The JOURNAL of the
AMERICAN COLLEGE of DENTISTS

The ACD Foundation
Nutrition Teaching in Prevention
Personality Characteristics in Preventive Practices
Academic Performance
The Editor in Community Dentistry

OCTOBER 1972
The Journal of the American College of Dentists is published quarterly—in January, April, July, and October—at 215 S. Tenth Street, Camden, New Jersey 08103. Second class postage paid at Washington, D. C. and additional points.

Send Change of Address and Form 3579 to the American College of Dentists, 7316 Wisconsin Avenue, Bethesda, Maryland 20014.
American College of Dentists Sponsors New Program For Self-Assessment and Continuing Education in Dentistry

The American College of Dentists, as a service to the profession, is sponsoring a new and unique educational program consisting of a series of periodic self-administered tests designed to offer general practitioners the opportunity to evaluate their professional knowledge and competence and keep abreast of new advances in all phases of dentistry.

Although such tests have been used by a number of medical specialty groups and one dental specialty (oral surgery), this is the first time that a program of this nature has been offered to an entire profession.

The program, to be launched later in the year, will be developed and administered by the Educational Testing Service (ETS), a non-profit measurement and research organization in Princeton, New Jersey, which presently administers the College Board Admissions Testing Program, the Graduate Record Examinations, and other tests.

While the program—Self-Assessment and Continuing Education in Dentistry—is expected to provide dentists with a measure of their own continuing educational progress, it will also enable each participant to compare his knowledge with that of his peers, and serve as a valuable learning experience.

Along with his test scores, each dentist will receive statistical information about his relative standing in comparison with all other dentists who took the same test, the correct answers to the test questions, and an annotated bibliography for further reference and study. All test scores will be strictly confidential and sent only to the individual who took the test. No other use will be made of the scores.
The subscription fee for dentists participating in the program is $40.

The test questions are being developed by test committees working in conjunction with a committee of the Board of Regents of the American College of Dentists and ETS test specialists. Preliminary plans and recommendations were made by the General Advisory Committee consisting of representatives of the American College of Dentists, the American Dental Association, the National Dental Association, the Academy of General Dentistry, the International Association for Dental Research, the American Association of Dental Schools and the American Association of Dental Examiners.

More detailed information about the new program will be mailed to all members of the dental profession in the near future.

The General Advisory Committee of the Self-Assessment Program

Left to right, Mr. Reginald H. Sullens, President, American Association of Dental Schools; Dr. Donald F. Wallace, President, American Association of Dental Examiners; Dr. Robert L. Smith, President, National Dental Assn.; Mrs. Grace Parkin, Consultant, National Board of Dental Examiners; Dr. Robert J. Nelsen, Executive Director, American College of Dentists; Dr. Frank J. Fornoff, Chairman, Science Department, Test Development Division, Educational Testing Service; Dr. Joseph P. Cappuccio, Trustee, American Dental Assn., representing Dr. Carl A. Laughlin, President; Dr. William E. Brown, President, American College of Dentists; Dr. Robert I. Kaplan, Chairman, Board Committee on Self-Assessment Program, American College of Dentists; Mrs. Jo Clark, Secretary to Dr. Nelsen; Mrs. Jane L. Houis, Program Director, Government and Professional Career Programs, Educational Testing Service; Mr. Ed Manwaring, Educational Testing Service; Dr. Walter H. Mosmann, Regent, American College of Dentists; Dr. Vernon S. Johnson, President, Academy of General Dentistry; Dr. Gunnar Ryge, President, International Association for Dental Research; Dr. James L. Cassidy, Regent, American College of Dentists.
SECTION NEWS

New York Section

The September meeting of the New York Section was held at the New York University Club. The speaker of the evening was Mr. Roy K. Andres, vice president of Western Union International, who accompanied President Nixon on his trip to China. Mr. Andres discussed Acupuncture Anesthesia and showed slides and movies of tooth extraction and surgical procedures using this technique.

On December 3rd, a dinner meeting will be held at the Statler Hilton Hotel in conjunction with the Greater New York Dental Meeting. The Spring meeting of the Section will take place on March 13, 1973 at the New York University Club, and on Sunday, May 6, at the Hotel Syracuse in Syracuse, N. Y. a joint meeting will be held with the Western New York Section, during the state society annual session.

Dr. Lester L. Eisner is chairman of the New York Section. Dr. Andrew Linz is vice chairman; Dr. Michael Turoff is secretary-treasurer; Dr. John Dolce, historian; Dr. Henry I. Nahoum, membership chairman; and Dr. John E. Walsh, Operation Bookshelf chairman.

Alabama Section

Dr. Sidney Weinstein, secretary-treasurer of the Alabama Section reports that a slide program on dentistry has been prepared by the planning committee for use in recruitment of qualified young people into careers in dentistry. It was shown at the Atlantic City meeting by Dr. Edwin Speed, and has been presented at twenty-eight high schools and colleges throughout Alabama. This is being supplemented by appearances by some of the Fellows on Career Day programs and by invitations to potential students to visit dental offices.

A plaque will again be presented at the honors convocation of the University of Alabama School of Dentistry to the graduating senior who has excelled in technical skill over the four year period.
West Virginia Section

The annual meeting of the West Virginia Section was held at a breakfast in the Greenbrier Hotel, White Sulphur Springs, in July, in conjunction with the annual session of the West Virginia Dental Association.

Dr. Carl A. Laughlin, President of the American Dental Association, addressed the group. He reviewed the many health legislation bills being developed in Congress, stressing their relative value to practical solutions of dental needs in our country.

Dr. Robert J. Nelsen, Executive Director, discussed the current operation and programs, and some plans for future development of the American College of Dentists. He urged more extensive education of the public on oral hygiene through public education media, and called upon all members to provide the necessary leadership and education. He further called for members to give broad support to programs of the College, and to communicate their beliefs to the American College officers.

The following officers were elected for the 1972-73 term: Chairman, Phillip J. Peters; Vice-chairman, James E. Overberger; Secretary-treasurer, Robert E. Sausen.
News of Fellows

Dr. Paul E. Jones of Farmville was honored at the 116th Annual Session of the North Carolina Dental Society for his service to his profession, his state and his community. Dr. Jones was president of the Society in 1930-31 and served as a delegate to the American Dental Association from 1931 to 1971. He served five terms in the General Assembly as a State Senator and authored and introduced legislation which led to the establishment of the School of Dentistry at the University of North Carolina. He was also instrumental in securing appropriations for the expansion of East Carolina University in Greenville and a men’s dormitory at the University was named for him. He received the William J. Gies Award of the American College of Dentists at its 1971 Convocation in Atlantic City. In making the award, Dr. Darden J. Eure of Morehead City, said: “Dr. Jones not only has served his profession with dignity and integrity, but has given of his time and ability to his state, community, and other organizations for the enrichment of mankind.”

Dr. J. Harry Spillman of Winston Salem was elected secretary-treasurer of the North Carolina Dental Society.

Dr. Harold E. Boyer, dean of the University of Louisville dental school, has been appointed vice president for health affairs of the University.

Dr. James J. Leib of Encino, California was installed as president of the American Academy of Pedodontics at the Academy’s 25th annual meeting in Boston in August. Dr. Norman H. Olsen, dean of Northwestern University school of dentistry was elected president-elect, Dr. Robert I. Kaplan of Cherry Hill, New Jersey, vice-president and Dr. J. Sanders Pike of Atlanta, Georgia—secretary-treasurer. Dr. Dale F. Redig, dean of University of Pacific school of dentistry and Dr. Spencer N. Frankl, associate dean of Boston University school of graduate dentistry were elected to the board of directors. Dr. William E. Allen of Pasadena was appointed chairman of the Dental Care Programs committee.

Dr. John Y. Kim of Honolulu, executive vice-president of Hawaii Dental Service, was elected president of Delta Dental Plans Association at the annual membership meeting held in Hershey, Pa. recently.
Dr. Kim, who served as DDPA secretary since 1969, has been a member of the Board of Directors since 1966. He succeeds Dr. F. Gene Dixon of San Francisco as DDPA President.

Dr. Philip E. Blackerby has retired from his position as vice president for programs and member of the Board of Trustees of the W. K. Kellogg Foundation. Dr. Blackerby, past president and former regent of the College received the William J. Gies Award in 1967 and was the 1971 Convocation speaker. He is the author of numerous articles in professional journals and the recipient of numerous awards for distinguished service to organizations in this country and abroad.

Dr. Daniel Isaacson, of Trenton and Dr. George Yamane, of Chatham, faculty members of the College of Medicine and Dentistry of New Jersey will be listed among the 1972 national awards recipients as Outstanding Educators of America. They were selected for the honor on the basis of their civic and professional achievements.

In ceremonies held in the Surgeon General's office recently Captain Anthony K. Kaires of the Navy Dental Corps, was promoted to Rear Admiral. Along with his new rank, Dr. Kaires also assumed duties as the Inspector General, Dental and Assistant Chief of the Dental Division, Bureau of Medicine and Surgery.

Colonel Raffaele Suriano of the Army Dental Corps has been named by the Surgeon General to the position of Director of Personnel and Training of the Army Medical Department. He is the first dentist ever designated to this key post.

Dr. Robert A. Atterbury, associate professor of oral and maxillofacial surgery at the University of Illinois has written a booklet, "Explaining Hospital Oral Surgery" to help patients gain an understanding of what to expect when undergoing such treatment, and to avoid uncertainties about hospital care.

Dr. Wallace C. Mayo, former chairman of the ADA Council on Federal Dental Services has been appointed to the Department of Defense Dental Advisory Committee.
Two Fellows, from New York and North Carolina have been named among the recipients of the first annual American Dental Association Preventive Dentistry Awards, to be presented at the Association’s 113th annual session in San Francisco. Dr. Michael G. Buonocore of Eastman Dental Center, Rochester, N. Y., and Dr. Ernest A. Pearson of Raleigh, N. C., won in the categories of research and education, respectively. The winners were selected from approximately 150 entries by the ADA Coordinating Committee on Preventive Dentistry.

The preventive research prize was awarded to Dr. Buonocore for a study of pit and fissure sealant for caries prevention. His work was singled out for its contribution to preventive techniques and materials.

Dr. Pearson was awarded the preventive education prize for a North Carolina program that promoted community and school fluoridation, brushings, continuing education and similar projects through a state-wide cooperative effort by the state dental society and the dental division of the state board of health.

Among the other award winners are: Dr. Abraham E. Nizel, associate professor of social dentistry at Tufts University School of Dental Medicine, Boston, for “Nutrition in Preventive Dentistry,” and Dr. Robert L. Weiss, Public Health Service dentist in San Francisco; who was one of the developers of the “Dr. Dial Dental Health Program.”

Dr. Harold E. Boyer, dean of the University of Louisville dental school, has been appointed vice president for health affairs of the university. Dr. Boyer was instrumental in developing and coordinating many aspects of the new 26 million dollar center which was occupied by the dental and medical schools two years ago.

