the Journal of the American College of Dentists

Manpower Workshop Recommendations

New Zealand Dental Nurse

Dental Public Health

A Career Guidance Program

The Freshman Dental Student

School Year in Iran

JULY 1968

the Journal of the American College of Dentists

A QUARTERLY PRESENTING IDEAS IN DENTISTRY

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EDITORIAL NOTE . . .

Workshop on Dental Manpower

The deliberations of the Study Groups at the December 1967 Manpower Workshop resulted in 62 recommendations. These were included, as presented, in the Group Reports published in the April 1968 JOURNAL containing the Proceedings.

The Committee on Social Characteristics (the Workshop Planning Committee), in a two-day meeting March 3-4, 1968, reduced these to 40 by combining those with similar intent, scope, and suggested action. With but minor modifications these then were approved by the Board of Regents at their Spring Meeting.

At the same time the Board referred certain of the recommendations for consideration, and hopefully for implementation, to specific groups and agencies involved in the planning designated in the recommendations. Some were referred to more than one group or agency as circumstances indicated. That information begins on page 248 of this issue.

A more total view of the scope of the Workshop findings should be apparent in thus bringing the recommendations together in their entirety. An appropriate background preamble by Kenneth A. Easlick introduces the recommendations.

The Proceedings, either as published in the April JOURNAL or as reprinted, were sent to all participants, deans, dental and certain medical libraries, secretaries of State Boards of Dental Examiners, presidents and secretaries of constituent associations, secretaries of component societies, dental editors, ADA delegates and alternates, and selected Public Health Service and federal agencies.—*T.McB.*

THE DENTAL MANPOWER WORKSHOP

"Meeting Dental Needs in the 1970s"

O. W. BRANDHORST, D.D.S.

AFTER a study of the *Proceedings* of the Dental Manpower Workshop held in St. Louis, December 10-13, 1967, and a review of the recommendations that resulted, I want to direct your attention to certain pertinent facts.

It was disappointing to note that the prime purpose of the Workshop, namely to seek methods to supply more dental manpower to serve the health of the people of the United States now and in the future, apparently had been lost sight of in the enthusiasm of delegating more duties to the dental auxiliaries.

I think more constructive thought and consideration should have been given toward educating more dentists; finding ways to solve the economic situation in dental education; saving the dental schools now threatening to close since it requires eight to ten years to bring new schools into production; developing plans for additional new schools and expansion of existing schools which will no doubt be needed; suggestions as to how to get the profession to respond favorably to the pressures and demands that are ahead when the tendency today is for shorter hours and more leisure; and solving the many other problems that will need study and long-range planning.

It is important in studying the recommendations of the Workshop that they not be considered the total and final answer to the manpower problems, but rather as suggestions for the next steps to which the American College of Dentists might well give continued attention.

This comment is not intended to downgrade the value of the studies made by the Workshop study groups. Rather the intent is to urge further studies in depth, lest we think that our work has been completed. Much yet remains to be done, and I hope the leadership of the American College of Dentists will play an important role in these undertakings.

Some Orientation to the Practice of Dentistry in the 1970s

KENNETH A. EASLICK, M.A., D.D.S.

THE challenge issued to the participants of this Workshop was to develop recommendations for gaining sufficient dental manpower to provide the services being generated by a growing population, by substantial federal health legislation, and by the approval of the American Dental Association's "Dental Health Program for Children."

A number of governmental programs now demand *quality* oral health services for children, and some of the federal amendments to the Social Security Act support additional programs for certain groups of adults. All programs, regardless of the age of the recipients, specify *quality* services in diagnosis, prevention, education, and treatment.

As the supportive background to understand and evaluate the recommendations that emerged from the Workshop, Study-group I was charged with the development of "a reasonable estimate of the dimensions of the task being presented to the dentists of the United States" in supplying the services demanded by 1975. Readers should be reminded that federal funds from Title XIX (Social Security Amendments of 1965) *must be matched* by each state's appropriation, and a *comprehensive* program of services initiated not later than 1970. Otherwise, a state will lose the federal funding available. Group I's report on needs, demands, and availability of oral health services will be reviewed at this point as the justification for the time, resources, and study spent in obtaining the recommendations that will follow.

The Impact of Growth

Growth in population alone is estimated to increase the demand for dental services by 15 per cent during the period 1965-1975, and

Dr. Easlick is a member of the Committee on Social Characteristics of the American College of Dentists; he is Emeritus Professor of Dentistry and Public Health Dentistry, University of Michigan.

25 per cent by 1980. For these same periods increasing family income is expected to produce additions to demand of 23 and 35 per cent respectively. Adding the developing availability of dental programs, it is expected that the total increase in demand for dental services will grow by 1975 to 50 to 75 per cent over that of 1965, and to 75 to 100 per cent by 1980.

A generous estimate of the extent of increase for dentists by 1975 is but 15 per cent to meet the 50 to 75 per cent increase in demand just pointed out for 1975. The increase in the number of dentists by 1980 may be enough to provide no more than 25 per cent of the 75 to 100 per cent increase in demand by that year. The impact of additional factors of growth, such as fluoridation, new breakthroughs from research, evolution of emphasis in dentists' practices (emphasis of periodontal treatment or orthodontic treatment, for example), a steadily increasing income of the population, improved education, and the lengthening life-span, are difficult to assess objectively but appear to total an *increased demand for services.*

The Distribution of Dental Manpower

A serious complication in any estimate of national resources for treatment is the uneven distribution, geographically, of dental manpower. Rural communities, isolated communities, and poverty-stricken areas never attracted sufficient dentists in the past. The availability of feredal funds to provide services to underprivileged populations at adequate fees is bound to alter the demand for services in these deprived areas. This alteration in demand through ability to pay may be expected to be reflected in a spurt by demand for specialists' services. The need for orthodontists, for example, might become startling, since 21,000 would be needed by 1985, and not more than 9,750 available.

Some Projections of Needs and Demands

To provide a concrete example of impacts on needs and demands in 1975, a functioning program of quality oral health services for school children, aged 5 through 18 years, exclusive of orthodontic treatment, has been projected. Preschool children were not included. The group eligible for treatment then would include the 57,984,000 children estimated by the United States Bureau of the Census. Sixteen per cent or 9,280,000 children would be eligible for govern-

mentally supported programs, and dental care through private resources would add 48,720,000 more children approximately.

To gain some estimate of the actual utilization anticipated in programs of dental services it was decided that 65 per cent, or 6,032,000 indigent children, might get *some* treatment, and 80 per cent, or 38,976,000 would receive *some* treatment under private care (this figure includes those financed through family resources, dental plans of industrial management, plans of unions, and plans of dental service corporations). Of these children, one might expect that 40 per cent or 13,326,000 might receive *comprehensive quality dental treatment.*

Using 1.3 hours per child per year, as the necessary time of the dentist to provide routine care, would demand 75,400,000 hours of dentists' time to treat all 58,000,000 5-through-18-year-old children, who would be eligible. If 1,643 hours represents the productive time per year for the average dentist working full-time for children (1965 Survey of Dental Practice), 100 per cent utilization would require the total time of 35,300 dentists practicing exclusively for children.

The projections cited, while indicating the necessity for a rapid increase of dentists or the assistance available from wider utilization of dental auxiliaries or both, neglect the coincidental educational effort that will have to be expended. The problems in communication, immediately ahead, to alert and educate the dental profession and its auxiliaries, to gain the cooperation of community agencies, to inform the families that are legitimate recipients, and to arrange transportation for initial treatment and periodic recall of patients, seems, at the moment, enormous indeed.

In the light of this brief summarization of impacts facing the profession, the Workshop's recommendations are ready to be presented and studied.

The Recommendations of The Workshop

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the American Dental Association for consideration.

1. *THAT* the American College of Dentists urge the American Dental Association to encourage state boards of dental examiners to make continuing education a requirement for renewal of state licenses, and to investigate other methods of maintaining high quality dental care.

2. *THAT* the American Dental Association, in order to stimulate, coordinate, and guide the development of effective continuing education *systems* utilizing new communcations technology, seek funds to establish a national inter-organizational committee to include representation from organized dentistry, licensure bodies, educational institutions, and voluntary and official health agencies; and further, *THAT* the effectiveness of such *systems* be evaluated.

3. *THAT* a Bureau of Constituent Society Services be established within the American Dental Association to facilitate communications between the Association and the constituent and component groups.

4. *THAT* the American Dental Association be urged to seek funds to implement and adapt communications technology to the special needs of the profession, and to evaluate the effectiveness of the methods.

5. *THAT* some of the pilot programs of dental care for children should utilize new communications technology to provide patient education, to motivate all segments of the population to seek care, and to maintain a continuing appreciation for dental health; and further, *THAT* the effectiveness of the methods used be evaluated.

6. *THAT* the American College of Dentists recognizes the necessity of establishing methods of assessing and controlling the quality of dental care, and *recommends THAT* the ADA Council on Dental

Care Programs develop guidelines to assist quality control committees of state and local societies; and further, *THAT* these committees should work in cooperation with the state boards of dental examiners.

7. *THAT* the American Dental Association, and other appropriate agencies, study and develop guidelines to aid in establishing high quality comprehensive dental care programs; and further, *THAT* until these guidelines are established constituent and component societies should use the statement of the ADA Dental Health Program for Children as a preliminary guiding principle.

8. *THAT* the ADA Council on Dental Care Programs urge all third party payment programs to include as a prerequisite, educational and informational activities to increase the utilization of the program.

9. *THAT*, in order to satisfy increasing administrative and managerial needs in dentistry, appropriate agencies of the American Dental Association, in cooperation with dental schools and the U. S. Public Health Service Division of Dental Health, organize and initiate programs to educate persons to serve as dental administrators in group practices, federal, state, and local agencies administering health programs, and dental service corporations, where dentists provide the leadership.

10. *THAT* the American Dental Association, in cooperation with the U. S. Public Health Service, study, evaluate, and recommend automated systems, materials, and equipment used in patient education in dental offices, schools, and clinics.

