic group, regarding predental college academic performance and dental test (DAT) scores of accepted dental applicants. Data for this particular year indicate that Asian American students outperformed students of all other minority and non-minority ethnic categories in predental college academic grades and DAT scores.

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*The source of all data, not otherwise specified, in this report is from the Annual Report Dental Education series[1], Minority Report series supplements of the Annual Report[2], Dental Student Attrition series supplements of the Annual Report[3], and the Trend Analysis series supplements of the Annual Report.[4]

*Throughout this report the presentation of data will be limited by the availability of information in the literature. For example, while ADA Minority Reports present data prior to 1977 on the enrolled numbers of minority students, applicant data by ethnic category are not available prior to 1977. (Note: throughout the paper a stated year, e.g. 1977, represents the beginning of the respective academic year, e.g. 1977–1978.)

Table I. Number of applicants and percent of applicants enrolled by ethnic group: 1977–1981.*[6]

	American Indian		Black Non-Hispanic		Asian		Hispanic		Total Minority		White Non-Hispanic	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1977	37	45.9%	558	47.7%	576	36.9%	376	41.5%	1,547	42.1%	10,654	47.2%
1978	33	48.5	507	43.4	512	47.1	387	42.6	1,439	44.6	8,221	55.2
1979	33	44.4	484	42.6	514	53.1	380	48.4	1,414	48.0	6,774	60.5
1980	33	42.4	550	45.3	549	55.0	410	49.5	1,542	49.8	7,251	65.0
			Black								White	
1981	33	60.6	498	51.2	555	60.5	469	51.0	1,555	52.7	6,758	68.3

*Data represent information from the 47 member schools of the American Association of Dental Schools Application Service (AADSAS) and varying amounts from the 13 non-member AADSAS schools. "Not reported" ethnic category omitted from the table.

Table II. The number of minority group students in first year classes in U.S. dental schools and the percent of the total number of entering class places occupied by minority group students: 1973–1981.[2]

	Black	Puerto Rican	Mexican American	American Indians	Oriental	Other	Total	Percent of total first year class*
1973	273	5	64	12	141	34	529	9.7%
1974	279	7	68	12	142	43	551**	9.9
1975	298	11	64	22	186	56	637	11.1
1976	290	15	81	19	174	66	645	10.9
			Hispanic		Asian			
1977	296		110	10	225		641	10.8
1978	280		122	16	263		681	10.8
1979	274		163	19	289		745	12.1
1980	283		160	12	317		772**	12.7
1981	299		183	21	373		876	14.9

*Although a breakdown of minority group categories is not available prior to 1973, the following percent of total first year places occupied by minority group students are available: 1970—6.7%
1971—9.5
1972—8.9

**Minor differences exist in numbers reported by different agencies and publications from same agencies. Efforts have been made to maintain a constancy of data by reporting data for individual tables from single sources.

Table III. The number of entering places in U.S. schools of dentistry, the number of students that did not complete the particular year of training in the reported academic year, and the percent of students not completing the first year and all four years (cross-section) attrition rates: 1975–1980*[3]

	Entering Places	First Year	Percent Not Completing Year	Second Year	Third Year	Fourth Year	Total	Total Percent Attrition ("cross section" attrition rate)
1975	5,763	200	3.4%	122	57	24	403	6.9%
1976	5,935	214	3.6	119	39	17	389	6.6
1977	5,954	200	3.4	104	57	20	381	6.4
1978	6,301	230	3.7	116	56	26	428	6.8
1979	6,132	216	3.5	95	51	26	388	6.3
1980	5,999	259	4.3	128	76	26	489	8.2

*Data are not available in this general format prior to 1975. In 1973, 193 (3.5%) and in 1974, 209 (3.7%) students did not complete the first year of training. In addition, data are not available for the 1981–1982 academic year because of discrepancies in dental school reports.[7]

Withdrawal from dental school

Each year the Division of Educational Measurement of the American Dental Association gathers student attrition data from the 60 U.S. dental schools. Students who repeat an academic year and students on temporary leave of absence are not included in these data. Between 1973 and 1979, the attrition rate after one full year of school has been approximately 3.5 percent. However, during the 1980–81 academic year 259 students (4.3 percent) did not complete the academic year. (Table III)

Between 1973 and 1980 there was a general increase in the percent of students who left before the completion of the first year because of personal reasons; with a complimentary decrease in the percent that left because of academic difficulties. (Table IV)

Table IV. The percent of dental students who left school before the completion of the first year because of personal and academic reasons: 1973–1980.[3]

	Personal Reasons	Academic Reasons	Total Number of Students
1973	49.3%	50.7%	193
1974	55.5	44.5	209
1975	53.5	46.5	200
1976	74.0	36.0	214
1977	59.5	40.5	200
1978	57.0	43.0	230
1979	42.3	47.7	216
1980	65.3	34.7	259