Dr. John M. Coady, secretary of the ADA Council on Dental Education, has been named ADA assistant executive director: education and hospitals, replacing Dr. C. W. Gilman who had held the position since July 1970-1.

Dr. Robert J. Pollock, ADA Eighth District trustee, received the Dental Alumni Award as “Alumnus of the Year” at the 89th Annual Homecoming of the Loyola University School of Dentistry in Illinois.
Brigadier Gen. Thomas P. Fox, DC AUS (Ret) past president of the Philadelphia County Dental Society, was installed recently as president of the W. W. Keen Chapter of the Association of Military Surgeons of the United States.

ADA President Carl A. Laughlin was recently honored as a Distinguished West Virginian by the State’s governor, Arch A. Moore, Jr. He also received an honorary doctor of laws degree from his alma mater, the University of Louisville.

Dr. Clive I. Mohammed, acting dean of the University of Detroit School of Dentistry, has been named dean of the school. A native of Trinidad, Dr. Mohammed received his dental degree from Nair Hospital Dental College, Bombay, India in 1949. He has received additional degrees in the United States.

Among the new members appointed to the Dental Health Research and Education Advisory Committee, which serves as the initial review group for extramural programs of the Division of Dental Health, are Dr. Hubert D. Foglesong, executive secretary, Iowa Dental Association; and Dr. Dale F. Redig, dean, University of the Pacific School of Dentistry.

Rear Adm. Wade H. Hagerman, Jr., has assumed command of the Naval Graduate Dental School at the National Naval Medical Center, Bethesda, Md. This is the first time that an officer of flag rank has been in command at the school. He relieved Capt. William G. Wohlfarth, Jr.

Dr. Robert A. Cupples of San Jose, Calif., 13th district trustee of the ADA, was elected to the Board of Directors of Delta Dental Plans Association at the recent annual membership meeting in Hershey, Pa.

Rear Adm. Edward C. Raffetto, Chief of the Naval Dental Corps, has retired from active duty after nearly 36 years of service. He graduated from the University of Pennsylvania School of Dental Medicine in 1935. In 1936 he was commissioned Assistant Dental Surgeon at the rank of Lieutenant. In 1963 he was promoted to Rear Admiral, and in 1968 he was appointed Assistant Chief for Dentistry and Chief, Dental Division, Bureau of Medicine and Surgery in the Naval Dental Corps.

(continued on page 248)
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Annual Meeting and Convocation
Fairmont Hotel - San Francisco, California
Saturday, October 28, 1972

PROGRAM

9:00 a.m. Welcome ............... William E. Brown, President
9:30 a.m. Address .... Ormonde J. McCormack, President-Elect
9:45 a.m. Panel on Prevention ... Robert I. Kaplan, Moderator

PREVENTION—
A BROAD BASE

William E. Brown

Dean of the University of Oklahoma
School of Dentistry

PREVENTION—
THE PATIENT'S RESPONSIBILITIES

Richard C. Oliver

Professor of Periodontics,
Loma Linda University
School of Dentistry

PREVENTION—
THE FUTURE OF FISSURE SEALANTS

Gunnar Ryge

President of the International Association
for Dental Research
11:30 a.m. Activation of the American College of Dentists Foundation

12:15 p.m. Luncheon
Hosted by the Northern California Section
Beryl Williams, Mirth Master will entertain

3:00 p.m. Convocation Ceremony
The Convocation speaker will be Dr. William S. Banowsky, President of Pepperdine University, Los Angeles, California

7:00 p.m. Reception

8:00 p.m. Dinner and Dancing

Entertainment by the
San Francisco State College Chamber Choir

The Orientation and Indoctrination Program will take place on Friday evening, October 27 at 8:00 p.m.

The pleasure of life is according to the man that lives it, and not according to the work or place.

Emerson
Report of the President

The American College of Dentists has moved forcefully this year to establish itself as one of the leadership professional organizations. This forward thrust has not just happened but rather is the result of at least three years of planning and reorganization. The various new activities will not be recounted here, yet, it should be noted that the College has acquired new visibility and respect, and this is but a start.

The College is comprised of a group of solid professional citizens. They are intelligent, thoughtful, and mature. They have high ethical standards, they believe in their profession, and seek every opportunity to contribute to its advancement. It would appear that the College will give them this opportunity. It is my hope that the new momentum of the College will continue at a steady pace. At the same time, the College must recognize the limitations of its resources and not overextend itself. Every project that it takes on should be carried to completion with a level of quality beyond normal expectations.

Societal expectations and concerns are making new demands of the health professions. The expectations include better methods for preventing disease, a continuing improvement in the quality of services, and getting more recipients of care into the health care system. The concerns include the steady rise in the cost of health care and the unavailability and inaccessability of health care to a large portion of the population.

Although it is comfortable to suggest that the profession is responding satisfactorily to societal needs and to argue that the provider knows what is best for the recipient, it would be short-sighted to accept this as a doctrine and expect that all will be well henceforth. I am not suggesting that the College get into the social-political fray, at least at this time. I would hope, however, that the officers and regents would put on their forward-looking bifocals and anticipate that the present so-called “health care crisis” is but a prelude. It is not clear what role the College should play, but its collective mind should remain open, and it should not be content with past or even present performance.

WILLIAM E. BROWN, D.D.S.
The Convocation Speaker

Dr. William S. Banowsky, at 36, is one of the youngest university presidents in the nation. He is leading Pepperdine University to make educational history with an urban campus in Los Angeles, a law school in Orange County, and an exciting new $30 million campus, located on 490 acres overlooking the Pacific at Malibu.

Dr. Banowsky has served on numerous boards, including Goodwill Industries, the YMCA, the American Red Cross, and the Center for International Business. He is a Director of the Automobile Club of Southern California and Community Television of Southern California (KCET, Channel 28). He is a member of the Los Angeles County Heart Association Advisory Council and the Los Angeles World Affairs Council. He is on the board of Los Amigos del Pueblo, an organization designed to preserve the Spanish areas of our City, and the World Trade Libraries in San Francisco. Among his current memberships is the Los Angeles County Judicial Reviews Commission, and he has been appointed by the White House to the National Task Force on Aging. He is a member of the Association of Independent California Colleges and Universities and a director of the Independent Colleges of Southern California. A member of the California Club, he is also active in the Los Angeles Rotary Club.

Foreign speaking tours have taken Banowsky to Asia, Europe, South America, the Middle East, and Russia. This spring he led an inspection tour of the activities of the United States Information Agency in Africa.

Named as one of the “Outstanding Young Men of America” by the Junior Chamber of Commerce, Banowsky has also been honored by the Freedoms Foundation, the Los Angeles Philanthropic Foundation, and the American Bar Association.

With a Ph.D. from the University of Southern California, Dr. Banowsky is also well known as a lecturer and author. He has a unique ability to span the so-called generation gap between the “Establishment” and the student. A regular personality on weekly television, he now has his own half-hour program on NBC-TV.
According to the social scientists, we live now in an era of permissiveness, of laxity in the standards of conduct. The "new morality", we are told, has begun to displace the old, and the puritan ethic with its emphasis on honesty, integrity and hard work is no longer viable, necessary or meaningful.

Even the learned professions are not immune from these influences. The present state of professional conduct is cause for considerable concern. The self interest of the practitioner is often placed before the welfare of the patient. On a larger scale, the parochial interests of some specialty groups and government agencies has begun to take precedence over the welfare of the public and the entire profession. Commercial interests are encroaching on dentistry's educational and scientific responsibilities.

The American College of Dentists has always been in the forefront of efforts to upgrade professional standards, and its statement of principles includes the objective "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 to them." It prides itself upon the fact that its Fellows are selected carefully from among the leaders in dentistry, that its membership constitutes what has been called "Dentistry's Legion of Honor."

How disturbing it is then to see Fellows lending their names to commercial enterprises and conducting themselves in ways that are contrary to the tenets of the College. The obligation to share of their knowledge and experience with dental colleagues is often abused by the demand for large fees for lecturing or presenting courses. A number are participating in courses of instruction sponsored by other than recognized dental groups. Some Fellows are publishing material in Journals not under the proper direction of the profession.
The College has long advocated the concept that dental periodicals should be published and controlled by recognized dental organizations, and has fought against business interests which once dominated dental journalism. Perhaps a reminder of the College's position on the subject is needed, for a recent study of unapproved dental magazines of the non-subscription type, whose content is not in keeping with the principles of the College or the advertising code of the American Association of Dental Editors showed that more than half contained articles written by Fellows of the College.

In response to a charge by the Board of Regents, the Committee on Conduct has begun to examine the present state of professional behavior. In its report the committee studied the problem areas and has offered two recommendations which the board will consider:

1. That a means be established to assure compliance with the code of conduct by Fellows of the College, and
2. That the College develop programs of information directed to the profession and to the public especially, emphasizing the unique value of professionalism to our society.

Adherence to the principles of conduct should be a requirement for maintenance of Fellowship in the College. But professional responsibility is the badge that needs to be worn by all dentists, Fellows and non-Fellows alike.

R. I. K.
The American College of Dentists Foundation

To the Fellows of the American College of Dentists:

The continuing freedom of a profession and its value to society are largely determined by the willing responsibility of its members to monitor its professional affairs. The programs of the American College of Dentists have been concerned with these important responsibilities.

As long ago as 1932, the College published a report by A. M. Simons and Nathan Sinai "The Way of Health Insurance." In that same year, its Committee on Journalism published "The Status of Dental Journalism" which effected considerable change by insisting on the profession's complete control of its literature. "The Cost of Dental Care for Adults" by Dorothy Fahs Beck presented one of the first studies of this now important factor in health care programs. The 165 Workshop on Enhancing the Image of Dentistry and the 1969 Workshop on Dental Manpower have been of significant value to the profession. The present Self-assessment and Continuing Education Program now being developed for the entire profession continues the dynamic influence of the American College of Dentists in the advancement of the profession.

To extend this influence even further, the American College of Dentists Foundation is being incorporated. This Foundation will provide a means for you to volunteer your personal support of programs which will be directed to those interfaces of stress where socio-economic forces now challenge professional responsibility in the delivery of health care.

Your support of the Foundation will be truly an investment in your profession.

The Committee on the American College of Dentists Foundation,
Frank Alford
Paul E. Jones
Stanley A. Lovestedt
Edward F. Mimmack
Carl J. Stark
Joseph B. Zielinski
Ralph A. Boelsche, Chairman
The American College of Dentists, on many occasions, has demonstrated a unique effectiveness in making objective examinations and appraisals in social, economic and professional areas of dentistry. Many of its recommendations in education, research and the delivery of service have been adopted and have proved to be of significant value to the profession and to society.

So that this important resource of objective analysis can be expanded, the Board of Regents of the College has directed that a Foundation of the American College of Dentists be established, providing a tax deduction for gifts and bequests to the Foundation.