11. *THAT* the American Dental Association provide markedly increased program support for student dental societies; and further, *THAT* constituent and component societies develop new and more effective communications with student dental societies.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the U. S. Public Health Service for consideration.

1. *THAT* the U. S. Public Health Service be urged to seek support for the initiation of new, and expansion of existing programs designed to produce educators, administrators, and researchers to

help meet the critical need for these personnel created by the construction of new dental schools, the expansion of existing dental schools, and the burgeoning of auxiliary personnel in preparation programs in non-dental school settings.

2. *THAT* urgent attention be directed toward increased financial support for all existing Dental Auxiliary Utilization programs in dental schools; and further, *THAT* dental students be taught the principles and concepts of the effective use of trained auxiliaries in all phases of clinical dentistry.

3. *THAT* the U. S. Public Health Service increase its support to dental schools for establishing and strengthening departments that emphasize the social responsibilities of dentists.

4. *THAT* the U. S. Public Health Service be urged to increase its financial support to dental schools and other agencies to expand and strengthen programs of continuing education, to evaluate mass media for effectiveness, and to develop effective motivational techniques.

5. *THAT,* in order to satisfy increasing administrative and managerial needs in dentistry, appropriate agencies of the American Dental Association, in cooperation with dental schools and the U. S. Public Health Service Division of Dental Health, organize and initiate programs to educate persons to serve as dental administrators in group practices, federal, state, and local agencies administering health programs, and dental service corporations, where dentists provide the leadership.

6. *THAT* some of the pilot programs of dental care for children should utilize new communications technology to provide patient education, to motivate all segments of the population to seek care, and to maintain a continuing appreciation for dental health, and further, *THAT* the effectiveness of the methods used be evaluated.

7. *THAT* the American Dental Association, in cooperation with the U. S. Public Health Service, study, evaluate, and recommend automated systems, materials, and equipment used in patient education in dental offices, schools, and clinics.

8. *THAT* federal agencies and research organizations be urged to expand the support of research in the prevention of oral diseases, the delivery of oral health care, and the promotion of oral health.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the American Association of Dental Schools for consideration.

THAT the American Association of Dental Schools, and other appropriate groups, in order to interest more highly qualified persons in seeking careers in dentistry, improve and intensify communications with students, teachers, and counselors; and further, *THAT* more effective methods of recruitment be developed to encourage more qualified men and women to consider dentistry as a career.

THAT constituent and component societies explore methods to develop a close cooperation and liaison among universities, junior and community colleges, and related dental groups to design quality education for dentists and auxiliaries.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the Deans of dental schools for consideration.

1. *THAT* urgent attention be directed toward increased financial support for all existing Dental Auxiliary Utilization programs in dental schools; and further, *THAT* dental students be taught the principles and concepts of the effective use of trained auxiliaries in all phases of clinical dentistry.

2. *THAT* constituent dental associations be urged to organize a Continuing Education Planning Committee to include:

—representatives of dental and dental auxiliary organizations;
—selected faculty members of appropriate schools; and
—members of official and non-official agencies.

The functions of this Continuing Education Planning Committee should be to:

—determine the need and priorities of courses;
—suggest methods to present courses;
—suggest subject areas important to today's practice of dentistry;
—seek funds to conduct programs;
—devise methods to ensure maximum participation; and to
—evaluate the effectiveness of courses.

3. *THAT* continuing education programs should be developed by all possible means to teach dentists and all their auxiliaries new and established concepts of team dentistry; and further, *THAT* such programs recognize the changing composition of the dental team and the separate skills and functions of its members.

4. *THAT* dental schools implement programs which will provide training for the undergraduate student and the practicing dentist in the management and administration of the total dental health team.

5. *THAT* group practice of dentistry (defined as an association of dentists providing a full range of diagnostic and clinical services to the public on an open basis) be encouraged since it will promote increased quality and quantity of dental care; and further, *THAT* dental schools include instruction in the principles and concepts of group practice in their undergraduate and postgraduate programs.

6. *THAT* dental practitioners and students be taught preventive concepts, techniques, and the desirability of practicing these procedures; and further, *THAT* this instruction include delegation of selected procedures to qualified auxiliaries.

7. *THAT* dental schools and other institutions be urged to include effective instruction and experience in patient education for dental students, hygienists, and assistants.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the Presidents and Secretaries of constituent dental associations for special consideration.

1. *THAT* constituent dental associations be urged to organize a Dental Health Planning Advisory Committee to include:

—representatives of the Council on Dental Health and the Council on Dental Care Programs, or their counterparts of the association;
—representatives of dental service corporations;
—dentists specially trained in dental health planning, i.e., from dental schools, schools of public health, and health departments;
—non-dental consultants as needed.

The functions of this Dental Health Planning Advisory Committee should be:

—to act in an advisory capacity to the dentist or dentists serving on the state Comprehensive Health Planning Council;

—to assist in the planning and implementation of publicly and privately funded dental care programs to assure that they include the use of adequate personnel; proper facilities; optimum use of modern educational methods, preventive techniques, and corrective services; and sufficient reimbursement for services provided;

—to identify dental health needs, to plan methods of meeting these needs, and to seek necessary funds to do so;

—to review health programs which are active or being planned within the state and, where applicable, plan, suggest, and include dental activities;

—to advise that similar Committees be developed at the component level to coordinate activities with the state Committee and to assess needs and resources before any new facility is developed in a given community; and

—to give a report at least annually to the members of the association in order that the profession be apprised of all dental programs operating or planned.

2. *THAT* constituent dental associations seek the appointment of at least one representative to the state Comprehensive Health Planning Council, the Regional Medical Program, and other advisory groups; and further, *THAT* action be taken with other constituent associations to seek the appointment of a dentist to the Regional Comprehensive Health Planning Council.

3. *THAT* constituent dental associations be urged to organize a Continuing Education Planning Committee to include:

—representatives of dental and dental auxiliary organizations;
—selected faculty members of appropriate schools; and
—members of official and non-official agencies.

The functions of this Continuing Education Planning Committee should be to:

—determine the need and priorities of courses;
—suggest methods to present courses;
—suggest subject areas important to today's practice of dentistry;
—seek funds to conduct programs;
—devise methods to ensure maximum participation; and to
—evaluate the effectiveness of courses.

4. *THAT* continuing education programs should be developed by all possible means to teach dentists and all their auxiliaries new and established concepts of team dentistry; and further, *THAT* such programs recognize the changing composition of the dental team and the separate skills and functions of its members.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to Secretaries of constituent dental associations for consideration.

1. *THAT* each constituent dental association, in cooperation with its state board of dental examiners, proceed with due speed to study its dental practice act and if necessary formulate appropriate amendments designed to allow broad interpretation of auxiliary functions if it has not already done so.

2. *THAT* constituent dental associations establish a dental service corporation or similar agency to coordinate and systematize communications between the profession and third party representatives.

3. *THAT* constituent dental societies establish an Inter-agency Communications Committee to include representatives of the state and local dental organizations, the dental school (s), the dental divisions of the state health department, state board of dental examiners, federal and other agencies, to identify problems and communicate information about issues of concern to the profession; and further, *THAT* constituent and component societies exploit all types of communications to keep their members and auxiliaries informed of important issues facing the profession, e.g., third party programs and expanding the functions of auxiliaries.

4. *THAT* group practice of dentistry (defined as an association of dentists providing a full range of diagnostic and clinical services to the public on an open basis) be encouraged since it will promote increased quality and quantity of dental care; and further, *THAT* dental schools include instruction in the principles and concepts of group practice in their undergraduate and postgraduate programs.

5. *THAT* constituent and component societies should continually promote programs for public dental health education; and further, *THAT* dentists and auxiliaries, in offices and clinics, assume increased responsibility in patient education.

6. *THAT* dental societies should be challenged to make attendance at dental meetings more meaningful to auxiliaries; and further, *THAT* provisions should be considered that offer inducements for the attendance of auxiliaries in continuing education courses to increase their knowledge and skill.

7. *THAT* constituent and component societies explore methods

to develop a close cooperation and liaison among universities, junior and community colleges, and related dental groups to design quality education for dentists and auxiliaries.

8. *THAT* community-school dental health councils be established to stimulate and increase dialogue between administrators, teachers, and the dental profession.

9. *THAT* constituent and component societies provide a staff to maintain a continuing administrative structure; and further, *THAT,* where feasible, each society create a representative governing body.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that are being referred to the Secretaries of component dental societies for consideration.

THAT component dental societies, in cooperation with local health departments, give serious consideration to initiating dental service programs in urban ghettos and poverty areas, and

THAT, wherever feasible and effective, dental care programs should use the private dental office as the facility for providing dental care.

THAT constituent and component societies explore methods to develop a close cooperation and liaison among universities, junior and community colleges, and related dental groups to design quality education for dentists and auxiliaries.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that were directly referred to the American College of Dentists for implementation.

THAT the American College of Dentists inform its membership of the Report of the National Advisory Commission on Health Manpower, and to ask the Committees of the College to study the proposals contained therein.

THAT the American College of Dentists continue contact with the Continuing Education Branch of the U. S. Public Health Service regarding a Workshop on Continuing Education.

THAT the American College of Dentists cooperate with the American Dental Association and other health agencies to support

the concept of the appointment of a Secretary of Health with Cabinet status.

THAT appropriate Committees of the American College of Dentists study the recommendations of this Workshop and aid in their implementation.

THAT copies of the complete list of recommendations and to whom they were referred be sent to the American Dental Association and the U. S. Public Health Service.

Recommendations that resulted from the Dental Manpower Workshop sponsored by the American College of Dentists December 10-13, 1967, that were referred to the College Committee on Dental Health Service, for further study.

THAT the duties of auxiliaries should not be spelled out in the legislative act but controlled by the rules and regulations of the state board of dental examiners; and further, *THAT* the need for well designed, practical, and approved educational courses to prepare auxiliaries for expanded duties be acknowledged.

THAT third party dental care programs be accompanied by preventive dentistry programs.