Data limitations

Data presented by the American Dental Association and the American Association of Dental Schools do not permit a direct division of attrition rates among minority and non-minority ethnic groups. Similarly, available data on an academic year basis do not allow one to "follow" the course of individual classes through the four year education cycle. In addition, the changes during the 1970s from three to four year programs further complicate any effort to

Table V. The number of dental students in the 1975 and 1976 entering classes that did not complete each of the years of training and the total percent that did not complete the four years of training.*[3]

	Entering Places	First Year	Second Year	Third Year	Fourth Year	Total ("Follow-the-Class" Data)	Percent of Entering Class Not Completing Course of Studies
1975	5,763	200					
1976	5,935	214	119				
1977			104	57			
1978				56	26	402	6.9%
1979					26	400	6.7%

*Data for this table were derived from Table III. They are approximation of information for the 1975 and 1976 entering classes developed on a "cross-sectional" basis in the years 1975 through 1979. The mean "cross-section" attrition rate for these five years was 6.6%. The mean "following-the-class" attrition rate for these two classes was 6.8%.

Table VI. The number of minority group students graduating from U.S. dental schools: 1973–1981.[2]

	Black	Puerto Rican	Mexican American	American Indians	Oriental	Other	Total
1973	110	3	22	1	73	32	241
1974	154	—	31	2	113	35	335
1975	187	6	33	5	107	30	368
1976	213	1	49	3	157	44	467
			Hispanic		Asian		
1977	215		69	15	162		461
1978	203		90	12	190		495
1979	182		77	18	208		485
1980	190		119	14	197		520
1981	214		90	14	246		564

Table VII. The number of minority and non-minority entering students and graduates from U.S. dental schools and "follow-the-class" attrition rates: 1970–1981.[1,2]

	Minority Students			Non-Minority Students		
	Entering Students	Graduating Students	Rate of Attrition	Entering Students	Graduating Students	Rate of Attrition
1970	307	NA		4,258	NA	
1971	451	137		4,294	3,638	
1972	475	167		4,862	3,794	
1973	529	241	21.5%	4,916	3,989	6.3%
1974	557	335	25.7	5,060	4,180	2.7
1975	637	368	22.5	5,126	4,601	5.4
1976	645	467	11.7	5,290	4,869	0.9
1977	641	461	17.2	5,313	4,716	6.8
1978	681	495	22.3	5,620	4,830	5.8
1979	745	485	24.8	5,387	4,939	6.6
1980	765	520	18.9	5,265	4,736	10.8
1981	876	564	17.2	4,979	4,986	11.3

Table VIII. The number of Black American and American Indian entering students and graduates from U.S. dental schools and "follow-the-class" attrition rates: 1973–1981.[1,2]

	Black American			American Indian*		
	Entering Students	Graduating Students	Rate of Attrition	Entering Students	Graduating Students	Rate of Attrition
1973	273	110		12	1	
1974	279	150		12	2	
1975	298	187		22	5	
1976	290	213	21.9%	19	3	75.0%
1977	296	215	22.9	10	15	—**
1978	280	203	31.8	16	12	45.5
1979	274	182	37.2	19	18	5.2
1980	283	190	35.8	12	14	—**
1981	299	214	23.8	21	14	12.5

*The attrition rate for American Indians will be effected markedly by the loss of a few students because of small number of students in this category

**More graduates than entering class numbers.

Table IX. The number of Hispanic American and Asian American entering students and graduates from U.S. dental schools and "follow-the-class" attrition rates: 1973–1981.[1,2]

	Hispanic American			Asian American		
	Entering Students	Graduating Students	Rate of Attrition	Entering Students	Graduating Students	Rate of Attrition
1973	69	25		141	73	
1974	75	31		142	113	
1975	75	39		186	107	
1976	96	50	27.5%	174	157	—*
1977	110	69	8.0	225	162	—*
1978	122	90	—*	263	190	—*
1979	163	77	19.8	289	208	—*
1980	160	119	—*	317	197	12.4%
1981	183	90	26.2	373	246	6.4%

*More graduates than entering class numbers.

specifically carry forward overall classes in different dental schools from one academic year to the next period. Thus, "cross-section" reviews, i.e. rates for all classes in a particular year, (Table III) and "following" procedures (Table V) offer only indications of general trends and should *not* be used as exact numerical indications of the performance of particular groups.

Dental school graduates

Throughout the 1970s, there was an overall increase in the number of minority and non-minority group graduates from schools of dentistry. However, the increase in the number of minority group graduates was related to the larger number of Asian American students completing dental school training. By the mid 1970s, there was a general leveling-off in the number of graduates from other minority groups. (Table VI)

Attrition rates

With the availability of the numbers of entering students and the numbers of graduates in each minority and non-minority ethnic group, the "follow-the-class" method offers the opportunity to review the *general trends* in attrition data for each group.

Again, it should be emphasized that such a procedure does not consider the varying changes in the three and four year curriculums, foreign trained students completing one or more years of training in U.S. dental schools and changing minority designation criteria which will impact on the stated number of students graduating in a particular year.