The Board of Regents has approved the Articles of Incorporation and the Bylaws for the Foundation and proposes the following program for the signing of the Articles of Incorporation.

Those Fellows of the American College of Dentists who wish to sign the Articles of Incorporation are invited to join other signers in making a contribution of $100 or more to the initial funding of the Foundation. A number of Fellows of the College have indicated their interest in signing the Articles of Incorporation and in pledging $100 or more to the initial fund. You are invited to join many of your friends in the College who plan to sign the Articles of Incorporation on Saturday, October 28, 1972, at 11:30 A.M. in the Fairmont Hotel, San Francisco, and personally delivering your pledge card.

Those not able to attend the ceremony are invited to return their pledge card by mail and be listed as a Founding Contributor.

A report of the proceeding, and the names of those who signed the Articles and those who will be recorded as Founding Contributors will be published in the Journal of the American College of Dentists. In addition, a suitable plaque bearing these names will be mounted in the Board Room of the Executive Office of the College.

Pledges, such as a paid-up life insurance policy, or a continuing annual cash contribution, gift or bequest can also be made.
PURPOSES AND OBJECTIVES
OF
THE AMERICAN COLLEGE OF DENTISTS FOUNDATION

To Carry on the Following:

Educational, literary, scientific and charitable purposes or any of them, both directly and by the application of assets to the use of the American College of Dentists, for charitable, scientific, literary or educational purposes, or to any other corporation, trust, fund or foundation whose purposes and operation are charitable, scientific, literary or educational.

(a) To foster and maintain the honor and integrity of the profession of dentistry;
(b) To study, improve and to facilitate the delivery of health service;
(c) To promote the study of dentistry and research therein, the diffusion of knowledge thereof, and the continuing education of dentists;
(d) To cause to be published and to distribute addresses, reports, treatises and other literary works on dental subjects;
(e) To promote suitable standards of research, education, communication, and delivery of dental health care:

Provided, however, that no part of the net earnings of the corporation shall inure to the benefit of any private member or individual, and provided further that no substantial part of its activities shall involve the carrying on of propaganda, or otherwise attempting to influence legislation.

All contributions are tax-deductible.

1. All contributions to the American College of Dentists Foundation are tax-deductible as charitable gifts.
2. Individuals, Associations and Foundations are all eligible to support the work of the Foundation through tax-deductible gifts.
3. The Foundation will be classified as a Section 501 (c) (3) organization under the Internal Revenue Code.
4. The Foundation has background material available to substantiate the tax-deductibility of your contribution.

A copy of the Articles of Incorporation and Bylaws will be sent upon request.
Eleventh Annual Institute for Advanced Education in Dental Research

Sponsored by the American College of Dentists
April 23, 1973 - May 4, 1973
November 12-16, 1972

SALIVARY GLAND PHYSIOLOGY
AND THE BIOCHEMISTRY OF SALIVA

The subject for the 1973 sessions of the Institute for Advanced Education in Dental Research will be Salivary Gland Physiology and the Biochemistry of Saliva. Dr. Richard P. Suddick, Professor and chairman of the Department of Oral Biology, Creighton University School of Dentistry will be the principal mentor. The first session (two weeks) will be held from April 23, 1973 through May 4, 1973, at the Carrousel Inn, Cincinnati, Ohio. The second session (one week) will be held in Chicago at the American Dental Association headquarters building November 12-16, 1973. Trainees must agree to attend all days of both sessions.

Internationally recognized authorities will be present to discuss significant advances in this fast moving field of research. Primary consideration will be given to the mechanism of salivary secretion in man and experimental animals with emphasis on fluid generation and the control of electrolyte and non-electrolyte constituents. Micro-puncture and microperfusion studies will be reviewed and attempts will be made to extrapolate these observations to man. The place of the autonomic and central nervous system in controlling gland function will be considered and species differences will be examined in detail. Recent findings regarding the secretory immunoglobulins and their relationships to dental diseases will be discussed. The entire program will be directed toward building a base of information and interest in young investigators upon which a research career can be constructed.

The Institute, developed by the Committee on Research of the American College of Dentists, has as its objective the advanced
training of experienced researchers. By giving them the opportunity to gather together, under the guidance of a group of recognized senior scientists acting as mentors, and to discuss their research interests, problems and goals, it is hoped that the participants, all with related but not necessarily identical interests, would gain a better understanding of dentistry's problems and possible ways of solving them. At the various sessions of the Institute, consideration will be given to specific details of each participant’s own research activity. This will contribute an insight into its significance and possible future direction, as well as into new and advanced approaches which might be applied.

The Institute reimburses trainees for their travel expenses and pays a stipend based on cost of living.

This is the Institute’s eleventh year under support by a training grant from the National Institute of Dental Research. Determination of annual program content, invitation of senior mentors, and selection of trainees are the responsibility of the Subcommittee on Research of the American College of Dentists.

Programs are kept flexible. Mentors are invited on the basis of stature and competence in the field, and for their community of interest with the participants. They are drawn from the ranks of general science as well as from dental research centers. In choosing trainees, consideration is given to past accomplishment and future promise, and their ability to add to the dialogue of the curriculum. An effort is made to achieve a balance between the various disciplines related to the study areas. Usually the group chosen consists of ten to twelve trainees and four mentors, with senior participants added as special needs arise.

Research workers interested in attending must send a letter of application before January 10, 1973, to Dr. Robert J. Nelsen, Executive Director, American College of Dentists, 7316 Wisconsin Avenue, Bethesda, Maryland 20014. This letter must include the following: (1) a curriculum vitae, (2) list of pertinent publications, (3) a detailed account of previous and present activities relating to the subject field, (4) a statement of the type of discussion topics that would be most useful to the applicant’s interests.
Nutrition Teaching in Preventive Dentistry

ABRAHAM E. NIZEL, D.M.D., M.S.D.*

Dental caries just like obesity and atherosclerosis is a manifestation of malnutrition associated with affluence and a "civilized" society. It is paradoxical that this dieto-bacterial dental disease should be prevalent in the United States in spite of the abundance of food. One explanation is that the public is uninformed concerning food, nutrition and its relation to dental health. It is incumbent, then, for the dental health team to provide their patients with sound nutritional advice as it pertains to the prevention and control of dental caries.

Thus, the overall objective of this nutritional educational program in preventive dentistry was to update dental students, practitioners, hygienists, nutritionists, and more important, the teachers of nutrition in dental and dental hygiene schools on the recent advances in the science and practice of dental nutrition. The major emphasis was placed on how to bridge the gap between nutritional theory and dietary practice by teaching a rational, ordered, and objective procedure for giving patients dietary advice as an integral part of a total applied preventive dentistry program.

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Dr. Nizel's paper won an award of merit in the first annual American Dental Association Preventive Dentistry Award Competition.
METHODS

The methods of achieving these objectives were to develop problem-oriented lecture, demonstration, and workshop courses in nutrition and preventive dentistry. These teaching methods were continuously modified and improved over the past six years in order to develop an acceptable model nutrition teaching program which could be readily adapted to the curriculum of most schools of dentistry and dental hygiene. In fact, over 60 schools have sent their nutrition teachers to the Continuing Education Program of Tufts University School of Dental Medicine to participate in the limited attendance bi-monthly workshops dealing with diet counseling in dentistry.

The lecture series emphasized discussing groups of related nutrients and their effects on dental caries, periodontal disease, oral mucous membrane disease, infection, wound healing and mineralization.

Basic information about food which included composition, processing, additives, adequate diets, dietary requirements, and food faddism was taught by a question and answer approach.

The demonstration of clinical nutritional problems was accomplished by ward rounds on medical or hematological services. Alternatives to this clinical demonstration were video-tape or case history presentations using the clinico-pathological conference approach to learning.

The practice of nutrition was taught through participation exercises. The giving of diet counseling to a patient proved to be the most meaningful experience of all. The student learned (1) how to communicate and develop good rapport with his patient (2) methods of behavior modification, and (3) the procedure for giving ordered, rational, non-directive dietary guidance.

EVALUATION

In order to evaluate the effectiveness of the nutrition teaching program, responses to questionnaires submitted to dental and dental hygiene students and teachers of nutrition have been tallied with the following results:

As the course developed in scientific depth and relevance to dental practice, the percentage of dental students who scored this course as necessary (excellent) or helpful (good) rose to above 90%.
Almost 100% of the dental hygiene students have scored their nutrition learning experience as one of the most valuable, informative and relevant group of lectures in their preventive dentistry training.

Seventy-five per cent of the patients counseled by students have significantly changed their dietary patterns to include only half and in many instances one-fourth as much between meal snacking of sweets.

Ninety-two per cent of the teachers of nutrition who participated in the workshop courses felt that the workshop provided new methods of teaching nutrition, especially one-to-one counseling. The same number of respondents said that the course helped place more importance to diet counseling in their applied preventive dentistry service. Forty-one schools now include diet counseling for clinic patients which they did not do before taking this course. In thirty-seven schools the administration and curriculum committees have taken a more positive attitude toward including nutrition as part of a preventive dentistry course.

Effectiveness of the Program

The nutrition teaching program at Tufts University School of Dental Medicine has been successful in informing students and teachers on the recent advances of the science and practice of nutrition in preventive dentistry. Its greatest impact has been defining, describing, and stimulating the acceptance of a rational, ordered, and practical approach to giving personalized diet counseling as an integral part of a total preventive dentistry service.

The Nutrition Education Program

Case Introduction

A National Nutrition Survey reported in 1969 indicated that malnutrition was a surprisingly serious problem in the United States.¹ One of the criteria for arriving at this conclusion was the deplorable dental health of the 70,000 individuals from ten states included in this survey. The dental condition of each hundred persons examined showed that 90 needed restorations or extractions, 45 had some degree of periodontal disease, 20 were denture wearers, and 18 had difficulty in biting and chewing food. Even though this population group may have been malnourished because they were too poor to
buy the right kinds of food for a healthful diet, we know that similar conditions exist in other Americans who are affluent. Degenerative diseases associated with chronic malnutrition such as obesity, atherosclerosis, and dental caries are as prevalent in affluent as well as economically deprived population groups. Further, dental caries is considered to be probably the most prevalent chronic nutritional problem in the United States today because it affects 98% of the people.

These dental and medical nutritional problems were recognized at the 1969 White House Conference on Food, Nutrition and Health and the conferees recommended that physicians, dentists, nurses, and dental hygienists become more knowledgeable about nutrition. They reasoned that if they do, then the public would be better informed concerning food needs, food buying and food consumption habits. This need for nutrition education was reinforced by the President of the United States at this conference with the following statement, "We see, then, that the problem of hunger and malnutrition is really two separate problems. One is to ensure that everyone is able to obtain an adequate diet. The second is to ensure that people actually are properly fed where they have the ability to obtain an adequate diet. On the one hand, we are dealing with problems of income distribution. On the other hand, with problems of education, habit, taste, behavior, person preference—the whole complex of things that lead people to act the way they do to make the changes they do."