The New Zealand Dental Nurse: Observations on the Scene and In the Literature

D. M. RODER, B.D.S., M.P.H.

DURING the last 20 years, observers from all over the world have journeyed to New Zealand to examine a governmental dental program through which 93 per cent of children, below the age of 17 years, currently receive dental care (1). The significant feature of interest is that dental nurses provide the overwhelming majority of care for children below the age of 14 years (2). It is interesting to notice that 63 per cent of preschool children between the ages of 2½ and 5 years are so treated (1).

So radical a departure from conventional means of providing care has received varied reactions from observers: yet a consensus on the merits and drawbacks of this program is evident. The purpose of this paper is to review and compare these opinions and to subsequently express one point of view concerning the current and potential value of dental nurses. The basis for this point of view stems from discussions with many who have been intimately associated with the New Zealand scheme, an extensive review of the literature, as well as first-hand observations of similar dental nurse programs in England, Malaysia, and South Australia.

Before reviewing the literature, the reader should be aware of certain background information. For over 40 years, a two year training course has prepared young women in New Zealand to assume certain responsibilities in caring for the dental health of schoolchildren (2). These responsibilities have included:

(a) dental health education.
(b) examination, diagnosis, and treatment planning.
(c) oral prophylaxis and the topical application of fluoride.

Dr. Roder, of Adelaide, South Australia, received his Masters Degree in Public Health at the University of Michigan. This is a part of his graduate thesis.

(d) local infiltration anesthesia.
(e) cavity preparation and the amalgam restoration of deciduous teeth and the amalgam or silicate restoration of permanent teeth.
(f) the extraction of permanent and deciduous teeth.

With over 1,000 nurses operating in school clinics scattered around the country, and with one dental officer commonly responsible for 80 or more nurses, supervision is limited to monthly or less frequent visits when a sample of treated children are checked (3). As dentists do not check all children during the treatment period, nurses must be capable of detecting all anomalies beyond their therapeutic scope for referral to a dentist. Equipment used by the nurse is mainly portable, and radiographs or chairside assistance is normally unavailable. Nurses are further restricted to low speed cutting instruments (4).

Observers on the Scene

The following observers will be referred to in the course of this review:

(a) the Australian delegation of 1949.
(b) Gruebbel and Fulton from the United States; a British delegation; and Ellis, a Canadian, in 1950.
(c) Barmes from Papua-New Guinea; Baume from the University of Geneva; and Schachter from Saskatchewan in this decade.

It is significant to realize that Gruebbel (3) was the only visitor to level serious criticism at the standard of restorative care performed by the nurse. The Australian group (5) remarked that reparative activities were "an outstanding success" and Barmes (6) stated, "The sight of fully restored dentitions, all restorations highly polished, and all extensions fully prepared became monotonous; a most gratifying monotony indeed." Fulton (7) agreed with these observations and concluded," . . . the New Zealand dental nurses are capable of producing amalgam fillings of good quality." In Gruebbel's opinion the standard of restorative care was only "mediocre."

Gruebbel was also critical of the lack of supervision of nurses by dentists. He felt that the two year training course, with the confinement of students to cyclostyled notes, inadequately prepared nurses to shoulder the responsibilities of examination, diagnosis, and treatment planning, and certainly to decide which patients deserved referral to a dentist. His opinions were well-supported by the Aus-

tralian contingent, Ellis (6), and Schachter (4). Schachter remarked, "The diagnostic training which the dental nurse undergoes is, at best, limited to recognition of the abnormalities and problems which are common."

Gruebbel continued his criticism condemning the standard of equipment which he considered antiquated and inadequate. High speed engines and the routine use of radiographs were unavailable. Schachter supported Gruebbel's criticism.

Gruebbel's only complimentary remarks centered on the standards of oral prophylaxis and child management. The New Zealand dental nurse was also congratulated on her abilities in child management by Fulton and the British delegation (8).

It seems evident from the reports of Gruebbel, Fulton, and the British delegation, that the New Zealand nurse is well-regarded by dental profession and public alike. Yet, her effectiveness in dental health education and preventive dental practices is controversial. Baume (9) was critical of oral hygiene in the children, whereas Schachter and the British delegation felt that the promotion of oral hygiene was excellent. It was the opinion of Gruebbel and Baume that despite the resources spent in the government care program, negligence in oral care in adults no longer eligible for the government scheme undid much of the benefit previously obtained. Schachter, after examining three groups of young adults of ages ranging from 8 to 25 years, concluded that although some exhibited a commendable status of oral health, many did not. Oral deterioration subsequent to eligibility for the government program seemed to vary indirectly with educational standard and general ability.

Comments in the Literature

Generally, opinions on the current and potential value of dental nurses fall into two distinct categories. Those favoring the concept of such auxiliaries do so for the following reasons:

(a) productivity of care would increase at a time when manpower shortages are acute.

(b) dentists would be released from the chores of the simpler and more repetitive procedures to practice a more satisfying and challenging form of dentistry.

(c) dentistry has lagged behind medicine in the use of auxiliaries, and the use of dental nurses could increase the status of the profession.

Usually dentists favoring the use of dental nurses stress the need for much closer supervision of nurses by dentists than in New Zealand (10, 11). It is generally suggested that the dentist should be responsible for examination, diagnosis, and treatment planning of all patients, and the delegation to the nurse of those aspects of care appropriate to her training. Moreover dentists should be readily available to aid the nurse should unforeseen difficulties arise during the treatment process.

Opposing this group are those who are convinced that retrograde consequences would be likely if nurses were introduced, including

(a) a lowering in the quality of care and the creation of a "two-level" standard of care.
(b) a deterioration of the dentist/patient relationship.
(c) a reduced status of the profession.
(d) increased dangers of illegal dental practice.
(e) an increased socialization of dental services which many would feel undesirable. These dentists point out that dental nurses have been products of government dental services and would be less suited to privately-oriented dental practice (12, 13).

Commonly dentists feel economically threatened by the possibilities of future utilization of dental nurses.

It is evident that among both groups of dentists are those with sincere and well-meaning bases for their views. It will be the purpose of the remainder of this article to present one point of view on the value of the New Zealand dental nurse program, and to suggest modifications thought advisable in the light of perceived drawbacks.

Discussion

Before commenting on drawbacks perceived in the New Zealand dental nurse program a number of points should be mentioned and constantly kept in mind. The first is that the teeth of New Zealand children have been retained to a degree unapproached in most developed countries. As long ago as 1950 Fulton (7) stated," . . . the dental care of these children seems to be maintained at about as high a level as could reasonably be expected." As a consequence of 6-monthly visits by the nurse, the number of teeth in need of care amounted to a half a tooth per child up to 11 years of age, after which it increased to about one tooth per child. Fulton (7) utilized

the figures obtained by Wellock in Massachusetts to show the marked superiority of New Zealand mouths in children. Although national figures do not allow sensitive comparison of American and New Zealand mouths, it is apparent from figures which do exist that New Zealand children are keeping their teeth to a much greater extent than American children, and have less carious lesions. Beck (1) collected data from 6 to 15 year old children in Palmerston North, New Zealand, as well as from similarly aged children in Webster, New York. Although DMF values were comparable, the D component was the major component in Webster, whereas in Palmerston North the F component was the largest. This fact is not surprising when one considers that 93 per cent of New Zealand children receive 6-monthly care from the National Dental Service.

A second important point to bear in mind is that all observers other than Gruebbel either failed to find serious criticism with, or were favorably impressed by the standard of restorative care provided by the dental nurse. Personal observation of restorations performed by nurses in England, Malaysia, and South Australia have clearly shown the author that dental nurses are capable not only of adequately performing simple restorations but of producing restorations of superb quality.

Dental nurses operating in school clinics offer excellent potential as a source of dental education. Readily accessible to young impressionable minds in an environment where children are accustomed to learning, nurses are in a position to greatly influence dental health practices. Daily interaction with teachers could well encourage favorable attitudes in these people, who have so much influence over children. Nurses are in a position to encourage healthy diets by promoting suitable food and confectionery in school canteens, as well as encouraging favorable toothbrushing habits in the school environment. Her ready access to parent associations may allow her to promote home environments supportive of the health practices learned and practiced at schools. It is the education provided by the dental nurse which is commonly felt in part responsible for the relatively high level of acceptance of fluoridation by the New Zealand population. February, 1967, found 65 per cent of reticulated water supplies either fluoridated or shortly to be so (14).

Nurses have been congratulated by virtually all observers for their

skill in handling young children and have gained an accepted role in the eyes of public and profession alike.

It is important to note that no instances of illegal practice by dental nurses have been reported in New Zealand (2). A number of reasons have been proposed. Females, who are not commonly the main family "bread-winner," may be less inclined to practice illegally, particularly if her attention during training has been rigidly circumscribed by the use of cyclostyled notes. The tight administrative fabric of a government dental service may have also encouraged proper use of the nurse. Control may be more difficult in countries where dental practice is more privately oriented.

Drawbacks apparent in the New Zealand program largely center on one important fact, namely that the integrity of the dental arch is not in itself complete oral health. Many observers have felt that the two year training course imposes limitations in diagnostic ability on the nurse. It is thus consequent that if a child presents problems exceeding the detection abilities of the nurse, his oral potential may not be realized. Without the routine use of radiographs, many diagnostic cues could be missed.

The absence of chairside assistance and high speed equipment may not only diminish productivity but prolong the treatment process to the unnecessary strain of the patient. It may be expected that further unnecessary stress may result, particularly from operative procedures in the lower permanent molar region in the older child, when nurses are confined to the use of local infiltration anesthesia.

That nurses are women has several consequences. It may be argued that the danger of illegal practice from women may be less and that children may respond more effectively to care from women. The main disadvantage lies in the working-life span. Although this duration varies, nurses often work about seven years. On the basis of British figures, and allowing for adjustments in working-life span, McHugh (15) concluded that dental nurses in that country would cost the population two-thirds that of employing a dentist.

Because the New Zealand scheme presents limitations is no reason to reject the concept of dental nurses. The question arises, can the merits of this program be harnessed within the context of ideal dental care? The author's opinion will be presented in the conclusion.