With these factors in mind, the general trends during the 1970s indicated that:

1. the general attrition rates for the combined group of all minority groups was often two to three times or more than the attrition rates for the non-minority group; (Table VII) and
2. the attrition rate for Black Americans generally was greater than the attrition rates for other minority ethnic groups. (Tables VIII and IX)

Support programs

The special needs of minority group students have been long recognized by predental colleges and schools of dentistry. The specific programs in dental schools have been reported throughout the 1970s and early 1980s in the Minority Report series of the Annual Report on Dental Education.[2] Special funding arrangements, preschool preparation programs after acceptance to the entering classes, special orientation programs, tutorial arrangements, modified curriculums and flexible schedules are some of the special arrangements and programs that have been developed to meet the particular needs of minority group students.

At a time when varying means are needed to expand the delivery of dental services to traditionally underserved populations, can the profession afford to lose large numbers of minority group practitioners? Surely, added support for minority students is one of the profession's highest priorities.

In addition, special funding programs are available from outside sources; including, the American Fund for Dental Health, the American Indian Scholarship Fund, the Bureau of Indian Affairs Higher Education Program, the Ford Foundation Fellowship Program, the Mexican American Graduate Fellowship Program, the National Hispanic Scholarship Fund, the Puerto Rican Graduate Fellowship Fund and the United States Office of Education programs in the Office of Indian Education.

Despite these efforts, many minority group students fail to complete the predoctoral course of dental studies. Increasing and continuing attention to the specific problems of minority students is necessary if the continued loss of predoctoral dental students is to be stemmed. Efforts need to be strengthened "before" rather than "after" difficulties arise.

And yet, at a time of major fiscal constraints in most schools of dentistry, there is limited flexibility available for school administrators to redirect resources to the particular needs of minority group students. Nevertheless, attention to the continuing high attrition rates of minority students must be maintained during this period of fiscal retrenchment.

At a time when varying means are needed to expand the delivery of dental services to traditionally underserved populations, can the profession affort to lose large numbers of minority group practitioners? Surely, added support for minority students is one of the profession's higher priorities! △

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FACULTY RESPONSE TO PERSONAL PROBLEMS OF STUDENTS:

A Survey of Dental Educators

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John M. Barnett**

The stress of dental education, as well as that of other health care training specialties, has been noted in the literature as a serious issue for students in these fields.[1,2,3] In the dental school setting, for example, a number of factors have been identified as stressors including didactic and clinical examinations, the amount of information to be learned, the number of class hours required, the financial pressure of high tuition and instrument costs with little or no time for part-time employment, and the demands for perfection with inconsistent feedback and a generally aversive atmosphere.[4,5,6]

The potential negative impact of such stressors on dental students is a serious matter and one worthy of concern to all those involved in dental education.[7] One important aspect of this matter is that of the support or help available to dental students as they encounter these various stressors and attempt to deal with the resultant distress in their personal and professional lives. In this regard, the potential interpersonal support available from faculty members would seem to be particularly significant. This is true especially in light of student access to faculty and degree of interaction between faculty and students as well as the relatively limited availability of formal mental health services. As a matter of fact, it is now well documented that individuals are more likely to seek help for personal problems from "informal helpers" than from mental health professionals.[8]

Consequently, based on the extent of interaction between dental faculty members and students and the shared common perspective it would seem likely that faculty members' help would be requested by students in need, especially if the faculty members are trusted and liked. It has even been suggested by Aspy[9] that such interpersonal helping skills are an important determiner of effective teaching: ". . . learning is a process which . . . can be enhanced or diminished in effectiveness according to the degree of interpersonal facilitation with which it is carried out" (p. 5).

While there is limited information suggesting that educators in general are called on to help with students' personal problems[10,11] there appear to be no systematic data as to specific helping behaviors of faculty members in the health care professions. Because of the documented stress factors which are a part of professional health education, it would seem useful to assess the interpersonal helping behaviors and attitudes of the faculty in such settings. Therefore, this study was designed to determine the extent of involvement by dental faculty members in students' personal problems, the kind of problems involved, specific helping techniques used by faculty, and the faculty members' attitudes concerning their role as "helper." The present study is one in a series of such efforts to document the nature of interpersonal helping behaviors by medical, dental, and nursing educators.

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[1]The questionnaire used in this study was adapted from an earlier inventory reported by Cowen[12]; copies are available from the authors.

This study examines the interpersonal helping behaviors of dental educators. Seventy-two faculty members from nine randomly selected dental schools completed a detailed questionnaire providing data as to the nature and frequency of their interpersonal helping behaviors with students experiencing personal problems. The dental faculty members reported spending an average of 1.8 hours a week discussing personal problems with students. Student problems reported most frequently were school related clinical issues, faculty-student interaction, school related didactic problems, career reconsideration and school administration concerns. Dental educators used various techniques to offer help with the most commonly reported being listening, giving advice, offering empathy, asking questions to draw the student out, and suggesting alternatives. Most dental faculty felt positively about their role as helper and rated that component of their job as extremely important.