The following are the recommendations pertaining to dental health and diet that resulted from this White House Conference:

1. All dental schools and dental hygiene schools should offer an identifiable course in the science and practice of nutrition. The purpose of this educational requirement will be to provide the dentist with one more preventive dentistry procedure. Personalized diet counseling for caries control should be an essential component of a complete program of oral health.

2. Training programs for dietitians and nutritionists should include experience in dental schools and in dental clinics during their dietetic internships so that they can learn to recognize and understand the oral problems associated with poor diets. Dietitians should act as consultants or auxiliaries for dentists as they do for physicians.

3. Proper status and financial reimbursement (fee for service) should be given for providing a diet counseling service in dentistry. Either public or third party payment services like medicaid, dental service corporations and private health insurance companies should include this service in their approved fee schedule.
Objectives of the Program

The overall objective of the educational research program reported here was to create, develop, and build methods for teaching nutrition to the dental health professionals. This is in response to one of the mandates of the President and the participants of the White House Conference on Food Nutrition and Health.

The specific aims of this research in dental nutrition teaching and learning were:

1. to update the dental profession in the recent advances of the science of nutrition especially as it relates to its oral relevance.
2. to demonstrate how this basic material in nutrition can be applied to the practical clinical problems seen in general practices, particularly dental caries.
3. to provide a model nutrition teaching program that could be copied or adapted to the curriculums of schools of dentistry and dental hygiene.
4. to share our teaching experiences with other teachers of nutrition whose major training may be in nutritional biochemistry or dietetics and nutrition or dentistry, or dental hygiene.

The major aim was to provide a method of teaching nutrition which would bridge the gap between the science and the practice of nutrition as it applies to a comprehensive preventive dentistry service.

Teaching Responsibilities

Before describing the "how" of teaching and learning involved in dental nutrition, it is appropriate to discuss why, what, by whom, and when this subject should be taught.

Why should nutrition be taught in dental schools?

The reason that nutrition should be taught in dental schools is that food and nutrition play an integral part in the cause and therefore the prevention and control of dental disease. For example, there are hard scientific facts to prove that if a child is provided a balance diet, devoid of between meal snacks of sweets and drinks an optimally fluoridated water, his dental caries experience in a lifetime will be minimal. Another example is that the evidence seems to point to the supportive effects of protective nutrients such
as protein, ascorbic acid, and vitamin A on periodontal tissues so that they can resist breakdown. It is clear from these examples that the food we eat has both a direct local and an indirect systemic effect on both dental and periodontal structures. Therefore, it is incumbent upon the dentist and dental hygienist to learn and understand how the science of nutrition affects oral health and how to use diet for the prevention and control of oral diseases.

**What are the objectives of a course on Nutrition in Preventive Dentistry?**

These are the major goals:

1. It should demonstrate that our scientific knowledge of the mechanisms and etiologies and, therefore, the methods of preventing and controlling oral disease can be approached, in part, biologically through nutrition.

2. It should provide the dentist with factual information about the nature of food composition and preparation to dispel the fantasies and myths often associated with foods harbored by some of his inquiring patients.

3. It should provide the student with a practical tool for learning how to communicate and develop rapport between himself and the patient through personalized diet counseling. Diet counseling will provide a means for appreciating the social as well as the pathological component of dental diseases such as dental caries.

**By whom should nutrition be taught?**

The ideal teacher is one who has both a basic science background in nutritional biochemistry and clinical experience in dentistry. If one person does not possess both these types of training, then a collaborative effort between a clinical dentist and a nutrition educator should be encouraged. The person who should not teach this course is a nutritionist or home economist who cannot, because of lack of training and experience, relate oral problems to nutrition.

**When in the curriculum should this course be taught?**

The science of nutrition should follow the acquisition of some basic information in biochemistry, biology, and physiology. It can be fitted in very well as part of an Oral Biology or Oral Health Sciences course.
Assessing the nutritional status of a patient should be part of a general diagnosis and treatment planning course.

The practice of nutrition should commence with the beginning of a student’s clinical experience in dentistry or dental hygiene.

**How should nutrition be taught?**

A course in nutrition may have two different types of orientation—a nutritional biochemistry or oral problem orientation. The nutritional biochemistry approach would deal with the chemistry and physiology of the nutrients and their combined effects on specific tissues, bodily processes, and clinical conditions: for example, fats and atherosclerosis, proteins and infections, ascorbic acid and wound healing. The oral problem orientation deals with discussing, for example, the cariogenic and caries inhibiting food factors or the systemic effects of nutrients on periodontal health.

**GENERAL APPROACH**

In general, people learn least well when they are passive listeners to a non-illustrated lecture. They learn better when they see slides, models or television demonstrations of the points being made in the lecture. However, they learn best by doing and participating in a direct and purposeful experience, such as patient counseling workshops and clinical experience.

**DENTAL OR DENTAL HYGIENE SCHOOL APPROACH**

The science of nutrition should be taught as all other basic or oral health science courses by illustrated lectures or by the use of self-learning audio-visual tapes. The subject matter in each lecture should include some dental or oral relevance. It is helpful to encourage the students to ask questions during the lecture for immediate clarification of points that seem hazy and debatable. Learning becomes stimulating and pleasurable when this type of informal spontaneous dialogue arises between student and teacher.

Clinical nutrition is best taught by seeing actual clinical cases. This is done by visiting in-patients at a community hospital or outpatient clinics and health centers. For example, students should be assigned to the out-patient obstetrical clinic to learn about nutritional problems in pregnancy. To learn about the nutritional management of patients with nutritional anemias or alcoholism, the student should
participate in the ward rounds of the hematological service or the medical service.

*Applied nutrition* or nutrition counseling is taught by demonstration and student participation. Each student should learn how to provide his patient with a personalized diet prescription based on a carefully organized evaluation of the patient's nutritional status. This takes place preferably in a consultation or patient education room set aside for this purpose.

**An Example of a Specific Nutrition Teaching Program**

The following is an outline of the topics covered in the nutrition teaching at Tufts:

**Oral Health Science—Freshman Year**

A. Protein Nutrition and its Role in Infection
B. Ascorbic Acid and its Role in Collagen Biosynthesis and Wound Healing
C. B-Complex Vitamins and Oral Manifestations of Their Deficiencies
D. Hematinic Nutrients and Their Oral Relevance
E. Calcium Phosphorus and Vitamin D and Their Role in Mineralization
F. Carbohydrate Nutrition and its Role in Periodontal Disease and Dental Caries
G. Effect of Fluorides and Phosphates on Dental Caries Inhibition

**Social Dentistry—Preventive Dentistry Component—Sophomore Year**

A. Food Groups and Nutrient Requirements
B. Food Habits and Food Faddism
C. Assessing the Nutritional Status of a Patient
D. Technique of Diet Counseling for Caries Control
E. Technique of Nutrition Counseling for Patients with Periodontal Disease
F. Special Nutritional Considerations for Common Medical Problems: e.g. Obesity, Atherosclerosis, Gastric Ulcers

**Applied Preventive Dentistry—Junior Year**

A. Nutrition Counseling Sessions
   1. Demonstration
   2. Participation and Case Report
B. Nutrition Seminars
   1. Discussion of Case Histories and General Topics in Food and Nutrition

**Practice of Nutrition—Postdoctoral Periodontal Students**

A. Food Groups and Nutrient Requirements
B. Food Habits and Food Faddism
C. Assessing the Nutritional Status of a Patient
D. Nutritional Anemias, Alcoholism—Ward Rounds
E. Obesity, Diabetes, etc.—Nutrition Clinic
F. Applied Nutrition for Periodontal Patients
   1. Counseling Sessions for Acute Gingival Problems
   2. Counseling Sessions for Chronic Periodontal Problems
      a. Demonstration
      b. Participation and Case Report

The Science of Nutrition is not a separate identifiable course but rather is a core of lectures that are integrated into the Oral Health Science course in the first semester of the freshman year. The topics that are covered are shown above.

In the first semester of the sophomore year when clinical nutrition is taught, the method of assessing the nutritional status of a patient is delineated. The dietary considerations and the techniques of diet counseling of patients with dental caries and periodontal disease are dealt with in detail. Special dietary considerations for patients undergoing oral surgery or elderly patients receiving new dentures is covered. Since some of the dental patients may be on special diets, the students are provided with some basic information about weight reduction diets, diabetic diets, etc.

At the beginning of the third year, the students start to participate in diet counseling. Each student is required to observe how counseling is done and then perform a counseling service under supervision. Diet counseling is considered part of a comprehensive oral health preventive service which also includes plaque control, topical fluoride treatments, and application of fissure sealants. Diet counseling is given to all adolescent patients regardless of their present dental status because they are the most vulnerable age group as far as dental caries experience is concerned. Diet counseling is given special appointment time. It is conducted in a special patient education room—never chairside. The patient is also apprised that
a fee is charged for this objective dental service commensurate with any other dental restorative or surgical service that usurps the same amount of time.

A second clinical type experience is nutrition seminars. Groups of 10 students are assigned to two seminars during a semester at which time they are given the opportunity to present and discuss the nutritional diagnosis and management of their cases. Questions raised by patients concerning food and food practices are dealt with, too, at these seminars.

CONTINUING EDUCATION PROGRAMS FOR TEACHERS OF NUTRITION

Although a conference of a hundred or more teachers of nutrition can serve as a useful method of bringing to light new approaches to teaching nutrition, the final application and impact for the individual attendee is small. Optimal learning involves doing as well as listening. Therefore, it was decided to invite six to eight nutrition teachers from dental and dental hygiene schools to participate in a two-day nutrition teaching workshop. This limited attendance provided the opportunity for a tutorial or a one-to-one relationship between teacher and participant. It not only provided personalized guidance, but also helped in promoting an exchange of ideas and personal teaching problems.

The program for the two-day workshop covered the following subjects the first day: (1) recent knowledge dealing with cariogenic and non-cariogenic food factors, (2) basic nutrition and principles of dietotherapy (3) techniques of non-directive diet counseling and (4) demonstration of a step-by-step technique for giving dietary advice to a caries susceptible patient. On the second day each participant gave diet counseling to at least one and sometimes two patients, if the time allowed. The counseling was critiqued not only by the teacher but also by the accompanying team member. Time was also made for individual conferences at which time suggestions were given for the administration of a nutrition teaching program to suit the individual school.

RESULTS

The measure of the relative effectiveness of the undergraduate nutrition teaching program was determined (1) by students' course evaluation surveys, (2) by attitude changes of the students with
respect to acceptance of diet counseling as an objective dental service and (3) by patients' response to recommended diet modifications.

1. Students’ Evaluations of the Lecture Series

The first series of freshman nutrition lectures was given as part of a larger preventive dentistry course. The whole course included biostatistics, preventive periodontics, and interceptive orthodontics, besides nutrition. The following was the students' evaluation as to content and presentation.