Summary

For over 40 years, nurses after two years of training have shouldered the responsibility of the majority of clinical care for children below the age of 14 years. A review of the reports of observers to New Zealand suggests that the dental program possesses merits and drawbacks. Among the merits discussed in this paper is the fact that New Zealand children are retaining their teeth more than their American counterparts, and that observers almost universally regard the nurse as capable of adequately restoring teeth with the simpler restorations. Among the disadvantages discussed is the lack of supervision of nurses by dentists in light of the limited two year training course. Equipment inadequacy has also been discussed.

It has been shown that although some dentists feel that the introduction of a nurse will increase productivity, enable the dentist to more fully occupy himself with the ever challenging aspects of dentistry, and will further increase the status of dentistry, others are convinced that quality of care would suffer, illegal practice could follow, and the prestige and economic viability of the profession could deteriorate. Some feel that socialization of services would also occur. The dentist/patient relationship may also suffer.

The question has been raised: can the merits of the New Zealand scheme be utilized and the drawbacks avoided?

Conclusions

Dental nurses, with responsibilities in providing the more simple and reparative aspects of care, could prove valuable members of the dental team if emphasis is placed on:

(a) avoiding auxiliary responsibility in examination, diagnosis, and referral.
(b) close supervision of the auxiliary by qualified dentists.
(c) the use of chairside assistance by the auxiliary.
(d) the utilization of modern equipment.
(e) adequate attention to preventive and educational procedures.

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Dental Public Health in Our Evolving Society

WALTER J. PELTON, D.D.S., M.S.P.H.

INDIVIDUALLY and collectively, dentists have often expressed the idea that they provide a service to affluent patients, and the indigents "wouldn't have it if you gave it to them."

Our evolving society has finally forced dentistry to recognize that it really is a purveyor of a health service and the public does, indeed, want it. The "Health Congress" (69th), in multiple laws, has said that dental health is a right, that public funds should be provided for those who cannot pay for it. The Congress also said, in effect, that health, and especially dental health, is too important to leave to doctors and has included consumers as planners to implement the concept. And so the United States is about to join the more enlightened nations and see to it that all citizens have access to dental care —the principal objective of dental public health.

The American people, through their legislators, have struggled with numerous health problems since 1798, apparently a vintage year, for that was when the Fifth Congress said that health of American merchant seamen was important, implying that foreign trade had an impact on all states in the Union, and it established a hospital program to take care of them. Moreover, the Congress authorized a deduction to be made from the pay of seamen in order to finance it.

Most of us in public health have long maintained that it was only a matter of time until the people in the United States would demand the benefits of dentists, whose education, incidentally, they thought was important enough to finance, more or less, for many years. The denouement came in the 69th Congress with the passage of twenty-four laws affecting dentistry in one way or another.

Several of the laws that can be used to support dental care programs are imperfect, to be sure. The basic payment mechanisms of

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the two legislative acts creating Medicare and Medicaid are in conflict, and the philosophies of the agencies that administer some of the old, as well as the new legislation are also in conflict (Children's Bureau, Office of Economic Opportunity, Welfare, Public Health Service). Certain other laws like the Comprehensive Health Planning and Health Service Act and the one establishing Regional Medical Programs have objectives that are virtually indistinguishable, yet each operates from an entirely different power base. Even the American Dental Association's Dental Health Program for Children is not without complicating administrative features. Thus, it can be predicted that the imperfect health laws, the conflicting philosophies, and the precedent-shattering solutions they propound will eventually be revised and reconciled. These are details; the important thing is that the public has made its will known and the Congress has set the machinery in motion.

If the dental profession and the teaching institutions which produce dentists are to provide the leadership to solve the tremendous treatment load facing them, the following must occur. These are the challenges:

1. Fluoridation must become universal. This implies that dental students and the profession will have to be coached to foster the movement in every possible way and that the four states making fluoridation mandatory will become fifty.

2. Research must be undertaken to identify the factors that depress dental caries after individuals have been reared on fluoridated communal waters. In this context, too, dentistry will have to do better in controlling periodontal diseases and their sequelae. More will have to be known about the cause and control of malocclusions, and more rapid methods of treating them must be developed. Additionally, more must be known about cancer, and full application must be made of the existing knowledge we already have to control and treat oral cancer. Better reparative procedures, adhesive filling materials for example, need to be found.

3. Action must replace the lip service of the dental educational institutions and the profession to the end that they practice what they preach. For instance, why do students enroll in dental schools with little or no premium put on their dental health status? How many dental students graduate with unmet needs in their own mouths? If university students are required to prepay their hospital and medical services, why are dental services exempt? The foregoing

philosophy about the indivisibility of health should be extended to high school pupils and higher education in general.

4. The dental profession and dental schools must seek new methods of extending their services to more people. Two federal laws specifically name dental teaching institutions as leadership groups. Dental schools, so wedded to the past, have been ineffective in teaching public health or in contributing to the efficient use of auxiliaries, let alone research on the functions of auxiliaries. Preoccupation with better methods of delivering dental services, more widespread and efficient use of traditional auxiliaries, and delegation of duties to lesser trained individuals are long overdue.

5. The administration of dental care programs should not repeat the errors of the past. Administration must be innovative and more effective. Programs must be designed to meet consumer requirements. In the language of the marketplace, dental health services must be properly packaged.

6. Every effort needs to be made to enhance the quality of dentistry for all patients, and great care must be taken to guard against two levels of dentistry—one for the rich and one for the poor. Any mention of the quality of dental professional services is academic without mechanisms for continuing education and periodic evaluation of the capabilities of practicing dentists. Implied here is the concept that State Boards of Dental Examiners do not now "protect the public's health." Rather, most Boards function to protect vested interests. Archaic Board regulations suitable to the dental problems of the 19th Century, when there were few schools and many preceptors, need to be recast to meet the conditions of the 21st Century.

Our evolving society has decided, with great suddenness but not unexpectedly, that dental care is indeed a wanted health service. It has provided numerous legal instruments on which to build programs. It has, in forthright language, specified that dentists and dental educational institutions should be involved, and it has appropriated funds and has provided permissive statutory mechanisms allowing dental spokesmen to compete for additional funds to implement its decision. No time table has been allocated, but the mandate is clear. To filibuster or to argue that this is socialism will be fatal.

The public has given dentists one last chance to work with consumers to attain a mutually satisfactory solution for providing dental care for everyone. I hope we can meet the challenges.

A Junior Dentists' Institute

A Career Guidance Program

GEORGE T. CARVER

IN 1964, an analysis was made of the opinions of Fellows of the American College of Dentists toward dental career guidance, manpower, and social prestige.* One finding showed that the majority attitude toward active recruitment of young people into the profession was not enthusiastic. In addition, Fellows seemed to be more concerned with the quality rather than the quantity of dental students entering the profession, and with the need to promote recruitment programs on the local rather than on the national level.

In Oregon, efforts to interest bright young people to consider dentistry as a career through "grassroots" support from the profession have been unsuccessful. The principal though often hidden reason for failure to promote recruiting programs has been competition in a state already having one of the highest ratios of dentists to population.

While some local efforts have met with limited success—such as study clubs and a dental explorer scout post—statewide efforts toward recruiting high caliber students have failed.

Against this background, Dr. Louis G. Terkla, dean of the University of Oregon Dental School (UODS), sought a new approach. The opportunity came through collaboration with an Oregon nonprofit organization called "Scientists of Tomorrow." This organization is dedicated to assisting intellectually promising high school students "find" themselves academically and vocationally through a series of Summer institutes in the areas of science and engineering held at colleges and universities around the country. The group is financed mainly by student fees, with some help from business and industry.

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* JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, 33:108-115, April 1966.

The first National Junior Dentists' Institute (JDI) was conducted from July 17-28, 1967, at the University of Oregon Dental School with a total of 61 students from 14 states participating. The program was organized with several objectives in mind:

1. To interest highly qualified high school students to consider careers in dentistry. The emphasis was on the attempt to attract highly qualified students rather than serve to increase in large numbers future dental manpower.
2. To provide an intensive, in-depth orientation to dentistry in an atmosphere conducive to such an experience.
3. To give component dental societies an opportunity to recommend and sponsor bright students in their areas to consider careers in dentistry.
4. To give students an opportunity to meet with practicing dentists as well as dental educators in order to gain an overall impression of the profession.
5. To allow bright, science-oriented students from diverse geographic areas to become acquainted with one another. These students have a potential common interest in health science careers which may be group reinforced in a dental school atmosphere.
6. To promote the idea of oral health in bright students likely to become opinion leaders in later years. Students deciding not to choose careers in dentistry following the institute, would have an awareness of oral health problems not often found in non-dental oriented persons.

Initial impressions of this first national pilot program were that it was highly successful. These impressions were based on faculty and practicing dentists' views, response to a student questionnaire, and interest in the program from a dentist-observer from the Southern California Dental Association. The "Scientists of Tomorrow" organization was also highly enthusiastic about the program and plans to work with UODS in offering another program in 1968.

Responsibility for the overall implementation of the Junior Dentists' Institute was divided between UODS and "Scientists of Tomorrow." The latter organization was responsible for student recruitment in the high schools, arranging for room and board, and chaperons. The University of Oregon Dental School was responsible for establishing admission requirements, course content, enrollment,

contact hour fees, and transportation from a dormitory located off-campus for the non-commuting students.

The original target enrollment was set at 40 students with a fee schedule of $135 for non-Oregon residents and $65 for resident students. Most of these charges were earmarked for dormitory and meals. Minimum scholastic requirement was at least a 3.0 (B) grade point average for either juniors or seniors in high school. In addition, these students had to be recommended by their science teachers or counselors. No distinctions were made as to sex. Little of direct cost was absorbed by UODS, since faculty were available to assist in the program. A grant from the Oregon State Board of Dental Examiners helped support JDI activities.