Method

Faculty-Student Interaction Inventory

All data were obtained from the Faculty-Student Interaction Inventory, a 14-item questionnaire,[1] several items of which had multiple parts, designed to secure information in the following areas:

1. time spent per week by faculty members discussing students' personal problems (defined on the questionnaire as "problems that cause moderate to serious concerns or upsets and which can be school or non-school related");

2. the nature of student problems discussed; faculty respondents were asked to report on a 4-point frequency-of-occurrence scale (0 = very infrequent, 3 = very frequently) the frequency with which they encounter 17 problem areas (such as alcohol and drug abuse, financial problems, emotional health concerns, patient-student difficulties, didactic and clinical academic problems, etc.) and to rank order the three problems with which they had the most difficulty in offering help;

3. problem-handling strategies; faculty rated 15 helping strategies (e.g., "give advice," "listen," "suggest alternatives," "refer to someone else," etc.) as to how frequently they were employed on the same 4-point frequency scale described in #2 above;

4. feelings experienced by faculty as a function of their dealing with students' problems; using the 4-point frequency scale, respondents rated 12 emotional reactions (helpless, pleased, angry, uncomfortable, etc.) that they experienced when called on to handle student problems;

5. perceived importance of dealing with students' problems and self-assessment of helping effectiveness; on a 5-point frequency scale faculty members rated how important they felt it was to both listen and respond to students' personal problems; on an 8-point scale (1 = extremely ineffective, 8 = extremely effective) faculty members also rated their own effectiveness in dealing with student problems;

6. background data, including faculty member's sex, age, highest degree, years of faculty experience, brief description of academic responsibilities, and number and class/level of students taught.

Subjects and Procedure

Subjects for the present study consisted of 72 full-time faculty members in U.S. schools of dentistry; the sample included 65 males and 7 females. The mean age of the group was 39.5 years, with an average of 8.5 years of academic experience. Concerning subjects' academic training, 66.3% of the sample held D.M.D. or D.D.S. degrees, 14.3% were Ph.D.'s in their fields, 11.2% held masters degrees (M.S. or M.P.H.) and either the D.M.D. or D.D.S., and 8.2% held only a masters degree. The current sample of dental faculty was representative of all dental and basic science departments and basic teaching fields.

The faculty sample consisted of respondents to Faculty-Student Intervention Inventories which were mailed to faculty members of 9 schools of dentistry randomly selected from among all dental schools in the U.S. The 9 schools selected are geographically repre-

sentative of the country with 3 schools from the South, 2 schools each from the Midwest and Northeast, and one school each from the West and Southwest. Questionnaires were sent to a 10% sample randomly selected from complete faculty listings in each school's academic bulletin. The Inventory along with a cover letter providing the rationale for the study was mailed individually to each selected faculty member. The number of returned inventories from the 9 schools ranged from 5 to 15 with a total return rate of 43%. Four of the returned questionnaires had to be discarded because of insufficient data; the remainder were complete and appeared to have been carefully done.

Results

Nature of Helping Behaviors

The dental faculty sample reported spending an average of 1.79 hours per week discussing personal problems with an average of 2.52 students. it was reported that approximately 74% of those discussions were initiated by students, 19% by faculty members themselves and 7% by a third party. Sixty-four percent of the personal problem discussions took place during regular school hours, 20% during lunch or break time, 15% after regular school hours, including weekends, and 1% during nondesignated "other" times. As to location of these discussions, 68% took place in an office or other private area, 14% in a classroom or clinic, 7% in a public location (restaurant, snack bar, etc.), 10% in a hallway or other common area, and 1% in nondesignated "other" locations.

Problem Frequency, Difficulty In Helping Strategies

Data are presented in Table 1 which summarize the means, standard deviations and rank order for frequency of encounters and extent of difficulty in providing help for specific personal problems. The most commonly occurring problems included school related clinical issues, faculty-student interactions, school related didactic concerns, career reconsideration, and school administration problems. The dental educators reported the problems with which they had the most difficulty helping students to be financial concerns, faculty-student problems, and emotional health issues.

A Pearson product-moment correlation was used to assess the relationship between mean frequency of occurrence of problems and perceived difficulty in helping with those problems. The resulting correlation of .39 indicated a relative independence of ranking for difficulty and frequency by respondents.

Helping strategies utilized by dental faculty members and the means, standard deviations and rank order for their frequency are listed in Table 2. As can be noted, the most frequently employed helping techniques were to listen, to give advice, to be empathetic, to ask questions to draw the student out, and to suggest alternatives. It is interesting to note that 58% of the sample reported that they frequently refer students with personal problems to other care-givers. It is also interesting to note that only approximately 5% of the sample reported the strategy of "try to avoid getting involved" as a response to dealing with student problems.

Feelings Experienced When Dealing With Student Problems

Frequency data in the form of means, standard deviations and rank order of the feelings faculty members experienced when asked to deal with student problems are given in Table 3. The most frequent feelings reported were those of support, sympathy, pleasure and encouragement while negative emotional responses to helping were reported relatively infrequently.