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>Total Course</th>
<th>Nutrition</th>
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<tbody>
<tr>
<td>Necessary</td>
<td>42%</td>
<td>57%</td>
</tr>
<tr>
<td>Helpful</td>
<td>38%</td>
<td>35%</td>
</tr>
<tr>
<td>Questionable</td>
<td>14%</td>
<td>6%</td>
</tr>
<tr>
<td>Useless</td>
<td>6%</td>
<td>2%</td>
</tr>
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<table>
<thead>
<tr>
<th>PRESENTATION</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>29%</td>
<td>59%</td>
</tr>
<tr>
<td>Adequate</td>
<td>51%</td>
<td>39%</td>
</tr>
<tr>
<td>Poor</td>
<td>20%</td>
<td>2%</td>
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More students, 92% compared to 80%, felt that nutrition was more necessary or helpful than the total course. Only two per cent thought it was poorly presented compared to twenty per cent for the entire preventive dentistry course.

The next year, a second group of freshman students evaluated the course on the basis of its scientific value, relevance to the practice of dentistry and its presentation with the following results:

<table>
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<tr>
<th>Scientific Value</th>
<th>Relevance</th>
<th>Presentation</th>
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<tbody>
<tr>
<td>Good to Excellent</td>
<td>86%</td>
<td>69%</td>
</tr>
<tr>
<td>Fair</td>
<td>13%</td>
<td>25%</td>
</tr>
<tr>
<td>Poor</td>
<td>1%</td>
<td>6%</td>
</tr>
</tbody>
</table>

Again it was apparent that on the basis of a pass-fail appraisal, failures were practically negligible and the vast majority were extremely satisfied with the course.
Dental hygiene students have almost unanimously scored their nutrition course and diet counseling experience as one of their most valuable and practical learning experiences.

2. Students, Evaluation of the Diet Counseling Sessions

The students' reactions to our diet counseling instruction were reflected in comments such as these before and after they gave their diet counseling.

Before counseling:
"I can see that this might be effective, but is it worth my valuable time as a dentist?"

"I can't believe that we can convince anyone to change his food habits."

After counseling:
"I really feel like I know my patient now and I believe that we can really help him."

"I shall begin by saying that originally I was a little skeptical of the value of nutritional guidance in dental practice. I must now admit that it is a useful and in some cases a necessary service and should not be neglected in total patient care."

3. Patients' Response

We have also had some interesting data on the relative ability of dental students to influence the behavior of their patients insofar as reducing the number and frequency of sweets intake.

In our diet counseling service each patient has at least two diet evaluations, an initial assessment and a follow-up, three weeks later. In the diet prescription, a special effort is made to have the patient voluntarily select non-sugar sweetened acceptable snack alternatives for candy, cookies, jam, soft drinks, etc. Each sugar sweetened food is counted as an exposure and the usual daily average is about 4-6 per day. The results of the counseling session were that only 10 per cent of the 91 patients surveyed stated that they did not change their sweets intake significantly. About 75 per cent stated that they cut down their sweets by at least half and in most instances by at least three-quarters. Only five per cent of the cases reported that they cut them out completely. These results show significantly constructive positive responses to our diet counseling efforts.
CONTINUING EDUCATION OF TEACHERS OF NUTRITION

Some feedback comments on the part of the participants in the workshops for nutrition teachers were:

"The most interesting and worthwhile workshop I have ever attended. I am utilizing all my new knowledge by enthusiastically sharing it with students in my classes."

"A wealth of information was imparted and will be very applicable to my students. I plan to change the objectives of my nutrition course to a more practical application of nutrition in dental hygiene."

A survey to determine the effects of this course after a year or two of implementation shows that the practice of nutrition was instituted for the first time in 47 out of 51 or 92 per cent of the schools and that diet counseling in now an objective clinical service in 42 of these. The administration and curriculum committee of 36 schools had a more positive feeling about nutrition teaching as a result of this workshop. In 40 schools, students now provide diet counseling. Before the workshop only five schools had a diet counseling service. Lectures and seminars in the practice of nutrition has increased in 21 schools. It is clear that the major goal of this workshop, namely to improve and increase the emphasis on diet counseling in schools of dentistry and dental hygiene has succeeded significantly.

This tutorial teaching approach was time consuming and limiting but its effects were so positive and rewarding that we are convinced that this method of active involvement on the part of the participant has provided the development of an identifiable, and viable dental nutrition service.

CONCLUSIONS

The subject of nutrition should be taught in two segments, the science of nutrition, and the practice of nutrition.

In the science of nutrition, the problem solving approach to dealing with dental diseases that have a nutritional basis is the most interesting one. Clinical examples and case histories should be used wherever possible to describe the pathophysiological results of nutritional aberrations.

In the practice of nutrition, providing personalized diet counseling in an ordered and objective fashion is most meaningful and rewarding for both students and patients.
The reactions of undergraduate dental and dental hygiene students to a dental nutrition course has been most positive because they have been shown that nutrition can be taught with relevance and objectivity. The positive response of their patients to this preventive dental service has also contributed to the student’s good feeling.

REFERENCES

It is not the function of a university to cram the heads of students with as many facts as can be squeezed in. Its proper task is to lead them into habits of critical examination and an understanding of canons and criteria which bear on all subject matters.

BERTRAND RUSSELL
Personality Characteristics Associated With Preventive Dental Health Practices*

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Dental disease, particularly tooth decay, is almost universally prevalent, and the practice of preventive behaviors in this area by a large proportion of the population is an important public health goal. Surveys have shown, however, that in the general population less than 50% see a dentist for either preventive or symptomatic care in any one year.\(^1\) For preventive visits alone, only about 20% report seeing a dentist during any one year period.\(^1\) The other main individual preventive dental health behavior—adherence to recommended toothbrushing routines—is followed by more people, as 60% report brushing their teeth at least two times per day.\(^2\) However, a greater percentage of people could easily perform this action.

In attempting to influence more people to behave preventively, it is important to understand why people take preventive dental health actions. Knowledge in this area is limited. Preventive practices in dental health have been studied mainly in relation to two sets of variables: social status (income, education, occupation), and certain beliefs about dental disease. Most of these studies have dealt only with dental checkups, and not toothbrushing practices.

\(^*\) This investigation was supported by Public Health Service Research Grant No. 1 R21 DH 00190.

\(^**\) The Medical Foundation, Inc., 29 Commonwealth Avenue, Boston, Massachusetts.
On the basis of a large number of studies, it has been established that social status variables are highly correlated with preventive dental health practices. Yet this fact does not in and of itself yield an explanation of why this behavior occurs; further information is needed concerning the intervening links between social status and dental behavior.

Beliefs about disease constitute a potential link between social status and health behavior. The major theory of preventive health behavior attributes the behavior to three such beliefs: (a) the person judges himself to be susceptible to a disease; (b) the disease is viewed as having serious consequences for the individual; and (c) the person believes that there is an action he can take to reduce effectively his susceptibility to the disease or the seriousness of its consequence. It has been shown that these beliefs are more likely to be found among those of higher social status, although social status and the health beliefs have independent effects on the behaviors. However, a serious drawback to the health beliefs theory of preventive behavior is that the empirical evidence does not always support the theory. Even if health beliefs are found to be related to the behavior, many of the studies are retrospective, and it is equally likely that the behavior led to the beliefs as it is that the beliefs caused the behavior. The health beliefs studies related to dental practices illustrate these points. A retrospective study by Kegeles indicated that all three beliefs—susceptibility, seriousness, and perceived benefits—were positively related to having made preventive visits to a dentist. In a later prospective study by Kegeles, based on the same sample, it was found that only susceptibility was significantly related to dental behavior. Perceived benefits added to this relationship, but by itself did not reach statistical significance. Seriousness showed no association at all with dental behavior. In general, it has been found that while many people view themselves as being susceptible to dental disease, they do not see dental disease as a very serious problem. Thus, preventive actions may not be taken even though the person knows what he should do and believes in the efficacy of the preventive actions available. However, a later retrospective study by Tash found that the only dental belief which was correlated with preventive dental behavior at a statistically significant level was perceived
seriousness. In this study, the relationship between susceptibility and dental behavior was opposite to that predicted. That is, those who felt least susceptible were those who had seen a dentist preventively. It should be pointed out, however, that since the study was a retrospective one, the finding that people who have regularly performed behaviors which they think will make them less susceptible then feel less susceptible is entirely logical. This finding has appeared previously in the literature. Kasl and Cobb noted, "In a retrospective study, those who report many past preventive dental visits see themselves, at interview time, less susceptible to dental decay than those reporting fewer such visits. In a prospective study, those who see themselves less susceptible are found subsequently to have fewer preventive dental visits than those who see themselves more susceptible." One final study, a prospective one by Rosenstock, indicated that none of the beliefs showed significant associations with dental behavior.

It can be seen from this brief review of health beliefs studies that the results are not clear-cut, even taking into account the retrospective-prospective distinction. Thus there is presently no adequate explanation as to why preventive dental health behavior occurs.

The present study investigated dental practices of ninth grade students and their parents in relation to personality characteristics. Personality characteristics at a level more basic than that of beliefs have received little attention in previous research on dental health or other preventive behavior, although they have potential for helping to explain this behavior. One study attempted to measure time perspective in relation to dental behavior by asking three questions, e.g., "Some people say nowadays a person has to live pretty much for today and let tomorrow take care of itself. Would you agree strongly, agree somewhat, disagree somewhat, or disagree strongly with that?" Time perspective was found not to be related to preventive dental behavior. However, the reliability of these questions, and their validity as a measure of time perspective, are not known. In addition, the questions used are subject to social desirability bias.

Another study related personal value orientations toward time and the environment to preventive dental behavior and found statistically significant associations. As in the study above, the
scales used have unknown reliability and validity. Moreover, yeasaying tendencies were not controlled for, as “yes” answers are always scored in the same direction in these scales.

There were five personality variables investigated in this study: locus of control, future time orientation, impulsivity, order, and harmavoidance. Locus of control indicates the extent to which a person believes that a behavioral event is contingent upon his own behavior. Those persons who believe that events which happen to them are a result of fate, luck, superstition, or other factors beyond their control are called “externals,” while “internals” are characterized by the belief that their own actions and behavior determine the positive or negative reinforcement they receive. Harmavoidance indicates the tendency to avoid risk of bodily harm and to maximize personal safety. Impulsivity indicates a tendency to act on the spur of the moment, without deliberation. Order indicates a concern with neatness and organization.

These particular personality variables were selected after due consideration as to the type of person who would be expected to behave preventively. Preventive behavior involves taking the time to perform some act now—in the absence of physical symptoms—which may involve some minor effort or discomfort or inconvenience, in order to avoid a more major negative consequence later. This implies a future orientation, planning behavior, and lack of impulsivity. Thus, the time orientation, order, and impulsivity variables were chosen. Besides future orientation and planning behavior, what may also be required for preventive behavior to occur is the feeling that one can do something about potential disease to reduce the chances of getting it or to check its severity. The locus of control variable taps this dimension. The harmavoidance variable was selected because preventive health behavior implies a cautious, low-risk approach to life.