Through past experience and the resources of "Scientists of Tomorrow," posters, application forms and other information reached high school counselors, mathematics and science teachers in eleven Western states in February, 1967. This was followed by a flier listing the schedule and location of sixteen "Scientists of Tomorrow" Summer institutes for 1967. This was mailed in April to high schools throughout the country. In cooperation with UODS, a series of press releases then reached high school newspapers and the regular press media in the Western states. These releases were intended to sensitize students to the posters and to reach parents and local dentists who might interest young people in the program.

Student response to the overall program exceeded expectations. A total of 62 qualified applications were received. It was decided to expand the projected enrollment of 40 students rather than turn away large numbers of applicants. A total of 61 attended. They included 52 boys and 9 girls from 14 states. One dental family had three children attend. Student and state distribution included California—19, Oregon—18, Washington—6, Wyoming—4, New Mexico, Arkansas, Idaho and Montana—2 each, North Dakota, Ohio, Oklahoma, South Dakota, Arizona, and Colorado all had one student each. A total of four students were recommended and sponsored by component dental societies—three in Washington and one in California.

Course content and scheduling problems at UODS were worked out by Dean Terkla and a total of 24 participating faculty. The program consisted of ten 5-hour days of lectures and laboratory exercises designed to take students through the basic and clinical science

aspects of oral diseases, beginning with early manifestation of oral disease and ending when the patient has lost all of his teeth.

Orientation sessions included an overview of oral health problems and an introduction to the profession through a series of lectures and films. Intensification of the learning experience began immediately afterward. Subject areas included characteristics of soft and hard healthy tissue, how dental decay begins, factors that influence progress of dental disease, oral bacteria, effects of fluorides, prevention of dental decay, oral health care, restoration techniques, X-ray films and their uses, dental materials, periodontal problems, oral surgery, pedodontics, endodontics, crown and bridge procedures, problems of the edentulous patient, and the cleft palate patient.

Evening class sessions of 90 minutes each were conducted by seven practicing dentists from the Portland area who volunteered their time. Subject matter included restoration of diseased mouths, oral surgery under pentothal sodium, orthodontics, gold foil technics, and prosthetic dentistry.

It was assumed by UODS faculty at the start that bright students of high school age could maintain an intensive interest in dentistry over a period of several days. This concept had been demonstrated in the success of other Summer institutes sponsored by "Scientists of Tomorrow."

Was this assumption justified? Students responding to a questionnaire were overwhelmingly satisfied with the intensive experience which served to reinforce budding career interests. They left more determined than ever to pursue careers in dentistry.

Faculty thought the program should be repeated next year and that the effort expended was worth the result. Some faculty observed a definite maturation in students as time went on.

Faculty were faced with the problem of how to teach students several years younger than usual dental students. The experience proved that with some modifications and simplifications of course content, bright high school students were capable of understanding the complex interrelationships existing in the study of oral diseases. Teaching younger students also gave the dental faculty an opportunity to think about their regular teaching approach and to consider how effective these presentations had been during the normal school year. A heavy emphasis on the use of visual aids and student labora-

tory exercises was believed to be useful in sustaining high student interest.

A total of 50 students responded to the questionnaire. Given a choice of dental career interests, 32 chose general dentistry, 8 chose dental hygiene, and 6 a specialty. Initial interest in dentistry as a career choice came through earlier contact with a dentist (32) and from relatives in the profession (11). A total of 40 students thought that the level of the course material was not too difficult to comprehend considering their age and educational level. Another 10 who answered the question said they encountered some difficulty. More than half thought their high school science courses provided them with sufficient background to understand the course material.

Teaching methods were also commented upon by the students. A total of 24 preferred the lecture-laboratory exercise method, while another 15 preferred lecture-projection (slides, films) and 10 selected lecture-demonstration. A total of 36 said the UODS faculty was highly effective, while another 14 thought the faculty was good.

Students were more interested in dental careers following JDI than before. Forty-eight students responded affirmatively to this question, while only one student said no. In fact, 45 recommended the JDI type of experience for other high school juniors and seniors to assist them in making career choices. Typical comments revealed that most students did not know previously of the many challenges in dentistry—an indication, perhaps, of certain stereotyped impressions or a lack of specific occupational knowledge at the high school level.

A surprisingly large number of students stated that they had visited dental schools in the past, prior to their attendance at JDI. Seventeen students said they had visited other schools and 33 stated they had not. A total of 41 said they would consider UODS among those dental schools to which they would apply later for admission.

Student remarks were ample and generous toward JDI despite the structured questionnaire. They included "wish I could go to dental school now," "one of the best things I've ever done," "learned more about myself," "great assistance to those undecided," "made me think of my future," and "JDI was fantastic."

An analysis of the evening sessions with local practitioners was also attempted. Thirty-one students thought that these dentists were

highly effective, another 17 said they were good. Two students responded negatively. Several students also commented that the practitioners were a "good balance" and an "excellent supplement" to the daytime program.

In preparing for a second Junior Dentists' Institute in 1968, UODS wanted to know how students first learned about JDI. A total of 12 read of JDI on high school bulletin boards, 16 learned of it through their counselors, 14 from high school mathematics and science teachers, and 9 through newspaper publicity. Of the remaining 8 responses, most learned from family sources. Some responses indicated more than one source.

UODS is currently studying methods of evaluating the effectiveness of the effort. The problems are how to keep in touch with students spread out over 14 states in order to determine (1) if they will finally make a career choice in favor of dentistry, (2) if they will take predental curricula at the undergraduate collegiate level, (3) if they will apply for admission to a dental school, (4) if they graduate from a dental school, and (5) if JDI indeed had an effect on their decision to become a dentist. One suggestion for evaluation is to establish a routine system of determining by mail the progress of the students. Another is to examine applications to UODS for names of students who participated in the JDI.

Conclusions

1. The First National Junior Dentists' Institute was received enthusiastically by participating students, faculty, and visiting general practitioners.

2. An intensive, in-depth orientation to dentistry for highly qualified students is useful to students in helping them to make career decisions.

3. The JDI is an inexpensive and useful method to introduce knowledge of oral health care to young people.

4. The "Scientists of Tomorrow" has demonstrated that its earlier success in such programs for scientists and engineers can be applied to programs in the health field.

5. The JDI in its pilot phase, did not attract much of the "grassroots" interest from either state dental societies, component societies,

or practicing dentists. Only four students were recommended and sponsored by component societies in Washington and California.

6. As a means of reviewing regular teaching techniques, the JDI experience for the faculty proved useful.

7. The evening programs utilizing practicing dentists provide a useful balance of viewpoints and approaches compared to those used by dental school faculty. Students appreciated the contact with members of the profession.

8. Long time spans requiring the maturation of student career plans made the question of evaluation of JDI a difficult one. UODS is in the process of evaluating how this should be undertaken.

Addendum

The University of Oregon Dental School, based on a successful pilot attempt in 1967, is again conducting a Junior Dentists' Institute from July 15-26, 1968. No significant changes in approach have been attempted. Rather, an approach similar to that of last year may allow for comparisons not possible when based on a single year of operation. An enrollment of 40 students is anticipated, down somewhat from the first year enrollment, but similar in its national geographic representation.

Dental Students: Behaviorally Observed Aspects of Professionalization

MARCEL A. FREDERICKS, PH.D. AND PAUL MUNDY, PH.D.

IT has been asserted that "Professional training is a prolonged preparation for a singular event. This is the ritual of transition from one status to another. This turning point marks the end of one life phase and entry into another, and each phase is characterized by a distinctive pattern of expected and prohibited behaviors" (1).

The transition from a layman aspiring to be a dental practitioner to a young dentist skilled in the techniques and confident of his part in dealing with patients in the complex settings of modern offices, clinics and hospitals, is long and arduous. The young man soon discovers that to be successful he must learn first to be a dental student.

Thus, within the past decade or so, researchers have attempted to explore the implications of the professionalization process whereby the dental student acquires and makes his own the attitudes and values which will largely determine his future professional role. Studies have been done on both students and faculty alike with the hope of developing and/or modifying the students' attitudes toward the dental profession. For example, research at the professional level of dental school includes studies done by Fredericks and Mundy (2, 3, 4), who examined social class in terms of dental school performance. Studies on the attitudes of dental students include the work of Quarantelli (5) and that of More and Kohn (6) who examined the students' motives for entering dentistry.

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This is the third study about dental students by Drs. Fredericks and Mundy to appear in the JOURNAL; the first in July 1967, and the second in October 1967.

These and other articles have reported findings based primarily upon structured interviews, questionnaires, and attitude-inventories. The findings of this paper are based upon the observation of informal behavior in a fraternity setting, the assumption being that what a dental student does in a casual residential environment may be at times far more significant than his considered answers to prepared questions.

In this study, therefore, certain behavioral evidences of professionalization, for example role-playing (at times "uniformed" with colored jackets, holding mouth mirrors, handpieces, and other symbols) and observed actions in contact with upperclassmen in a fraternity setting, are described briefly. This attempt to "get at" professionalization by *observed behavior* of a group of students at one dental school in an informal setting of a fraternity house was carried out simultaneously with the research indicated above (2, 3, 4).

Methodology

The study sample, which was described in detail in the previous articles consisted of one class of 86 male freshmen students attending a Midwestern school of dentistry during the academic year 1965-1966.

Most students in the sample came from rather small, fairly well-educated families living in urban communities at a reasonably high socioeconomic level. Twenty-three per cent of the respondents had German ancestry and 18 per cent were of Italian descent; in both cases the progenitors were primarily from the lower-middle and upper-lower classes.

The articles also described the manner in which the study subjects were grouped into social classes. This entailed an initial 5-class grouping using Hollingshead's (7) 2-factor index of class position,* based on their fathers' education and occupation. Since the number of cases in Class II and Class V were too small to allow for statistical analyses, the subjects were regrouped into three classes, with 20 students (23 per cent) in Class I, 35 (40 per cent) in Class 2, and 31 (36 per cent) in Class 3. Subsequent to the regrouping, the

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* These social class positions are: I—upper; II—upper middle; III—lower middle; IV—upper-lower; and V—lower-lower.

classes were identified simply as 1 (formerly I), 2 (formerly II and III), and 3 (formerly IV and V).