On a 1–5 scale (1 = extremely unimportant; 5 = extremely important), the mean rating of perceived importance of *listening* to students' personal problems was 4.26. The respondents' mean rating concerning their perceived importance of *responding* to students' personal problems was 3.91. Finally, on an 8-point scale of rating their own effectiveness in dealing with student problems (1 = extremely ineffective; 8 = extremely effective), the dental faculty sample saw themselves as moderately effective helpers (M = 5.48).

Discussion

Despite the inherent problems of survey, self-report research of the

Table 1. Mean Frequencies, Standard Deviations and Rank Orders of Student Problems and Perceived Problem Difficulty

Student Problem	M Frequency	SD	Rank Order Frequency	Rank Order Difficulty
School related—clinical	2.16	.86	1	6
Faculty-student	2.12	.75	2	2
School related—didactic	1.98	.79	3	14
Career reconsideration	1.60	.94	4.5	10
School administration	1.60	.94	4.5	5
Patient-student	1.37	1.01	6	16
Financial	1.35	.99	7	1
Peer interaction	1.16	.89	8	7
Emotional health	.97	.85	9	3
Marriage	.77	.83	10	4
Physical health	.51	.62	11	17
Dating relationships	.42	.66	12	12
Parent-student	.37	.65	13	15
Child care	.33	.64	14	13
Sex	.21	.46	15	11
Alcohol abuse	.07	.25	16	9
Other (spiritual needs, time management, unspecified)	.05	.30	17	18
Drug abuse	.02	.15	18	8

Table 2. Mean Frequencies, Standard Deviations and Rank Order of Helping Behaviors Used by Dental Faculty

Behavior	M Frequency	SD	Rank Order
Listen	2.58	.66	1
Give advice	2.16	.83	2
Put myself in their place and be empathetic	2.01	.60	3
Ask questions to draw person out	2.00	.87	4.5
Suggest alternatives	2.00	.78	4.5
Get person to come up with alternatives	1.92	.79	6
Offer support and sympathy	1.91	.74	7
Share personal experiences	1.87	.76	8
Refer to someone else	1.52	.72	9
Actively intercede on behalf of person	1.29	.76	10
Try to be lighthearted	1.08	.76	11
Tell student I'm not right person to help	.65	.61	12
Tell student to count blessings	.47	.82	13
Try to avoid getting involved	.44	.66	14
Other ("initiate meetings"; "encourage communication")	.19	.69	15
Change the topic	.12	.39	16

type reported here, the present study does provide preliminary data concerning a significant facet of dental education—the issue of faculty response to student stress and other interpersonal problems.

This personal aspect of the dental student's life increasingly is being documented as a significant factor in professional training. However, the reported figure of only 1.79 hours spent with an average of 2.52 students per week dealing with personal concerns and issues would seem to belie such importance. Particularly when compared with the reported 2.5 hours a week spent by industrial foremen in dealing with similar concerns on the part of their supervisees[13], this figure appears limited. On the other hand, it could be argued that in the hectic, never-enough-time world of dental school, the major focus of dental education is, and should be, one of providing clinical and academic experiences for the student. In such settings, little time or encouragement is typically available for the kind of personal helping interactions at issue here.

Faculty respondents in the present study reported that the problems they encountered most often were school related in nature, i.e., school related clinical and didactic issues, faculty-student interactions, career reconsideration, and school administration issues. Certainly, the nature of the academic environment in which faculty and students interact would predict this problem-area emphasis. Other non-school related problems also were reported by faculty, including concerns that are typically perceived as falling under the purview of mental health professionals. Some of these, including emotional health, marriage and peer interaction also were listed as among the more difficult with which faculty had to deal, possibly because of the emotional nature of the problem and the faculty members' lack of specific training in dealing with such sensitive non-school issues.

Among the various helping behaviors used by dental faculty to respond to student problems, easily the most common was simply to listen. After listening, the next most common helping strategy was that of giving advice, which was followed by a close grouping of six other helping techniques—being empathetic, asking questions, suggesting alternatives, getting the student to generate alternatives, offering support and sympathy, and sharing personal experiences. Of these eight most frequently employed strategies, four of them are basically non-directive in nature (listening, offering support and sympathy, being empathetic, and sharing personal experiences), while the remaining four techniques are directive or action-oriented approaches (giving advice, asking questions, suggesting alternatives, and directing the student to generate alternatives).

The cluster of most frequently reported feelings by dental faculty in response to providing help—supportive, sympathetic, pleased, and encouraged—indicate an overall positive response to being cast in the role of interpersonal helper. Although not as frequently, negative feelings such as frustration, puzzlement, and helplessness also were reported as responses to this question, possibly reflecting the lack of specific training in interpersonal helping skill areas as well as the common frustration experienced by even professional mental health workers.