The five personality variables were investigated in relation to both regular dental checkups and toothbrushing behavior. The study was designed to examine sex differences in these relationships, and differences between children and adults.
METHODS

Questionnaires were completed by 386 ninth grade students in a high school in a predominantly middle and upper-middle class suburb of Boston. The questionnaires were completed in 21 health education classes. Separate questionnaires were developed for the 367 mothers and 319 fathers residing with their children and were sent to them by mail.

All participants were asked if they see a dentist to have their teeth cleaned or for a checkup on a regular basis, even when their teeth or gums are not bothering them, and how often they do so. They were also asked if they had a chance to brush their teeth yesterday, and if so, at what times. This toothbrushing question was used in previous research and is designed to reduce social desirability bias. Students were asked later in the questionnaire the number of days during the previous week on which they had brushed their teeth at least twice.

The Nowicki-Strickland Locus of Control Scale was used to measure this variable in ninth graders. This scale is appropriate for grades 3 through 12. Examples of items are: “Do you believe that most problems will solve themselves if you just don’t fool with them?” (E); “Do you believe that you can stop yourself from catching a cold?” (I); “Do you think it’s better to be smart than to be lucky?” (I). In the questionnaire sent to parents, the Rotter Internal-External Scale, the standard for adults, was substituted. The Shybut Future Time Orientation Scale was used, along with the impulsivity, order, and harmavoidance scales from the Jackson Personality Research Form.

With the exception of the Shybut Time Orientation Scale, these scales are known to have satisfactory reliability and validity. It was not possible to find an appropriate time orientation scale on which reliability and validity information were available, and the properties of the Shybut scale are unknown.

A maximum of 30 minutes of student time was available for completing the questionnaires. In order to include all of the personality variables, 10 classes (N = 165) were randomly selected to be given the Nowicki-Strickland and Shybut scales; the remaining 11 classes (N = 221) completed the Jackson scales. The parents whose ninth grade son or daughter completed the locus of control
and time orientation measures were sent these scales, while the parents of students who had filled out the three Jackson scales were assessed on these variables. However, to insure a high response rate, it was felt necessary to keep the parent questionnaires as brief as possible. From the 11 classes of students who had completed these scales, 4 were randomly chosen in which parents were sent the order and impulsivity scales. In 4 other classes, the parents received the impulsivity and harmavoidance scales, while parents of students in the 3 remaining classes received the order and harmavoidance scales.

In the mail survey of parents, various measures were taken to insure that a high response rate would be achieved. Three contacts were made with potential respondents: an initial letter accompanied by questionnaires, a follow-up letter, and a final letter including another set of questionnaires. Stamped return envelopes were included with the questionnaires. The questionnaires and letters were printed, and the letters were signed by representatives of the town health department which has close ties with the school. The letters were printed on health department stationery. Code numbers were used in order to match students with their parents, but this procedure was explained and anonymity assured. The questionnaires were kept brief, and required a maximum of 15 minutes to complete.

**Results**

Of the 386 ninth graders who completed questionnaires, there were 185 girls, and 201 boys. In the mail survey of parents, 240 of 367 mothers (65%) and 193 of the 319 fathers (60%) responded. Using information from the town directory, respondents and nonrespondents were compared on occupation and age. There were no age differences. Mothers who responded had an average age of 43.2, and nonrespondent mothers averaged 43.0 Mean ages for respondent and nonrespondent fathers were 47.0 and 46.4, respectively. On the other hand, parent respondents were of higher occupational standing than nonrespondents. For 55.3% of the parent respondents, the major breadwinner was in the top three Hollingshead occupational categories, compared to 30.4% among nonrespondents ($x^2 = 16.0, p < .01$).
Table 1 presents information concerning the level of preventive dental health practices among students and their parents. The percentages of people obtaining dental checkups at least once a year were high in all groups: boys (69.4%), girls (74.9%), men (61.8%), and women (71.6%). The majority of boys and fathers, and the great majority of girls and mothers, reported brushing their teeth at least twice on the day previous to the survey. When toothbrushing behavior was assessed among students over the past week, smaller percentages had brushed their teeth twice on all seven days than had done so on the previous day, but a majority of the girls reported doing so.

The toothbrushing measures (previous day and previous week) were highly correlated in the population of boys (+.61, p < .001) and girls (+.51, p < .001). However, the associations between toothbrushing and dental checkup were generally non-significant in all four samples. Toothbrushing yesterday was non-significantly cor-

### Table 1
Preventive Dental Health Practices of Students and Parents

<table>
<thead>
<tr>
<th>A. Number of Times Brushed Teeth Yesterday</th>
<th>0</th>
<th>1</th>
<th>2 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys (N = 185)</td>
<td>13.5%</td>
<td>30.8%</td>
<td>55.7%</td>
</tr>
<tr>
<td>Girls (N = 178)</td>
<td>0.6</td>
<td>14.6</td>
<td>84.8</td>
</tr>
<tr>
<td>Fathers (N = 174)</td>
<td>2.3</td>
<td>31.0</td>
<td>66.6</td>
</tr>
<tr>
<td>Mothers (N = 222)</td>
<td>0.0</td>
<td>13.5</td>
<td>86.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Number of Times Brushed Twice a Day in Past Week</th>
<th>0 days</th>
<th>1-3 days</th>
<th>4-6 days</th>
<th>7 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys (N = 188)</td>
<td>34.6%</td>
<td>17.6%</td>
<td>22.9%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Girls (N = 174)</td>
<td>10.9</td>
<td>15.5</td>
<td>20.7</td>
<td>52.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Regularity of Dental Checkups</th>
<th>Every 6 mos.</th>
<th>Every year</th>
<th>Less often</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys (N = 193)</td>
<td>51.8%</td>
<td>17.6%</td>
<td>9.8%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Girls (N = 183)</td>
<td>60.6</td>
<td>14.2</td>
<td>6.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Fathers (N = 175)</td>
<td>34.9</td>
<td>26.9</td>
<td>12.0</td>
<td>26.3</td>
</tr>
<tr>
<td>Mothers (N = 222)</td>
<td>41.0</td>
<td>30.6</td>
<td>13.1</td>
<td>15.3</td>
</tr>
</tbody>
</table>
related with dental checkup among boys (+.12), girls (+.07), men (+.13), and women (+.06). Toothbrushing last week was significantly associated with dental checkup among boys (+.20, p < .01), but not girls (+.04).

As in previous studies, social status variables were significantly associated with obtaining regular dental checkups. Father's educa-

### Table 2
**Correlations Between Personality Variables and Preventive Dental Health Behavior**

<table>
<thead>
<tr>
<th></th>
<th>Dental checkup</th>
<th>Toothbrushing yesterday</th>
<th>Toothbrushing last week</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>External Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>−.05</td>
<td>+.06</td>
<td>−.14</td>
</tr>
<tr>
<td>Girls</td>
<td>−.21*</td>
<td>−.06</td>
<td>.00</td>
</tr>
<tr>
<td>Fathers</td>
<td>−.23*</td>
<td>−.09</td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>−.11</td>
<td>+.02</td>
<td></td>
</tr>
<tr>
<td><strong>Future Time Orientation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>−.05</td>
<td>−.08</td>
<td>−.03</td>
</tr>
<tr>
<td>Girls</td>
<td>+.02</td>
<td>+.01</td>
<td>+.06</td>
</tr>
<tr>
<td>Fathers</td>
<td>+.15</td>
<td>+.12</td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>+.18*</td>
<td>+.01</td>
<td></td>
</tr>
<tr>
<td><strong>Impulsivity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>−.09</td>
<td>−.19*</td>
<td>−.25***</td>
</tr>
<tr>
<td>Girls</td>
<td>−.05</td>
<td>−.27**</td>
<td>−.14</td>
</tr>
<tr>
<td>Fathers</td>
<td>−.08</td>
<td>+.07</td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>.00</td>
<td>−.06</td>
<td></td>
</tr>
<tr>
<td><strong>Order</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>+.19**</td>
<td>+.18*</td>
<td>+.34****</td>
</tr>
<tr>
<td>Girls</td>
<td>+.06</td>
<td>+.16</td>
<td>+.07</td>
</tr>
<tr>
<td>Fathers</td>
<td>.00</td>
<td>+.28**</td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>+.03</td>
<td>−.18</td>
<td></td>
</tr>
<tr>
<td><strong>Harmavoidance</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>+.18*</td>
<td>+.05</td>
<td>+.19*</td>
</tr>
<tr>
<td>Girls</td>
<td>+.23*</td>
<td>+.10</td>
<td>+.11</td>
</tr>
<tr>
<td>Fathers</td>
<td>−.05</td>
<td>+.09</td>
<td></td>
</tr>
<tr>
<td>Mothers</td>
<td>−.10</td>
<td>+.19*</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05.  
** p < .01.  
*** p < .005.  
**** p < .001 (one-tailed tests).
tion and mother's education were both significantly correlated with their own dental checkup behavior and that of their children, as was occupational status. However, none of the social status variables was significantly correlated with the toothbrushing measures in any of the four samples.

Table 2 shows the relationship between dental health practices and personality characteristics. This table indicates that there were more significant associations among students than their parents. Obtaining regular dental checkups was associated with internal control among girls and fathers, with harmavoidance among boys and girls, with future time orientation among mothers, and with order among boys. Toothbrushing was associated with low impulsivity among boys and girls, with order among boys and fathers, and with harmavoidance among boys and mothers.

**Discussion**

The level of dental health practices was high in this study, a result of the survey being conducted in a predominantly middle and upper-middle class suburban community. Somewhat fewer parents may obtain dental checkups than indicated by these results. Response rates for men (60%) and women (65%) were reasonably high but indicate that many did not respond. Those who did respond tended to have higher status occupations than nonrespondents, and occupational status was associated with obtaining dental checkups. Thus, if all parents had responded, the percentage of parents obtaining dental checkups would likely have been lower.

One noteworthy finding is that toothbrushing and dental checkup behavior tended to be correlated at low, non-significant levels in all samples. The slight relationship between dental checkups and toothbrushing implies that the dynamics of these behaviors may be different, and that different educational methods may be needed to influence the two behaviors. It was found, for example, that education and occupation were associated with dental checkup behavior, but not with toothbrushing.

A number of statistically significant associations were found between dental practices and personality variables, all of them in the predicted direction. Internal control and harmavoidance were associated with regular dental checkups in two of the four
samples; that is, those who feel that their own actions—rather than fate or luck—have an important effect on the outcome of events tend to obtain regular dental checkups, even when their teeth or gums are not bothering them, as do those who have a cautious, low-risk attitude toward life.

Those with a cautious, low-risk approach (as reflected in the harmavoidance variable) were found also to brush their teeth in two of the four samples. Otherwise, different personality variables were associated with toothbrushing than with regular dental check-ups. Toothbrushing is a behavior that must be performed daily, and those who brush their teeth tend to be characterized by organization, discipline, planfulness (as reflected in the order variable) and a lack of impatience and hurriedness (as in the impulsivity variable). This syndrome was strong particularly among boys.