The concept of social class as used throughout this study refers to the kinds of psychological and social characteristics found differentially distributed among dental students classified by the weighted index of the father's occupation and education.

Two-thirds of the students were residents of one or the other of three national dental fraternity houses during the first year of study. All of the students had some association in one form or another with the three fraternity houses.

One of the authors of this paper lived in one of the fraternity houses throughout the school year 1965-1966. As time passed, he came to be "taken for granted" as another fraternity house resident, not an "outsider" or "visitor." Ample opportunities were available for extensive participant observations of the students in their living quarters. A detailed notebook was kept on the observed behavior over the first-year period. This paper reports briefly on the responses of the students to the rigorous program of studies and examinations they undergo.

Professionalization, as it is used in this study, is a process of socialization. In this context, Bloom notes that "it involves a matrix of social relations in which the student internalizes and makes his own the attitude and values which will largely determine his future professional role" (8).

Observed Behavior in the Fraternity House

Dental students in the study group experienced little difficulty in becoming members of one of the dental fraternities. Social class position apparently was not an impediment to joining a fraternity.

Utilitarian rather than social prestige motives operated to influence students to join a fraternity. Students became fraternity members primarily because "old tests" were available through the fraternity file to enable them to pass examinations; others thought that the availability of a dental laboratory in the fraternity house would assist them immensely in "catching up" with unfinished projects especially in prosthetics. Some of the students stressed that the mere fact of living and studying with other dental colleagues in a kind of "closed society" would enhance their chances of successfully completing the first year of dental school.

The high-pressure atmosphere of the first year is shown by some of the spontaneous comments made by the students "relaxing" in the fraternity house: "I worked just as hard in college, *but* . . . in dental school I don't know what to study . . . more pace to it—and *bulk!* The examinations do not prove *anything*. The practical examination in gross anatomy is all 'memory stuff' . . . once I complete this first year I got it made."

A kind of "continued crisis" atmosphere sharpens with every test given. A student troubled by a low grade in a previous practical examination asserts (as he is preparing to take another test the following morning): "I'm *scared* . . . so much to carve and polish! I'm way behind. . . . Up to now I don't know how to use the articulator . . . how to get face-bow relationships, and occlusion. I tried all day to get a 'good' overbite and overjet, but it seems I won't make the grade for presentation of my dentures tomorrow."

Again: "It makes quite a difference if you never had 'Embryo' (Embryology) and 'Histo' (Histology) before. I never had a practical exam with a microscope . . . it's difficult to cope with the other students. . . . I'm fed up . . . so much to do in so short a space of time."

A month before the final examinations students show severe strain, physically and mentally. Tension mounts inexorably. It is not uncommon for fraternity students to remark that "this month is taking its toll on me . . . wish I was doing something else. . . . This is miserable. . . . The lab materials in 'Biochem' (Biochemistry) and gross anatomy are too much, and there is so much to memorize. . . . I'm just studying to pass. . . . This stuff is so detailed it's terrible. . . . How can I comprehend so much? . . . I've lived in the lab . . . somewhere along the line this dental school 'hits' the student in the clinical years, and it turns out good dentists."

As the final examination approaches, the themes of exhaustion and "escape" recur in conversation! "I'm just waiting for the end of the semester . . . just to be away and to do something else . . . away from the books. . . . I hope I'll make it through Biochem. . . . I'm so tired of studying."

At the completion of the final examinations, the students return wearily to the fraternity house: "It's now over with. . . . It was tough, but it's behind me now. . . . All that I want to do is to get lots of

sleep before I go home. . . . I'd never repeat this year, even if I was paid a million dollars. . . . This year was murder, but I suppose this is the way you become a dentist."

The bedeviled but successful first year student returns the following September as a sophomore. He is quickly known by incoming freshmen as an upperclassman. He lets the incoming freshmen understand, in a very subtle way, that he "is the dependable expert" on the dental school. He extends an invitation for a beer at the nearby bar. Casually, he documents his superiority and acts as an advisor. He turns to his bewildered new acquaintances with, "Join this fraternity when the time comes . . . it's a darn good house. The boys really help to keep you out of trouble. They know the ropes. They can show you how to carve. Make use of the lab in the basement of the fraternity house. Use the old tests as study guides. I couldn't pass except for these old tests. They saved my life. Another thing is this: get out once a month. Go to the parties and just let off steam. It's good for you."

The incoming freshman is more perplexed after listening to the "professional advice" from his sophomore "advisors." As dental school begins the freshman accepts or rejects the advice of his fraternity brothers according to his moods and uncertainties.

Discussion

The findings of this study, briefly reported here, which have been derived from the observational approach, suggest that the dental school student generates a great deal of doubt about his intellectual capacity at the beginning of the preclinical level of dental training, at the institution in which this research was conducted. He lives in a climate of recurring crisis as each day of dental school demands unfold.

The first year of dental training is viewed by the students as tension-filled, difficult, exhausting, and monotonous. As the student moves through the successive stages of his freshman year of dental school, new strains and fears are encountered. The magnitude of the field, the intensity of the studies, the range of material given the student in the first few weeks of class, the exposure to the vast array of dental instruments, the friendly "advice" given him by upperclassmen—all increase the pressures placed on him in his profession-

alization process. The "rhythm" of this fraternity school society shows itself predictably in evidence every year. Probably nothing that the student has previously attempted prepares him for these stresses which dental studies contain as a matter of course.

It would seem that the beginning of the preclinical level at dental school is indeed a "training for uncertainty" (9). The dental student at this stage of his professionalization does not know precisely what and why he is supposed to learn; how much he is to master; and how he should go about his studies.

It appears that the essential motivating force that keeps him interested in the freshman year of dentistry is his eagerness to get beyond and into the clinical years of dental school, to play the role of student-dentist, and ultimately to become a dentist.

Since many dental schools are involved presently in a searching analysis of their educational programs, it seems advisable for their faculties to study even more critically the stresses and strains encountered by the freshman student if the experience of these students is at all typical. Such study may suggest new revisions: in curriculums, extended orientation programs, consultative spacing of tests, "feedback" from students, efforts to reduce impersonality, and the forced dependence of first year students on "upperclass advisors," and so on.

The study subjects came from predominantly white, Catholic, Midwestern, urban settings. Further research is required to determine whether or not the findings would be similar for other regions, subcultures, and religions.

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Inauguration of the Moslem Academic Year 1346 Tehran University, Iran

DON C. LYONS, D.D.S., PH.D.

THE usual beginning of any college year in the universities of the United States is one of a great rush to register, to frantically arrange class hours to the best advantage to avoid as many "eight-o-clocks" as possible, and perhaps several days of orientation for the newcomers. The freshmen usually receive a short talk by the college president who informs them how great the school is, especially the football team. In the smaller denominational colleges there is usually an opening chapel session as early in the morning as possible.

This is not so at Tehran University in Tehran, Iran. Here the opening of the Fall session is a matter of great dignity and ceremony, impressing faculty, students, governmental officials, and the public of the importance of education to the people of Iran. It is also completely televised and photographed by newspaper cameramen for the many who are unable to attend.

Last year I had the privilege of being part of that opening session as a Fulbright Professor of Oral Surgery and Pathology in the Dental College of the University. A formal printed invitation was sent to the faculty, members of the diplomatic corps, Senate, Majlis (Parliament), cabinet ministers, other dignitaries and their wives, informing them of the opening session.

My invitation translated from its Persian essentially read: "In the presence of their Imperial Majesties, Shahanshah Aryamehr and her Imperial Majesty Shahbanu, on the occasion of the Inauguration of the Academic Year 1346-47, the Chancellor of Tehran University requests the pleasure of your company at 4 P.M. Saturday 1 Mehr [September 23, 1967]."

Dr. Lyons is a practicing oral surgeon in Jackson, Michigan. He was a Visiting Fulbright Professor at Tehran University, Iran; he returned to the United States in February 1968.

Accompanying the invitation from the Fulbright Commission were the protocol requirements of wearing the academic robes of the home universities if possible, ladies to wear hats and gloves, admission by invitation only and cards not transferrable, entrance by South Gate only, to arrive promptly expecting the ceremonies to be two or three hours in duration, and not to leave before their Majesties.

While the faculty members lined up outside the really magnificent Ferdowsi Auditorium, their wives and other guests entered. The collegiate robes of the Fulbright Professors were quite drab in comparison with the brilliant array of crimson, purple, gold, green, and other colors of the velvet panels, cuffs, collars, and hoods of the Iranian members of the faculty.

A special entrance door to the Auditorium had been prepared for the Shah and his wife, and was decked with a bower of roses and other flowers. However the faculty, diplomatic corps, and other dignitaries were not overlooked: beautiful Persian carpets had been spread on the wide steps leading to the entrance doors of the Auditorium.

After we had been seated, the Shahanshah, Queen Farah, the Chancellor, and members of the Court entered and sat in special chairs at the front of the Auditorium.

The opening session of the University started with a welcoming ceremony and presentation of a wreath to the Shah by the previous graduating class. As was evident as the ceremony continued, graduation is not considered complete until this opening session of the new collegiate year. This presentation was followed by an inspection by the Shah of the past year publications of the University, statistical reports and diagrams of progress (43 mimeographed pages), instructional and research records for the year, and finally his signing of the University register of distinguished visitors.

The unusually friendly relationship between this University and those of the United States was signified by the fact that the whole program, reports, and the Chancellor's address were written in both Persian and English (they prefer the term North American). Part of this is probably due to the fact that Chancellor Jahan Saleh is a well known physician, educated at Syracuse University, with residencies at the Mayo Clinic, and hospitals in New York City and New Jersey.

Following the singing of the Iranian National Anthem and the official University song by the Glee Club, Chancellor Saleh presented a detailed report to their Majesties, the faculty, and guests, of the past year's achievements of the University, the budget requirements, development of new departments and collegiate programs, and the progress of the new construction, especially the 14 story library being built in the center of the campus. I am sure this will be the envy of every other Middle East University for it will have more than one million volumes. A number of library science teachers from the United States were here last year training Iranians in the care of such a precious library.