Dental educators as a group felt strongly that it was important both to listen and respond to students' personal problems. Even so, the respondents only saw themselves as moderately effective (5.48 on an 8-point scale) in providing those listening and responding skills. This may, again, reflect limited training in the interpersonal helping area and thus a lack of confidence in their abilities in this endeavor. A limitation of the present study in this regard is the lack of data as to actual effectiveness of faculty in helping with student problems and as to perceived effectiveness by students themselves. In addition, information is not available concerning the relative effectiveness

Table 3. Mean Frequencies, Standard Deviations and Rank Order of Feeling Responses by Dental Faculty to Providing Help

Feelings	M Frequency	SD	Rank Order
Supportive	2.22	.72	1
Sympathetic	2.03	.78	2
Pleased	1.97	.69	3
Encouraged	1.69	.88	4
Frustrated	1.09	.86	5
Puzzled	.86	.93	6
Helpless	.79	.73	7
Uncomfortable	.74	.72	8
Depressed	.50	.66	9
Angry	.46	.62	10
Trapped	.39	.72	11
Bored	.28	.46	12

of the various helping strategies used by faculty members. These are areas that should be explored in future studies.

As noted above, the major purpose of this study was to gather data concerning the interpersonal helping behavior of dental educators in dealing with their students' personal problems. Interesting and potentially important information has been elicited regarding the kinds of problems faced by dental faculty, the strategies employed by faculty in response to these problems, the emotional impact on the faculty members as a function of placing themselves in the role of "helper," and perceptions of importance and effectiveness of their efforts in this area. The data are, of course, open to various judgements and interpretations, some of which are offered here. Individual schools of dentistry and individual faculty members obviously can judge the applicability and heuristic value of these data for their own settings.

Finally, it should be pointed out that dental educators as well as educators in the other health professions must be aware of and respond to their students' personal or psychological concerns for functional reasons if for no other. That is, it is now well established that personal stressors can have a significant impact on student motivation and academic performance. Therefore, to the degree that faculty can respond effectively to rather than ignore students' personal problems is the degree to which the overall educational task will be made easier. Realistically, it is the faculty member who is likely to notice students' personal problems, or at least their effect, and consequently be in the best position to respond to the problem in some fashion. It is not being suggested that dental educators be trained to offer psychotherapy. What is being suggested, however, is that the effectiveness of the professional dental educator can be improved by additional interpersonal skills training designed to improve listening, communication and problem-solving abilities. The need for such skills is supported by the present finding that while respondents judged listening and responding to student problems as important, they saw their own skills in delivering such help as only moderately effective. The occasional continuing education offerings in this area could be expanded to meet such a training need. Or, as importantly, more cognizance of the value of interpersonal skill—a generalized "chair-side manner," if you will—may be called for in the selection and promotion of dental faculty. Such an emphasis and expanded role can aid in producing more professionally and personally productive dental graduates as well as more effective and satisfied dental educators. △

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OPINIONS IDEAS AND VIEWS

Marketing, Advertising and Ethics, the Dental Profession's Dilemma of Today

Sumner H. Willens, DDS

The dental graduate is faced with many problems when establishing a new practice in today's competitive world. Faced with the high cost of education and the years involved, he or she usually must begin practice owing a great deal of money not only for the expenses incurred during years of schooling but also for the investment needed to equip a dental office.

The new dentist wants to develop a flood of patients as soon as possible to be able to pay the bills that begin to come in. Marketing and advertising seem to offer the only way to do this.

Using marketing and advertising expertise may induce a lot of patients to come to a newly-established practice but the important thing is the retention of these people as patients. In the world of commerce, one must begin with a good product, one that will deliver what the advertising and marketing promises. Otherwise all the costs of advertising will be wasted. The point is that the new dentist or the established one for that matter must be able to deliver good dentistry with empathy for the patient, be able to establish good patient relations and run a well organized practice when that patient comes in for the first time. The expertise needed to manage the requirements in a new graduate's practice doesn't come automatically; it takes experience and learning to develop. There is usually one chance to impress the new patient with the confidence of the dentist, and the quality of work delivered by the office and this occurs during the first two visits. The type of intelligent patient wanted by most is the one I am referring to. Other patients attracted to the office may very well be emergencies who are not really interested in much more.

What is being stated here is that the 3 to 4 years in dental school really is not enough to teach practice management and clinical experience sufficiently to enable the new dentist to satisfy the above needs. The best way to learn is to work in a well managed general practice office for a couple of years before opening an office of your own. At the same time, a small one room set-up can be developed in the location where one hopes to settle and gradually a practice can be developed. Now advertising would not be the ideal way to bring patients into such a practice. Working slowly without the hassel of a busy practice and doing ideal dentistry, word of mouth will be the best marketing. There is no better way. Knowledge of what one does will spread in ever-widening circles as long as fine dentistry can be delivered. In order to do this, all the good courses in post graduate education should be taken. Remember, there are good courses and bad ones. Asking fellow practitioners which ones to take is a good idea. Generally, the longer ones are best. One hour programs at the dental society's meetings are enough to whet an appetite, that's all.