The results indicate that basic personality characteristics, which have been neglected in previous research, can aid in explaining why preventive dental health behavior occurs and should be considered in future studies of the dynamics of this behavior.

REFERENCES

(Continued on page 240)
Academic Performance In Dental School: Its Relation to Predental Course Emphasis

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

While the series of criteria used by dental school committees on admission tend to predict the dental student's scholastic and clinic performance\(^1,2,3\), as yet no apparent effort has been made to relate dental school academic performance to undergraduate predental course emphasis. An unsubstantiated "fear" of dental school faculties may well be that the dental school applicant who has not emphasized the physical and natural sciences may not perform adequately in the dental school course of studies.

As part of a comprehensive study to consider the relation between predental course emphasis and the subsequent performance of community oriented activities by private dental practitioners\(^4,5,6\), an effort was made to describe the relation between a "liberal arts"\(^*\) and "extended science"\(^**\) predental education and academic performance in dental school.

\(^*\) A predental education in which the student majored in or emphasized the liberal arts and social sciences beyond the minimum requirements established for admission to schools of dentistry.

\(^**\) A predental education in which a student majored in or emphasized the traditional scientific fields of biology, chemistry, physics, mathematics and related areas beyond the minimum requirements established by the Council on Dental Education for admission to schools of dentistry. (The 1970 House of Delegates of the ADA eliminated specific admission requirements after the data for this study had been collected.)

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However, to consider technical competence only in terms of academic performance in dental school does not take into consideration variations in technical ability that may occur as a result of the experience gained during the years of professional practice. Unfortunately, no specific direct measures of these changes are currently available.

One might consider "practice success" as a possible indirect measure of practitioner technical competence—if a definition of success could be developed which would be acceptable to all interested parties. But technical competence and practice success are not synonymous. Practitioner personality, management ability, practice location, a decision to spend a prescribed percentage of available time as a clinical instructor in the local dental school, for example, as well as many other factors which may be unrelated to technical competence may effect the success of a practice. In addition, the satisfaction expressed by dental patients with respect to a particular practitioner's ability may also be questioned as one indicator of success, since patients are often unable to discern differences in the technical quality of dental care. Therefore, it should be recognized that academic performance is at best only a partial indicator of a practitioner's future technical competence.

**THE STUDY**

A one-third systematic selection of private dental practitioners who were active or life members of a large midwestern dental society and who had been graduated from the two schools of dentistry—one, a privately controlled institution, and the second, a state university—which provided 90 percent of the dental practitioners in the community were selected for study.

The study was based upon responses to a short mailed questionnaire—which asked about the practitioner's undergraduate predental education and practice characteristics—and the academic records from the two institutions from which the practitioners had been graduated. Of the defined sample of 261 practitioners, 235 practitioners, of 90.1 percent, responded to the questionnaire. Academic performance data were secured for 218 of these respondents—51 graduates from the state university and 167 graduates from the private university. Academic performance data were generally not obtained.
for respondents who had been graduated from the two institutions during the early and mid 1920s. In addition, for 30 respondents who had been graduated from the state university (most since 1950) academic performance data were also obtained after two years of study—the basic science years.

**CATEGORIZING PREDENTAL EDUCATION**

Based upon the information supplied by a respondent,* the practitioner was recorded as a “liberal arts” practitioner if he listed one of the following course areas as his major or area of concentration while he was a predental student:

- Anthropology
- Classical studies
- Economics
- History
- Journalism
- Language
- Literature
- Music
- Philosophy
- Political Science
- Psychology
- Sociology
- Speech

A practitioner was recorded as an “extended science” practitioner if he listed one of the following areas as his major or area of concentration while he was a predental student:

- Astronomy
- Biology
- Botany
- Chemistry
- Engineering
- Geology and mineralogy
- Mathematics
- Physics
- Zoology

All practitioners who recorded nonspecific categories: e.g. predental, or combinations of categories which could not be readily classified, were contacted by telephone and were classified as either “liberal arts” (“l.a.”) or “extended science” (“e.s.”) practitioners based upon the additional information that was secured. (A pretest of the study on practitioners not involved in the actual study indicated that 95 percent of the statements made by practitioners regarding their predental course emphasis were confirmed when compared to actual dental school records.)

Of the 235 respondents, 78, or 33.2 percent, were recorded as “l.a.” practitioners and 157, or 66.8 percent, were recorded as “e.s.” practitioners.

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* Predental school academic transcripts were not available for most respondents.
Academic Performance Data

Academic performance data were available at the private institution in terms of percentile standing at the time of graduation; i.e. the class standing of individual graduates divided by the number of graduates in the particular year of graduation. At the state university, performance data were available in terms of point hour ratios; i.e. the points per grade divided by the number of hours per course. Because of differences in the notation systems employed by the two institutions to record academic performance, respondents who had been graduated from the private university were considered separately from respondents who had been graduated from the state university.

Analysis and Discussion

The Mann-Whitney U^8 testing procedures were carried out to test the hypothesis of systematic difference between “l.a.” and “e.s.” practitioners with respect to academic performance in dental school. The number and percent of practitioners in the higher and lower halves of their respective graduating classes were used to determine the direction of any differences that were noted. The results of these procedures are reported in Table I.

As reported in Table I, there was no difference between the academic performance for “l.a.” and “e.s” practitioners who had been graduated from the state university (p > .19)—after two years and four years of study—while at the private university, “l.a.” practitioners outperformed “e.s.” practitioners (p = .05).

The analysis in the present study does not take into consideration the undergraduate predental education of those students who failed

<table>
<thead>
<tr>
<th></th>
<th>U value</th>
<th>Probability</th>
<th>Direction of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private univ.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>graduates</td>
<td>2515</td>
<td>.05 (n = 167)</td>
<td>“l.a.” &gt; “e.s.”</td>
</tr>
<tr>
<td>State univ.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>after 2 years</td>
<td>128</td>
<td>.19 (n = 30 )</td>
<td></td>
</tr>
<tr>
<td>after 4 years</td>
<td>339</td>
<td>.45 (n = 51)</td>
<td></td>
</tr>
</tbody>
</table>
to complete the course of studies because of academic circumstances. However, in the pretest for this study, noted above, no reliable difference was found for the two entering classes that were considered, between the number of “l.a.” and “e.s.” students who failed to complete the course of studies (p = .01). Thus, while the possibility exists that greater number of either “l.a.” or “e.s.” students failed to complete the course of studies, some assurance that this is not generally the case—at least for the two years studies at one dental school not involved in the present study—may be gained from the pretest findings.

Although one may not assume that the practitioners studied are a representative sample of the entire dental profession, the findings should lessen, to some degree, the “fear” that “liberal arts” students may not perform satisfactorily in schools of dentistry.

**Summary**

A study was made of the relation between undergraduate predental education course emphasis and academic performance in dental school. A review of academic performance at two schools of dentistry—one, a private university, and the second, a state university—indicated that “liberal arts” students perform as well or better than “extended science” students.

Mann-Whitney U values, associated probabilities and direction of differences for comparison of the academic performance by “l.a.” and “e.s.” practitioners by the university from which they had been graduated.

**References**


Personality Characteristics Associated with Preventive Dental Practices

(Continued from page 234)


The Dental Editor in Community Dentistry*

CLIFTON O. DUMMETT, D.D.S.**

There is a need for dental editors to espouse and publicize many of the philosophies and functions of community dentistry. Such procedures can contribute to the solutions of some of the contemporary problems of the dental profession. It is significant to recognize that so many popular topics such as the viewpoints of dental students, Delta Dental Plans, and Politics and the Dental Editor are, closely related to, and comprise essential parts of Community Dentistry, defined as that facet of a health profession engaged in equipping dentists and dental auxiliaries with skills which will enable them to be socially sensitized, scientific practitioners on an interacting population of varied individuals with common interests and living in a particular area. To be socially sensitive, dentists must be able to adhere to the maxim of treating patients rather than teeth. They must accept the ethic that all clinical procedures should be influenced by the ideal of retaining the natural dentition for life. In addition, dentists have a duty to participate in the profession by becoming actively engaged in dental organizational functions. Finally, involvement with community responsibilities demands that dentists identify major health problems and work with others in the community to help solve them.

* From a presentation to the Annual Meeting, American Association of Dental Editors, October 8, 1971, Atlantic City, New Jersey.
** Professor and Chairman, Department of Community Oral Health and Preventive Dentistry, University of Southern California, Los Angeles, California.
Community dentistry cooperates with community medicine in providing health care to all of the nation's communities in a system which gives new dignity to the disadvantaged through a guarantee of what has been described as a one-to-one patient-doctor relationship. This supersedes the impersonal clinical environment which still characterizes much of the care afforded the disadvantaged. Like the physician in community medicine, the dentist is being called upon to regard the patient in his total environment rather than merely in terms of his dental complaint. Assistance in modifying that environment whenever necessary is an important additional function of the medical team of which the dentist is an integral member. As long as the dentist sincerely believes that he must work as a part of a team of trained health workers, then it is possible to institute these environmental changes.

A good place to begin improving intraprofessional communication is the dental school. One of the philosophies of the department of community dentistry, has been to insist that this department make itself serviceable to the dental school, by increasing the contacts between the various departments and among the students, faculty, and staff. A daily publication of dental news and related topics became the modus operandi of the department of community dentistry to provide a service to the school's educational program.

The decision to produce a daily publication was not prompted by a lack of published material, since there are excellent school bulletins, journals, deans' letters, and announcements. It was felt, however, that a daily newsheet could best accomplish the aims of community dentistry. Many of these concepts are still new, and as yet, neither fully appreciated nor generally acceptable to the rank and file of the profession. The ultimate appreciation and acceptability will depend upon the understanding of the aims and aspirations of modern dentistry as they relate to public health and the prevention of disease. Understanding depends upon improved communications—both intra and extraprofessionally. The daily newsheet by its constant presence typifies and enhances the concept of "community" within the school itself. The broad range of topics reveals an interrelatedness which could pass unnoticed if they were not assembled in this manner. Brevity, both visual and rhetorical, is the reward and the catalyst. Readers know that the publication
will be pertinent, informative, inclusive, and brief. At the same time the newsheet makes its presentations in an unobtrusive manner, gently but firmly guiding its readers to a larger point of view of dentistry and of themselves as members of this health profession.

The first issue was published on July 1, 1970, as a product of the department of community dentistry. The title DAILIDENT was chosen as more appropriate for such a publication. The paper consisted of a single mimeographed sheet with five items, all pertaining specifically to the dental school. The motto, "non supplantare sed extendere" was added to the masthead, and served to emphasize the paper’s functions of supplementing and not supplanting other official school publications.

**CONTENT**

*Limited number of items per issue.* From the beginning it was decided to publish an average of four or five items per issue. A small number is psychologically less formidable, and is more likely to encourage reader interest.