After the Chancellor's address, there was a short concert by the University symphony orchestra. Then a brief talk by a representative of the last graduating class telling what they hoped to accomplish for Iran.

The most important part of the opening ceremony is the presentation of medals and honors by the Shahanshah to the outstanding students of the previous graduating class. About 50 students in caps and robes stepped forward one by one as their names were called, presented themselves to the Shah who personally pinned and fastened on their robe the medal suspended from a ribbon with the Iranian national colors and had a few words for each. I was pleased to see that several of the dental students received a medal.

The honor of having the Shah's medal is the highest ambition of the University students for it means that they are immediately set apart from others, and their future in Iran is assured in the form of foreign scholarships for advanced education, important governmental posts, possible election in the future to the Parliament, and University teaching positions. I am sure that the students who were outside the Auditorium made a vow that they too would eventually be one of the lucky ones.

It was especially interesting to note that several of the medal winners were girls. Until a few years ago, women in Iran were given only a cursory education, and many families, especially in the remote provinces, still will not permit more, and insist that their daughters wear the chadur. These girls had obtained their medals the hard way, for entrance to the University is difficult, and the percentages are limited.

Perhaps it would be of interest to describe the "chadur" just mentioned. This is a long black cloth, in some cases dimly flowered, that Iranian women wear covering themselves from head to feet. A few of the younger women wear white chadurs. Actually it is usually so long that it drags in the dust of the street. The women hold it in place by biting on one corner with their cuspids and first bicuspids. I noted that many of the older women lose these teeth from traumatic occlusion and periodontal disease. Their other teeth generally are in good condition; the irritation is confined only to these two teeth, right or left, depending on which side they hold it.

Upton, in "The History of Modern Iran" (Harvard Press, 1965) describes the chadur as follows: "A long, loose, sort of cape draping the figure from the top of the head to the soles of the feet. When the woman needed to use both hands in public, she skillfully held it between her teeth and kept her face modestly covered."

Reza Shah was a great admirer of Kemal Atatürk, founder of modern Turkey and its first President (1923-1938), so about the same time that Atatürk outlawed the veil and chadur in Turkey, the Shah tried to do the same thing in Iran. However, Reza Shah had to back down somewhat and permit the peasant women to wear it, but not the veil.

One of the medal winning girls had graduated in the class of midwifery, and received special attention from the Shah. This is a new, but very important course from a public health standpoint, and these girls have an extremely necessary educational program to perform in the remote parts of the country.

The entrance requirements for the University require careful screening since there are 1,000 applicants each year for the medical, dental, and pharmacy courses and only 300 can be accepted. There were 150 applicants this year for the dental hygiene course and only 25 were accepted. While every effort is being made to increase school capacity, the large problem is that of adequate preparation in the high schools.

As we left the Auditorium we realized that here in Iran the opening of a college year was really an event of great importance and we appreciated more than ever our opportunity to be a small part of it.

A Point of View

Readers are invited to submit a "point of view" for consideration for publication in this department of the JOURNAL. The *observations may cover a variety of topics, but particularly in those expanding areas of the changing professional scene where problems always seem to be developing and solutions are lonely. Discussions on technical and scientific subjects are not solicited. Comment must not exceed 500 words and be limited to two double-spaced typewritten pages.*

Auxiliaries, Manpower, and Decision—Part II

ARTHUR H. WUEHRMANN, D.M.D.

AN editorial entitled "Auxiliaries, Manpower, and Decision" appeared in the JOURNAL OF THE AMERICAN COLLEGE OF DENTISTS, October 1966. The entire editorial was pertinent then and still is. However, the closing paragraphs are worthy of further consideration at this time. They were:

> First and basic is the position and philosophy of dentists. Do we wish to delegate certain procedures to auxiliary persons that hitherto only we have been legally permitted to do? That is the pivotal decision that we have to make. We can train them, we can determine what they may do, and we can establish that by law. Do we want to?
>
> We are approaching the moment of truth. We should face it directly after searching intellectual self-probing; after sincere, rational, and unemotional discussion with our colleagues; and after a realistic appraisal of our professional obligations to the people we serve. It is a profound decision, but it is ours—now.

In view of recent developments in the thinking of the profession, these remarks entail still another pivotal decision.

Dr. Wuehrmann is Professor of Dentistry at the University of Alabama.

If we do *not* want to delegate certain procedures to auxiliary persons that previously only dentists have been legally permitted to perform, what are the alternatives? How shall we proceed in meeting the increasing dental health demands of the public? It would appear that at least two other options are available.

If one agrees, and the evidence is very persuasive, that demands for dental health services will increase, all dentists can work longer hours utilizing, to a maximum extent, auxiliary services within traditional limits. The effective use of auxiliaries, particularly the well-trained *full time* chairside dental assistant, undoubtedly will increase the productivity of each dentist if he chooses to regiment himself and his office procedures according to well established principles of effective assistant utilization. The degree to which dentists will comply and the percentage of the unfilled health demands that can be met through compliance are unknown. However, it is unlikely that a majority of dentists will over-extend themselves in order to meet the manpower crisis.

A second alternative is that of developing more new dental schools and expanding present facilities in order to produce more dentists. This approach is currently being employed on a relatively limited basis. Certainly the production of an adequate number of dentists to meet all demands would solve the problem, but there are inherent difficulties that are almost insurmountable. Dental schools cost money to build and equip, and competent faculty are at a premium. Training facilities for faculty are limited, and faculty remuneration does not equate favorably with private practice earnings; the latter must be offset by other motivational influences. Most importantly, recruitment of academically desirable dental students continues to be a challenge. Dentistry, when compared with other prestigious occupations, no longer has as much allure as it did in the past. Other dynamic, economically attractive opportunities for the well qualified person have developed over the past several decades, and there is reason to question whether a sufficient number of desirable applicants would be available even if sufficient facilities came into being.

And so it seems unlikely that the dental health service demands of the future will be met through conventional means. And, yet, the demands *will be met*. The American public gets, or thinks it gets, what it wants. The challenge facing dentistry is to give the Amer-

ican public what it wants and what it needs without interfering with the present high standards of dental health service. Properly approached and professionally controlled, the expanded use of auxiliaries permitting semi-professional people, under the supervision of the dentist, to discharge certain activities now performed only by the dentist will maintain the integrity of the profession rather than contribute to its demise.

We do have a profound decision to make, and the time is now. The profession must expand and control the duties and activities of auxiliaries. Or, as an alternative, the profession must suggest and implement a better solution to the problem of dental manpower. The profession must not be satisfied with the status quo and have forced upon it the decisions of less well informed and less dedicated people or agencies whose solutions could ultimately bring grief to both the profession and the recipients of the new order. The profession must lead, not follow. It must be positive, not negative. Indeed, "we are approaching the moment of truth."

Standardizing for the New Era

JOEL FRIEDMAN, D.D.S.

THE fresh reality of Medicaid, the third party that has come to stay, brings us face to face with the need for establishing some basic uniformity in describing our procedures, materials, and appliances. Unless we do, the paperwork aspect of our dental practice under the system may be fraught with disruptions and duplication of time and effort. Many of the notations we have found adequate for our own needs must be scrapped in favor of wordings and symbols arbitrarily derived.

Much that could be useful can come from the new structure, in clarifying our language and capacity to communicate. If, for example, it should be necessary to describe an existing partial denture in such terms that the agency could identify the appliance at a future date, one might graphically state its basic attributes as, "upper par-

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Reprinted by permission from the *New York State Dental Journal,* May 1967, p. 287. Dr. Friedman is an associate editor.

tial denture, chrome and acrylic, three clasps, seven teeth." This may appear obvious, but very few dentists would spontaneously use the same order or information. Some would begin "partial upper denture" . . . , or "chrome and acrylic partial . . . " or a dozen other choices of beginnings and wordings.

Another consideration in need of a solution is the simple logic involved in the viewing of radiographs. Everyone who works with groups of dentists, either in a hospital or clinic, soon discovers that the dentists are about equally divided between those who examine a full series from the "outside," that is, in the same way as they look at the patient and at his chart, and the other dentists who insist on viewing films from the "inside," as though the dentist is sitting on the patient's tongue. This seems to be a good problem with which to begin. Surely dentistry's best minds could debate the logical merits of this one dilemma, decide which is more practical, and standardize the procedure for one and all. [*Ed. Note:* This has been under study by the Council on Education of the American Dental Association. A formal recommendation for a uniform system of charting and a method for mounting radiographs will be made to the ADA House of Delegates at the 1968 Miami Beach Session.]

When the utopian accord has been reached, we would be obliged to attack another long overlooked aspect of the structure of our profession. Until now, it has not been acutely necessary for organized dentistry to seek out and prevail upon the thousands of "forgotten" dentists in our State, who have never been heard from, beyond paying their dues, and who do not ever participate in their society's scientific or social events. They maintain their standing but are totally disinterested in their organization. That they are wrong, and that we might expend considerable effort in criticism and in trying to stimulate them to participate is not the most important matter. Here and now our mission must be to reach them and try to influence them to learn and use the standard language required by the "system."

Perhaps there are some whom we have not met who have never used the word "denture" or "chrome" or "acrylic" in their professional life, preferring words more easily understood by the laity. Others may not have taken a radiograph in years, let alone mounted them.

We therefore are confronted with the dual problem of shaping up

our own image, firstly by asking our top echelon to formulate the simplest, clearest notations for our everyday procedures, and then find a means for educating not only those who make it their business to keep abreast of all new developments, but also those who rarely look at mail from their society, and even more rarely take an active interest in matters that so vitally concern their own welfare.

730 Fifth Avenue
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Charge to the Graduating Dental Class—1968

JOSEPH L. HENRY, D.D.S., PH.D.

YOU are graduating at a time in the development of this nation which requires relevance to the aspirations and hopes for our entire population. The senseless, catastrophic act of hate which felled Senator Robert Kennedy this morning in California is but another of a long line of incidents which are eating at the vitals of the American society.