By increasing one's knowledge, confidence will be gained which in turn can be sensed by the patient. The closeness we work with our patients makes it very hard to mask how one feels. There is almost a sixth sense floating about a dental office—one's stomach rattles—a sense of pride when something fits well—all these signs give the sensitive patient an idea about how much one enjoys his work and indirectly the extent of one's knowledge. Confidence is an important by-product of honesty. If a crown doesn't fit right or a restoration chips at the contact point, do it over. The patient will appreciate the dentist as a perfectionist. One should be honest with the patient. Little dishonesties in restorative dentistry have a way of catching up eventually. All these things add to the pool of word-of-mouth so essential to the development of a first-class dental practice.

Other ways to develop a practice beyond advertising are:

1. Take the best x-rays in town.
2. Take plenty of time going over x-rays and study models with the patient after satisfying the patient's emergency needs.
3. Open up lines of communication with the patient. Listen to him or her talk about past dental experiences. Now educate the patient with slides of work done and models and charts of what is to be done.
4. Never prejudge the patient's ability or desire to pay more for the best service.

What will be the result?

1. Today, with more third-party involvement in dentistry and more consultations and use of specialists, x-rays become a window through which colleagues can visualize the workings of one's office.
2. One's thoroughness will impress the patient who may be more accustomed to the usual quick exam and search for cavities.
3. By listening much more can be learned about the patient than a check list such as a health questionnaire.
4. The wealthiest patient may feel that other things are more important than expensive dental care but the lonely secretary might very well think the opposite and her teeth will mean more to her than a car or a vacation.

So, for the development of a new dental practice, advertising may bring in patients but in order to retain these people one must be able to "deliver the goods" and impress the ideal patients when they come in for the first time. Call it marketing if you will, but this is only another way of describing one's demeanor in the office, one's confidence, one's knowledge and ability to produce a good dental product. Nothing has changed except advertising perhaps but word of mouth is still best. Liken it to a fine restaurant. It doesn't take long for people to learn about it. Usually the restaurant with the biggest advertisement is the one that needs the most business. Seems like this is also true in our field of dentistry even today. △

ECONOMIC PRESSURES

The Effect on Dental Education at Howard University

Jeanne C. Sinkford*

Howard University is a private, non-profit institution, founded by an act of Congress in 1867, and located in the Nation's Capitol. The College of Dentistry, founded in 1881, is the 5th oldest dental school in the U.S. The Dental School is part of the Howard University Health Center, which includes: Colleges of Medicine, Nursing, Pharmacy, Allied Health, a 500-bed hospital, and Centers for Cancer, Hypertension, Child Development, and Sickle Cell Disease. Howard University receives 52% of its budget from a Congressional appropriation, and the mission of the University, since its inception, has been directed toward minority education.

The College of Dentistry has a total enrollment of *447* students including: undergraduate dental and dental hygiene programs, postgraduate programs in Oral Surgery, Orthodontics, Pedodontics, and a hospital-based General Practice Residency Program. We are admitting *103* dental students per year, with 80% of these students being Black minority students. Our F.T.E. faculty count is *112*, not including basic science faculty.

When we consider that dental education in the U.S. today exceeds $700 million per year, with the cost per student, per year exceeding $25,000, the economic status of this nation poses specific concerns and challenges for minority institutions, such as Howard University.

I will discuss these concerns and challenges in the areas of students, faculty, facility, clinical program and curriculum.

Dental education in the U.S. today exceeds $700 million per year, with the cost per student, per year, exceeding $25,000.

Students

Minority enrollment in the U.S. dental schools went from *357* in 1970 (2.3%), to *999* in 1982 (4.5%).[1] In spite of the increase, we are graduating only *200* Black dentists per year, in a total of 5,500 dental graduates! This figure hardly accounts for replacements due to death and retirement. The minority (Black) applicant pool is at a critical level. There are less than 500 (464) Black applicants for U.S. dental schools per year. Although we have seen a 59% decline in overall applications to U.S. dental schools since 1975[2] the decline in Black applications has been 14%.[3] During the same period, we have seen a significant increase in the female enrollment in U.S. dental schools, which is now at 18.7%. Female enrollment is expected to increase to 25% during the next decade. Howard's female enrollment has increased steadily since 1970, and is now at *137* students, or 30% of the total enrollment. With a Black applicant pool of less than 500 students, minority recruitment and retention programs will continue to be high items on Howard's agenda for the future.