*Succinctness.* Special efforts were made to present data as interestingly written as possible. There was enough detail for the reader to secure a good grasp of the subject, and yet not so much as to be a consuming infringement on the reader’s time. With the large amount of reading material to be digested, and the relative lack of time to read it all, the dental school population appreciated capsular news. When necessary, items were repeated to provide continuing coverage.

*Pertinence.* Topics of the bulletin board kind, personal notes, and biographical sketches were used where feasible. Thought-provoking quotations were included as were reports of interesting conversations and recounts of incidents. It is to be expected that reader interest would center on items that were dentally oriented, so that technical, educational, and professional elements constituted the basic materials for each day’s publication. Every effort was made to obtain a wide variety of facts in order to maintain interest, while at the same time informing readers. Because dentistry is a university discipline, it was also necessary to include items that were university-related. It was good too for other schools and disciplines to view the dimensions of dental interests.
Health related topics. The need to publish health-related as well as dental topics cannot be underestimated, especially during these times in which there is rising sensitivity about social, psychological and political issues. An examination of past issues of the publication indicates that approximately 35% of the items were of the health-related variety.

Sources of materials. The releases of the University News Bureau, newsletters, newspapers, journals, excerpts from related speeches or special articles—all provided excellent news. Students proved to be productive sources of youth oriented items. In addition, there were occasional reporter accounts of significant happenings. Full responsibility for what was published in Dailident was vested in the editor and he resisted occasional efforts to use this medium to derogate personnel or detract from official school policy.

Production and Distribution

Appearance of Publication. The Dailident was begun as a mimeographed sheet because this was the least expensive and most available means of presentation. However, following the inauguration of the Word Processing Center in the School of Dentistry, arrangements were made to have the Center print the newsheets. Beginning with the August 4, 1970 issue, an attractive paper was produced from an electric stencil. Variations in type styles provided an interesting and attractive printed page. The use of different type emphasized the individual items and heightened visual appeal.

Mechanics of production. Basic copy was supplied to the Word Processing Center before noon each day, and the typing and setting processes were completed by 5 p.m. Copies were run off early the following morning and immediately distributed. If submitted by 10 a.m., urgent items were included in the next day’s issue.

Distribution. A total of 100 copies were run off daily in the beginning, and sufficient quantities were placed throughout the building, in busy, accessible areas, amenable to pickup by passers-by. Copies were distributed also to faculty members in the medical and health-associated schools, university officials, administrators and other selected individuals. A rise in reader demand brought about the increased circulation, and a total of 300 copies constituted the daily run.
Cost. The cost of production, including the price of stencil and amount of paper, has been estimated at $1.04 per day. These minimal costs were absorbed by the budget of the department of community dentistry.

Reader Feedback

There was variety in reader interest. Early in the publication's history, one female reader indicated that there was not a sufficient variety of material in the Dailident. From time to time, the editor has received suggestions to modify both the content and intent of the paper. These suggestions represented actual evidence of reader participation and interest, and have been incorporated wherever feasible. Some, however, such as using the paper as a medium for humor, were considered inimical to the project's functions and philosophy, and were rejected. One particular criticism from a few members of the senior dental class indicated their feelings that there was insufficient student involvement in the production and publication of the newssheet. Accordingly, plans have been made to assign publication responsibilities to a committee consisting of student representatives from each class. The students will be assisted by a faculty advisory group.

Summary

The department of community dentistry in the school of dentistry, University of Southern California, has been publishing a daily newssheet aptly titled the DAILIDENT.

Invitations were extended to all departmental chairmen, class officers, faculty, staff, and students to submit news and short articles. Initially, the response was disheartening.

Changes in interest and popularity have occurred and from all accounts, it would appear that the publication has now become an effective medium of intraintitutional communication. Initiated as a device to provide communication among dental faculty, students, departments, and other divisions of the University, this publication has accomplished this task. There is tangible evidence to indicate that it is widely read, and that the students, faculty, and staff have been participants in submitting items.

There are plans to have increased student participation in publication responsibilities.
CONCLUSION

Departments of community dentistry have not had an easy time of winning a place for themselves in the curricula of the nation's dental schools. The situation is improving, and is proportional to the ingenuity which community dentistry departments employ in making themselves serviceable to other older and more firmly established departments of the school. A daily publication of dental news and related topics is one means of making departments of community dentistry useful and helpful.

925 West 34th Street
Los Angeles, Calif. 90007

We never say so much as when we do not quite know what we want to say. We need few words when we have something to say, but all the words in all the dictionaries will not suffice when we have nothing to say and want desperately to say it.

ERIC HOFFER
Bequest of ACD Fellow to Aid University of Alabama Dental School

... The School of Dentistry at the University of Alabama in Birmingham (UAB) has received the largest gift in its 25-year history, according to dean C. A. McCallum.

The endowment, totalling $190,600, came from the estate of the late Dr. and Mrs. Malcolm Smith of Arcadia, Fla. The gift will be used to support a series of lectures in oral surgery at the dental school and provide loan funds to students, interns, residents, and postdoctoral scholars taking specialty training in oral surgery, according to Dr. McCallum.

"This thoughtful and extremely generous bequest to the UAB dental school is the largest private gift we have ever received," said Dr. McCallum. "Such a donation reveals the foresight of the Smiths and high regard with which they viewed the value of dental education.

The money came from the sale of a 20-acre Florida orange grove which was willed to the School of Dentistry by Mrs. Smith, who died in 1970. Located in Thonotosassa in Hillsborough County, the grove was the site of a large number of early-bearing orange and tangerine trees which Dr. Smith had tended personally as a hobby since the couple moved from Tennessee to Florida in 1920.

Dr. Smith, who died in 1950, was the first dentist in Florida to limit his practice to oral surgery and was the first to give general anesthesia in his office. He served as president of the Florida West Coast Dental Society, the Florida State Dental Society, and the Florida Dental Anesthetists Society. He was also an editor of the "Florida State Dental Journal" and third vice president of the American Dental Association.

A 1917 dental graduate of Vanderbilt University, Nashville, Tenn., Dr. Smith was a member of Omicron Kappa Upsilon and Delta Sigma Delta fraternities. He served as a captain in the Dental Corps of the U. S. Army from 1917 to 1922.

Dr. Smith was a member of the American Dental Association, the American Association for the Advancement of Oral Diagnosis, the staff of the Municipal and St. Joseph's Hospitals, the American
Society of Oral Surgeons, and the Pierre Fauchard Academy; a fellow of the American College of Dentists, the International College of Anesthetists, and the American Society for the Advancement of General Anesthesia; a diplomat of the American Board of Oral Surgery; a major in the U. S. Public Health Reserve during World War II; and a consultant in oral surgery at Bay Pines Veterans Hospital.

Mrs. Smith, the former Louise Caillouette of Nashville, was executive director of the Florida chapter of the American Cancer Society for many years.

Dr. Smith had numerous dental friends in Alabama and often attended meetings in the state.

**NEWS OF FELLOWS**

*(continued from page 196)*

Herbert L. Taub, executive director of the Tenth District Dental Society, recently received the annual Jarvie-Burkhart Award, the Dental Society of the State of New York’s highest honor, at a reception and luncheon.

Fellows William D. McCarthy and William H. Hiatt were presented with Honus Maximus Awards by Fellows L. Glenn Cody and Miles R. Markley for outstanding contribution to the advancement of dentistry and to the Metropolitan Denver Dental Society at its May meeting.

Drs. William D. McCarthy and Ernest T. Klein were elected to the Denver Post Gallery of Fame recently.

Dr. Clifford Loader has retired after 14 years as mayor of Delano, California. The Kern County supervisors cited him for “extraordinary and praiseworthy service” and presented him with a certificate of merit.

**CORRECTION**

The officers of the New England Section were listed incorrectly in the July issue. They are: Chairman, L. Walter Brown, Jr., Auburndale, Mass., Vice-Chairman, H. Martin Deranian, Worcester, Mass., and Secretary-Treasurer, Orrin Greenberg, Chestnut Hill, Mass.
Dear Dr. Nelsen,

May I preface my remarks to you by saying how pleased I am to have been elected to the American College of Dentists. This distinct privilege has, however, caused some feelings of humility and of increased obligation to our profession's future.

As I looked around the gowning room at the convocation in Atlantic City, I could not help but notice that there appeared to be a good number of younger men elected to Fellowship. This observation caused me to reflect on the implied obligation that the Fellows, recognized for their potential as well as their contributions, have many years of service to the profession ahead of them.

I recently had the pleasure of meeting Dr. Robert Kaplan of the New Jersey Dental Association, and editor of the American College of Dentist's Journal. We discussed my feeling regarding my election to the College. He used the terms, "accomplishments and potential," in referring to the election of new members. He intimated to me that potential was becoming a more important characteristic in the profile of candidates for election than in past years.

Pursuant to this idea, I suggested to Dr. Kaplan, that the younger members of the College could benefit immensely from the wealth of expertise and experience represented in the College roster by the more mature Fellows. Since a great deal of my career in service to our profession lies ahead of me, it will require skills in speaking, writing and professional diplomacy. I thought some form of College activity that would bring the experience of the more mature Fellows to the younger members would benefit the College, the profession, and be most rewarding to the Fellows participating in such activities.

Dr. Kaplan and I discussed the possibility of planned workshops, seminars, and/or conferences on a regional or national basis that would bring the members of the College together on a teacher-student relationship. Such activities would enable the profession and the College to extend the service of our more distinguished members to the profession through the younger members by passing on skills.
and experience that would make the College an even more influential force in dentistry’s future. The proceedings of such activities could be passed on to the College through the Journal.

Although I have been a Fellow for only a short time, I see the College as an instrument to pass on the excellence and integrity represented by the College’s distinguished roster by bringing together the Fellows that have been so influential in shaping the profession, with the men who have been recognized for their potential to provide leadership in the future.

Respectfully yours,
Hudson D. Heidorf, D.D.S.
Cleveland, Ohio

Dr. Nelsen’s Reply

Dear Dr. Heidorf:

Thank you for your very interesting and informative letter relaying your thoughts about the potential of the College for extending the influence of the mature members of the profession to a broader spectrum of younger dentists. The College of course is reaching directly to the individual at this time through its Self-assessment and Continuing Education Program and of course the individual himself is the fiducial element in the upgrading of all dimensions of the profession. However, your idea of bringing closer together through workshops and seminars the valuable insights and experience of older persons of the profession and relaying this on to the younger generation of dentists is excellent, and I shall convey your thoughts to the Board of Regents.

I trust that you will continue your interest in the College and its objectives and purposes and that you will feel free to write to the Officers or the Board or to this office at any time.

With all good wishes,

Cordially,
Robert J. Nelsen, D.D.S.
Executive Director
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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 graduate studies and continuing educational efforts by dentists and auxiliaries;

(d) To encourage, stimulate and promote research;

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

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

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

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

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

Revision adopted November 9, 1970.