The turbulence, unrest, civil disorders, and the "hot" Summer ahead make this a time of great moment as well as a time of great opportunity. You must seize this opportunity to bring calm, and hope, and constructive action.

We are anxious that you as graduates of Howard go forth and be representatives of the ideals and dedication which we trust have been inculcated in you here at Howard during your training. Our graduates treat patients *as a whole,* rather than treating a diseased tooth or diseased tissues or a diseased mouth. The treatment of the patient as a whole embodies concern for the physical well-being of the entire patient as well as a concern for his psychic and emotional make-up. In addition, we think of our dental and dental hygiene graduates as five fingered persons in whom each finger has particular significance.

Dr. Henry is Dean of the College of Dentistry Howard University. This charge was presented to the graduating class at Howard on Senior Honors Day, June 5, 1968.

The first finger stands for a graduate who is *socially conscious,* the second finger stands for a graduate who is *community oriented.* The third finger stands for a graduate who is *politically informed,* and the fourth finger stands for a graduate who is *civically active.* The fifth finger stands for a graduate who is dedicated and *professionally competent.*

Each of these designations for the five fingered graduate of our professional school has specific implications; our students and many in this audience have heard me speak of these ramifications or have read the meanings of each in several of my publications. Therefore I shall not labor the definition of each today. However, you get the idea from the title of each finger that we expect our graduates to become community leaders who will help to *make the laws,* help to bring aid to the dentally infirm wherever they are, help to develop meaningful health delivery programs, who will be vitally active in civic programs, not just with their dollars but with their personal involvement, and who above all will be outstanding credits to their communities—promoting goodwill and harmony for all in the community.

It is obvious that we cannot stand by merely being concerned with practicing our profession while society literally is disintegrating around us. It is obvious that the great cause of this decay in our society is the presence of racism in America.

Racists comprise only a small part of our society, but they are the most vocal element and they seem to be taking over. This is happening while the great bulk of society, the moderates, allow these dastardly perpetrations of assault and counter assault, of attack and counter attack, of hate and counter hate, and of heinous atrocities and miscarriages of justice to be executed on one another without rhyme or reason.

Bigots and racists come in all colors, black and white, and in all shades between. They also come in all creeds. I have no patience with or respect for bigots regardless of race. The mind of a bigot is like the pupil of the eye—the more light you pour on it, the more it will contract. Let us put a floodlight on all bigots and expose them for what they are.

Therefore we are expecting all of our graduates to become *involved* in bringing solutions to the problems of racism, poverty, unequal opportunity, and all of the other blights on the great American dream of good health and a good life for all.

It is almost impossible to believe, but true, that there are sectors of this country in which there is a verified difference in longevity of ten years for people born black. Ten years difference in the life span of the people in the same communities simply because one is born black and another is not! It is almost impossible to believe, but true, that there are twenty million people in this country today suffering from malnutrition. It is almost impossible to believe, but true, that 70 per cent of black children are malnourished. I could go on and cite more unbelievable facts, but the point is made.

Let us decide and resolve here today that people be divided into good people and bad people, instead of black people and white people and any other people of color in between. Let us resolve that the good people will become vocal and active to eliminate discrimination and atrocities of any kind being perpetrated on the downtrodden. Let us resolve to bring true social justice to the American scene. We are counting on you to lead the way, and unless you do it *soon,* the destruction of the American empire is just a matter of time.

The greatest and noblest pleasure which men can have in this world is to discover new truths; and the next is to shake off old prejudices. There is no prejudice that works of love do not finally overcome.

This is my charge to you, the Class of 1968. We are counting on you.

Seventh Annual—1969 Institute for Advanced Education In Dental Research

APRIL 21-MAY 2, 1969
OCTOBER, 1969

EPIDEMIOLOGY AND BIOMETRY

THE Institute for Advanced Education in Dental Research was conceived by the Committee on Research of the American College of Dentists. This group recognized that essentially all training efforts are directed toward either development of new investigators for careers in research, or specialized advanced training of individuals. They felt that there would be real value in a program that afforded *experienced workers* the opportunity to gather together under the guidance of a group of recognized senior scientists, acting as mentors, and discuss their research interests, problems, and goals.

The basic philosophy underlying creation of the Institute was that by a sufficiently prolonged association of this type the trainees, all with related but preferably non-identical interests, would gain a broader and deeper understanding of dentistry's problems and fruitful ways to attack them. From the personal standpoint, consideration of the specific details of each participant's own research activity would contribute to an insight into its significance and possible future direction, as well as into new and advanced experimental approaches that might be applied.

The Institute is entering its seventh 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 have become the duties of a continuing Subcommittee on Research of the American College of Dentists.

The programs are kept entirely flexible and mentors are invited on the basis of stature and competence in the field, and community of interest with the participants. They are drawn from the ranks of general science as well as from dental research centers. In the selec-

tion of trainees, consideration is given to record of accomplishment and promise for the future, ability to add to the dialogue of the curriculum, as well as to the achievement of a balance between the various disciplines pertinent to the study areas. Ordinarily the basic group is comprised of ten to twelve trainees and four mentors, with added senior participants as special needs arise.

The Institute is held at locations where the atmosphere is conducive to serious discussion, informality, and minimal interruption. Sessions consist of a two week period in Spring, followed by a concluding week in Autumn. This arrangement has not only made scheduling more feasible, but the time for thought and trial between sessions has also contributed greatly to the effectiveness of the concluding week's discussion.

The topic for the 1969 Institute will again be *Epidemiology and Biometry*. This topic is being repeated because of the great interest shown in the 1968 sessions as evidenced by the large number of exceptionally qualified applicants. This seminar will be an exposition in depth of the design, conduct, and analysis of oral disease in human subjects. Attention will be given to field (observational) studies, and to the clinical trial. Emphasis will be directed toward dental caries and periodontal diseases, with some consideration for other oral conditions. Areas where new knowledge is needed will be explored. The principal mentor will be Albert L. Russell, University of Michigan School of Public Health. The first session (two weeks) will be held April 21-May 2, 1969, at the Carrousel Inn, Cincinnati, Ohio. The dates and place of the second session (one week) will be announced; this is usually held in Chicago in October in the Headquarters Building of the American Dental Association.

Research workers interested in attending should send a letter of application before November 1, 1968, to Dr. O. W. Brandhorst, Secretary, American College of Dentists, 4236 Lindell Blvd., St. Louis, Mo. 63108. Material submitted should include a curriculum vitae, list of pertinent publications, and a detailed account of previous and present activities in the subject field; also a statement of the type of discussion topics that would be most useful to the applicant's interests.

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

Correspondence and Comment

CHILDREN'S PREVENTIVE DENTISTRY PROGRAM.

To the Editor:

I wish to thank your writers, Dr. Metz and Dr. Richards for their article "Children's Preventive Dental Visits: Influencing Factors" in the October 1967 issue of the JOURNAL. It provided me with much valuable material (along with the annual report of the Strong-Carter Clinic in Honolulu, Hawaii) for a meeting in early November 1967, composed of our Avalon P.T.A. Public Health Committee, and the Harbor Dental Society of Long Beach, California.

The purpose of the meeting was to launch a pilot program of Preventive Dentistry for the school children of Catalina Island, starting with the kindergarten and pre-school, 3- to 5-year age group, during the months of November and December 1967, hopefully to continue through as many elementary grades as possible during the Spring semester of 1968, starting in February.

I particularly wish to give credit for the initial idea and my own education on the subject, to Dr. George P. Pritchard, a Fellow of the American College of Dentists. It has been my privilege to act as dental assistant to Dr. Pritchard for the past five years on Catalina Island, and during that time I have had the opportunity of discussing with him at some length, his 30 years of dental research on the Hawaiian Islands. He had been wanting to start a Children's Program on Catalina for some years, but a suitable vehicle seemed to be lacking. . . .

However, when my husband took office in May 1967 as president of our Avalon P.T.A., it occurred to us that perhaps in this organization, we had an ideal sponsor for the program. Also, for the first time, we had a resident dental hygienist, a graduate of the University of Southern California, available for work. It is a tremendous source of satisfaction to have had a part in bringing this splendid idea of Dr. Pritchard's to fruition. Kindergartners were examined 100% and paid for, 100%! We also examined all younger brothers and sisters who tagged along, and expressed a desire for treatment. We were shocked to find that 80% of the age group examined needed further work, much of it rather extensive. This fact, and the wonderful parent response and cooperation, makes us feel that we have hit on a real need in the community.

We are also greatly indebted for their help to Mrs. Freda Dunwoodie, secretary of the Harbor Dental Society, and Mrs. Margaret Roger of the Children's Dental Health Center, Long Beach, California.

MAJORIE VANDER VELDE
(Mrs. Henry Vander Velde)
Avalon, California

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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 dental 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 development and use of measures for the control and prevention of oral disorders;

(b) To urge broad preparation for such a career at all educational levels;

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

(d) To encourage, stimulate, and promote research;

(e) To encourage qualified persons to consider a career in dentistry so that the public may be assured of the availability of dental health services now and in the future;

(f) To improve the public understanding and appreciation of oral health service and its importance to the optimum health of the patient through sound public dental health education;

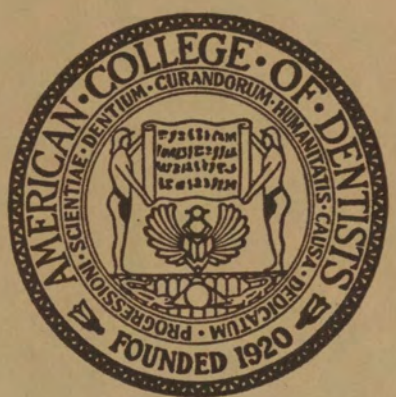
(g) To encourage the free exchange of ideas and experiences in the interest of better service to the patient;

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

(i) To urge upon the professional man the recognition of his responsibilities in the community as a citizen as well as a contributor in the field of health service;

(j) 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.

This is from the Preamble to the Constitution and Bylaws of the American College of Dentists.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