The availability of student financial aid at acceptable interest rates poses a serious problem for us—since 85% of our students are in need.[4] We have seen, during this administration, a reduction in National Health Service Corps Trainees, a reduction in Exceptionally-Needy Scholarships, and proposed legislation that will significantly alter the eligibility requirements for new borrowers for the Health Professions Loan Program. In 1980-81, we had *45* N.H.S.C. trainees, by 1983-84, we will have only *10* continuing in the program. Interest rates in the Health Profes-

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sions and Guaranteed Student Loan Programs are projected to be at 8 and 9% (for eligible schools), while the Health Education Assistance Loan Program (HEAL), and the Auxiliary Loans to Assist Students Program (PLUS/ALAS), will be at 11 3/4 and 14% in 1983-84. For 1982-83, at Howard, only $397,000 was awarded as Scholarships and loans, whereas, the amount requested was in excess of $2.6 million dollars![4]

The national average student indebtedness at graduation is $26,700.[5] At Howard, this figure approaches $21,600. Howard ranks 29th/60 on a tuition/fee comparison with other U.S. dental schools.[6] The total first-year cost at Howard is $7,405, which represents 83% of the national average first-year cost of $8,944. Tuition at our institution is expected to increase during the next academic year. Our immediate plans include an attempt to "hold" other costs for the student, to increase alumni and other contributions for student aid, and to assist the student in improved financial planning.

Eighty-two percent of the dental budget is spent in faculty and staff salaries.

Faculty

Eighty-two percent of the dental budget is spent in faculty and staff salaries. The ability of dental schools to attract and retain qualified teachers is crucial to the quality of the academic program, and to the quality care received by our patients. Howard's salaries are competitive with dental schools in the Northeast region. Howard does not have an Intramural Practice Program, and most of our teachers have practice affiliations on the outside. At the present time, we are studying the feasibility of a faculty practice plan, that would be consistent with the health planning efforts for the District of Columbia. A faculty development program is in operation which includes: Sabbatical leaves, in-service training, merit raises, post-graduate fellowships, research release time, travel, and other incentives. We have instituted a modular clinical system to reduce the need for additional faculty, and we are looking at part-time faculty salaries, which may be converted to fee-for-service types of contracts, as a cost-saving procedure.

Facility

We have just completed a $4 million addition to the dental building, which was constructed in 1954. Renovation plans will begin this year for the remainder of the building which will modernize the clinics and laboratory areas. We anticipate a nine-to-ten year life span for dental equipment and therefore, equipment repairs, maintenance and replacement constitute crucial funding considerations. Our renovation phasing is consistent with the fiscal planning for the University. The renovation will be partially funded by a federal matching grant.

Clinical Program

The dental curriculum at Howard is a four-year, 4,600 clock-hour program. Fifty percent of the curriculum is devoted to the clinical program. The rising costs such as plastics, alloys, impression materials, laboratory fees, and auxiliary staff salaries continue to challenge our ability to offset these increases. The changing character of patient needs,[7] and the lack of the patient's ability to pay for services, are being seen in our clinics daily. Many of our Black, inner-city patients cannot afford the $2 registration fee, they cannot pay for gold, and they cannot afford to pay for partial dentures. Dental benefits are limited in the Medicaid contract and most of our needy patients are expected to pay for the care "out of pocket". At the present time, we are reviewing our Clinic Fee Schedule, to see where increases can be made that will not seriously limit the patient population. We have already instituted cost-saving measures such as inventory control, bulk purchasing, closer supervision to reduce waste, a revised staffing pattern for faculty, and competitive bidding on major purchases. In addition, the University has imposed a university-wide Expenditure Reduction Plan which includes a freeze on vacant positions, curtailment of equipment purchases, and elimination of wage expenditures as a line item in all budgets.

Curriculum

Economic pressures most certainly will impact on the curriculum of the future. For institutions such as Howard, we have rejected the concept of a fifth year, unless that year could be created without additional financial burden to the student.

The latest American Association of Dental Schools Survey of Senior Dental Students[5] revealed an expressed need by 55 percent of the students, for an additional year of formal training. In addition, there has been a steady increase in applications to and enrollment in General Practice Residency Programs throughout the Country. In 1982, there were 984 dentists enrolled in General Practice Residency Programs in the U.S.[8] At Howard, we are receiving an average of 30 applications, per year, for the two G.P.R. positions we have at the Howard University Hospital.

The latest American Association of Dental Schools Survey of Senior Dental Students revealed an expressed need by 55 percent of the students for an additional year of formal training.

The elimination of unnecessary duplication in the curriculum, the utilization of newer instructional methodology, including computer-assisted instruction, self-paced instruction, single concepts tapes/films are methods that will be used

to improve our teaching effectiveness. Our graduates will have to be better prepared to enter the competitive market place of health services delivery. To meet this objective, we will be forced to improve the teaching of management concepts, marketing skills, auxiliary utilization and cost control. These changes will be critical, especially for our institution and for minority practitioners, for we are often expected to do more with less.

Howard University is a national resource for minority dental manpower. Our graduates provide dental care in 40 states and 53 foreign countries.

The economic pressures that face us today, have evoked a system of increased sophistication in long-range planning and evaluation, and in the utilization of resources—now and for the future. My concern is that the "trickle down" and "rising tide" philosophies will seriously deter the progress of Black minorities, many of whom do not have boats to put into the water, and therefore, will be excluded from the mainstream of America. △

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